



MINISTRY OF EDUCATION AND TRAINING

TRƯỜNG ĐẠI HỌC FPT

FPT UNIVERSITY

Capstone Project Document

HOTEL MANAGER SYSTEM

SEP490-G41	
Group Members	Trịnh Bảo Khánh - HE153468 Cù Thị Hà Thu - HE150889 Đinh Văn Tiên - HE153729 Nguyễn Quang Huân - HE163039 Nguyễn Quang Huy - HE153639
Supervisor	Nguyễn Thị Hải Năng
Capstone Project Code	MANAHOTEL

- Hanoi, December 2023 -

Table of Contents

Acknowledgement.....	29
Definition and Acronyms.....	30
I. Project Introduction.....	31
1. Overview	31
1.1 Project Information	31
1.2 Project Team.....	31
2. Product Background	31
3. Existing Solutions.....	32
3.1. Skyhotel (https://skyhotel.vn).....	32
3.2 Hotelogix (https://www.hotelogix.com)	33
4. Business Opportunity.....	34
5. Software Product Vision	34
6. Project Scope & Limitations	34
6.1 Major Features	34
6.2 Limitations & Exclusions.....	35
II. Project Management Plan.....	36
1. Overview	36
1.1 Scope & Estimation	36
1.2 Project Objectives	42
1.3 Project Risks	42
2. Management Approach.....	43
2.1 Project Process.....	43
2.2 Quality Management.....	44
2.3 Training Plan	44
3. Project Deliverables.....	45
4. Responsibility Assignments	46
5. Project Communications.....	46
6. Configuration Management	47
6.1 Document Management	47
6.1.1 Naming convention	47
6.1.2 Management.....	47
6.2 Source Code Management	47
6.2.1 Coding Convention	47

6.2.2 Source control	47
6.3 Tools & Infrastructures	47
III. Software Requirement Specification	49
1. Requirement Overview	49
1.1 Context Diagram.....	49
1.2 User Requirements.....	49
1.2.1 Actors	49
1.2.2 Use Cases.....	50
1.3 System Functionalities	65
1.3.1 Screen Flow	65
1.3.2 Screen Descriptions.....	65
1.3.3 Screen Authorization.....	68
1.3.4 Non-UI Functions.....	70
1.3.5 Entity Relationship Diagram	71
2. Functional Specifications.....	72
2.1 Authentication.....	78
2.1.1 UC-01: Login.....	78
2.1.2 UC-02: Log out.....	79
2.1.3 UC-03: Forgot password	80
2.2 Manage room class	81
2.2.1 UC-04: View list room class	81
2.2.2 UC-05: Search room class.....	82
2.2.3 UC-06: Creating room class	82
2.2.4 UC-07: View detail room class.....	84
2.2.5 UC-08: Update status room class.....	85
2.2.6 UC-09: Update room class	86
2.2.7 UC-10: Delete room class	87
2.2.8 UC-11: Export list room class	88
2.3 Manage room.....	89
2.3.1 UC-12: View list room.....	89
2.3.2 UC-13: Search room.....	90
2.3.3 UC-14: Create room.....	91
2.3.4 UC-15: View detail room.....	92
2.3.5 UC-16: Update status room	93
2.3.6 UC-17: Update room.....	94
2.3.7 UC-18: Delete room.....	95

2.3.8 UC-19: Create area.....	96
2.3.9 UC-20-: Update area	97
2.2.10 UC-21: Delete area.....	98
2.3.11 UC-22: Export list rooms	99
2.4 Manage goods, service	100
2.4.1 UC-23: View list goods, service.....	100
2.4.2 UC-24: Search goods, service.....	101
2.4.3 UC-25: View detail of goods.....	101
2.4.4 UC-26: View detail of service	102
2.4.5 UC-27: Create goods.....	103
2.4.6 UC-28: Create service	105
2.4.7 UC-29: Update goods.....	106
2.4.8 UC-30: Update service	107
2.4.9 UC-31: Export file goods, service	108
2.4.10: UC-32: Delete goods, service	109
2.5 Manage inventory	110
2.5.1: UC-33: View list inventory checklist	110
2.5.2: UC-34: Search inventory checklist	111
2.5.3 UC-35: Export file inventory checklist.....	111
2.5.4: UC-36: Create inventory checklist	112
2.5.5: UC-37: View details of an inventory checklist	114
2.5.6: UC-38: Update inventory checklist (only for temporary checklist).....	115
2.5.7: UC-39: Cancel an inventory checklist (only for temporary checklist).....	116
2.6 Customer management.....	117
2.6.1 UC-40: View list customer.....	117
2.6.2 UC-41: Search customer	118
2.6.3 UC-42: Create customer.....	119
2.6.4 UC-43: View detail customer.....	120
2.6.5 UC-44: Update customer information.....	121
2.6.6 UC-45: Delete customer.....	123
2.6.7 UC-46: Create customer group	124
2.6.8 UC-47: Update customer group.....	125
2.6.9 UC-48: Delete customer group	126
2.6.10 UC-49: Export file customers	127
2.7 Manage policy	128
2.7.1 UC-50: View list price list.....	128

2.7.2 UC-51: Create a new price list.....	129
2.7.3 UC-52: View detail of price list.....	130
2.7.4 UC-53: Update price list.....	130
2.7.5 UC-54: Delete price list.....	131
2.7.6 UC-55: View list other surcharge	132
2.7.7 UC-56: Create a new other surcharge	133
2.7.8 UC-57: Update the other surcharge	134
2.7.9 UC-58: Delete the other surcharge	135
2.7.10 UC-59: Config time using (limit time of reserving by hour, day,).....	136
2.7.11 UC-60: Set surcharge of early check-in, late check-out	137
2.7.12 UC-61: Set surcharge of over number of people	138
2.7.13 UC-62: Set of surcharge of cancelling reservation.....	139
2.7.14 UC-63: Config deposit	139
2.7.15 UC-64: Rule of receiving points in promotion.....	140
2.7.16 UC-65: Rule of changing points in promotion	141
2.8 Manage hotel reservation	142
2.8.1 UC-66: View list room in calendar.....	142
2.8.2 UC-67: View list reservation.....	143
2.8.3 UC-68: Search reservation in list room calendar.....	144
2.8.4 UC-69: Search reservation in list reservation.....	145
2.8.5 UC-70: Create reservation.....	146
2.8.6 UC-71: View detail of a reservation by room	148
2.8.7 UC-72: Check-in.....	149
2.8.8 UC-73: Create order for reservation	150
2.8.9 UC-74: Update order for reservation	151
2.8.10 UC-75: Check-out	153
2.8.11 UC-76: Cancel reservation	154
2.8.12 UC-77: Change room in reservation	155
2.8.13 UC-78: Update room status (housekeeping status)	156
2.8.14 UC-79: Online payment	156
2.8.15 UC-80: Create retail invoice.....	158
2.8.16 UC-81: Create reservation invoice.....	159
2.9 Manage human resource.....	160
2.9.1 UC-82: View list staff	160
2.9.2 UC-83: Search staff.....	160
2.9.3 UC-84: Create staff	161

2.9.4 UC-85: View detail staff	162
2.9.5 UC-86: Update staff	163
2.9.6 UC-87: Delete staff	165
2.9.7 UC-88: Create department.....	166
2.9.8 UC-89: Update department.....	167
2.9.9 UC-90: Delete department.....	168
2.8.10 UC-91: Export file staffs	169
2.10 Profile management:	170
2.10.1 UC-92: View detail profile	170
2.10.2 UC-93: Update profile.....	170
2.10.3 UC-94: Change password.....	171
2.11 Fund book management	173
2.11.1 UC-95: View fund book	173
2.11.2 UC-96: Create a new income invoice	174
2.11.3 UC-97: Create a new expense invoice	175
2.11.4: UC-98: Update invoice in fund book.....	175
2.11.5: UC-99: Cancel invoice in fund book	176
2.12 Transaction management.....	177
2.12.1 UC-100: View list invoice.....	177
2.12.2 UC-101: Export file of transaction	178
2.12.3: UC-102: View list import goods order.....	179
2.12.4: UC-103: Search import goods order.....	180
2.12.5: UC-104: Create import goods order	181
2.12.6: UC-105: View detail of import goods order	182
2.12.7: UC-106: Update import goods order (only for temporary order)	183
2.12.8: UC-107: Cancel import goods order (only for temporary order).....	184
2.12.9 UC-108: Export import goods order	185
2.13 Report management	185
2.13.1 UC-109: View overview.....	185
2.13.2 UC-110: View wattage of rooms chart	186
2.13.3 UC-111: View revenue chart.....	188
2.13.4 UC-112: View top room class chart.....	189
3. UI Requirements.....	191
3.1 Authentication.....	191
3.1.1 Login.....	191
3.1.1.1: Login.....	191

3.1.2: Forgot password.....	191
3.1.2.1: Forgot password (input email).....	191
3.1.2.2: Forgot password (send email successfully).....	192
3.1.2.3: Forgot password (input new password)	193
3.2 Room class management.....	194
3.2.1: Room class management.....	194
3.2.1.1: View, search, filter, mass action with list room class	194
3.2.1.2: Create a new room class.....	195
3.2.1.3: Details of room class	196
3.2.1.4: Update room class	198
3.2.1.5: Delete room class.....	199
3.3 Room management	201
3.3.1: Room management	201
3.3.1.1: View, search, filter, mass action with list room	201
3.3.1.2: Create a new room.....	201
3.3.1.3: Details of room.....	202
3.3.1.4: Update room class	204
3.3.1.5: Delete room.....	205
3.3.1.6: Create area.....	206
3.4 Goods, service management:.....	206
3.4.1: Goods, service management.....	206
3.4.1.1: View, search, filter, mass action with goods, service	206
3.4.1.2: Popup confirm delete goods/ service:	207
3.4.1.3: Create goods.....	208
3.4.1.4: Create service.....	209
3.4.1.5: View details goods	211
3.4.1.6: View details service.....	211
3.4.1.7: Update goods.....	212
3.4.1.8: Update service.....	213
3.5: Inventory management:.....	215
3.5.1: Inventory management.....	215
3.5.1.1: View, search, filter, take mass action list inventory checklist	215
3.5.1.2: Add new, update inventory checklist	216
3.5.1.3: View detail of an inventory checklist.....	217
3.6 Customer management.....	217
3.6.1: View customer	217
3.6.1.1: View, search, filter, take mass action list customer.....	217

3.6.1.2: Create a new customer.....	218
3.6.1.3: View customer details	219
3.6.1.4: Update customer.....	221
3.6.2: Customer group management:.....	221
3.6.2.1: Create customer group.....	221
3.6.2.2: Update customer group.....	222
3.7 Policy management.....	223
3.7.1: Price list management	223
3.7.1.1: Popup create price list	223
3.7.1.2: Popup choose stay duration for a room class in price list.....	225
3.7.1.3: View detail price list:	226
3.7.1.4: Screen price list management	228
3.7.2 Surcharge management	229
3.7.2.1: Popup create new other surcharges.....	229
3.7.2.2: Popup update other surcharge.....	230
3.7.2.3: Config time using	230
3.7.2.4: Policy management:	232
3.7.2.5: Setting surcharge of early check-in, late check-out.....	232
3.7.2.6: Setting surcharge of over quantity of people.....	233
3.7.2.7: Config deposit and cancel reservation	234
3.7.2.8: Config deposit	235
3.7.2.9: Config cancel reservation.	236
3.7.2.10: Promotion management.....	237
3.7.2.11: Rule of receiving points.....	238
3.7.2.12: Rule of changing points.....	239
3.7.2.13: Policy management: config time using	240
3.7.2.14: Policy management: other surcharge	241
3.8 Reservation management	242
3.8.1: Reserve room (for receptionist)	242
3.8.1.1: View, search and filter list room calendar with reservation.....	242
3.8.1.2: View, search and filter list reservation (list reservation page)	243
3.8.1.3: Reservation details, room details (popup in room reservation schedule)	245
3.8.1.4: Screen create reservation	245
3.8.1.5: Update reservation page	246
3.8.1.6: Choose room popup (for create reservation)	248
3.8.1.7: Popup update information of visited customer.....	249
3.8.1.8: Popup change room (choose room in same room class).....	251

3.8.1.9: Popup change room (choose room in another room class)	251
3.8.1.10: Popup confirm check-in.....	252
3.8.1.11: Popup confirm check-out.....	253
3.8.1.12: Popup add order	254
3.8.1.13: Popup customer information of reservation (visited customer)	255
3.8.1.14: Popup create visited customer.	256
3.8.1.15: Popup payment.....	257
3.8.2: Create retail invoice	259
3.8.2.1: Create retail invoice.....	259
3.8.2.2: Popup payment.....	260
3.9 Human resource management	261
3.9.1: Staff management:	261
3.9.1.1: List staff	261
3.9.1.2: Create staff.....	263
3.9.1.3: View detail staff	263
3.9.1.4: Update staff.....	264
3.9.2: Department management:.....	265
3.9.2.1: Create department.	265
3.9.2.2: Update department	266
3.10 Profile management	267
3.10.1: Profile management:	267
3.10.1.1: Profile	267
3.10.1.2: Change password.....	268
3.11 Fund book management	269
3.11.1: Fund book management:	269
3.11.1.1: View fund book.....	269
3.11.1.1: Create income invoice	270
3.11.1.1: Create expense invoice	271
3.11.1.1: Update invoice	272
3.12 Transaction management.....	273
3.12.1: List invoice management:.....	273
3.12.1.1: List invoice.....	273
3.12.1.2: View detail invoice.....	274
3.12.2: Import goods order management:	275
3.12.2.1: List import goods order	275
3.12.2.2: Create import goods order.	275
3.12.2.3: Update import goods order	276

3.12.2.4: Import goods order detail.....	277
3.13 Report management	278
3.13.1: Report management:	278
3.13.1.1: Overview.....	278
4. Non-Functional Requirements	280
4.1 External Interfaces	280
4.1.1 User interfaces	280
4.1.2 Communications interfaces	280
4.2 Quality Attributes.....	280
4.2.1 Usability.....	280
4.2.2 Performance	280
4.2.3 Security.....	280
4.2.4 Maintainability.....	280
4.2.5 Scalability	281
5. Requirement Appendix	281
5.1 Business Rules	281
5.2 Common Requirements.....	283
5.3 Application Messages List	283
5.4 Other Requirements...	291
IV. Software Design Description	292
1. System Design	292
1.1 System Architecture.....	292
1.2: System Architecture Explanation	293
1.2.1 Spring Boot.....	293
1.2.2 Spring JPA	294
1.2.3 Spring Security.....	295
1.2.4 My SQL.....	296
1.3 Package Diagram	296
1.3.1 Backend- Package Diagram.....	296
1.3.2 Front-end Package Diagram	298
2. Database Design	299
2.1 Database Diagram.....	299
2.2 Table Description.....	300
2.2.1 Table List	300
2.2.2 Table Specification.....	302
2.2.2.1 Table customer	302

2.2.2.2 Table room.....	302
2.2.2.3 Table room_category.....	303
2.2.2.4 Table staff	303
2.2.2.5 Table goods.....	304
2.2.2.6 Table goods_unit	304
2.2.2.7 Table inventory_check	304
2.2.2.8 Table invetory_check_detail.....	305
2.2.2.9 Table floor.....	305
2.2.2.10 Table token.....	305
2.2.2.11 Table department.....	305
2.2.2.12 Table reservation	306
2.2.2.13 Table reservation_detail.....	306
2.2.2.14 Table order	306
2.2.2.15 Table order_detail.....	307
2.2.2.16 Table policy.....	307
2.2.2.17 Table policy_detail	307
2.2.2.18 Table control_policy.....	307
2.2.2.19 Table time_use	308
2.2.2.20 Table import_goods.....	308
2.2.2.21 Table import_goods_detail	308
2.2.2.22 Table price_list.....	309
2.2.2.23 Table price_list_detail	309
2.2.2.24 Table invoice.....	309
2.2.2.25 Table invoice_reservation_detail	309
2.2.2.26 Table bank_account.....	310
2.2.2.27 Table fund_book.....	310
2.2.2.28 Table recent_activity	310
2.2.2.29 Table report_revenue.....	311
2.2.2.30 Table report_top_room_class.....	311
2.2.2.31 Table report_room_capacity	311
2.2.2.32 Table customer_group	311
2.2.2.33 Table reservation_detail_customer	312
3. Detailed Design	312
3.1 Manage RoomClass	312
3.1.1 Class Diagram.....	312
3.1.2 Sequence Diagram - View List Room Class	313
3.1.3 Sequence Diagram - View Detail Room Class.....	314

3.1.4 Sequence Diagram - Create Room Class	315
3.1.5 Sequence Diagram - Update Room Class	316
3.1.6 Sequence Diagram - Delete Room Class	317
3.2 Manage Room.....	318
3.2.1 Class Diagram.....	318
3.2.2 Sequence Diagram - View List Room	319
3.2.3 Sequence Diagram - View Detail Room.....	320
3.2.3 Sequence Diagram - Create Room.....	321
3.2.4 Sequence Diagram - Update Room.....	322
3.2.5 Sequence Diagram - Delete Room.....	323
3.2.6 Sequence Diagram - view area	324
3.2.6 Sequence Diagram - Create area.....	324
3.2.7. Sequence Diagram - Update area.....	326
3.2.8. Sequence Diagram - Delete area.....	327
3.3 Manage Goods, Services.....	328
3.3.1 Class Diagram.....	328
3.3.2 Sequence Diagram - View List Goods, Service	329
3.3.3 Sequence Diagram - View Detail of Goods, Service.....	329
3.3.4 Sequence Diagram - Create Goods, Service	330
3.3.5 Sequence Diagram - Update Goods, Service	330
3.3.6 Sequence Diagram - Delete Goods, Service	331
3.4 Manage Inventory	332
3.4.1 Class Diagram.....	332
3.4.2 Sequence Diagram - View List Inventory Checklist	333
3.4.3 Sequence Diagram - View Inventory Check Detail	333
3.4.4 Sequence Diagram - Create Inventory Check	334
3.4.5 Sequence Diagram - Update Inventory Check	335
3.4.6 Sequence Diagram - Cancel Inventory Check.....	335
3.5 Manage Customer	336
3.5.1 Class Diagram.....	336
3.5.2 Sequence Diagram - View list customer.....	336
3.5.3 Sequence Diagram - Create customer.....	337
3.5.4 Sequence Diagram - Update customer.....	337
3.5.5 Sequence Diagram - Delete customer.....	338
3.5.6 Sequence Diagram - Detail customer.....	339
3.5.7 Sequence Diagram - View customer group.....	339

3.5.8 Sequence Diagram - Create customer group.....	340
3.5.9 Sequence Diagram - Update customer group.....	340
3.5.10 Sequence Diagram - Delete customer group.....	341
3.6 Authentication.....	342
3.6.1 Class Diagram.....	342
3.6.2 Sequence Diagram - Login.....	343
3.6.3 Sequence Diagram - Logout.....	343
3.6.4 Sequence Diagram - Forgot Password	344
3.7 Manage Hotel Reservation	345
3.7.1 Manage Room Reservation	345
3.7.1.1 Class Diagram - Manage Room Reservation	345
3.7.1.2 Sequence Diagram - View List Room.....	345
3.7.1.3 Sequence Diagram - View List Reservation.....	346
3.7.1.4 Sequence Diagram - Create Reservation.....	346
3.7.1.5 Sequence Diagram - View Detail Of Reservation By Room	347
3.7.1.6 Sequence Diagram - Check-in	347
3.7.1.7 Sequence Diagram - Update Information Reservation (Customer Information) ...	348
3.7.1.8 Sequence Diagram - Check-out	348
3.7.1.9 Sequence Diagram - Cancel Reservation	349
3.7.1.10 Sequence Diagram - Change Reservation	349
3.7.1.11 Sequence Diagram - Update Room Status (Housekeeping Status)	350
3.7.1.12 Sequence Diagram - Update Reservation Status (Add Booking Deposit).....	350
3.7.2: Manage retail invoice	351
3.7.2.1 Class Diagram - Manage Order	351
3.7.2.2 Sequence Diagram - Add order for reservation.....	352
3.7.3: Manage invoice	353
3.7.3.1 Class Diagram - Manage Invoice.....	353
3.7.3.2 Sequence Diagram - Create Retail Invoice	353
3.7.3.3 Sequence Diagram - Create Reservation Invoice	354
3.8 Manage Policy	355
3.8.1 Manage Price List	355
3.8.1.1 Class Diagram - Manage Price List	355
3.8.1.2 Sequence Diagram - View List Price List.....	355
3.8.1.3 Sequence Diagram - View Details Price List	356
3.8.1.4 Sequence Diagram - Create Price List	356
3.8.1.5 Sequence Diagram - Update Price List	357
3.8.1.6 Sequence Diagram - Delete Price List	358

3.8.2. Manage Policy Other.....	359
3.8.2.1 Class Diagram - Manage Surcharge And Other Policies	359
3.8.2.2 Sequence Diagram - Config Time Using (limit time of reserving by hour, day,...)	360
3.8.2.3 Sequence Diagram - View List Other Surcharge.....	360
3.8.2.4 Sequence Diagram - Create A New Other Surcharge.....	361
3.8.2.5 Sequence Diagram - Update The Other Surcharge.....	361
3.8.2.6 Sequence Diagram - Delete The Other Surcharge.....	362
3.8.2.7 Sequence Diagram - Set Surcharge Of Early Check-in, Late Check-out	362
3.8.2.8 Sequence Diagram - Set Surcharge Of Over Number Of People.....	363
3.8.2.9 Sequence Diagram - Set Surcharge Of Cancel Reservation	363
3.8.2.10 Sequence Diagram - Config Deposit.....	364
3.8.2.11 Sequence Diagram - Rule Of Receiving Points In Promotion	364
3.8.2.12 Sequence Diagram - Rule Of Changing Points In Promotion.....	365
3.9 Manage Human Resource	365
3.9.1 Class Diagram.....	365
3.9.2 Sequence Diagram - View List Staff	366
3.9.3 Sequence Diagram - View Staff Details	366
3.9.4 Sequence Diagram - Create Staff.....	367
3.9.5 Sequence Diagram - Update Staff.....	368
3.9.6 Sequence Diagram - Delete Staff.....	368
3.9.7 Sequence Diagram - Create Department.....	369
3.9.8 Sequence Diagram - Update Department.....	369
3.9.9 Sequence Diagram - Delete Department.....	370
3.10 Manage Import Goods.....	370
3.10.1 Class Diagram.....	370
3.10.2 Sequence Diagram - View List Import Goods	371
3.10.3 Sequence Diagram - View Import Goods Detail.....	371
3.10.4 Sequence Diagram - Create Import Goods.....	372
3.10.5 Sequence Diagram - Update Import Goods	373
3.10.6 Sequence Diagram - Cancel Import Goods.....	373
3.11 Manage Fund Book	374
3.11.1 Class Diagram.....	374
3.11.2 Sequence Diagram - View List Fund Book.....	374
3.11.3 Sequence Diagram - View Fund Book Detail	375
3.11.4 Sequence Diagram - Create Fund Book.....	375
3.11.5 Sequence Diagram - Update Fund Book.....	376

3.11.6 Sequence Diagram - Cancel Fund Book	376
3.12 Manage Profile.....	377
3.12.1 Class Diagram.....	377
3.12.2 Sequence Diagram - View profile.....	378
3.12.3 Sequence Diagram - Update profile.....	378
3.12.4 Sequence Diagram - Change password.....	379
3.13 Manage Transaction.....	380
3.13.1 Class Diagram.....	380
3.13.2 Sequence Diagram - View List Invoice	381
3.13.3 Sequence Diagram - View Invoice Detail.....	381
V. Software Testing Documentation	382
1. Scope of Testing	382
1.1 Target of Test.....	382
1.2 Levels of testing.....	384
1.3 Constraint and assumption	385
2. Test Strategy.....	386
2.1 Testing Types.....	386
Function Testing	386
UI Testing.....	387
API Testing.....	387
2.2 Test Levels.....	387
2.3 Supporting Tools.....	388
3. Test Plan.....	388
3.1 Human Resources	388
3.2 Test Environment.....	388
3.3 Test Milestones	389
4. Test Cases.....	390
4.1 Unit Test.....	390
4.2 Integration Test.....	390
4.3 System Test.....	390
4.4 Acceptance Test.....	390
5. Test Reports.....	391
5.1 Unit Test.....	391
5.2 Integration Test	391
5.2 System Test.....	392
VI. Release Package & User Guides.....	393

1. Deliverable Package	393
2. Installation Guides	393
2.1 System Requirements.....	393
2.2 Installation Instruction	394
3. User Manual	398
3.1 Overview	398
3.2: Manage authentication	398
3.2.1: Login and logout:.....	399
3.2.2: Forgot password:.....	400
3.3: Manage room class:	402
3.3.1: View list room class, search room class, view detail room class:.....	403
3.3.2: Export room class:	404
3.3.3: Create new room class:	405
3.3.4: Update, delete room class:.....	406
3.4: Manage room:.....	408
3.4.1: View list room, search room, view detail room:	408
3.4.2: Create new room:.....	410
3.4.3: Update, delete new room class:	411
3.4.4: Create new area:.....	413
3.4.5: Update, delete area:.....	415
3.4.6: Export room:	416
3.5: Manage goods, service:.....	417
3.5.1: View list, search, view detail, export goods, service:.....	417
3.5.2: Create goods, service:	419
3.5.3: Update, delete goods, service:	420
3.6: Manage inventory:	423
3.6.1: View, search, export inventory checklist:	423
3.6.2: Create inventory checklist:	424
3.6.3: Update, cancel inventory checklist:	426
3.7: Manage customer:	427
3.7.1: View list, search, view detail, export customer:.....	428
3.7.2: Create customer:	428
3.7.3: Update customer:	429
3.7.4: Delete customer:	431
3.7.5: Create customer group:	432
3.7.6: Update customer group:	432

3.7.7: Delete customer group:	434
3.8: Manage policy:	435
3.8.1: View list, search, view detail, export price list:	435
3.8.2: Create new price list:.....	436
3.8.3: Update, delete price list:.....	437
3.8.4: View list other surcharge:.....	438
3.8.5: Create new other surcharge:	438
3.8.6: Update other surcharge:.....	439
3.8.7: Delete other surcharge:.....	441
3.8.8: Set surcharge early check-in, late check-out and over number of people:	442
3.8.9: Config time using:.....	444
3.8.10: Config deposit, set surcharge cancel reservation:	446
3.8.11: Config promotion	448
3.9: Manage transaction:.....	450
3.9.1: View list, search, view detail, export invoice:	450
3.9.2: View list, search, view detail, export import goods order:	451
3.9.3: Create new import goods order:	451
3.9.4: Update, cancel import goods order:	452
3.10: Manage fund book:	453
3.10.1: View list, search, view detail, export invoice:.....	453
3.10.2: Create fund book:.....	454
3.10.3: Update invoice:	455
3.11: Manage human resource:	456
3.11.1: View list, search, view detail, export staff:	456
3.11.2: Create new staff:	457
3.11.3: Update, delete staff:	458
3.11.4: Create department:	460
3.11.5: Update department:	461
3.11.6: Delete department:	462
3.12: Manage profile:.....	464
3.12.1: View, update profile:.....	464
3.12.2: Change password:	465
3.13: Manage report:.....	466
3.13.1: Overview:	467
3.14: Manage reservation:.....	467
3.14.1: View, search, view detail reservation:	468

3.14.2: Create reservation.....	469
3.14.3: Update reservation (add, update order).....	471
3.14.4: Check-in:.....	476
3.14.5: Change room in reservation:.....	477
3.14.6: Check-out:.....	479
3.14.7: Cancel reservation.....	480
3.14.8: Create a part invoice.....	481
3.14.9: Create retail invoice	482

List of Table

Table 1: Definition and Acronyms	30
Table 2: Team members	31
Table 3: Limitations and Exclusions	35
Table 4: WBS and Estimation.....	36
Table 5: Project Objectives	42
Table 6: Project Risks	42
Table 7: Quality Management	44
Table 8: Training Plan	44
Table 9: Project Deliverables	45
Table 10: Responsibility Assignments	46
Table 11: Project Communications	46
Table 12: Tools & Infrastructures.....	47
Table 13: Actors	49
Table 14: Screen Descriptions.....	65
Table 15: Screen Authorization.....	68
Table 16: Non-UI Functions	70
Table 17: Entities Description	71
Table 18: Functional Specifications	72
Table 19: UI Requirements: Login	191
Table 20: Forgot password (input email)	192
Table 21: Forgot password (send email successfully)	193
Table 22: Forgot password (input new password)	194
Table 23: Room class management	195
Table 24: Create a new room class.	196
Table 25: Details of room class	197
Table 26: Update room class	199
Table 27: Delete room class.....	200
Table 28: Room management.....	201
Table 29: Create a new room.....	202
Table 30: Details of room	203
Table 31: Update room class.....	204
Table 32: Delete room.....	206
Table 33: Create area.....	206
Table 34: Goods, service management	207
Table 35: Popup confirm delete goods/ service:	208
Table 36: Create goods.	209
Table 37: Create service.....	210
Table 38: View details goods	211
Table 39: View details service	212
Table 40: Update goods	213
Table 41: Update service	214
Table 42: Inventory management.....	215
Table 43: : Add new, update inventory checklist.....	216
Table 44: View detail of an inventory checklist	217
Table 45: View customer	218
Table 46: Create a new customer.	219

Table 47: View customer details	220
Table 48: Update customer	221
Table 49: Create customer group.....	222
Table 50: Update customer group	223
Table 51: Popup create price list.....	224
Table 52: Popup choose stay duration for a room class in price list.	226
Table 53: View detail price list:	227
Table 54:Screen price list management	228
Table 55: Popup create new other surcharges.....	229
Table 56: Popup update other surcharge.....	230
Table 57: Config time using.....	231
Table 58: Policy management:.....	232
Table 59: Setting surcharge of early check-in, late check-out	233
Table 60: Setting surcharge of over quantity of people	234
Table 61: Config deposit and cancel reservation.....	235
Table 62: Config deposit	236
Table 63: Config cancel reservation.	237
Table 64: Promotion management	238
Table 65: Rule of receiving points.	239
Table 66: Rule of changing points	240
Table 67:Policy management: config time using.	241
Table 68: Policy management: other surcharge	242
Table 69: Reserve room (for receptionist)	243
Table 70: List reservation.....	244
Table 71: Reservation details	245
Table 72: Screen create reservation	246
Table 73: Update reservation page	247
Table 74: Choose room popup (for create reservation)	249
Table 75: Popup update information of visited customer	250
Table 76: Popup change room (choose room in same room class)	251
Table 77: Popup change room (choose room in another room class)	252
Table 78: Popup confirm check-in.....	253
Table 79: Popup confirm check-out	254
Table 80: Popup add order	255
Table 81: Popup customer information of reservation (visited customer)	256
Table 82: Popup create visited customer.	257
Table 83: Popup payment	259
Table 84: Create retail invoice	260
Table 85: Popup payment	261
Table 86: List staff.....	262
Table 87: Create staff.....	263
Table 88: View detail staff	264
Table 89: Update staff	265
Table 90: Create department.....	266
Table 91: Update department	267
Table 92: Profile management:.....	267
Table 93: Change password	268
Table 94: View fund book	269

Table 95: Create income invoice	270
Table 96: Create expense invoice	271
Table 97: Update invoice	272
Table 98: List invoice	273
Table 99: View detail invoice	274
Table 100: List import goods order	275
Table 101: Create import goods order.....	276
Table 102: Update import goods order.....	277
Table 103: Import goods order detail	278
Table 104: Overview	279
Table 105: Business Rules	281
Table 106: Application Messages List.....	283
Table 107: System Architecture Description	292
Table 108: Package descriptions	297
Table 109: Package descriptions	299
Table 110: Table List	300
Table 111: Table customer	302
Table 112: Table room	302
Table 113: Table room_category	303
Table 114: Table staff	303
Table 115: Table goods	304
Table 116: Table goods_unit.....	304
Table 117: Table inventory_check.....	304
Table 118: Table invetry_check_detail.....	305
Table 119: Table floor	305
Table 120: Table token	305
Table 121: Table department.....	305
Table 122: Table reservation	306
Table 123: Table reservation_detail.....	306
Table 124: Table order	306
Table 125: Table order_detail	307
Table 126: Table policy	307
Table 127: Table policy_detail	307
Table 128: Table control_policy	307
Table 129: Table time_use	308
Table 130: Table import_goods	308
Table 131: Table import_goods_detail.....	308
Table 132: Table price_list	309
Table 133: Table price_list_detail	309
Table 134: Table invoice	309
Table 135: Table invoice_reservation_detail.....	309
Table 136: Table bank_account	310
Table 137: Table fund_book	310
Table 138: Table recent_activity	310
Table 139: Table report_revenue.....	311
Table 140: Table report_top_room_class	311
Table 141: Table report_room_capacity	311
Table 142: Table customer_group	311

Table 143: Table reservation_detail_customer	312
Table 144: Levels of testing	384
Table 145: Function Testing	386
Table 146: UI Testing	387
Table 147: API Testing	387
Table 148: Test Levels.....	387
Table 149: Supporting Tools	388
Table 150: Human Resources.....	388
Table 151: Test Environment	388
Table 152: Test Milestones	389
Table 153: Acceptance Test	390
Table 154: Deliverable Package	393
Table 155: Hardware Requirement.....	393
Table 156: Software Requirement	394
Table 157: Some commands still operate on the system	397

List of Figure

Figure 1: Iteration process	43
Figure 2: Context diagram	49
Figure 3: Use case diagram (for actor: receptionist)	50
Figure 4: Use case diagram (for actor: manager)	51
Figure 5: Use case diagram (for feature: profile management).....	52
Figure 6: Use case diagram (for feature: reservation management)	53
Figure 7: Use case diagram (for feature: room class management)	54
Figure 8: Use case diagram (for feature: room management)	55
Figure 9: Use case diagram (for feature: goods, service management).....	56
Figure 10: Use case diagram (for feature: inventory management)	57
Figure 11:Use case diagram (for feature: customer management)	58
Figure 12: Use case diagram (for feature: human resource management)	59
Figure 13: Use case diagram (for feature: transaction management)	60
Figure 14: Use case diagram (for feature: import goods management)	61
Figure 15: Use case diagram (for feature: policy management)	62
Figure 16: Use case diagram (for feature: fund book management)	63
Figure 17: Use case diagram (for feature: report management)	64
Figure 18: Screen flow of system	65
Figure 19: Entity relationship diagram	71
Figure 20: Login	191
Figure 21: Forgot password	192
Figure 22: Forgot password (send email successfully).....	193
Figure 23: Forgot password (input new password)	194
Figure 24: List room class.....	195
Figure 25: Create new room class	196
Figure 26: Details of room class (1).....	197
Figure 27: Details of room class(2).....	197
Figure 28: Update room class (1)	198
Figure 29: Update room class(2)	199
Figure 30: Delete room class.....	200
Figure 31:Confirm delete room class.	200
Figure 32: List room	201
Figure 33: Create a new room.	202
Figure 34: Details of room (1)	203
Figure 35: Details of room (2)	203
Figure 36: Update room class	204
Figure 37: Delete room.	205
Figure 38: Confirm delete room.....	205
Figure 39: Create area.	206
Figure 40: List goods, service	207
Figure 41: Confirm delete goods/ service	208
Figure 42: Create goods.(1).....	208
Figure 43: Create goods.(2).....	209
Figure 44: Create service.(1)	210
Figure 45: Create service.(2)	210
Figure 46: View details goods	211

Figure 47: View details service.....	212
Figure 48: Update goods (1)	212
Figure 49: Update goods (2)	213
Figure 50: Update service (1)	214
Figure 51: Update service (2)	214
Figure 52: List inventory	215
Figure 53: Create inventory checklist (1).....	216
Figure 54: Create inventory checklist (2).....	216
Figure 55: View detail of an inventory checklist.....	217
Figure 56: List customer.....	218
Figure 57: Create a new customer.	219
Figure 58: View customer details (1).....	220
Figure 59: View customer details (2).....	220
Figure 60: Update customer	221
Figure 61: Create customer group.	222
Figure 62: Update customer group	223
Figure 63: Popup create price list.	224
Figure 64: Popup choose stay duration for a room class in price list.(1)	225
Figure 65: Popup choose stay duration for a room class in price list.(2)	226
Figure 66: View detail price list (1).....	227
Figure 67: View detail price list:(2).....	227
Figure 68: List price list	228
Figure 69: Popup create new other surcharges.....	229
Figure 70: Popup update other surcharge.	230
Figure 71: Config time using	231
Figure 72: Policy management:.....	232
Figure 73: Setting surcharge of early check-in, late check-out	233
Figure 74: Setting surcharge of over quantity of people	234
Figure 75: Config deposit and cancel reservation	235
Figure 76: Config deposit	236
Figure 77: Config cancel reservation.	237
Figure 78: Promotion management	238
Figure 79: Rule of receiving points.	239
Figure 80: Rule of changing points	240
Figure 81: Policy management: config time using.....	241
Figure 82: Policy management: other surcharge.....	242
Figure 83: Reserve room (for receptionist)	243
Figure 84: List reservation	244
Figure 85: Reservation details.....	245
Figure 86: Screen create reservation	246
Figure 87: Update reservation page.....	247
Figure 88: Choose room.....	249
Figure 89: Popup update information of visited customer.....	250
Figure 90: Popup change room.....	251
Figure 91: Popup change room.....	252
Figure 92: Popup confirm check-in	253
Figure 93: Popup confirm check-out.....	254
Figure 94: Popup add order	255

Figure 95: Popup customer information of reservation (visited customer)	256
Figure 96: Popup create visited customer.....	257
Figure 97: Popup payment.....	258
Figure 98: Create retail invoice	260
Figure 99: Popup payment.....	261
Figure 100: List staff	262
Figure 101: Create staff	263
Figure 102: View detail staff	264
Figure 103: Update staff	265
Figure 104: Create department.....	266
Figure 105: Update department	266
Figure 106: Profile management:.....	267
Figure 107: Change password	268
Figure 108: List fund book	269
Figure 109: Create income invoice.....	270
Figure 110: Create expense invoice	271
Figure 111: Update invoice (income invoice)	272
Figure 112: Update invoice (expense invoice)	272
Figure 113: List invoice	273
Figure 114: View detail invoice	274
Figure 115: List import goods order	275
Figure 116: Create import goods order.(1)	276
Figure 117: Create import goods order.(2)	276
Figure 118: Update import goods order(1)	277
Figure 119: Update import goods order(2)	277
Figure 120: Import goods order detail	278
Figure 121: Overview.....	279
Figure 122: System Architecture	292
Figure 123: Spring Boot	293
Figure 124: Spring JPA	294
Figure 125: Spring Security	295
Figure 126: MySQL.....	296
Figure 127: REST API	296
Figure 128: Back-end Package Diagram	297
Figure 129: Front-end Package Diagram	298
Figure 130: Database Diagram.....	299
Figure 131: Class Diagram.....	312
Figure 132: Sequence Diagram - View List Room Class	313
Figure 133: Sequence Diagram - View Detail Room Class	314
Figure 134: Sequence Diagram - Create Room Class	315
Figure 135: Sequence Diagram - Update Room Class.....	316
Figure 136: Sequence Diagram - Delete Room Class	317
Figure 137:Class Diagram manage room.....	318
Figure 138: Sequence Diagram - View List Room	319
Figure 139: Sequence Diagram - View Detail Room	320
Figure 140: Sequence Diagram - Create Room.....	321
Figure 141: Sequence Diagram - Update Room	322
Figure 142: Sequence Diagram - Delete Room.....	323

Figure 143: Sequence Diagram - view area	324
Figure 144: Sequence Diagram - Create area	325
Figure 145: Sequence Diagram - Update area.....	326
Figure 146: Sequence Diagram - Delete area	327
Figure 147: Class Diagram manage goods, service	328
Figure 148: Sequence Diagram - View List Goods, Service	329
Figure 149: Sequence Diagram - View Detail of Goods, Service	329
Figure 150: Sequence Diagram - Create Goods, Service.....	330
Figure 151: Sequence Diagram - Update Goods, Service.....	330
Figure 152: Sequence Diagram - Delete Goods, Service	331
Figure 153: Class Diagram manage inventory	332
Figure 154: Sequence Diagram - View List Inventory Checklist	333
Figure 155: Sequence Diagram - View Inventory Check Detail	333
Figure 156: Sequence Diagram - Create Inventory Check	334
Figure 157: Sequence Diagram - Update Inventory Check	335
Figure 158: Sequence Diagram - Cancel Inventory Check	335
Figure 159: Class Diagram manage customer	336
Figure 160: Sequence Diagram - View list customer	337
Figure 161: Sequence Diagram - Create customer	337
Figure 162:Sequence Diagram - Update customer.....	338
Figure 163: Sequence Diagram - Delete customer	338
Figure 164: Sequence Diagram - Detail customer	339
Figure 165: Sequence Diagram - View customer group.....	339
Figure 166: Sequence Diagram - Create customer group	340
Figure 167: Sequence Diagram - Update customer group.....	340
Figure 168: Sequence Diagram - Delete customer group	341
Figure 169: Class Diagram authentication.....	342
Figure 170: Sequence Diagram - Login.....	343
Figure 171:Sequence Diagram - Logout	343
Figure 172: Sequence Diagram - Forgot Password	344
Figure 173: Class Diagram - Manage Room Reservation	345
Figure 174:Sequence Diagram - View List Room	345
Figure 175: Sequence Diagram - View List Reservation.....	346
Figure 176: Sequence Diagram - Create Reservation	346
Figure 177: Sequence Diagram - View Detail Of Reservation By Room	347
Figure 178: Sequence Diagram - Check-in.....	347
Figure 179: Sequence Diagram - Update Information Reservation (Customer Information)	348
Figure 180: Sequence Diagram - Check-out	348
Figure 181: Sequence Diagram - Cancel Reservation.....	349
Figure 182: Sequence Diagram - Change Reservation	349
Figure 183: Sequence Diagram - Update Room Status (Housekeeping Status).....	350
Figure 184: Sequence Diagram - Update Reservation Status (Add Booking Deposit)	350
Figure 185: Class Diagram - Manage Order.....	351
Figure 186: Sequence Diagram - Add order for reservation	352
Figure 187: Class Diagram - Manage Invoice.....	353
Figure 188: Sequence Diagram - Create Retail Invoice	353
Figure 189: Sequence Diagram - Create Reservation Invoice	354
Figure 190: Class Diagram - Manage Price List	355

Figure 191Sequence Diagram - View List Price List	355
Figure 192: Sequence Diagram - View Details Price List	356
Figure 193: Sequence Diagram - Create Price List	356
Figure 194: Sequence Diagram - Update Price List.....	357
Figure 195: Sequence Diagram - Delete Price List	358
Figure 196: Class Diagram - Manage Surcharge And Other Policies	359
Figure 197Sequence Diagram - Config Time Using (limit time of reserving by hour, day,...).....	360
Figure 198: Sequence Diagram - View List Other Surcharge.....	360
Figure 199: 4 Sequence Diagram - Create A New Other Surcharge	361
Figure 200:Sequence Diagram - Update The Other Surcharge	361
Figure 201: Sequence Diagram - Delete The Other Surcharge.....	362
Figure 202: Sequence Diagram - Set Surcharge Of Early Check-in, Late Check-out.....	362
Figure 203: Sequence Diagram - Set Surcharge Of Over Number Of People	363
Figure 204: Sequence Diagram - Set Surcharge Of Cancel Reservation	363
Figure 205: Sequence Diagram - Config Deposit	364
Figure 206: Sequence Diagram - Rule Of Receiving Points In Promotion.....	364
Figure 207: Sequence Diagram - Rule Of Changing Points In Promotion	365
Figure 208: Class Diagram manage human resource.....	365
Figure 209: Sequence Diagram - View List Staff	366
Figure 210:Sequence Diagram - View Staff Details.....	366
Figure 211: Sequence Diagram - Create Staff.....	367
Figure 212: Sequence Diagram - Update Staff	368
Figure 213: Sequence Diagram - Delete Staff.....	368
Figure 214: Sequence Diagram - Create Department.....	369
Figure 215: Sequence Diagram - Update Department.....	369
Figure 216: Sequence Diagram - Delete Department.....	370
Figure 217: 1 Class Diagram manage import goods	370
Figure 218: Sequence Diagram - View List Import Goods.....	371
Figure 219: Sequence Diagram - View Import Goods Detail.....	371
Figure 220: Sequence Diagram - Create Import Goods	372
Figure 221: Sequence Diagram - Update Import Goods	373
Figure 222: Sequence Diagram - Cancel Import Goods	373
Figure 223: Class Diagram manage fund book	374
Figure 224: Sequence Diagram - View List Fund Book.....	374
Figure 225: Sequence Diagram - View Fund Book Detail.....	375
Figure 226: Sequence Diagram - Create Fund Book	375
Figure 227: Sequence Diagram - Update Fund Book	376
Figure 228: 6 Sequence Diagram - Cancel Fund Book	376
Figure 229: Class Diagram manage profile	377
Figure 230: Sequence Diagram - View profile	378
Figure 231: Sequence Diagram - Update profile	378
Figure 232: Sequence Diagram - Change password.....	379
Figure 233: Class Diagram manage transaction.....	380
Figure 234: Sequence Diagram - View List Invoice	381
Figure 235: Sequence Diagram - View Invoice Detail	381
Figure 236: Unit Test	391
Figure 237: Integration Test.....	392
Figure 238: System Test.....	392

Figure 239: Workflow of manage authentication.....	398
Figure 240: Workflow of manage room class	402
Figure 241: Workflow of manage room	408
Figure 242: Workflow of manage goods, service	417
Figure 243: Workflow of manage inventory.....	423
Figure 244: Workflow of manage customer	427
Figure 245: Workflow of manage price list (policy)	435
Figure 246: Workflow of manage other surcharges (policy).....	437
Figure 247: Workflow of manage surcharge of adding time, adding people (policy).....	442
Figure 248: Workflow of manage time using (policy).....	444
Figure 249: Workflow of manage deposit, surcharge of cancel reservation (policy)	446
Figure 250: Workflow of manage promotion (policy)	448
Figure 251: Workflow of manage transaction	450
Figure 252: Workflow of manage fund book.....	453
Figure 253: Workflow of manage human resource	456
Figure 254: Workflow of manage profile	464
Figure 255: Workflow of manage report.....	466
Figure 256: Workflow of manage reservation.....	467

Acknowledgement

We would like to express our sincere appreciation to the individuals who played a pivotal role in the successful completion of our capstone project at FPT University. First and foremost, we extend our deepest gratitude to our mentor, Ms. Nguyễn Thị Hải Năng, for her unwavering guidance, valuable insights, and continuous support throughout the entire process.

Special thanks go to the dedicated members of our capstone project team, whose collective efforts and collaboration were instrumental in bringing this project to fruition. Each team member's commitment and contribution have been invaluable, and we are grateful for the shared journey.

We also want to express our thanks to FPT University for providing us with the opportunity and resources to undertake this project. The knowledge and skills gained during this capstone experience will undoubtedly shape our future endeavours.

Once again, thank you to Ms. Nguyễn Thị Hải Năng and our fellow team members for their dedication and hard work in making this capstone project a success.

Definition and Acronyms

Table 1: Definition and Acronyms

Acronym	Definition
AWS	Amazon Web Services
BA	Business Analysis
BR	Business Rule
ERD	Entity Relationship Diagram
SRS	Software Requirement Specification
UC	Use Case
API	Application Program Interface
LI	Limitation
UI	User interfaces
CI	Communications interfaces
US	Usability
PE	Performance
SE	Security
MA	Maintainability
SA	Scalability
MSG	Message

I. Project Introduction

1. Overview

1.1 Project Information

- Project name: *Hotel Manager System*
- Vietnamese name: *Hệ thống quản trị khách sạn*
- Project code: *ManaHotel*
- Group name: *SEP490-G41*
- Software type: *Web Application*

1.2 Project Team

Table 2: Team members

Full Name	Role	Email	Mobile
Nguyễn Thị Hải Nắng	Supervisor	Nangnth@fe.edu.vn	
Trịnh Bảo Khánh	Leader	Khanhtbhe153468@fpt.edu.vn	0898638030
Đinh Văn Tiên	Member	Tiendvhe153729@fpt.edu.vn	0981987625
Nguyễn Quang Huy	Member	Huynqhe153639@fpt.edu.vn	0812569567
Nguyễn Quang Huấn	Member	Huannqhe163039@fpt.edu.vn	0889967536
Cù Thị Hà Thu	Member	Thucthhe150889@fpt.edu.vn	0352487668

2. Product Background

Van Lam Hotel is a beautiful and long-standing hotel. Consisting of about 50 large and small rooms, Van Lam hotel has been an ideal stopover for people coming to this city. With a thriving business and a stable number of guests, Mr. Huy - owner of Van Lam Hotel wants to expand his hotel both in scale and into other areas.

Despite the large amount of work, Van Lam Hotel currently still manages everything with manual paperwork. Every time a guest makes a reservation, the receptionist must manually review the guests who have booked in advance to avoid duplication. Every time a guest checks out, sometimes by mistake the room is cleaned twice. Sometimes some goods such as filtered water, towels, etc. are out of stock, but the warehouse manager forgets to report it, leading to delays in serving customers. Manual work often leads to errors, causing damage to both money and reputation of the hotel. With the development of technology today, Van Lam Hotel wants to find an effective solution, a cheap system to help manage everything in the hotel and many hotel branches in the future.

To address these challenges, ManaHotel was founded with the goal of providing an effective solution for Van Lam Hotel many hotels in the future management. ManaHotel's objective is to optimise hotel operations by creating conditions for hotels to operate more efficiently. This includes managing information, services, and hotel activities related to rooms, staff, customers, reservations, payments, and reporting.

3. Existing Solutions

3.1. Skyhotel (<https://skyhotel.vn>)

Skyhotel is a comprehensive hotel management software designed to streamline and optimise various aspects of hotel operations. With its user-friendly interface and online accessibility, SkyHotel offers a range of features to enhance efficiency and improve guest experiences.

❖ System actors:

- Hotel Managers/Administrators
- Staff members
- Guests

❖ Key features:

- Hotel Management: Ability to create and manage hotels within the system.
- Room management: Allows to easily manage room inventory, availability, and reservations.
- Booking management: Enables guests to make online reservations, and administrators to track and manage bookings.
- Check-in/check-out: Streamlines the check-in and check-out processes, reducing waiting times for guests.
- Room Status Tracking: Track the status of rooms, including occupied, vacant, or under maintenance.
- Billing and invoicing: Generates detailed bills and invoices for guests, ensuring accurate financial transactions.
- Housekeeping management: Provides tools for efficient housekeeping operations, including room status updates and task assignments.
- Reporting and Analytics: Generates reports and access data analytics to gain insights into the hotel's performance.
- User access control: Offers different access levels and permissions for staff members, ensuring secure data management.
- Mobile compatibility: Supports usage on various devices, including smartphones and tablets, for convenience and flexibility.

❖ Pros:

- Friendly interface: Skyhotel has a simple and user-friendly interface. Performing the necessary operations in the software only requires 1-2 mouse clicks, helping users save time and effort.
- Cloud-Based: Being an online system, Skyhotel allows users to access and manage hotel operations from anywhere, at any time. Users can access and use from computers, laptops, smartphones, tablets and smart TVs.
- Scalability: The software is suitable for hotels of different sizes and can accommodate the needs of various types of accommodations.
- Advanced Analytics: Statistical analysis and reporting capabilities for better decision-making.

❖ **Cons:**

- Lack of details: Although there is a description of the software's features and advantages, the content on the website does not provide enough details about the specific features and how Skyhotel works.
- Limited Customization: The system may have limitations in terms of customization options to meet specific hotel requirements.

3.2 Hotelogix (<https://www.hotelogix.com>)

Hotelogix is a cloud-based hotel management system. Hotelogix cloud-based hotel management system comes with next-gen capabilities to help you automate and streamline daily operations, improve overall efficiency and maximise revenue.

❖ **System actors:**

- Frontdesk
- Housekeeping
- Manager
- Customer

❖ **Key Features:**

- Frontdesk management: check-ins and check-outs of individuals, corporates, and other group bookings. Send confirmation emails to upcoming bookings and also send follow-ups for pending deposits. Use the power of front desk management software to manage multiple bookings
- Booking: Click the reservation chart to add/update bookings, view real-time details of room inventory
- Manage team frontdesk: Create multiple user accounts on Hotelogix frontdesk management system, Make announcements, assign tasks to team members, and even set reminders by adopting a centralised approach of Hotelogix cloud-based hotel front desk hotel software.
- Guest communications: The system now helps you in sending SMS alerts on reservation creation, modification, cancellation, check-in, checkout, etc to your guests.
- Manage your list of housekeeping staff: assign tasks and share customised messages
- Room management: room rate management, room changes and upgrades
- Automate room statuses
- Booking online engine
- generates reports
- Integration with review express

❖ **Pros:**

- Intuitive reservation chart
- User-friendly & Cloud-Based
- Friendly interface

❖ **Cons:**

- Internet dependency
- Lack of detail of sales

4. Business Opportunity

Hotel management is one of the crucial activities within the tourism and hospitality industry. We have identified various aspects related to hotel management. These encompass the management of information, services, and hotel operations, including room management, staffing, payroll, customer relations, reservations (check-in, check-out), payments, inventory, services, reporting, and statistics. These are the key areas of concern for hotel owners and operators.

Simultaneously, the growth of international tourism and the development of local tourism businesses have led to the proliferation of hotels, with many hotel owners operating multiple establishments. This trend has created a significant demand for efficient hotel management solutions.

ManaHotel not only helps manage basic tasks such as booking rooms, managing goods, personnel, etc. but also helps hotels manage preferential policies and surcharges. With superior features and affordable prices, ManaHotel will help manage Van Lam hotel and many other hotels in the future effectively.

5. Software Product Vision

The vision of ManaHotel hotel management application is not only to help Van Lam hotel have the most comprehensive, reliable and optimal solution to help manage and operate the hotel effectively, thereby bringing benefits for business. The bigger goal is to expand the application to small and medium-sized hotels and then to large hotels in Vietnam.

6. Project Scope & Limitations

6.1 Major Features

FE-01: **Authentication:** Login, logout, forgot password.

FE-02: **Room class management:** View list room class, create room class, update room class, delete room class, update status for room class, view detail room class.

FE-03: **Room management:** View list room, create room, update room, delete room, view detail room, set room class, create area, update area, delete area, set area for room.

FE-04: **Goods, service management:** View list goods and service, create goods and service, update goods and service, delete goods and service, view detail goods and service.

FE-05: **Inventory management:** View list inventory check, create inventory check, update inventory check, cancel inventory check, view detail inventory check, print inventory check sheet.

FE-06: **Customer management:** View list customer, create customer, update customer, delete customer, view detail customer, create customer group, update customer group, delete customer group, view list customer group, view transaction history.

FE-07: **Human resource management:** View list staff, create staff, update staff, delete staff, create department, update department, delete department, view list department, create account user for staff.

FE-08: **Transaction management:** View list invoice, view detail invoice, print invoice sheet, View list import goods, create import goods, view cancel goods receipt. print import goods sheet.

FE-09: **Fundbook management:** View fundbook, create fundbook, update fundbook, cancel fundbook, view detail, view total expenditures, total revenues, beginning fund, fund balance. print income, expense sheet.

FE-10: **Policy management:** View list price list, create price list, update price list, delete price list, view detail price list, set up extra person surcharge policy, child policy, early check-in late check-out surcharge policy, deposit policy, room cancellation, view list other surcharge, create other surcharge, update other surcharge, delete other surcharge.

FE-11: **Reservation management:** View list reservation, view list room in fullcalendar, booking, check-in, check-out, cancel reservation, change rooms, add orders, add customer information, add visit customers, add booking deposit, view detail reservation, update the room's cleaning status, create invoice reservation, print invoice sheet, print book sheet. Create retail invoice goods or services. Support creating VietQR code or payment directly.

FE-12: **Report management:** Report current room occupancy, recent receipt and invoice creation activities, room occupancy statistics, revenue, top room categories.

FE-13: **Profile management:** view profile, update profile, change password.

6.2 Limitations & Exclusions

Table 3: Limitations and Exclusions

Limitations	Description
LI-01	System doesn't support application on smartphone
LI-02	Manage export, cancellation, and return of goods
LI-04	System doesn't support multi language
LI-05	Timekeeping and shift management
LI-06	Manage payroll, bonuses and benefits for employees by department and position.
LI-07	Detailed financial reports. Employee reports, product reports, etc
LI-08	Set up Authorization for each user.
LI-09	Online booking function.
LI-10	Manage print templates
LI-11	Manager can't view reservation, booking history, of room in manage room page
LI-12	Manager can't view order history of goods or service in manage goods, service page

II. Project Management Plan

1. Overview

1.1 Scope & Estimation

Table 4: WBS and Estimation

#	WBS Item	Complexity	Est. Effort (man-days)
I	Initiating		
1.	Collect requirement	Complex	10
2.	Deliver Report 1- Project Introduction	Medium	3
II	Planning		
1.	Create plan document	Medium	2
2.	Deliver Report 2- Project Management Plan	Medium	2
III	Executing		
I.	Iteration 1		
1.1	Analysis		
1.1.1	<i>Analysis requirement</i>	Medium	3
1.1.2	<i>Deliver Report 3 - Software Requirement Specification - V1.0</i>	Medium	4
1.2	Design		
1.2.1	<i>Design Hotel Web Application</i>		3
1.2.2	<i>Deliver Report 4 - Software Design - V1.0</i>	Medium	4
1.3	Implementation		
1.3.1	Feature: Room Class Management		
1.3.1.1	Create Room Class	Simple	1
1.3.1.2	Update Room Class	Simple	1
1.3.1.3	Delete Room Class	Simple	1
1.3.1.4	View List Room Class	Simple	1
1.3.1.5	View details room class	Simple	0.5

1.3.2	Feature: Room Management		
1.3.2.1	Create Room	Simple	1
1.3.2.2	Update Room	Simple	1
1.3.2.3	Delete Room	Simple	1
1.3.2.4	View List Rooms	Simple	1
1.3.2.5	View Room Detail	Simple	0.5
1.3.2.6	Create area	Simple	0.5
1.3.1.7	Update area	Simple	0.5
1.3.1.8	List Area	Simple	0.5
1.3.3	Feature: Goods, Service Management		
1.3.3.1	Create Goods, Service	Simple	2
1.3.3.2	Update Goods, Service Information	Simple	1
1.3.3.3	Delete Goods, Service	Simple	1
1.3.3.4	List Goods, Service	Simple	1
1.3.3.5	View Goods, Service Detail	Simple	1
1.3.4	Feature: Inventory Management		
1.3.4.1	View List Inventory Checklist	Simple	1
1.3.4.2	Create Inventory Checklist	Medium	2
1.3.4.3	View Details Inventory checklist	Simple	1
1.3.4.4	Update Inventory Checklist	Medium	2
1.3.4.5	Cancel Inventory Checklist	Medium	2
1.3.4	Feature: Customer management		
1.3.4.1	List All Customer	Simple	0.5
1.3.4.2	View Customer Detail	Simple	0.5
1.3.4.3	View Transaction History	Simple	0.5
1.3.4.4	Create Customer	Medium	1

1.3.4.5	Update Customer	Medium	1
1.3.4.6	Delete Customer	Medium	1
1.3.5	Feature: Authentication		
1.3.5.1	Login	Medium	3
1.3.5.2	Logout	Medium	1
1.3.5.3	Forgot password	Medium	2
1.4	Testing		
1.4.1	<i>Create test plan iteration 1</i>	Simple	1
1.3.2	<i>Analysis and design test case for iteration 1</i>	Medium	3
1.4.3	<i>Executing test for iteration 1</i>	Simple	2
1.4.4	<i>Deliver Report 5 - Test - V1.0</i>	Simple	1
2.	Iteration 2		
2.1	Analysis		
2.1.1	<i>Analysis requirement</i>	Complex	5
2.1.2	<i>Deliver Report 3 - Software Requirement Specification - V1.1</i>	Complex	5
2.2	Design		
2.2.1	<i>Design Hotel Web Application</i>	Complex	5
2.2.2	<i>Deliver Report 4 - Software Design - V1.1</i>	Complex	5
2.3	Implementation		
2.3.1	Feature: Policy management		
2.3.1.1	View List Price List	Simple	1
2.3.1.2	Create New Price List	Complex	3
2.3.1.3	View Detail Price List	Simple	1
2.3.1.4	Update Price List	Medium	3
2.3.1.5	Delete Price List	Medium	2
2.3.1.6	View List Other Surcharge	Simple	1

2.3.1.7	Create Other Surcharge	Simple	1
2.3.1.8	Update Other Surcharge	Simple	1
2.3.1.9	Delete Other Surcharge	Simple	1
2.3.1.10	Config Time Use	Simple	1
2.3.1.11	Set surcharge of early check-in, late check-out	Medium	2
2.3.1.12	Set surcharge of over number of people	Medium	2
2.3.1.13	Set of surcharges cancel reservation	Simple	1
2.3.1.14	Config deposit	Simple	1
2.3.1.15	Rule of receiving point in promotion	Simple	1
2.3.1.16	Rule of changing points in promotion	Simple	1
2.3.2	<i>Feature: Reservation management</i>		
2.3.2.1	View List Reservation	Complex	4
2.3.2.2	View List room in fullCalendar	Complex	5
2.3.2.3	Create Reservation	Complex	10
2.3.2.4	View Detail Reservation By Room	Complex	2
2.3.2.5	Check-in	Complex	5
2.3.2.6	Update Reservation	Complex	5
2.3.2.7	<i>Check-out</i>	Complex	5
2.3.2.8	Cancel Reservation	Complex	4
2.3.2.9	Change Room In Reservation	Complex	5
2.3.2.10	Create Order By Reservation Detail	Complex	5
2.3.2.12	Create Invoice Reservation	Complex	7
2.3.2.13	Create Retail invoice	Complex	3
2.3.2.14	Support creating VN QR code or payment directly	Complex	4
2.4	Testing		
2.4.1	<i>Create test plan iteration 2</i>	Medium	2

2.4.2	<i>Analysis and design test case for iteration 2</i>	Medium	5
2.4.3	<i>Executing test for iteration 2</i>	Medium	4
2.4.4	<i>Deliver Report 5 - Test - V1.1</i>	Medium	2
3.	<i>Iteration 3</i>		
3.1	Analysis		
3.1.1	<i>Analysis requirement</i>	Complex	5
3.1.2	<i>Deliver Report 3 - Software Requirement Specification - V1.2</i>	Complex	5
3.2	Design		
3.2.1	<i>Design Hotel Web Application</i>	Complex	5
3.2.2	<i>Deliver Report 4 - Software Design - V1.2</i>	Complex	5
3.3	Implementation		
3.3.1	<i>Feature: Human resource management</i>		
3.3.1.1	View List Staff	Medium	1
3.3.1.2	Create Staff	Medium	2
3.3.1.3	Update Staff	Simple	1
3.3.1.4	Delete Staff	Simple	1
3.3.1.5	View Detail Staff	Simple	1
3.3.1.6	Add Account for staff	Medium	3
3.3.1.7	View List Department	Simple	0.5
3.3.1.8	Create Department	Simple	0.5
3.3.1.9	Update Department	Simple	0.5
3.3.1.10	Delete Department	Simple	0.5
3.3.2	<i>Feature: Transaction management</i>		
3.3.2.1	View List Invoice History	Medium	2
3.3.2.2	View detail Invoice History	Medium	2

3.3.2.3	Create Invoice	Medium	2
3.3.2.4	View List Import Goods	Medium	1
3.3.2.5	Create Import Goods	Medium	3
3.3.2.6	Update Import Goods	Medium	3
3.3.2.7	Cancel Import Goods	Medium	1
3.3.2.8	View Detail Import Goods	Simple	1
3.3.2.9	Print Import Goods Sheet	Simple	1
3.3.4	Feature: Fundbook management		
3.3.4.1	View List Fund Book	Simple	1
3.3.4.2	Create Fund Book	Medium	3
3.3.4.3	View Detail Fund Book	Simple	1
3.3.4.4	Cancel Fund Book	Simple	2
3.3.5	Feature: Report statistic		
3.3.5.1	Report current room occupancy	Complex	4
3.3.5.2	Recent receipt and invoice creation activities	Complex	4
3.3.5.3	Statistical revenue	Complex	4
3.3.5.4	Statistical Top Room Class	Complex	4
3.3.6	Feature: Profile Management		
3.3.6.1	View Profile	Simple	1
3.3.6.2	Update profile	Simple	1
3.3.6.3	Change password	Medium	3
3.4	Testing		
3.4.1	<i>Create test plan iteration 3</i>	Medium	2
3.4.2	<i>Analysis and design test case for iteration 3</i>	Medium	5
3.4.4	<i>Executing test for iteration 3</i>	Medium	5
3.4.7	<i>Deliver Report 5 - Test - V1.2</i>	Medium	3

IV	Closing		
1.	<i>Deliver Report 6 – Software User Guide Simple</i>	Medium	7
2.	<i>Deliver Report 7 – Final Project Report Simple</i>	Medium	4
3.	<i>Create slide and practise for thesis defence</i>	Medium	6
Total Estimated Effort (man-days): 300			

1.2 Project Objectives

Table 5: Project Objectives

#	Testing Stage	Test Coverage	No. of Defects	% of Defect	Notes
2	Unit Test	100%	30	30%	1 errors/1KLoc
3	Integration Test	100%	20	20%	1 errors/1KLoc
4	System Test	100%	30	30%	1 errors/1KLoc
5	Acceptance Test	x	x	x	

1.3 Project Risks

Table 6: Project Risks

#	Risk Description	Impact	Possibility	Response Plans
1	Members have health problems	High	Medium	The team leader needs to change human resources accordingly to make up for that member's absence. The members must notify the team leader in advance so that the team leader can come up with a work division plan to ensure the project deadline.
2	Conflicts within the team	Medium	Medium	Team leaders need to identify the causes of conflicts and resolve them. They can organise meetings between those members if necessary. It's essential to understand the team's overall goals, specific roles, and responsibilities for each member.
3	Lack of technology knowledge to do projects	Medium	Medium	When facing a technology-related problem that cannot be resolved, contact technical experts directly for advice. Team members must familiarise themselves with the technology and framework required for the project.

4	Overdue work has been set	Medium	Medium	The team leader keeps track of the task list after each meeting, creates rules, and imposes sanctions if each member's tasks are not completed. Team members must provide reports at every meeting, typically daily.
5	Change project's scope	High	Low	A crucial meeting should be held to decide if changes are necessary. If yes, it is essential to document the details of the changes after modifying the requirements. It is necessary to analyse all possible cases to minimise variation and hold regular meetings to define and discuss the project.

2. Management Approach

2.1 Project Process

Below is a flow chart of the project implemented according to the Iterative model:

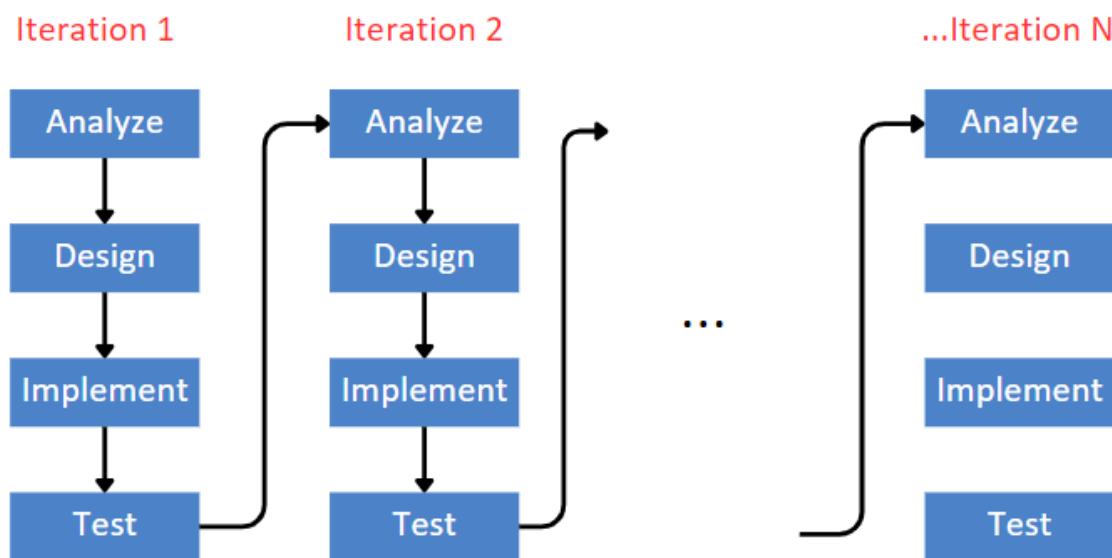


Figure 1: Iteration process

This is a project developed according to the Iterative model. We choose Iterative for several reasons:

- ❖ The Iterative model allows for adaptation to change. In some cases, the project may involve tasks for which the team has not yet acquired all the details. The Iterative model enables the team to research and refine project requirements over time and across each cycle. Simultaneously, breaking it into short cycles allows the team to detect early risks and make timely improvements.
- ❖ The Iterative model enables the team to create early versions of the product, thereby having a product to test and provide early feedback. This helps gain a better understanding of the tasks and enhances the product.

- ❖ Projects have limited resources such as time and manpower. The Iterative model helps the team optimise the use of these resources by focusing on the most important functions or critical parts of the project first.
- ❖ Using the Iterative model allows you and your team to apply new knowledge and experiment with different methods during the development process.
- ❖ Developing the project iteratively allows the entire team to see the product early, which motivates and drives the team forward.

2.2 Quality Management.

Table 7: Quality Management

Method	Description
Defect Prevention	<p>Careful group discussions should be conducted when implementing a new feature or making unplanned changes to a feature.</p> <p>Organise daily or weekly meetings for each team member to exchange difficulties encountered or tasks completed during the project implementation.</p> <p>Clearly schedule tasks day by day, week by week for the entire process.</p>
Review	<p>Rating at different levels:</p> <p>Self-Review: Members self-assess their source code.</p> <p>Peer review: Each member reviews another member's source code.</p> <p>Member: Analyse flows and documents to check feature information.</p>
Unit Test	Create unit tests for functions, prioritise for important functions, code coverage 80%
Integration Test	Create integration testing for APIs provided.
System Test	Create system testing for the full function of the project to run and check bugs in a browser if happening

2.3 Training Plan

Table 8: Training Plan

Training Area	Participants	When, Duration	Waiver Criteria
Java Spring Boot	HuanNQ, HuyNQ, KhanhTB	25/09-30/09	Mandatory
MySQL	All Members	01/10-02/10	Mandatory

Git, GitLab	All Members	02/10-03/10	Mandatory
Postman	All Members	29/10-30/10	Mandatory

3. Project Deliverables

Table 9: Project Deliverables

#	Deliverable	Due Date	Notes(Actual)
1	Deliver Report 1- Project Introduction	25/09/2023	End week 4
2	Deliver Report 2- Project Management Plan	29/09/2023	End week 4
3	Iteration 1		
4	Deliver Report 3 - Software Requirement Specification - V1.0	5/10/2023	End week 5
5	Deliver Report 4 - Software Design - V1.0	05/10/2023	End week 5
6	Deliver Report 5 - Test - V1.0	15/10/2023	End week 7
7	Iteration 2		
8	Deliver Report 3 - Software Requirement Specification - V1.1	15/10/2023	End week 8
9	Deliver Report 4 - Software Design - V1.1	20/10/2023	End week 8
10	Deliver Report 5 - Test V1.1	15/11/2023	End week 15
11	Iteration 3		
12	Deliver Report 3 - Software Requirement Specification - V1.2	15/11/2023	End week 11
13	Deliver Report 4 - Software Design - V1.2	15/11/2023	End week 11
14	Deliver Report 5 - Test - V1.2	7/12/2023	End week 14
15	Deliver Report 6 – Software User Guide Simple	10/12/203	End week 15
16	Deliver Report 7 – Final Project Report Simple	15/12/203	End week 15
17	Create slide and practise for thesis defence	15/12/203	End week 15

4. Responsibility Assignments

D~Do; R~Review; S~Support; I~Informed; <blank>- Omitted.

Table 10: Responsibility Assignments

Responsibility	KhanhTB HE153468	Thucth HE150889	Tiendv HE153729	Huannq He163039	Huynq He153639
Project Planning & Tracking	D	R	R	R	R
Prepare Project Introduction Document	D	D	D	D	D
Prepare SRS Document (Overview Part)	D	D	D	D	D
Prepare SRS Document (User Requirements)	R, S	D	R, S	R, S	R, S
Prepare SRS Document (Non-Functional Requirements)	R, S	D	R, S	R, S	R, S
Prepare Software Design Document (System Design)	D	R, S	D	D	D
Prepare Software Design Document (Database Design)	D	D	D	D	D
Prepare Software Design Document (Detailed Design)	D	R, S	R, S	D	D, R
Prepare Test Unit Test	D	R, S	R, S	D	D
Prepare Test Integration	R, S	D	R, S	R, S	D
Prepare Test System Test	R, S	R, S	R, S	R, S	D
Prepare Test Report	R, S	R, S	R, S	R, S	D
Prepare User Guides Document (Installation Guides)	D	D	D	R, S	R, S
Prepare User Guides (User Manual)	D	D	D	D	D

5. Project Communications

Table 11: Project Communications

Communication Item	Who/ Target	Purpose	When, Frequency	Type, Tool, Method(s)
Weekly meeting with mentor	All members	Evaluate project, progress, exchange questions, determine next work	08:00 pm every Monday	Offline / Online via Google Meet
Daily meeting	All members	Evaluate the work and duties of each member	08:30 pm or 10: 00 pm weekdays	Offline / Online via Google Meet
Unscheduled meeting	All members	Share and find one solution to the problem	When important problem happen	Offline / Online via Google Meet

6. Configuration Management

6.1 Document Management

To build a successful project, document management is equally important.

6.1.1 Naming convention

- ❖ Changes will be recorded at the beginning of the document.
- ❖ Updated reports will be updated with 1.x version (x is the number of times Updated)
- ❖ If the report has major changes, it will be changed from 1.x to 2.0 or incremental.

6.1.2 Management

To make updating and tracking changes easier, we will manage project documents and store them in a shared project folder named after the team on Google Drive for everyone. All members can work together simultaneously and efficiently to ensure the security of our project. During the implementation process, we will only grant access rights to project members for those types of documents.

6.2 Source Code Management

One of the most important things that cannot be missed is coding. While coding you will inevitably encounter code errors, code conflicts, review the change history of some code, restore different ciphertexts or multiple people executing code on the same project, just a few. part of code management.

That is why code management is extremely important.

6.2.1 Coding Convention

- ❖ Each member will be made on a separate branch to do his or her job. When the assigned work is completed, it will be reviewed, if it is qualified, it will be merged into the main branch of the project.
- ❖ Before submitting the merge request, the members need to perform their own testing and code review.
- ❖ Before pushing code to Git, members need to pull the latest code to avoid unnecessary conflicts.

6.2.2 Source control

We will do source code management on GitLab. Technical Leader is the person who will be responsible for coordinating with code review members and directly performing the merge code of other members into the main branch of the project. Each time the code merge is successful, the Technical Leader will notify the remaining members to update the latest code. Like document management we will make our project secure, throughout the process we will only set project access rights for project members.

6.3 Tools & Infrastructures

Table 12: Tools & Infrastructures

Category	Tools / Infrastructure
Programming Languages	Java, JavaScript
Technology	React (FrontEnd), Java 17 / SpringBoot 3.1.4 (BackEnd)

Database	MySQL 8.0
IDEs/Editors	Visual Studio Code, IntelliJ IDEA
Diagramming	Draw.io, Figma
Documentation	Ms Office, Google Docs/Sheets
Version Control	GitLab (Source Codes), Google Drive (Documents)
Project management	Google Sheet

III. Software Requirement Specification

1. Requirement Overview

1.1 Context Diagram

ManaHotel is a software system that helps Van Lam Hotel and other hotels manage more easily than manually. It helps manage basic actions such as: booking, room management, goods management, warehouse management, human resources management, employee management, book management, invoice management, customer management policy management... The context diagram below illustrates the external entities for version 1.0. This system is expected to develop through many versions, eventually connecting to Internet payment services for online payments.

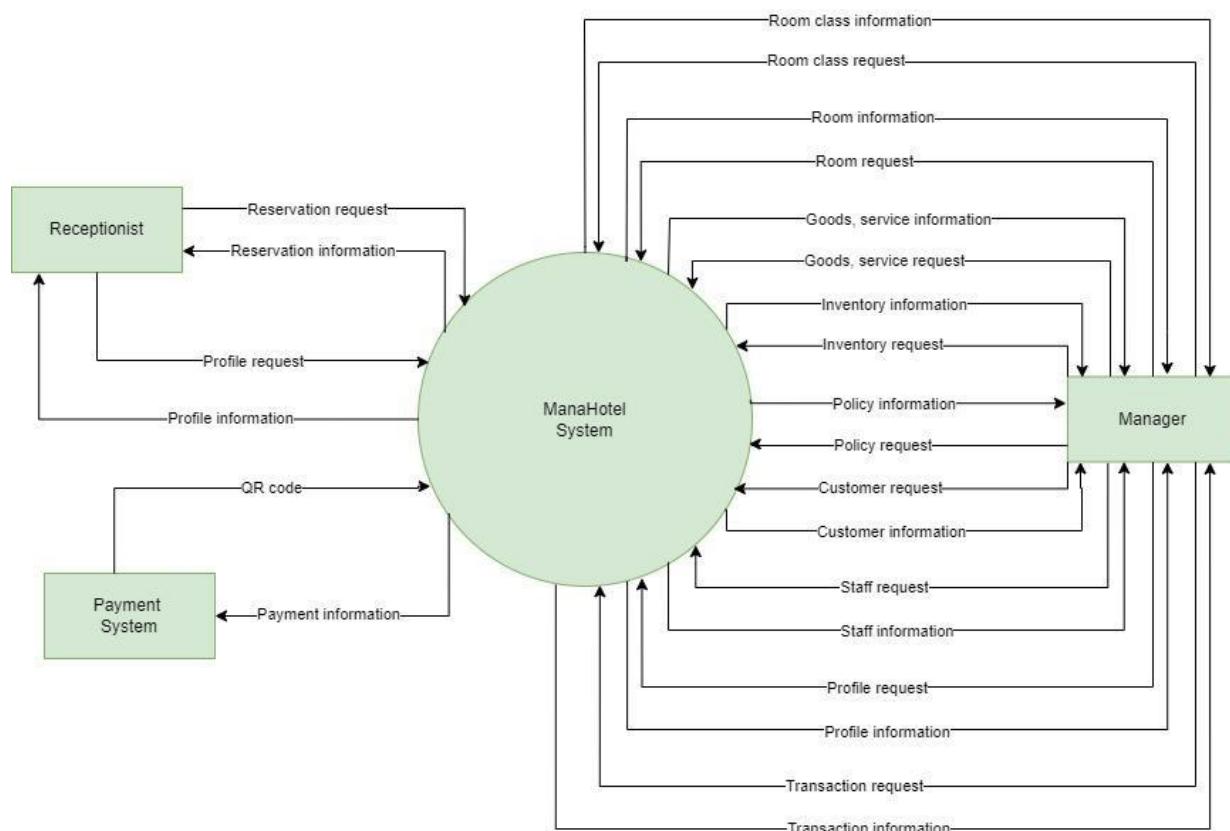


Figure 2: Context diagram

1.2 User Requirements

1.2.1 Actors

Table 13: Actors

#	Actor	Description
1	Receptionist	The receptionist has reserved a room, cancels the reservation, creates and updates the order, manages check-in, and check-out, changes rooms for the customer, updates the room's status for housekeeping, and payment.

2	Manager	The manager's task includes: manage room class and room; manage goods, service and inventory; manage customer; manage staff; manage transaction; view report; manage policy.
3	Payment system	System helps online payment for the system.

1.2.2 Use Cases

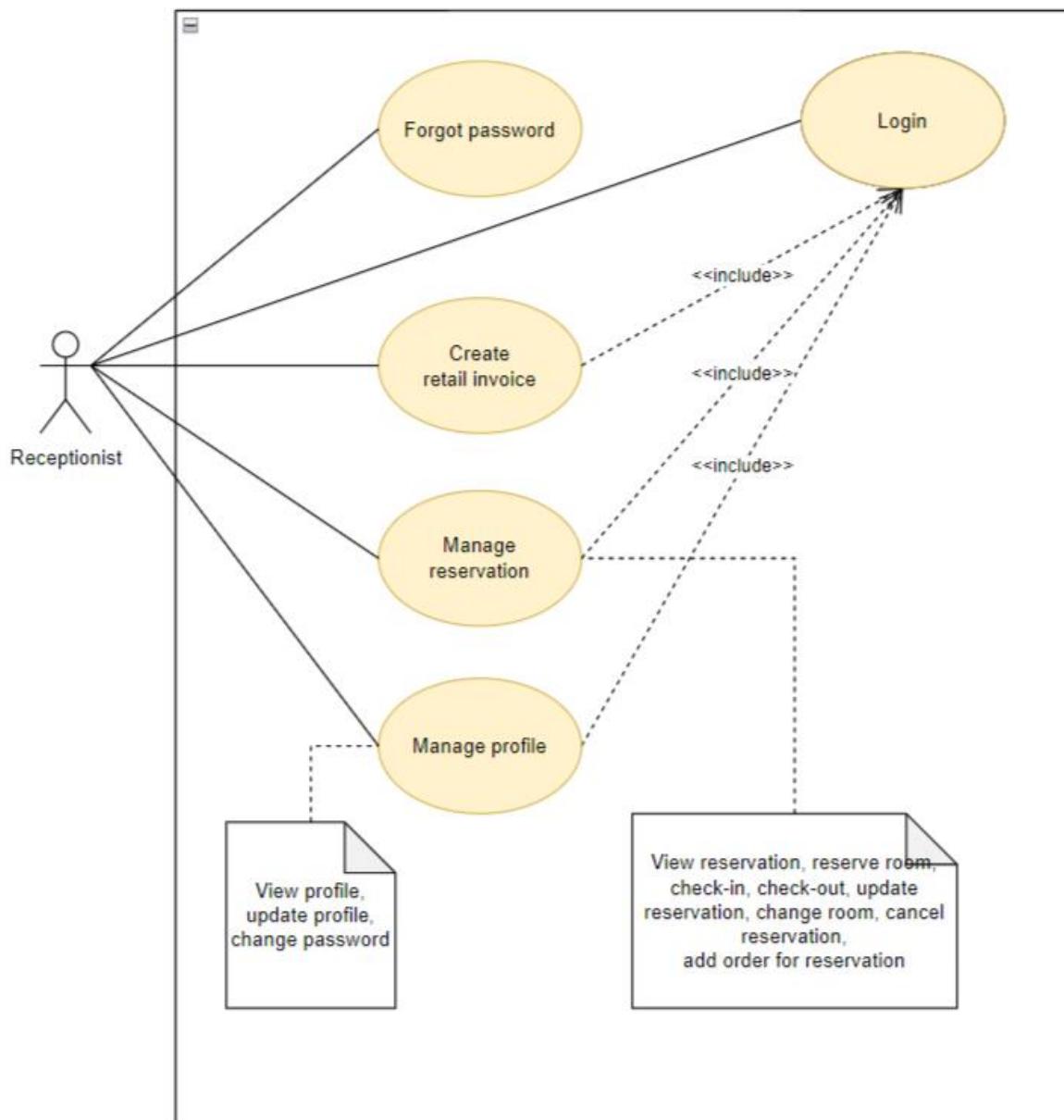


Figure 3: Use case diagram (for actor: receptionist)

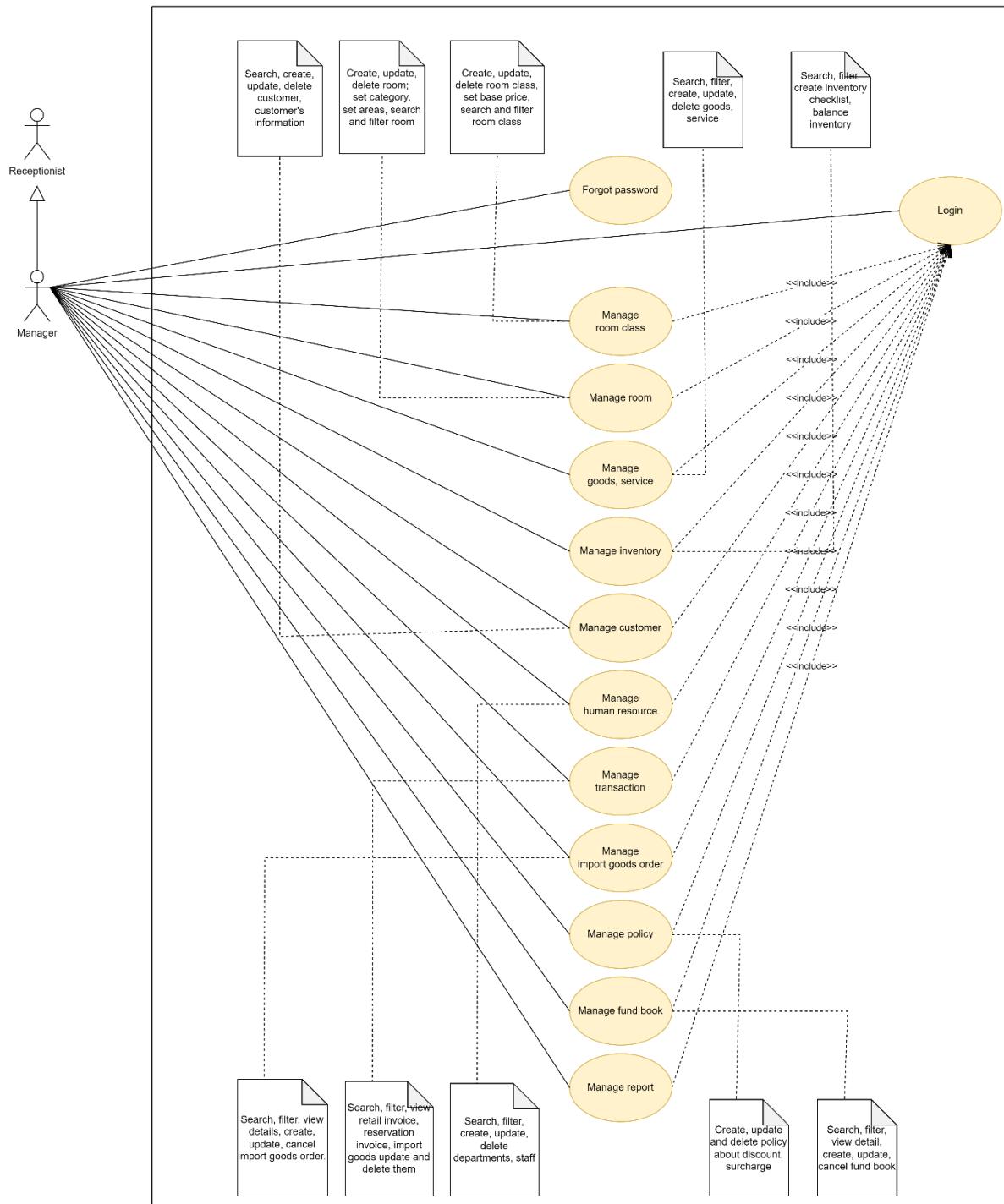


Figure 4: Use case diagram (for actor: manager)

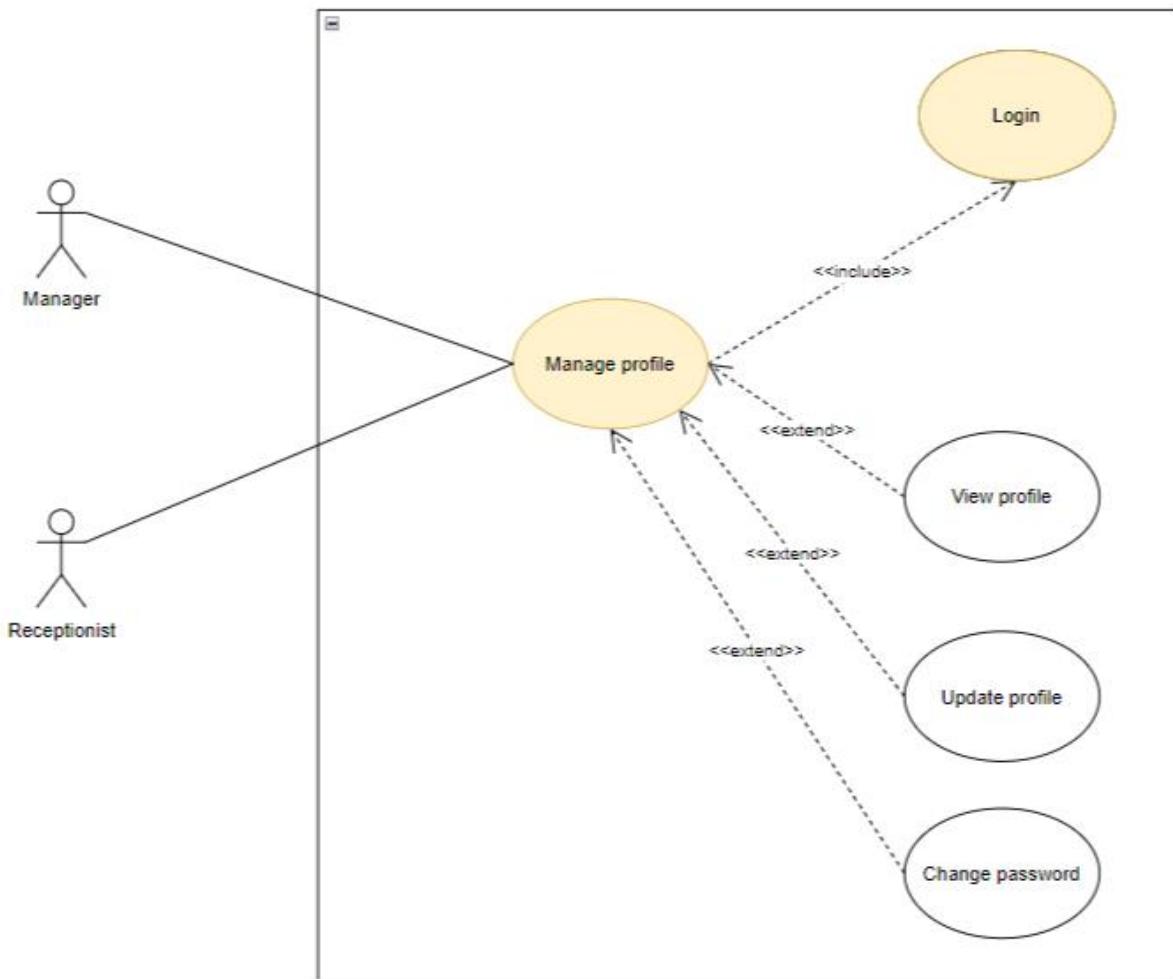


Figure 5: Use case diagram (for feature: profile management)

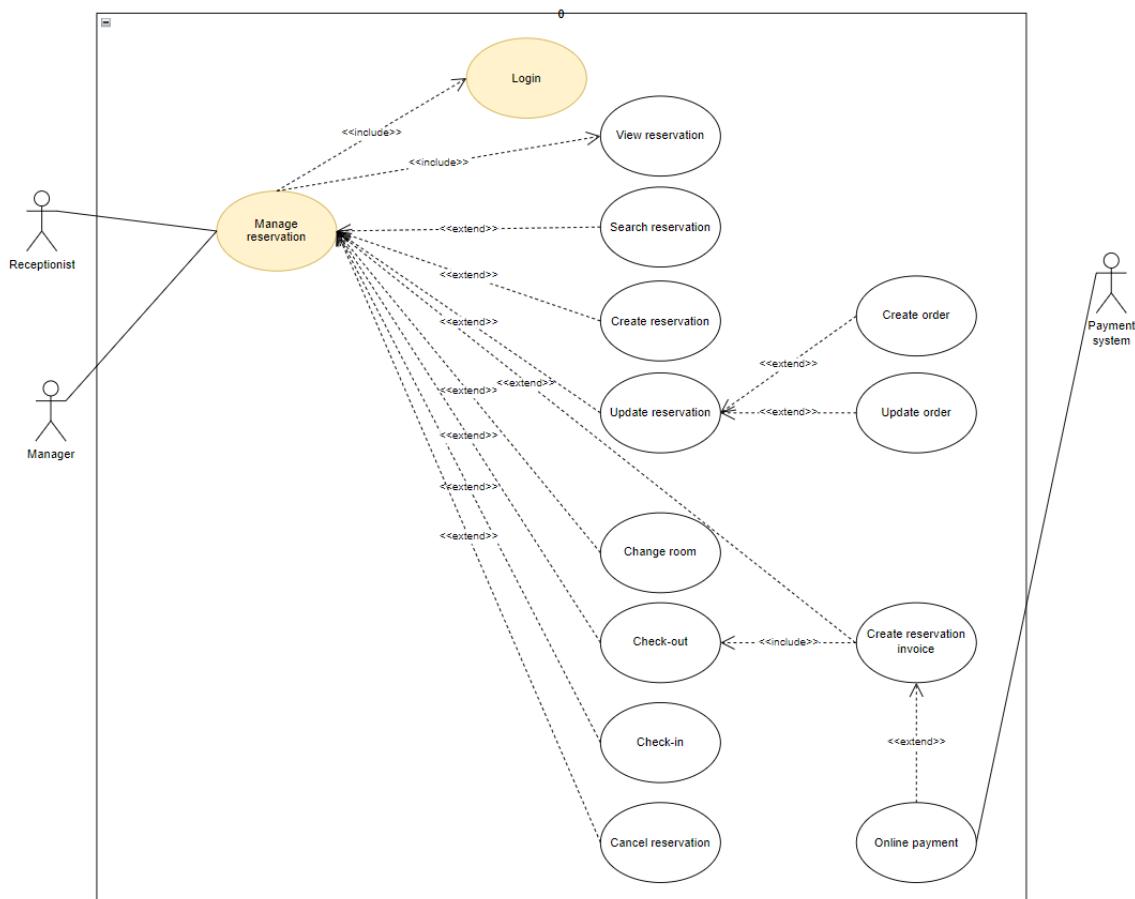


Figure 6: Use case diagram (for feature: reservation management)

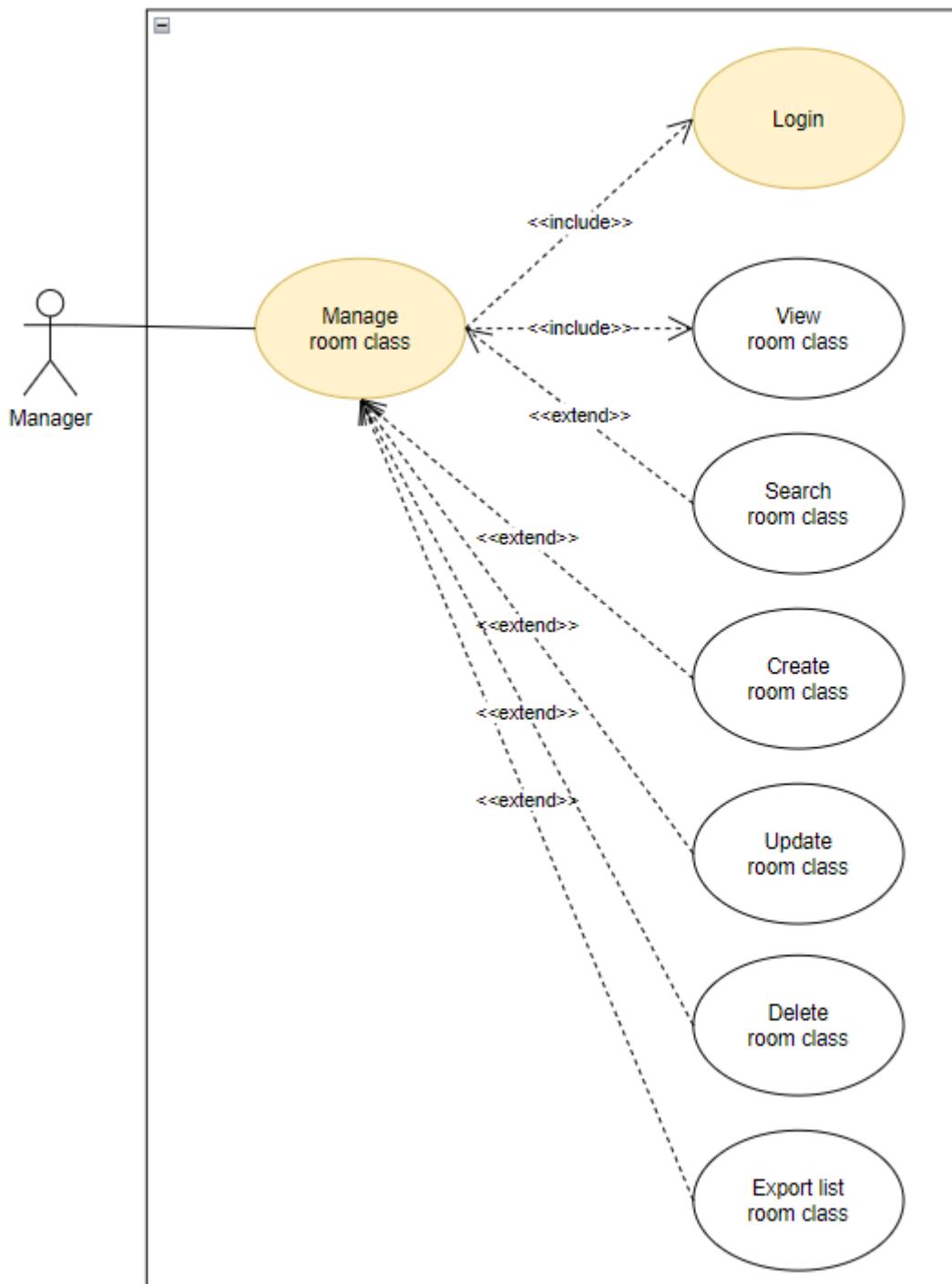


Figure 7: Use case diagram (for feature: room class management)

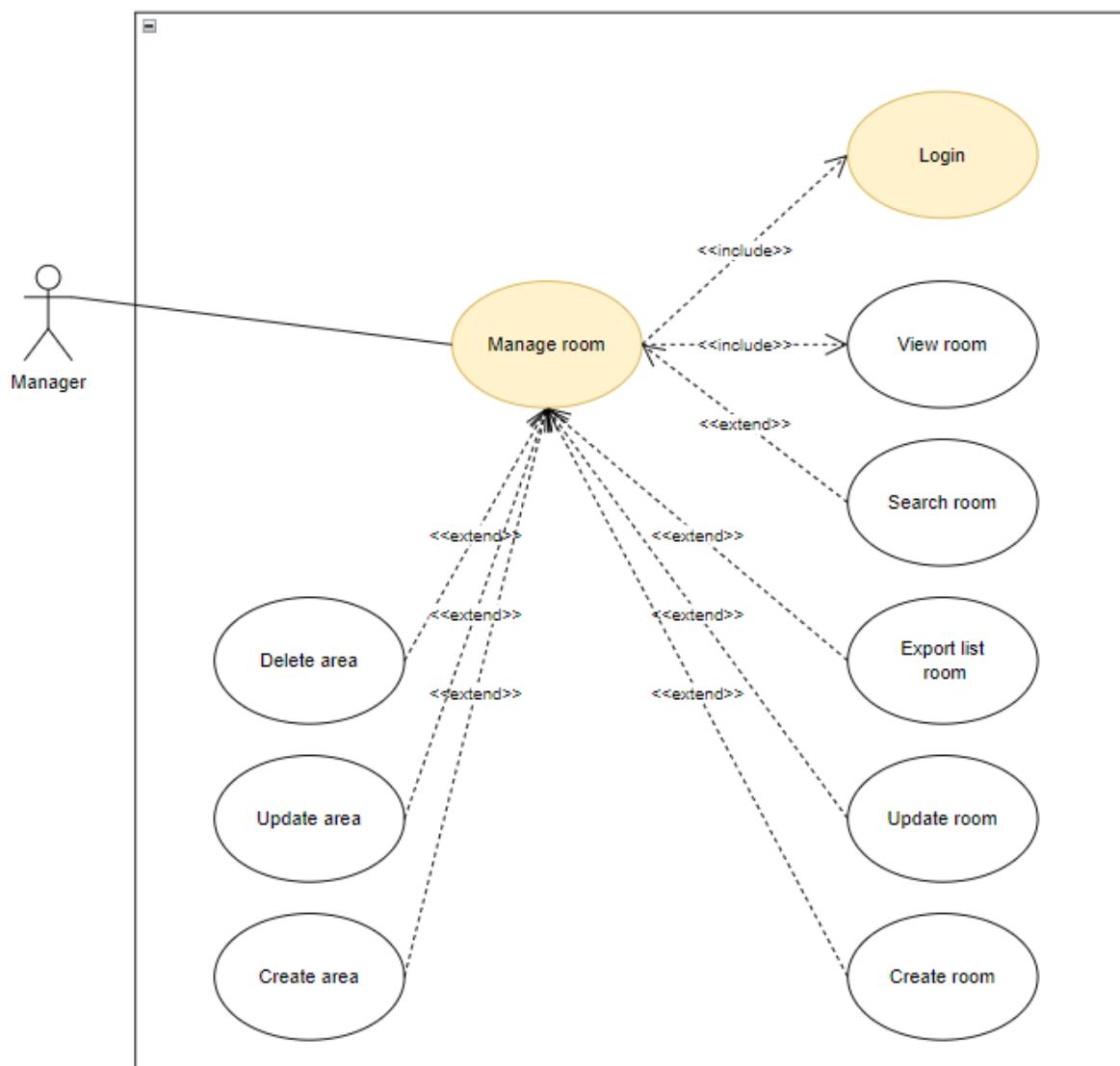


Figure 8: Use case diagram (for feature: room management)

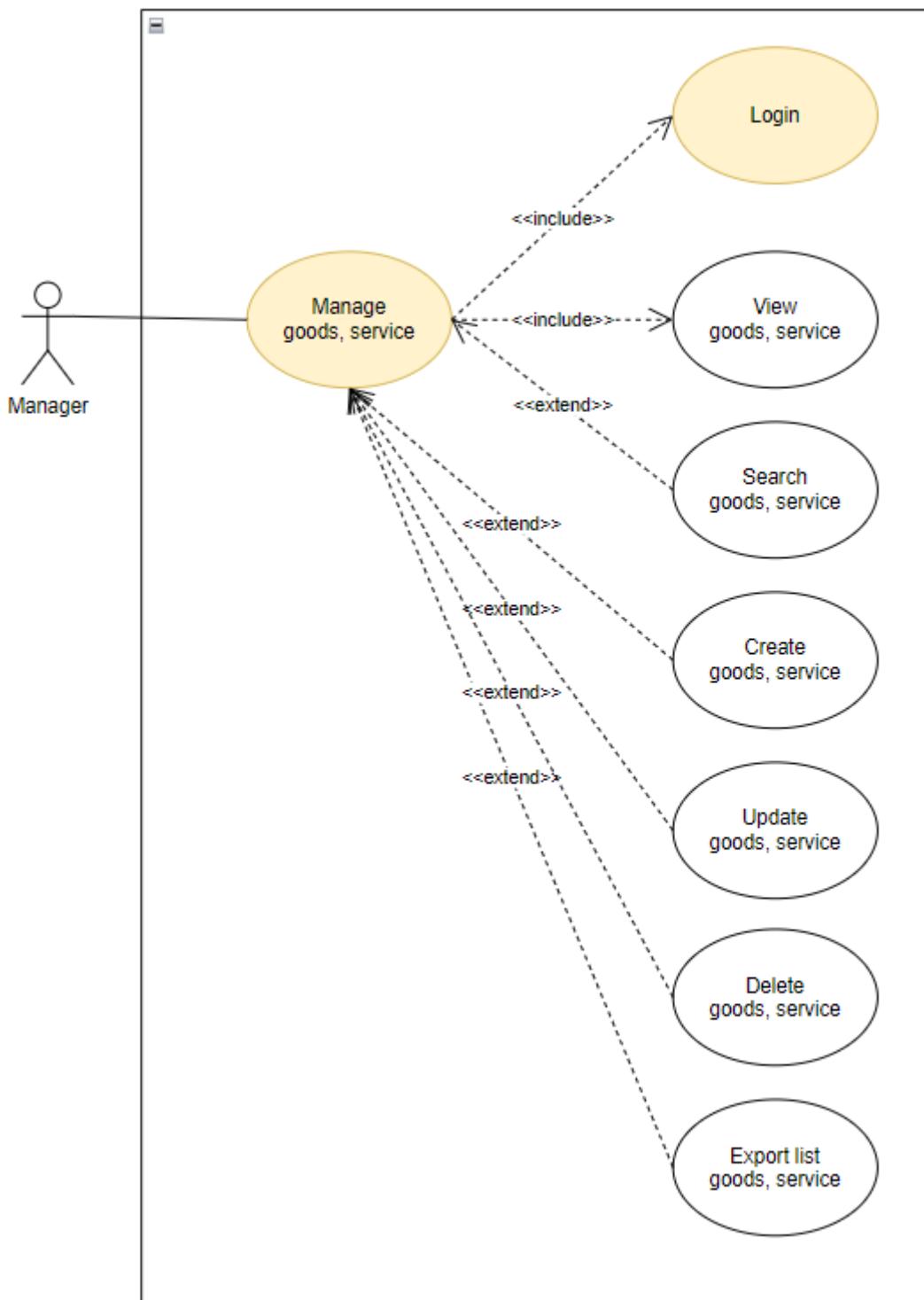


Figure 9: Use case diagram (for feature: goods, service management)

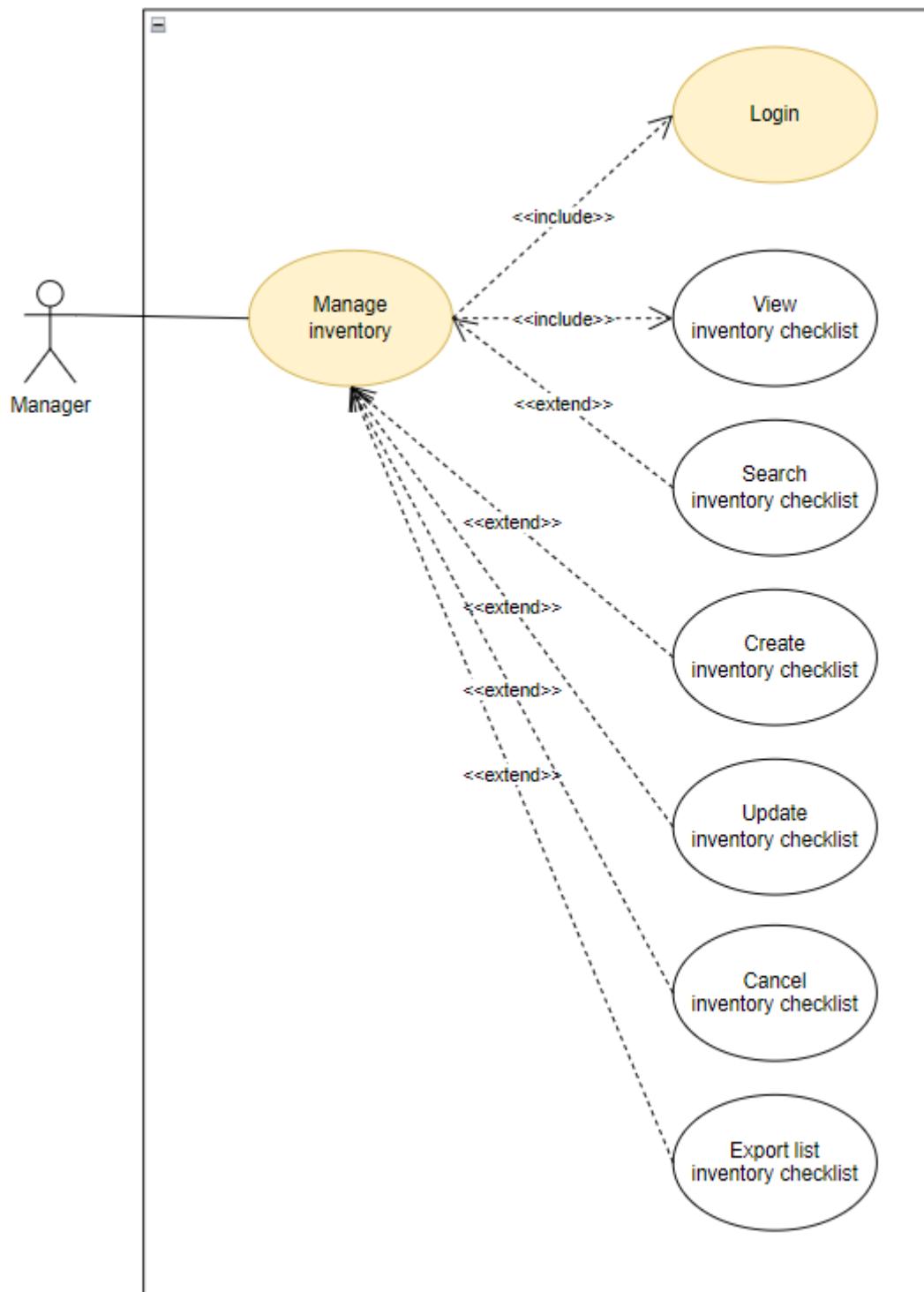


Figure 10: Use case diagram (for feature: inventory management)

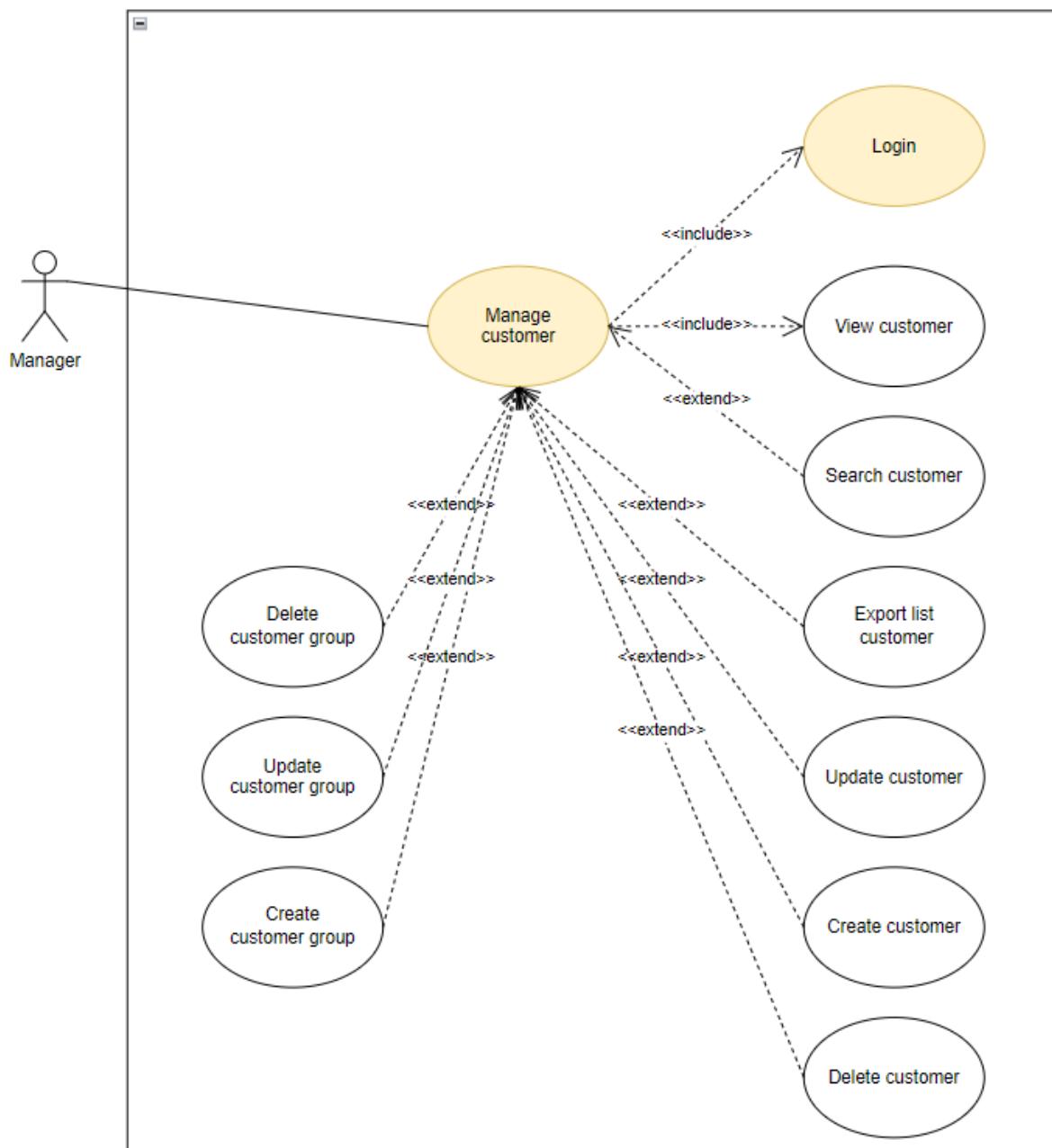


Figure 11: Use case diagram (for feature: customer management)

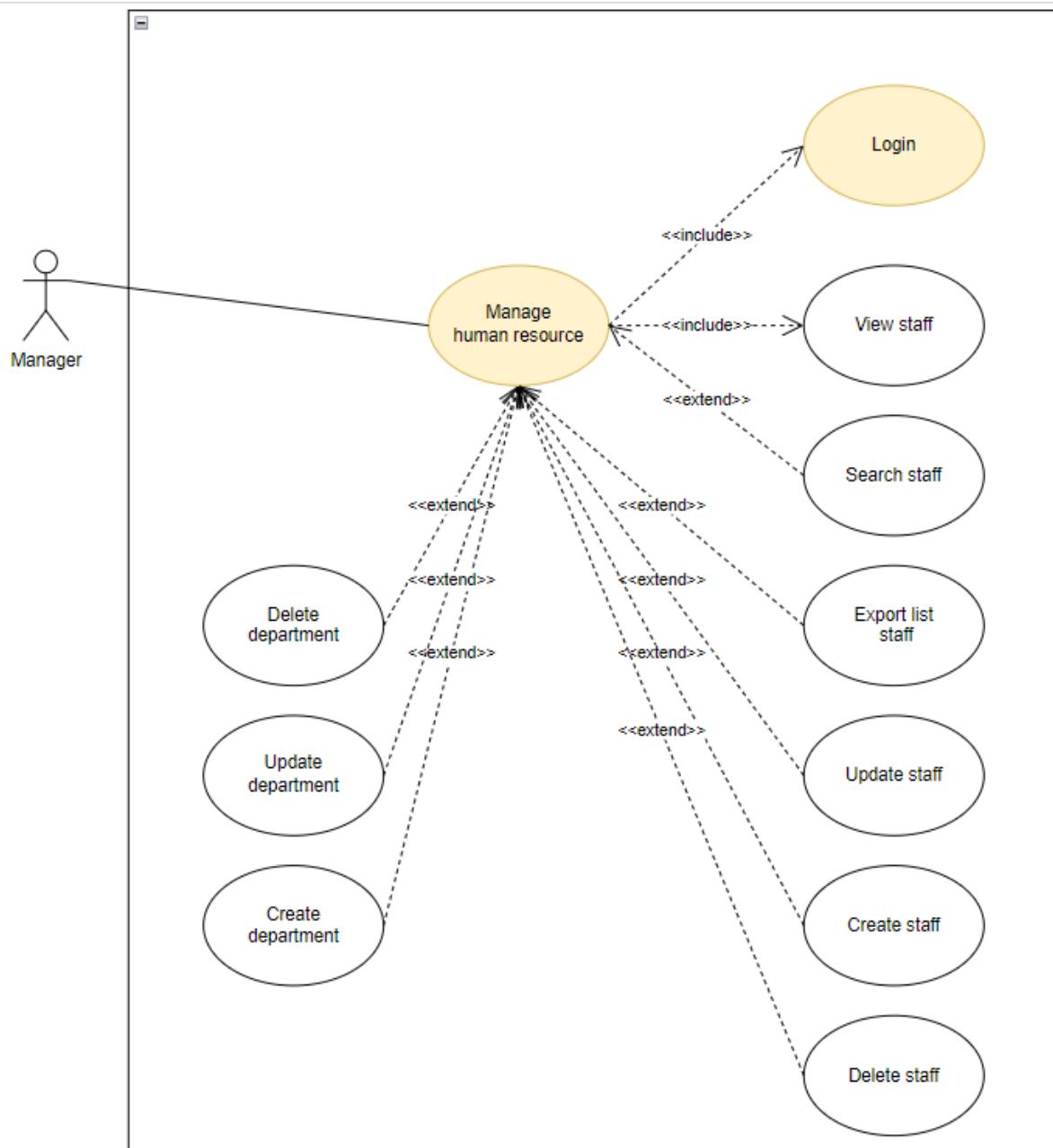


Figure 12: Use case diagram (for feature: human resource management)

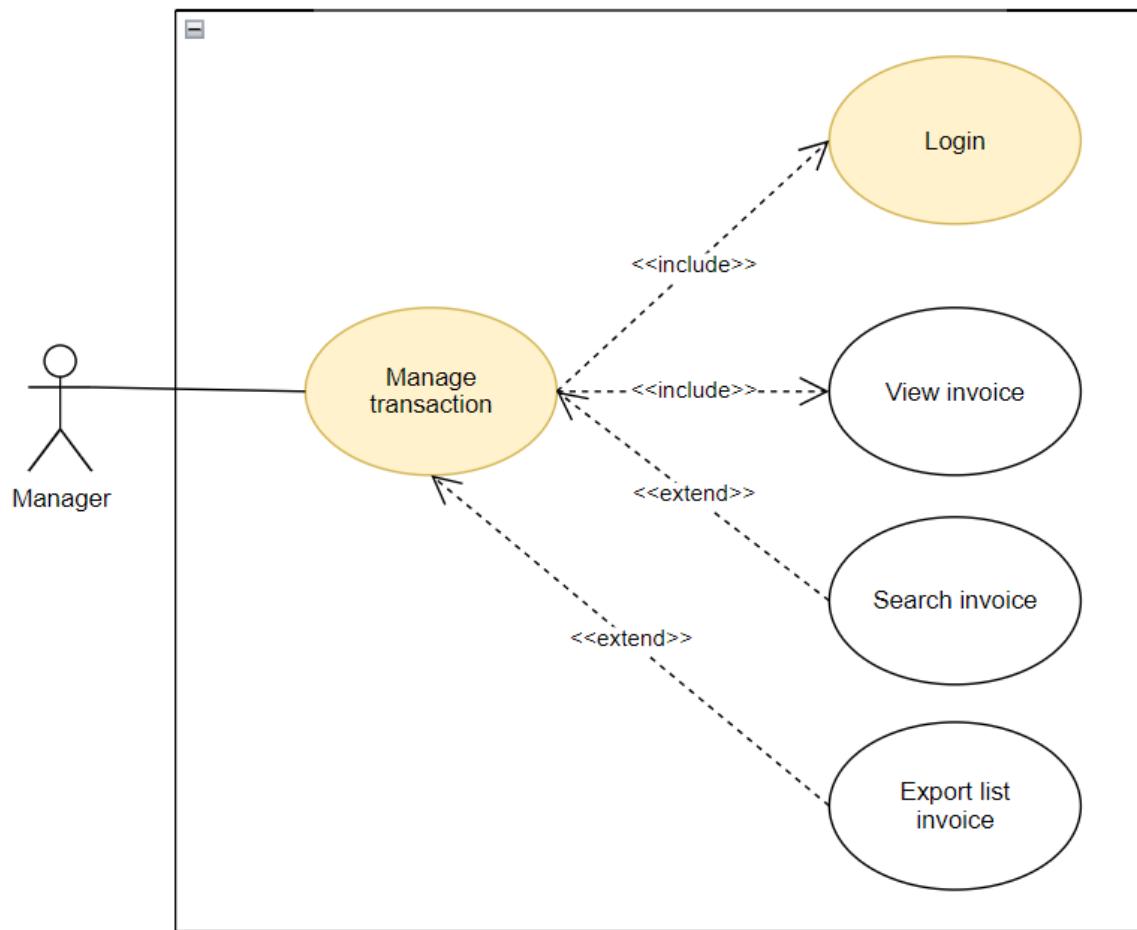


Figure 13: Use case diagram (for feature: transaction management)

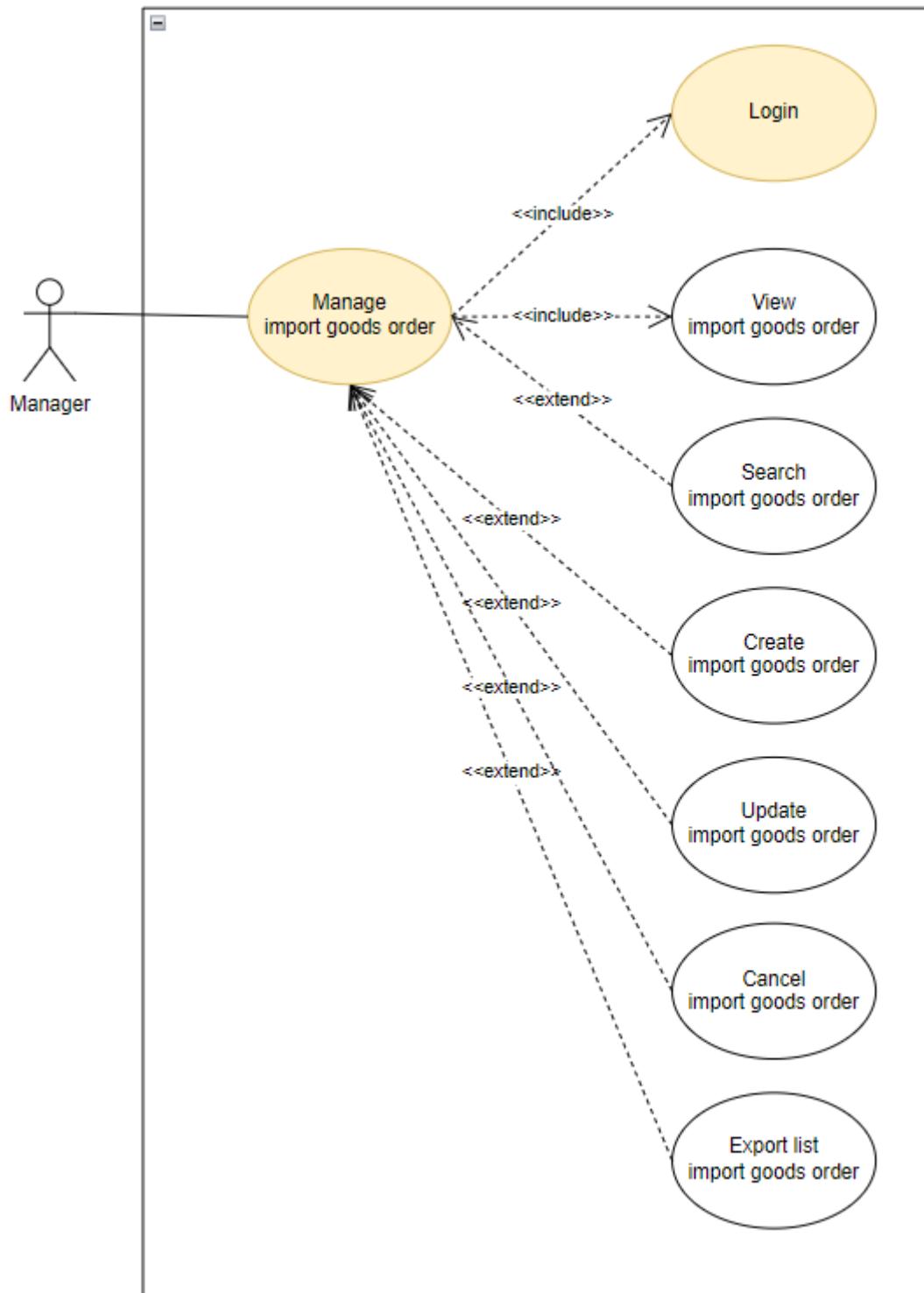


Figure 14: Use case diagram (for feature: import goods management)

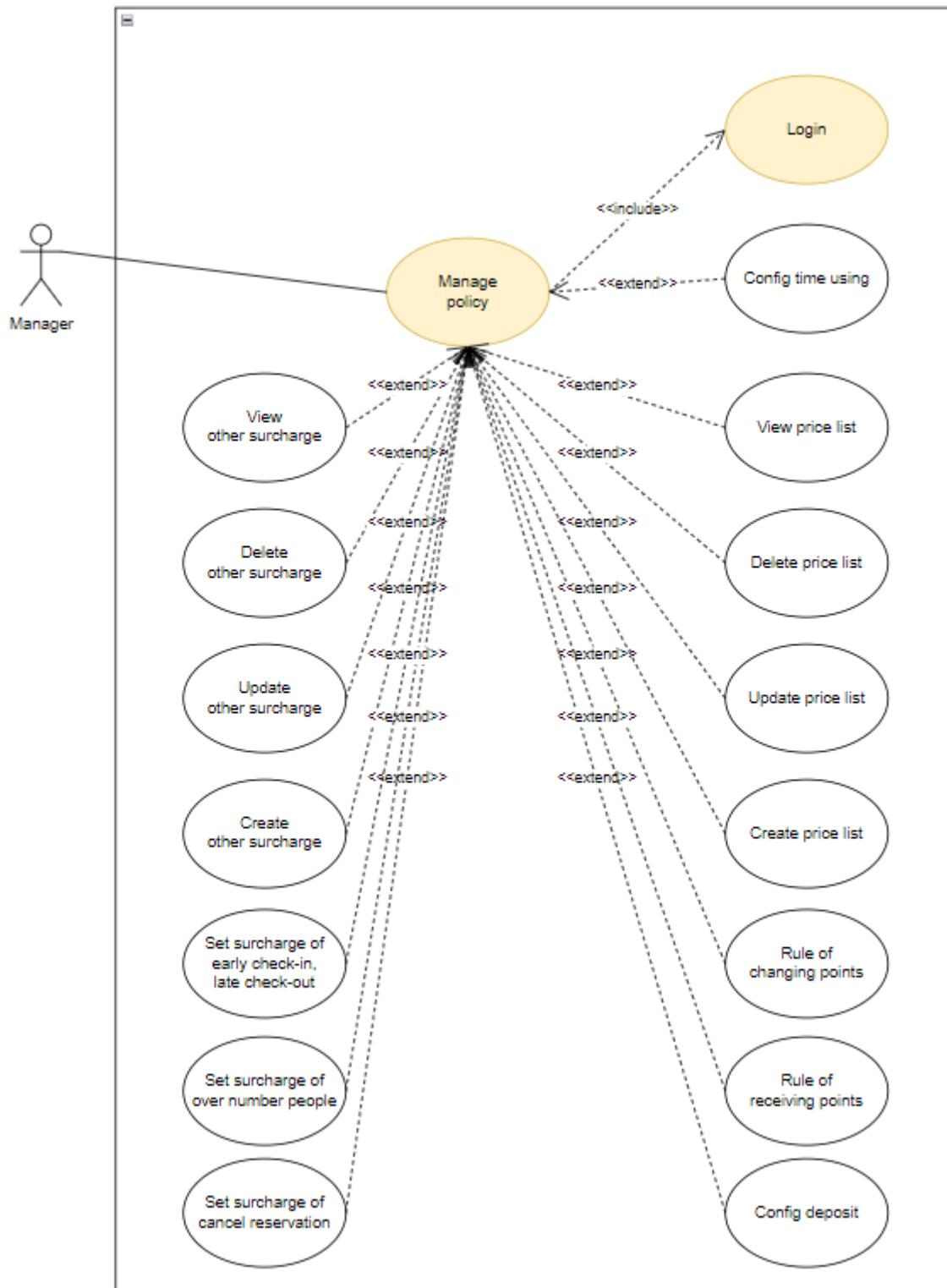


Figure 15: Use case diagram (for feature: policy management)

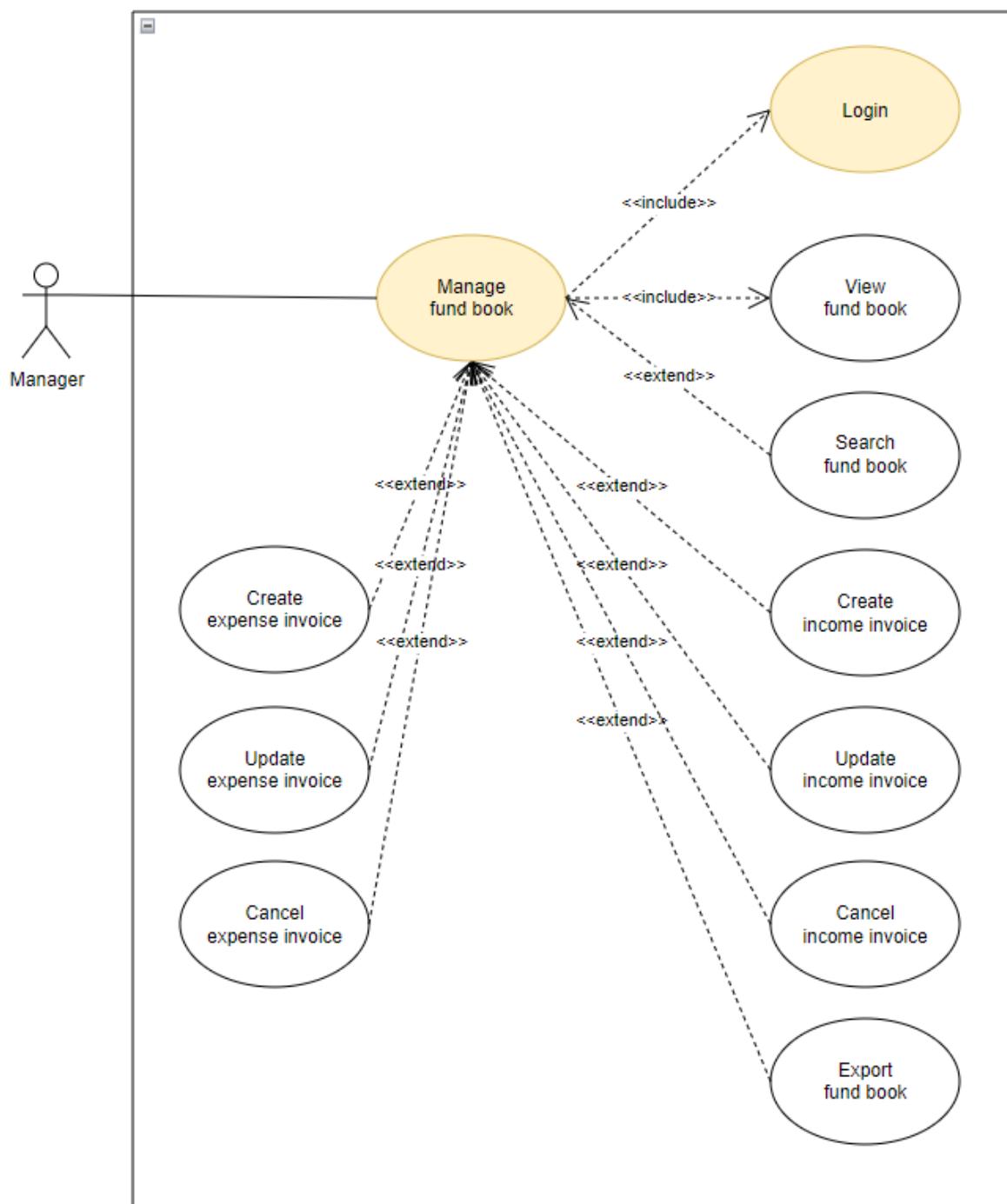


Figure 16: Use case diagram (for feature: fund book management)

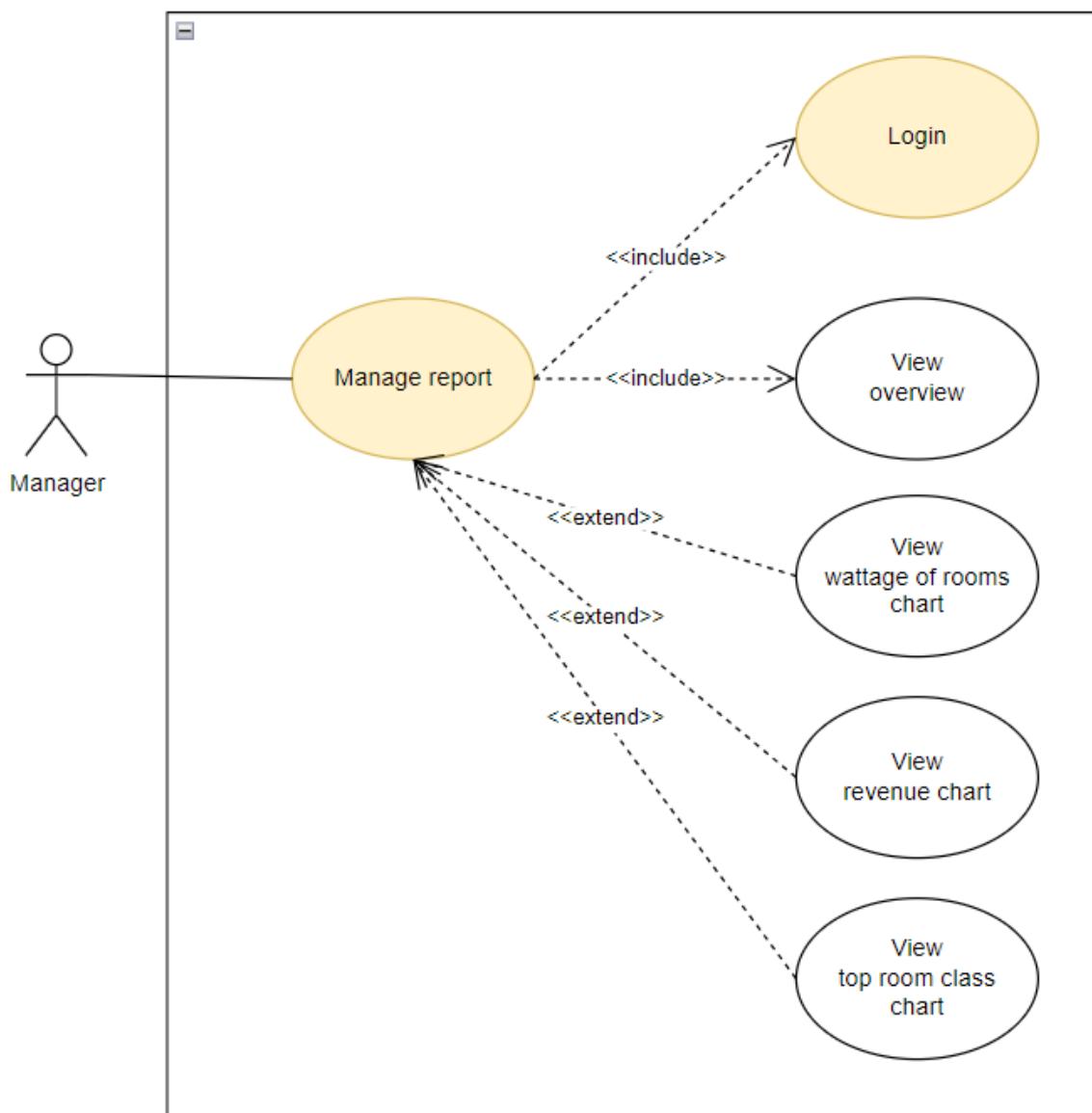


Figure 17: Use case diagram (for feature: report management)

1.3 System Functionalities

1.3.1 Screen Flow

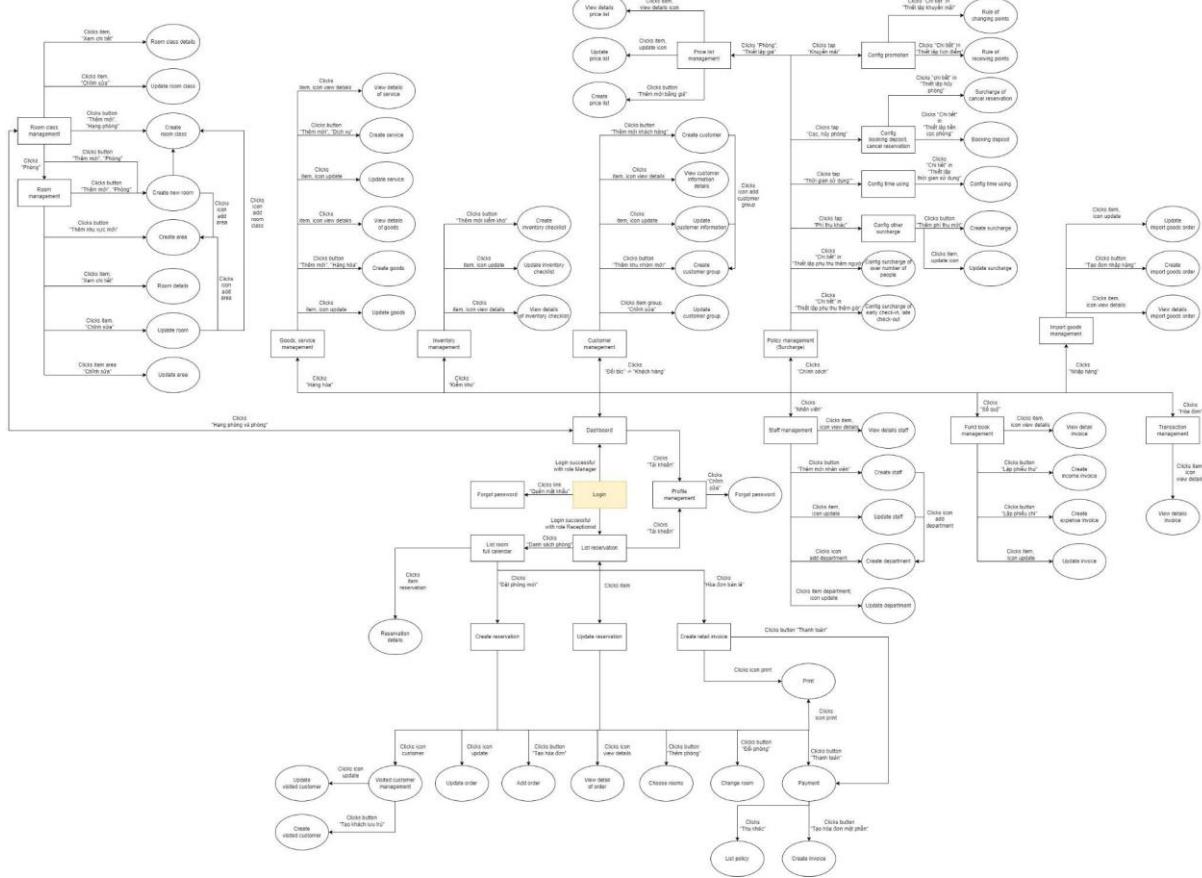


Figure 18: Screen flow of system

1.3.2 Screen Descriptions

Table 14: Screen Descriptions

#	Feature	Screen	Description
1	Overview	Dashboard	Dashboard for manager after manager logs in system.
2	Authentication	Login	Receptionist and manager must login in this screen to use system
3		Forgot password	Receptionist and manager use this screen to get new password when they forgot
4	Room class management	Room class management	Manager view, delete, search and filter room class and their main details
5		Room class details	Manager view room class details
6		Update room class	This popup allows manager view details, update information of room class
7		Create new room class	Popup allows manager create a new room class
8		Room management	Manager view, delete, search and filter rooms and their main details

#	Feature	Screen	Description
9	Room management	Room details	Manager view room
10		Update room	Manager updates room
11		Create new room	This popup allows manager to create a new room
12		Create new area	This popup allows manager to create a new area
13		Update area	This popup allows manager to update name of area.
14	Goods, service management	Goods, service management	Manager view, search, filter and delete goods, service
15		Goods details	View goods detail
16		Service details	View service details
17		Create goods	Create new goods
18		Create service	Create new service
19		Update goods	Update, delete goods
20		Update service	Update, delete service
21	Inventory management	Inventory management	Manage inventory checklist, view, search, filter, export inventory checklist
22		Inventory checklist details	View details of an inventory checklist
23		Create new inventory checklist	Create a new inventory checklist
24		Update an inventory checklist	Update, delete an inventory checklist
25	Customer management	Customer management	Manager view, search, filter and delete customers
26		Customer details	View customer detail
27		Create new customer	Create a new customer
28		Update customer information	Update, delete a customer
29		Add new customer group	Add new customer group
30		Update customer group	Update, delete customer group
31	Reservation management	List room full calendar	List all active rooms with their status.
32		List reservation	List all reservation in range of time
33		Reservation details	Popup is shown when receptionist want to view details of a room with its reservation
34		Create reservation	Page to create reservation.
35		Update reservation	Page to update reservation
36		Create retail invoice	Page to create retail invoice.
37		Choose room	Popup is shown when receptionist chooses room for reservation
38		Create visited customer	Be shown when receptionist add customer details information to reservation
39		Visited customer management	Information of customer in each room of a reservation

#	Feature	Screen	Description
40	Customer Reservation Management	Update visited customer	Receptionist updates visited customer information.
41		Add order	When customer wants to order goods or service, receptionist add goods or service to their reservation
42		Order detail of a reservation	Order detail of a order in a reservation
43		Update order in a reservation	Update, cancel order in a reservation
44		Change room of reservation	Popup is shown when receptionist want to change room of reservation
45		Payment	List all parts that are needed to pay.
46		Create a part invoice	Choose some parts to create an invoice.
47		Print	Print invoice.
48		List policy	Receptionist can choose policy to apply for reservation
49		Price list management	View, search, filter price list, delete price list
50	Policy Management	Price list detail	View details of a price list
51		Create price list	Create a new price list
52		Update price list	Update, delete a price list
53		Policy management (surcharge)	Manage policy, show menu of setting surcharge of early check-in, late check-out and setting surcharge of over quantity people
54		Setting surcharge of early check-in, late check-out	Popup to setting surcharge of early check-in, late check-out
55		Setting surcharge of over quantity of people	Popup to setting surcharge of over quantity of people
56		Config time using	Manage policy, show menu of setting time using
57		Other surcharge	Manage policy, show list other surcharge
58		Create other surcharge	Popup to create new other surcharge
59		Update other surcharge	Update, delete surcharge
60		Config booking deposit, cancel reservation	Manage policy, show menu of setting surcharge of booking deposit, cancel reservation
61		Setting surcharge of cancel reservation	Popup to setting surcharge of cancel reservation
62		Config booking deposit	Manage policy, show menu of setting booking deposit
63		Manage promotion	Show two rule receive points and change points for promotion
64	Policy management	Rule of receiving points	Config rule about receiving points.
65		Rule of changing points	Config rule about changing points.

#	Feature	Screen	Description
66	Profile management	Update account information	Show account information and update information.
67		Change password account information	Change password for account.
68	Human resource management	Staff management	Show list staff and search staff here.
69		View details staff	Popup shows staff information.
70		Create new staff	Popup creates a new staff.
71		Update staff	Popup update staff.
72		Create department	Popup to create a new department.
73		Update department	Popup to update department name.
74		Fund book management	Show fund book detail in range time and list invoice in that range time.
75	Fund book management	View details invoice	Popup shows details of an invoice.
76		Create income invoice	Popup to create an income invoice.
77		Create expense invoice	Popup to create an expense invoice.
78		Update invoice	Popup to update invoice.
79		Import goods management	List import goods order.
80	Import goods management	View details import goods order	Popup shows detailed information of an import goods order.
81		Create import goods order	Popup to create an import goods order.
82		Update import goods order	Popup to update an import goods order.
83	Transaction management	Transaction management	List invoice.
84		View details invoice	Popup shows details of an invoice.

1.3.3 Screen Authorization

Table 15: Screen Authorization

Screen	Receptionist	Manager
Dashboard		x
Login	x	x
Forgot password	x	x
Room class management		x
Room class details		x
Update room class		x
Create new room class		x
Room management		x
Room details		x
Update room		x
Create new room		x
Create new area		x
Update area		x

Screen	Receptionist	Manager
Goods, service management		x
Goods details		x
Service details		x
Create goods		x
Create service		x
Update goods		x
Update service		x
Inventory management		x
Inventory checklist details		x
Create new inventory checklist		x
Update an inventory checklist		x
Customer management		x
Customer details		x
Create new customer	x	x
Update customer information	x	x
Add new customer group		x
Update customer group		x
List room full calendar	x	x
List reservation	x	x
Reservation details	x	x
Create reservation	x	x
Update reservation	x	x
Create retail invoice	x	x
Choose room	x	x
Create visited customer	x	x
Visited customer management	x	x
Update visited customer	x	x
Add order	x	x
Order detail of a reservation	x	x
Update order in a reservation	x	x
Change room of reservation	x	x
Payment	x	x
Create a part invoice	x	x
Print	x	x
List policy	x	x
Price list management		x
Price list detail		x
Create price list		x
Update price list		x
Policy management (surcharge)		x
Setting surcharge of early check-in, late check-out		x
Setting surcharge of over quantity of people		x
Config time using		x

Screen	Receptionist	Manager
Other surcharge		x
Create other surcharge		x
Update other surcharge		x
Config booking deposit, cancel reservation		x
Setting surcharge of cancel reservation		x
Config booking deposit		x
Manage promotion		x
Rule of receiving points		x
Rule of changing points		x
Update account information		x
Change password account information		x
Staff management		x
View details staff		x
Create new staff		x
Update staff		x
Create department		x
Update department		x
Fund book management		x
View details invoice		x
Create income invoice		x
Create expense invoice		x
Update invoice		x
Import goods management		x
View details import goods order		x
Create import goods order		x
Update import goods order		x
Transaction management		x
View details invoice		x

1.3.4 Non-UI Functions

Table 16: Non-UI Functions

#	Feature	System Function	Description
1	Authentication	Logout	Users stop using the system. The system redirects to the login page.
2	Forgot password, manage staff	Send email	When users use the forgot password function, the system sends an email for users to reset their password.

1.3.5 Entity Relationship Diagram

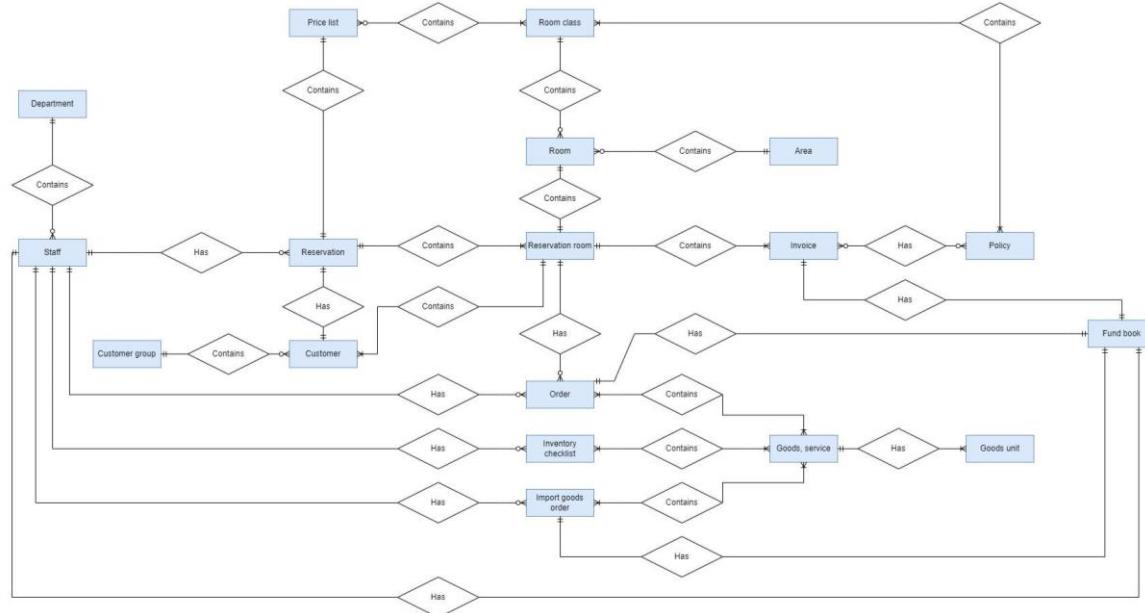


Figure 19: Entity relationship diagram

Entities Description

Table 17: Entities Description

#	Entity	Description
1	Room	Customer reserves room.
2	Room class	Group rooms have the same price and attribute.
3	Area	Group rooms have the same position.
4	Customer	Who reserves room.
5	Customer group	Group customer for promotion and management.
6	Order	Customers buy goods and services, and managers manage by order.
7	Goods, service	Something like food or drink for customers.
8	Goods unit	The unit of goods.
9	Inventory checklist	It helps managers manage inventory.
10	Policy	For reservation.
11	Invoice	Reservation invoice, retail invoice, income invoice or expense invoice.
12	Price list	List price for room class.
13	Reservation	Customer reserves rooms and the manager manages them by reservation.
14	Staff	Office staff using this system.
15	Department	Department of office using this system.
16	Import goods order	Order to import goods.
17	Reservation room	Room in a reservation, contains customer order in that room of reservation.
18	Fund book	Contains all invoice, order and synthesise.

2. Functional Specifications

Table 18: Functional Specifications

ID	Use case	Primary actors	Secondary actors	Use case description
Authentication				
UC-01	Log in	Manager	Receptionist	Login to access system
UC-02	Log out	Manager	Receptionist	Logout to end working session
UC-03	Forgot password	Manager	Receptionist	Reset password to login to system
Room class management				
UC-04	View list room class	Manager		View list all room class
UC-05	Search room class	Manager		Find a room class by searching, filter
UC-06	Create a new room class	Manager		Create a room class
UC-07	View details room class	Manager		View details of room class
UC-08	Update status room class	Manager		Changing working status of room class
UC-09	Update room class	Manager		Update detail of room class
UC-10	Delete room class	Manager		Delete a room class
UC-11	Export room class	Manager		Export list room class
Room management				
UC-12	View list rooms	Manager		View list all active room
UC-13	Search room	Manager		Find a room with search and filter
UC-14	Create a new room	Manager		Create a new room
UC-15	View details a room	Manager		View details of a room
UC-16	Update status a room	Manager		Update working status of a room
UC-17	Update a room	Manager		Update information of a room
UC-18	Delete room	Manager		Delete multiple rooms at once

ID	Use case	Primary actors	Secondary actors	Use case description
UC-19	Create area	Manager		Create a new area
UC-20	Update area	Manager		Update name of area
UC-21	Delete area	Manager		Delete an area
UC-22	Export list rooms	Manager		Export file list rooms
Goods, service management				
UC-23	View list goods, service	Manager		List all goods, service
UC-24	Search goods, service	Manager		Find goods, service by search, filter
UC-25	View details of goods	Manager		View details information of a goods
UC-26	View details of service	Manager		View details of a service
UC-27	Create goods	Manager		Create a new goods
UC-28	Create service	Manager		Create a new service
UC-29	Update goods	Manager		Update information of a goods
UC-30	Update service	Manager		Update information of a service
UC-31	Export file all goods and service	Manager		Export file includes all goods and service
UC-32	Delete goods, service	Manager		Delete multiple goods, service at once
Inventory management				
UC-33	View list inventory checklist	Manager		View list all inventory checklist
UC-34	Search inventory checklist	Manager		Find an inventory checklist by search, filter
UC-35	Export list inventory checklists	Manager		Export file list inventory checklist

ID	Use case	Primary actors	Secondary actors	Use case description
UC-36	Create inventory checklist	Manager		Create a new inventory checklist and can be balanced at that time
UC-37	View details of an inventory checklist	Manager		View details of an inventory checklist
UC-38	Update inventory checklist	Manager		Update a temporary checklist
UC-39	Cancel an inventory checklist	Manager		Cancel an inventory checklist
Customer management				
UC-40	View list customers	Manager		View list all customer
UC-41	Search customer	Manager		Find a customer by search, filter
UC-42	Create a new customer	Manager		Create a new customer by manager
UC-43	View details customer	Manager		View all details of a customer
UC-44	Update customer information	Manager		Update customer information
UC-45	Delete customer	Manager		Delete a or many customers and customer's information
UC-46	Create customer group	Manager		Create a new customer group
UC-47	Update customer group	Manager		Update customer group
UC-48	Delete customer group	Manager		Delete customer group
UC-49	Export list customers' information	Manager		Export list customer with their information
Policy management				
UC-50	View list price list	Manager		View and search price list.

ID	Use case	Primary actors	Secondary actors	Use case description
UC-51	Create new price list	Manager		Create a new price list.
UC-52	View detail price list	Manager		View details of price list.
UC-53	Update price list	Manager		Update price list.
UC-54	Delete price list	Manager		Delete a price list.
UC-55	View list other surcharges	Manager		View list other surcharges
UC-56	Create new other surcharges	Manager		Create a new other surcharge
UC-57	Update other surcharges	Manager		Update surcharge
UC-58	Delete other surcharges	Manager		Delete a surcharge
UC-59	Config time using	Manager		Setting time using, time check-in, time check-out for each reservation type
UC-60	Set surcharge of early check-in, late check-out	Manager		Setting surcharge for early check-in, late check-out
UC-61	Set surcharge of over number of people	Manager		Setting surcharge for over quantity of people
UC-62	Set surcharge of cancelling reservation	Manager		Setting surcharge for cancelling reservation
UC-63	Config deposit	Manager		Setting percentage of booking deposit
UC-64	Rule of receiving points	Manager		Rule for customers receive their points by total price of invoice.
UC-65	Rule of changing points	Manager		Rules for customers change their points.
Reservation management				

ID	Use case	Primary actors	Secondary actors	Use case description
UC-66	View list room in calendar	Receptionist	Manager	View list room with their booking status in calendar
UC-67	View list reservation	Receptionist	Manager	View list reservation
UC-68	Search reservation in list room	Receptionist	Manager	Search and filter reservation in list room
UC-69	Search reservation in list reservation	Receptionist	Manager	Search and filter reservation
UC-70	Create a reservation	Receptionist	Manager	Create a new reservation
UC-71	View detail of reservation by room	Receptionist	Manager	View details of a reservation in a room
UC-72	Check-in	Receptionist	Manager	Check-in for customer
UC-73	Create order for reservation	Receptionist	Manager	Create order in a room for reservation
UC-74	Update order for reservation	Receptionist	Manager	Update order in a room for reservation
UC-75	Check-out	Receptionist	Manager	Check-out for customer
UC-76	Cancel reservation	Receptionist	Manager	Receptionist cancels reservation
UC-77	Change room in reservation	Receptionist	Manager	Customer wants to change room
UC-78	Update room status (housekeeping status)	Receptionist	Manager	Receptionist update housekeeping status for room
UC-79	Online payment	Receptionist	Manager	Payment by online method
UC-80	Create retail invoice	Receptionist	Manager	Receptionist creates retail invoice
UC-81	Create reservation invoice	Receptionist	Manager	Create a part invoice for reservation
Human resource management				
UC-82	View list staff	Manager		View list staffs and their main information
UC-83	Search staff	Manager		Search and filter staff
UC-84	Create staff	Manager		Create a new staff
UC-85	View detail of staff	Manager		View detail of a staff

ID	Use case	Primary actors	Secondary actors	Use case description
UC-86	Update staff	Manager		Update staff information
UC-87	Delete staff	Manager		Delete a staff
UC-88	Create department	Manager		Create new department
UC-89	Update department	Manager		Update department name
UC-90	Delete department	Manager		Delete department
UC-91	Export file staffs	Manager		Export file list staffs
Profile management				
UC-92	View detail profile	Manager		View detail profile of account
UC-93	Update profile	Manager		Update profile information
UC-94	Change password	Manager		Change password
Fund book management				
UC-95	View fund book	Manager		View fund book
UC-96	Create a new income invoice	Manager		Receptionist creates a new income invoice
UC-97	Create a new expense invoice	Manager		Receptionist creates a new expense invoice
UC-98	Update invoice in fund book	Manager		Receptionist updates invoice
UC-99	Cancel invoice in fund book	Manager		Receptionist cancels invoice
Transaction management				
UC-100	View list invoice	Manager		List invoice, search and filter
UC-101	Export file of transaction	Manager		Export file list transaction

ID	Use case	Primary actors	Secondary actors	Use case description
UC-102	View list import goods order	Manager		View list import goods order and their main information
UC-103	Search import goods order	Manager		Search, filter import goods order
UC-104	Create import goods order	Manager		Manager creates new import goods order
UC-105	View detail of import goods order	Manager		Manager views detail of import goods order
UC-106	Update import goods order (only for temporary order)	Manager		Manager update import goods order
UC-107	Cancel import goods order (only for temporary order)	Manager		Manager cancels temporary import goods order
UC-108	Export import goods order	Manager		Manager exports list import goods order
UC-109	View overview	Manager		Manager views report by charts
UC-110	View wattage of rooms chart	Manager		Manager views wattage of rooms chart
UC-111	View revenue chart	Manager		Manager views revenue chart
UC-112	View top room class chart	Manager		Manager views top room class chart

2.1 Authentication

2.1.1 UC-01: Login

UC ID and Name:	UC-01: Login		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	receptionist
Trigger:	User want to use system		
Description:	User want to take action in system, they must log in first		
Preconditions:	PRE-01: User has an active account in system		
Postconditions:	POST-01: System save token for user to use system.		

Normal Flow:	<p>1.0: Login system</p> <p>1: User access to system, system redirect to log in page</p> <p>2: User fill username and password, click login button.</p> <p>3: System check username with password. If the system has an account having this username and password, the system checks his/her role. If user is receptionist, system redirect to reserve room page, if user is manager, system redirects to dashboard.</p>
Alternative Flows:	N/A
Exceptions:	<p>1.0.E1: System can't authenticate the user</p> <p>1. If there are some errors (username doesn't match any account, incorrect password), the error message (MSG09) is shown, user still in login page.</p> <p>2. User clicks “Quên mật khẩu?” link => change to UC-03: Forgot password</p> <p>1.0.E2: Server has some errors</p> <p>1. System is on the login page and shows an error message (MSG76).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	If user login fails, the user can't access any page in the system.
Assumptions:	N/A

2.1.2 UC-02: Log out

UC ID and Name:	UC-02: Log out		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	receptionist
Trigger:	Users want to stop using the system.		
Description:	Users want to stop using the system, so they log out.		
Preconditions:	PRE-01: User has an active account in system and logged in system		
Postconditions:	POST-01: System set token of user is out of date.		
Normal Flow:	<p>2.0: Logout</p> <p>1: User is using system, click to his/her avatar icon, click “Logout”</p> <p>2: System redirect to log in page</p>		
Alternative Flows:	N/A		

Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	N/A
Other Information:	After logout, the user can't access any page in the system without login.
Assumptions:	N/A

2.1.3 UC-03: Forgot password

UC ID and Name:	UC-03: Forgot password		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	receptionist
Trigger:	User wants to reset the password because forgot the password.		
Description:	Users want to reset their password because they forgot their password. User clicks the forgot password link to go to the forgot password page, input emails and follow the guide in email.		
Preconditions:	PRE-01: User has an active account in the system.		
Postconditions:	POST-01: System redirect to login page.		
Normal Flow:	<p>3.0: Forgot password</p> <p>1: User is logging in, but the login information is wrong (maybe username or password). User clicks link “Quên mật khẩu?”.</p> <p>2: System redirect to forgot password page.</p> <p>3: User inputs his/her email (which is registered before), click send to receive mail reset password.</p> <p>4: System checks email, sends email which includes a link to reset passwords, shows successful message (MSG05).</p> <p>5: User receives email, access link in mail to go to set new password page. User inputs new password and repeat it, submit.</p> <p>6: System checks new password and sets new password. System redirect to login page.</p> <p>7: User logs in with a new password.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>3.0.E1: Email isn't match any account in system</p> <p>1: After inputting email, but email doesn't match any account in the system, the error message (MSG10) is shown.</p>		

	3.0.E2: New password isn't like confirm new password 1. System show error message (MSG11) and still in reset password page.
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-03, BR-24
Other Information:	N/A
Assumptions:	N/A

2.2 Manage room class

2.2.1 UC-04: View list room class

UC ID and Name:	UC-04: View list room class		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view list room class		
Description:	Manager wants to view the list room class. Manager logs in to the system, goes to the list room class page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System redirect to list room class page, show list room class with its main information.		
Normal Flow:	4.0: View list room class 1. Manager login to the system. 2. Manager access to the room class page. 3. System redirect to room class page, show list room class page with its main information of each room class.		
Alternative Flows:	N/A		
Exceptions:	4.0.E1: There is no record of room class 1. If the room class has no record, instead of a list room class, message MSG01 is shown.		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-18, BR-45		
Other Information:	N/A		

Assumptions:	N/A
--------------	-----

2.2.2 UC-05: Search room class

UC ID and Name:	UC-05: Search room class
Created By:	Cu Thi Ha Thu
Primary Actor:	Manager
Trigger:	Manager wants to find the room class.
Description:	Manager wants to find a room class. Manager logs in to the system, goes to the list room class page, search in textbox search or filter by status.
Preconditions:	PRE-01: Manager login to system successfully with role manager.
Postconditions:	POST-01: System show list room class which satisfies search text and filter with its main information.
Normal Flow:	<p>5.0: Search and filter room class</p> <p>1: Manager login to the system.</p> <p>2: Manager access to the room class page.</p> <p>3: System redirect to room class page, show list room class page with its main information of each room class.</p> <p>4: Manager clicks “Bộ lọc” in table room class, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>5: System checks which room classes have search text, and shows a list of satisfied room classes.</p>
Alternative Flows:	<p>5.0.E1: There is no room class.</p> <p>1. If there is no room class that has filter status and search text, instead of a list room class, a message (MSG06) is shown.</p>
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-18, BR-45
Other Information:	N/A
Assumptions:	N/A

2.2.3 UC-06: Creating room class

UC ID and Name:	UC-06: Creating room class
-----------------	-----------------------------------

Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a new room class		
Description:	The manager login to system management, choose manage room class, click create room class. The manager fills in the necessary information, clicking the create button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The room class is saved in database		
Normal Flow:	<p>6.0: Create a new room class</p> <p>1: Manager access to list room categories page</p> <p>2: Manager click to “Thêm hạng phòng” button to open popup create new room class</p> <p>3: Manager fill into room class information</p> <ul style="list-style-type: none"> - Name of room class (required, can't duplicated) - Base price (/hour, /night, /day) - Description - Maximum, standard number of people (adult, children) - Acreage - Image <p>4: Manager click create button to create new room class</p> <p>5: System check room class information. If all are valid, the room class will be saved into the database and a successful message (MSG04) is shown.</p> <p>6: System redirect to list room class page.</p>		
Alternative Flows:	<p>6.1: Create a new room class when create a new room</p> <p>1: Manager clicks the button to create a new room.</p> <p>2. System opens a popup to create a new room.</p> <p>3. Manager clicks the icon to add a new room class in the left of the room class field.</p> <p>4. System opens a popup to create a new room class.</p> <p>5. Manager follows step 1-5 in 6.0.</p> <p>6. System returns to popup to create a new room.</p> <p>6.2: Create a new room class when update a new room</p> <p>1: Manager clicks the button to update a room.</p> <p>2. System opens a popup to update a room.</p>		

	<p>3. Manager clicks the icon to add a new room class in the left of the room class field.</p> <p>4. System opens a popup to create a new room class.</p> <p>5. Manager follows step 1-5 in 6.0.</p> <p>6. System returns to popup to update a room.</p>
Exceptions:	6.0.E1: New room class has invalid information (duplicate room class name or invalid room class name) 1. System shows an error message (MSG03).
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR1, BR2, BR3, BR-04, BR-08, BR-46, BR-47
Other Information:	N/A
Assumptions:	N/A

2.2.4 UC-07: View detail room class

UC ID and Name:	UC-07: View detail room class		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to view details room class information		
Description:	Manager wants to view detailed room class information. Manager logs in to system, goes to list room class page, find category he/she wants to view details, click button “view details” to open popup.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: room class which manager wants to view was created.		
Postconditions:	POST-01: System show all information of room class in popup		
Normal Flow:	<p>7.0: View details room class</p> <p>1: Manager access to room class page</p> <p>2: Manager find (can search) room class wants to view and click the icon “Xem chi tiết” in the left of that room class. Popup details is shown</p> <ul style="list-style-type: none"> - Image - Id of room class - Name of room class - Base price (/hour, /night, /day) - Description - Number of room in this room class 		

	<ul style="list-style-type: none"> - Rooms in this room class - Acreage - Standard, maximum number of people (adult, children) - Status
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR1, BR2, BR3, BR-04, BR-08, BR-45
Other Information:	N/A
Assumptions:	N/A

2.2.5 UC-08: Update status room class

UC ID and Name:	UC-08: Update status room class		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to stop working/ continue working room class		
Description:	Manager wants to update the room class. Manager logins to system, goes to list room class page, find category he/she wants to update, click icon stop working/ continue working room class. System update new information to database, show success message and redirect to list room class page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Room class which manager wants to update was created.		
Postconditions:	POST-01: New information about room class is updated to the database.		
Normal Flow:	<p>8.0: Update status room class</p> <p>1: Manager access to room class page</p> <p>2: Manager find, (can search) room class wants to update</p> <p>3: Manager clicks the icon to stop working/ continue working room class. Popup confirms displays.</p> <p>4: Manager confirm by clicking save button</p> <p>5: System checks if that room class has a working room (room having reservation). If valid, new information will be updated to the database, and a successful message (MSG14) is shown.</p> <p>6: System redirects to list room class page.</p>		

Alternative Flows:	N/A
Exceptions:	8.0.E1: Room class has room which is having reservation 1. System shows an error message (MSG15).
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR1, BR2, BR3, BR-04, BR-08, BR-45
Other Information:	N/A
Assumptions:	N/A

2.2.6 UC-09: Update room class

UC ID and Name:	UC-09: Update room class		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to update room class information		
Description:	Manager wants to update room class information. Manager logs in to the system, goes to the list room class page, finds the class he/she wants to update, clicks the icon update to open popup, fill updated information and update. System update new information to database, show success message and redirect to list room class page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: room class which manager wants to update was created.		
Postconditions:	POST-01: New information about room class is updated to the database.		
Normal Flow:	<p>9.0: Update room class</p> <p>1: Manager access to the room class page.</p> <p>2: Manager find, (can search) room class wants to update and click to that room class. The tap which includes the main information of the room class is displayed.</p> <p>3: Manager clicks the icon update. Popup update displays.</p> <p>4: Manager delete old information, fill in new information and click button update.</p> <p>5: System checks if new information is valid or not. If valid, new information will be updated to the database, and a successful message is shown. Popup update closed.</p>		

	6: System redirects to list room class page.
Alternative Flows:	N/A
Exceptions:	<p>9.0.E1: New information is invalid (duplicated name with other room class or invalid name)</p> <p>1. System shows an error message (MSG08).</p> <p>9.0.E2: Price of room class is invalid (price of hour < night < day)</p> <p>1. System shows a warning message (MSG12).</p> <p>9.0.E3: Name of room class is empty</p> <p>1. System shows a warning message (MSG13).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR1, BR2, BR3, BR-04, BR-08
Other Information:	N/A
Assumptions:	N/A

2.2.7 UC-10: Delete room class

UC ID and Name:	UC-10: Delete room class		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to delete room class		
Description:	Manager wants to delete the room class. Manager logins to the system, go to the list room class page, find the room class he/she wants to delete, click the icon delete to open a popup confirm. Manager confirms delete room class. System update new information to database, show success message and redirect to list room class page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: room class which manager wants to update was created.		
Postconditions:	POST-01: Room class is updated and status is “deleted”. POST-02: Room class isn’t shown in list room class.		
Normal Flow:	<p>10.0: Delete room class</p> <p>1: Manager access to manage room class page.</p> <p>2: Manager find, (can search) room class wants to delete and click the icon delete in the right of each item. Popup confirms displays.</p>		

	<p>3: Manager confirm and click button save.</p> <p>4: System checks if the class has any rooms. If there is no room, the system changes the status of that room class.</p> <p>5: System redirects to list room class page.</p>
Alternative Flows:	<p>10.1: Delete list room class</p> <p>1: Manager access to manage room class page.</p> <p>2: Manager find, (can search) room class wants to update and choose the checkbox in the left of each room class then manager chooses action delete room class in header. Popup confirms displays.</p> <p>3: Manager confirm and click button save.</p> <p>4: System checks if the classes have any rooms. If there is no room, the system changes the status of that room class and show successful message (MSG16)</p> <p>5: System redirects to list room class page.</p>
Exceptions:	<p>10.0.E1: Room class has room.</p> <p>4: System check room class has room. System shows error message (MSG17)</p> <p>10.1.E1: In list room class, one or some room class has room.</p> <p>4. In list room class, if some room class has room and some room class has no room. System deletes room classes which have no room and doesn't delete room classes which have one or more rooms. Message shows all successful (MSG16) or failed messages (MSG17) with each room class.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR1, BR2, BR3, BR-04, BR-08
Other Information:	N/A
Assumptions:	N/A

2.2.8 UC-11: Export list room class

UC ID and Name:	UC-11: Export room class		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to export list room class		
Description:	Manager wants to export the list room class with their information. Manager logs in to the system, goes to the list room class page. Manager clicks icon export in table list room class, file export will be downloaded automatically. System redirecting to list room class page		

Preconditions:	PRE-01: Manager login to system successfully with role manager.
Postconditions:	POST-01: File export contains information about room class
Normal Flow:	<p>11.0: Export list room class</p> <p>1: Manager access to room class page</p> <p>2: Manager clicks icon export in table of list room class, chooses type of file export is csv or print.</p> <p>3: System downloads file automatically</p> <p>4: System redirects to list room class page.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	Medium, Should Have
Frequency of Use:	Low
Business Rules:	N/A
Other Information:	N/A
Assumptions:	N/A

2.3 Manage room

2.3.1 UC-12: View list room

UC ID and Name:	UC-12 View list rooms		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view list rooms		
Description:	Manager wants to view the list rooms. Manager logs in to the system, goes to the list room page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System redirect to list room page, show list rooms with its main information.		
Normal Flow:	<p>12.0: View list rooms page</p> <p>1: Manager login to the system.</p> <p>2: Manager access to room page.</p> <p>3: System redirect to room page, show list room page with its main information of each room class.</p>		

Alternative Flows:	N/A
Exceptions:	12.0.E1: There is no room. 1: Instead of a table list room, the system shows a message (MSG18).
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-06, BR-09, BR-45
Other Information:	N/A
Assumptions:	N/A

2.3.2 UC-13: Search room

UC ID and Name:	UC-13: Search room		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to find the room.		
Description:	Manager wants to find a room. Manager logs in to the system, goes to the list room page, search in textbox search or filter by status, area.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System show list room which satisfy with search text and filter with its main information (id, name, area, status, base price)		
Normal Flow:	<p>13.0: Search, filter room</p> <p>1: Manager login to the system.</p> <p>2: Manager access to room page.</p> <p>3: System redirect to room page, show list room page with its main information of each room.</p> <p>4: Manager clicks “Bộ lọc” in table room, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>5: System checks which rooms have search text, and shows a list of satisfied rooms.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>13.0.E1: There is no room.</p> <p>1. If there is no room that has filter status and search text, instead of a list room, a message (MSG19) is shown.</p>		
Priority:	High, Must Have		

Frequency of Use:	High
Business Rules:	BR-06, BR-09, BR-10, BR-45
Other Information:	N/A
Assumptions:	N/A

2.3.3 UC-14: Create room

UC ID and Name:	UC-14: Create room		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a new room		
Description:	The manager login to system management, choose manage room, click create room. The manager fills in the necessary information, clicking the create button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: The manager logged in to the system with the role manager successfully.		
Postconditions:	POST-01: The room is saved in database		
Normal Flow:	<p>14.0: Create room</p> <p>1: Manager access to list room page</p> <p>2: Manager click to “Thêm phòng” button to open popup create new room</p> <p>3: Manager fill into room information</p> <ul style="list-style-type: none"> - Image - Name of room (required) - Area (can choose or add) - Room class (required) - Time spent start - Note - Status <p>4: Manager click create button to create new room</p> <p>5: System check room information. If all are valid, the room will be saved into the database and a successful message (MSg21) is shown.</p> <p>6: System redirect to list room page.</p>		
Alternative Flows:	N/A		
Exceptions:	14.0.E1: New room has invalid information (duplicate room name or invalid room name)		

	1. System shows an error message (MSG20).
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-06, BR-07, BR-03, BR-09
Other Information:	After creating a new room successfully, that room is active.
Assumptions:	N/A

2.3.4 UC-15: View detail room

UC ID and Name:	UC-15: View detail room		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to view room information		
Description:	Manager wants to view room information. Manager logs in to system, goes to list room page, find room he/she wants to view details, click button “view details” to open popup information		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Room which the manager wants to view was created.		
Postconditions:	POST-01: System shows all information of room in popup		
Normal Flow:	<p>15.0: View details room</p> <p>11.1: Manager access to room page</p> <p>11.2: Manager finds (can search) room and wants to view and click the button “Xem chi tiết” that room. The popup which includes the main information of the room is displayed.</p> <ul style="list-style-type: none"> - Image - Name of room - Area - room class - Time spent start - Note - Status - History of reservation 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		

Business Rules:	BR-05, BR-09, BR-10, BR-45
Other Information:	N/A
Assumptions:	N/A

2.3.5 UC-16: Update status room

UC ID and Name:	UC-16: Update status room		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to stop working/ continue working room		
Description:	Manager wants to update the room. Manager logs in to system, goes to list room page, find room he/she wants to update, click icon stop working/ continue working room. System update new information to database, show success message and redirect to list room page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: room which manager wants to update was created.		
Postconditions:	POST-01: New information about the room is updated to the database.		
Normal Flow:	<p>16.0: Update status room</p> <p>1: Manager access to room class page</p> <p>2: Manager find, (can search) room class wants to update</p> <p>3: Manager clicks the icon to stop working/ continue working room class. Popup confirms displays.</p> <p>4: Manager confirm by clicking save button</p> <p>5: System checks if that room has a working reservation. If valid, new information will be updated to the database, and a successful message (MSG22) is shown.</p> <p>6: System redirects to list room class page.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>16.0.E1: Room has working reservation</p> <p>1. System shows an error message (MSG23) and doesn't update room status.</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR1, BR2, BR3, BR-04, BR-08		
Other Information:	N/A		

Assumptions:	N/A
--------------	-----

2.3.6 UC-17: Update room

UC ID and Name:	UC-17: Update room		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to update room information		
Description:	Manager wants to update room information. Manager logs in to system, goes to list room page, find room he/she wants to update, click button “update” to open popup, fill updated information and update. System update new information to database, show success message and redirect to list room page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Room which the manager wants to update was created.		
Postconditions:	POST-01: New information about the room is updated to the database.		
Normal Flow:	<p>17.0: Update room</p> <p>1: Manager access to room page</p> <p>2: Manager finds (can search) room wants to update and clicks the icon update in the fight of item room. Popup update displays.</p> <p>4: Manager fills in new information and clicks the save button.</p> <p>5: System checks if new information is valid or not. If valid, new information will be updated to the database, and a successful message (MSG24) is shown. Popup update closed.</p> <p>6: System redirects to list room page.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>17.0.E1: New information is invalid (duplicated name with other room or invalid name)</p> <p>1. System shows an error message (MSG25).</p> <p>17.0.E2: Price of room class is invalid (price of hour < night < day)</p> <p>1. System shows a warning message (MSG12).</p> <p>17.0.E3: Name of room class is empty</p> <p>1. System shows a warning message (MSG26).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-06, BR-07, BR-03, BR-09		

Other Information:	N/A
Assumptions:	N/A

2.3.7 UC-18: Delete room

UC ID and Name:	UC-18: Delete room		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to delete room		
Description:	Manager wants to delete the room. Manager logs in to system, goes to list room page, find room he/she wants to update, click button “delete” to open popup confirm. Manager confirms to delete the room and the system will delete that room. Redirecting to list room page, list room doesn't have deleted room.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Room which the manager wants to update was created, and exists in the system.		
Postconditions:	POST-01: Deleted room will have status “deleted”, it is hidden in the list room and the manager can't view, see that room.		
Normal Flow:	<p>18.0: Delete room</p> <p>1: Manager access to manage room page.</p> <p>2: Manager find, (can search) room wants to delete and click the icon delete in the right of each item. Popup confirms displays.</p> <p>3: Manager confirm and click button save.</p> <p>4: System checks if the room has any working reservation. If there is no working reservation, the system changes the status of that room to “deleted” and shows a successful message (MSG27).</p> <p>5: System redirects to list room page.</p>		
Alternative Flows:	<p>18.1: Delete list room</p> <p>1: Manager access to manage the room page.</p> <p>2: Manager find (can search) room wants to update and choose the checkbox in the left of each room then manager chooses action delete room in header. Popup confirms displays.</p> <p>3: Manager confirm and click button save.</p> <p>4: System checks if the rooms have any working reservation. If there is no working reservation, the system changes the status of that room and show successful message (MSG27)</p> <p>5: System redirects to list room page.</p>		

Exceptions:	<p>18.0.E1: Room class has room.</p> <p>4: System check room class has room. System shows error message (MSG28)</p> <p>18.1.E1: In list room class, one or some room class has room.</p> <p>4. In list room class, if some room class has room and some room class has no room. System deletes room classes which have no room and doesn't delete room classes which have one or more rooms. Message shows all successful (MSG27) or failed messages (MSG28) with each room class.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-12, BR-45
Other Information:	N/A
Assumptions:	N/A

2.3.8 UC-19: Create area

UC ID and Name:	UC-19: Create area		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to add an area to manage the room better.		
Description:	Manager wants to add a new area to manage the room. Manager logs in system, goes to manage room page. Manager click + button in field area filter to add new area.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: New area is added to the database.		
Normal Flow:	<p>19.0: Create area</p> <p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage room page, click + button in field area filter to open popup add area.</p> <p>3: Manager fill name of new area, click save.</p> <p>4: System check name of new area is duplicated or not. If valid, a new area is added to the database. A successful message (MSG29) is shown.</p> <p>5: System redirect to manage room page.</p>		
Alternative Flows:	<p>19.1: Create new area when create new room</p> <p>1. Manager goes to manage room page, clicks the create new room button.</p> <p>2. System opens a popup to create a new room.</p>		

	<p>3. Manager clicks the icon add next to the area field.</p> <p>4. System opens a popup to create a new area.</p> <p>5. Manager follows step 3,4 in 19.0.</p> <p>6. System redirects to the popup to create a corresponding room.</p> <p>19.2: Create new area when update room</p> <p>1. Manager goes to manage the room page, clicks the update room icon.</p> <p>2. System opens a popup to update the room.</p> <p>3. Manager clicks the icon add next to the area field.</p> <p>4. System opens a popup to create a new area.</p> <p>5. Manager follows step 3,4 in 19.0.</p> <p>6. System redirects to the popup to update a corresponding room.</p>
Exceptions:	19.0.E1: Name of area is duplicated 1. System shows an error message (MSG30) and doesn't save the area to the database.
Priority:	High, Must Have
Frequency of Use:	Low
Business Rules:	BR-10, BR-45
Other Information:	N/A
Assumptions:	N/A

2.3.9 UC-20: Update area

UC ID and Name:	UC-20: Update area		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the name of an area to manage the room better.		
Description:	Manager wants to update the name of an area to manage the room. Manager logs in system, goes to manage room page. Manager clicks the update button in the right area which the manager wants to update.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Area was created.		
Postconditions:	POST-01: Area is updated to the database.		
Normal Flow:	20.0: Update area		

	<p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage room page, clicks the update button in the right of the area which manager wants to update.</p> <p>3: Manager fill name of area, click save to open popup confirm.</p> <p>4: Manager confirms yes to update area.</p> <p>5: System check name of area is duplicated or not. If valid, the area is updated to the database. A successful message (MSG31) is shown.</p> <p>6: System redirect to manage room page.</p>
Alternative Flows:	N/A
Exceptions:	<p>20.0.E1: Name of area is duplicated</p> <p>1. System shows an error message (MSG32) and doesn't save the area to the database.</p>
Priority:	Medium, Must Have
Frequency of Use:	Low
Business Rules:	BR-10, BR-13
Other Information:	N/A
Assumptions:	N/A

2.2.10 UC-21: Delete area

UC ID and Name:	UC-21: Delete area		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete an area.		
Description:	Manager wants to delete an area to manage the room. Manager logs in system, goes to manage room page. Manager clicks the update button in the right of the area which the manager wants to delete, clicks the delete button to delete the area.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Area was created.		
Postconditions:	POST-01: Area is updated to the database with “deleted” status.		
Normal Flow:	<p>21.0: Delete area</p> <p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage room page, clicks the update button in the right of the area which manager wants to delete.</p>		

	<p>3: Manager clicks delete to open popup confirm.</p> <p>4: Manager confirms yes to delete area.</p> <p>5: System checks if the area has room or not. If the area has no room, the system changes the status of that area to “deleted”, showing a successful message (MSG33).</p> <p>6: System backs manage room page.</p>
Alternative Flows:	N/A
Exceptions:	<p>21.0.E1: Area has one or some rooms</p> <p>5. Area has one or some rooms, and the system shows an error message (MSG34).</p>
Priority:	Medium, Must Have
Frequency of Use:	Low
Business Rules:	BR-13
Other Information:	N/A
Assumptions:	N/A

2.3.11 UC-22: Export list rooms

UC ID and Name:	UC-22: Export room		
Created By:	Cu Thi Ha Thu	Date Created:	03/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export the list room.		
Description:	Manager wants to export the list room with their information. Manager login to the system, goes to the list room page. Manager clicks icon export in table list room, file export will be downloaded automatically. System redirecting to list room page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: File export contains information about room		
Normal Flow:	<p>22.0: Export room</p> <p>1: Manager access to room page.</p> <p>2: Manager clicks icon export in table of list room class, chooses type of file export is csv or print.</p> <p>3: System downloads file automatically.</p> <p>4: System redirects to list room page.</p>		

Alternative Flows:	N/A
Exceptions:	N/A
Priority:	Medium, Should Have
Frequency of Use:	Low
Business Rules:	N/A
Other Information:	N/A
Assumptions:	N/A

2.4 Manage goods, service

2.4.1 UC-23: View list goods, service

UC ID and Name:	UC-23: View list goods, service		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view a list of goods, service.		
Description:	Manager goes to manage the goods page, view list goods and service.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list of goods and services.		
Normal Flow:	<p>23.0: View list goods, service</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage goods page.</p> <p>3: System gets all goods and service data, and shows list goods and services with their main information.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>23.0.E1: There is no record of goods and service</p> <p>1: Instead of a table listing goods and services, the system shows a message (MSG35).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-15		
Other Information:	N/A		
Assumptions:	N/A		

2.4.2 UC-24: Search goods, service

UC ID and Name:	UC-24: Search goods, service		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to find goods, service.		
Description:	Manager goes to manage goods page, view list goods and service. Search and filter goods and service code, name, status,...		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list result of goods and service.		
Normal Flow:	<p>24.0: Search, filter goods, service</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage goods page.</p> <p>3: Manager clicks “Bộ lọc” in table goods and service, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System checks which goods and services have search text, and shows a list of satisfied goods and services.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>24.0.E1: There is no result for filter of goods and service.</p> <p>1. If there is no goods and service that has filter and search text, instead of a list of goods and services, a message (MSG35) is shown.</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-14, BR-15		
Other Information:	N/A		
Assumptions:	N/A		

2.4.3 UC-25: View detail of goods

UC ID and Name:	UC-25: View details goods		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view goods information.		

Description:	Manager wants to view goods information. Manager logs in to system, goes to list goods page, find goods he/she wants to view details, click button "Xem chi tiết" to open popup information.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Goods which the manager wants to view were created.
Postconditions:	POST-01: System shows all information of goods in popup.
Normal Flow:	<p>25.0: View detail of goods</p> <p>22.1: Manager access to goods page.</p> <p>22.2: Manager finds (can search) goods wants to view and clicks the button "Xem chi tiết" that goods. The popup which includes the main information of the goods is displayed.</p> <ul style="list-style-type: none"> - Code - Image - Name of goods - Capital price - Selling price - Quantity in stock - Status - Basic unit - Addition unit (if have) - Minimum quantity in stock - Maximum quantity in stock - Description
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-17, BR-45
Other Information:	N/A
Assumptions:	N/A

2.4.4 UC-26: View detail of service

UC ID and Name:	UC-26: View details service		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view service information.		

Description:	Manager wants to view service information. Manager logs in to system, goes to list goods page, find service he/she wants to view details, click button "Xem chi tiết" to open popup information.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Service which the manager wants to view was created.
Postconditions:	POST-01: System shows all information of service in popup.
Normal Flow:	<p>26.0: View detail of service</p> <p>1: Manager access to goods page.</p> <p>2: Manager finds (can search) a service which wants to view and click the button "Xem chi tiết" that service. The popup which includes the main information of the service is displayed.</p> <ul style="list-style-type: none"> - Image - Code of service - Name of service - Basic unit - Capital price - Selling price - Status - Note - Description
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-18, BR-45
Other Information:	N/A
Assumptions:	N/A

2.4.5 UC-27: Create goods

UC ID and Name:	UC-27: Create goods		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create new goods.		
Description:	The manager login to system management, choose manage goods, click create goods. The manager fills in the necessary information, clicking the create		

	button. After some seconds, the system checks information and shows message success or failure.
Preconditions:	PRE-01: Manager login to system successfully with role manager.
Postconditions:	POST-01: The new goods is saved in database.
Normal Flow:	<p>27.0: Create new goods.</p> <p>1: Manager access to manage goods page.</p> <p>2: Manager clicks the “Thêm mới hàng hóa” button to open popup create new goods.</p> <p>3: Manager fill into goods information</p> <ul style="list-style-type: none"> - Image - Name of goods (required) - Capital price - Selling price - Status - Basic unit (required) - Addition unit (option) include: name of addition unit, conversion rate (/ basic unit), selling price of addition unit. - Minimum quantity of inventory level - Maximum quantity of inventory level - Description - Note <p>4: Manager click create button to create new goods.</p> <p>5: System check goods information. If all are valid, the goods will be saved into the database and a successful message (MSG38) is shown.</p> <p>6: System redirect to manage goods page.</p>
Alternative Flows:	N/A
Exceptions:	<p>27.0.E1: Empty name or basic unit</p> <p>3. System shows a warning message (MSG02).</p> <p>27.0.E2: Duplicated name of goods</p> <p>3. System shows an error message (MSG37).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-14, BR-17, BR-19, BR-08, BR-45
Other Information:	New goods are saved with active status.
Assumptions:	N/A

2.4.6 UC-28: Create service

UC ID and Name:	UC-28: Create service		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a new service		
Description:	The manager login to system management, choose manage goods, click create new service. The manager fills in the necessary information, clicking the create button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The new service is saved in the database.		
Normal Flow:	<p>28.0: Create new service</p> <p>1: Manager access to manage goods page.</p> <p>2: Manager click to “Thêm mới dịch vụ” button to open popup create new service</p> <p>3: Manager fill into service information</p> <ul style="list-style-type: none"> - Name of service(required) (can't be duplicated) - Image - Selling price - Basic unit - Description - Note <p>4: Manager click create button to create new service</p> <p>5: System check service information. If all are valid, the service will be saved into the database and a successful message is shown. (service is saved like a goods but category is service)</p> <p>6: System redirect to manage goods page.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>28.0.E1: Empty name or basic unit</p> <p>3. System shows a warning message (MSG02).</p> <p>28.0.E2: Duplicated name of service</p> <p>3. System shows an error message (MSG38).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-14, BR-08, BR-45		

Other Information:	New service is saved with active status.
Assumptions:	N/A

2.4.7 UC-29: Update goods

UC ID and Name:	UC-29: Update goods		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the goods.		
Description:	The manager login to system management, choose manage goods, click goods manager wants to update. The manager fills in the necessary information, clicking the update button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The goods are saved in the database.		
Normal Flow:	<p>29.0: Update goods</p> <p>1: Manager access to manage goods page.</p> <p>2: Manager click to goods manager wants to update, click button update to open popup update goods</p> <p>3: Manager fill into goods information</p> <ul style="list-style-type: none"> - Code (only view) - Name of goods (required) (can't be duplicated) - Capital price - Selling price - Quantity in stock - Status - Basic unit - Addition unit (option) include: name of addition unit, conversion rate (/ basic unit, selling price, code, status). - Minimum quantity in stock - Maximum quantity in stock - Description - Note 		

	<p>4: Manager click save button to update goods</p> <p>5: System check goods information. If all are valid, the goods will be saved into the database and a successful message (MSG41) is shown.</p> <p>6: System redirect to manage goods page.</p>
Alternative Flows:	N/A
Exceptions:	<p>29.0.E1: Empty name or basic unit</p> <p>3. System shows a warning message (MSG02).</p> <p>29.0.E2: Duplicated name of goods</p> <p>3. System shows an error message (MSG43).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-08, BR-14, BR-17, BR-45
Other Information:	N/A

2.4.8 UC-30: Update service

UC ID and Name:	UC-30: Update service		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the service.		
Description:	The manager login to system management, choose manage goods, click update service. The manager fills in the necessary information, clicking the update button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The service was created.		
Postconditions:	POST-01: The service is saved in the database.		
Normal Flow:	<p>30.0: Update service</p> <p>1: Manager access to manage goods page</p> <p>2: Manager click to service manager wants to update, click button update to open popup update service.</p> <p>3: Manager fill into goods information</p> <ul style="list-style-type: none"> - Name of service(required) (can't be duplicated) - Selling price - Status 		

	<ul style="list-style-type: none"> - Basic unit - Image - Description - Note <p>4: Manager clicks save button to update service.</p> <p>5: System check service information. If all are valid, the service will be saved into the database and a successful message (MSG42) is shown. (service is saved like a goods but category is service)</p> <p>6: System redirect to manage goods page.</p>
Alternative Flows:	N/A
Exceptions:	<p>30.0.E1: Empty name or basic unit</p> <p>3. System shows a warning message (MSG02).</p> <p>30.0.E2: Duplicated name of service</p> <p>3. System shows an error message (MSG44).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-08, BR-14, BR-45
Other Information:	N/A
Assumptions:	N/A

2.4.9 UC-31: Export file goods, service

UC ID and Name:	UC-31: Export file goods, service		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export file goods, service		
Description:	The manager logs in to system management, chooses to manage goods, and clicks the export button. After some seconds, the browser auto downloads file of all goods and services.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The file of list goods and service is auto download.		
Normal Flow:	<p>31.0: Export file goods, service</p> <p>1: Manager access to manage goods page.</p> <p>2: Manager clicks icon export, chooses type of file export is csv or print.</p> <p>3: System auto download file of all goods and services.</p>		

Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-20, BR-45
Other Information:	N/A
Assumptions:	N/A

2.4.10: UC-32: Delete goods, service

UC ID and Name:	UC-32: Delete goods, services		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete multiple goods, services at once.		
Description:	The manager logs in to system management, chooses to manage goods, chooses goods, and services to delete. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The goods, services were created.		
Postconditions:	POST-01: The goods, services are saved in the database.		
Normal Flow:	<p>32.0: Delete one goods or one service</p> <p>1: Manager access to manage goods page.</p> <p>2: Manager finds (can search) goods or service wants to delete and clicks the icon delete on the right of each item. Popup confirms displays.</p> <p>3: Manager confirm and click button save.</p> <p>4: System shows a successful message (MSG45 with goods and MSG46 with service).</p> <p>5: System redirects to list goods page.</p>		
Alternative Flows:	<p>32.1: Delete list goods and service</p> <p>1: Manager access to manage goods page.</p> <p>2: Manager finds (can search) goods and services wants to delete and chooses the checkbox in the left of each goods, service then manager chooses action delete in header. Popup confirms displays.</p> <p>3: Manager confirm and click button save.</p>		

	4: System shows a successful message (MSG45 with goods and MSG46 with service). 5: System redirects to list room page.
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	Low
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.5 Manage inventory

2.5.1: UC-33: View list inventory checklist

UC ID and Name:	UC-33: View list inventory checklist		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view list inventory checklist.		
Description:	Manager wants to view the list inventory checklist. Manager logs in to the system, goes to the list inventory checklist page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System redirect to list inventory checklist page, show list inventory checklist with its main information.		
Normal Flow:	<p>33.0: View list inventory checklist</p> <p>1: Manager login to the system.</p> <p>2: Manager access to inventory checklist page.</p> <p>3: System redirect to inventory checklist page, show list inventory checklist page with its main information of each inventory checklist.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>33.0.E1: There is no record of inventory checklist.</p> <p>1: Instead of a table listing inventory checklist, the system shows a message (MSG49).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-15, BR-18		

Other Information:	N/A		
Assumptions:	N/A		

2.5.2: UC-34: Search inventory checklist

UC ID and Name:	UC-34: Search inventory checklist		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to find an inventory checklist.		
Description:	Manager goes to manage inventory page, view list inventory checklist. Search and filter inventory checklist.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list result of inventory checklist.		
Normal Flow:	<p>34.0: Search, filter inventory checklist</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage inventory checklist page.</p> <p>3: Manager clicks “Bộ lọc” in inventory checklist, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System filter list inventory checklist follows filter field, shows a list of satisfied inventory checklist.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>34.0.E1: There is no result for filter of inventory checklist</p> <p>1. If there is no inventory checklist that has filter and search text, instead of a list of inventory checklists, a message (MSG50) is shown.</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-15, BR-18, BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.5.3 UC-35: Export file inventory checklist

UC ID and Name:	UC-35: Export file inventory checklist		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023

Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export file inventory checklist.		
Description:	The manager login to system management, choose manage inventory checklist, click export button. After some seconds, the browser auto download file of all the inventory checklists.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The file of list inventory checklist is auto download		
Normal Flow:	<p>35.0: Export file inventory checklist</p> <p>1: Manager access to manage inventory checklist page</p> <p>2: Manager click icon export, choose type of file export is csv or print.</p> <p>3: System auto download file of all inventory checklists.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Low, Must Have		
Frequency of Use:	Low		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.5.4: UC-36: Create inventory checklist

UC ID and Name:	UC-36: Create balanced inventory checklist		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to check the quantity of goods in the system and in fact.		
Description:	The manager login to system management, choose to manage goods, click create inventory checklist. The manager finds goods to check, check quantity and fill actual quantity to checklist , clicking the create button. After some seconds, the system calculates information, updates the quantity of goods and shows a message of success or failure.		
Preconditions:	<p>PRE-01: Manager login to system successfully with role manager.</p> <p>PRE-02: One or some goods has been created.</p>		
Postconditions:	<p>POST-01: The new inventory checklist is saved in database</p> <p>POST-02: Quantity of goods is updated (with balance inventory checklist).</p>		

Normal Flow:	<p>36.0: Create balanced inventory checklist</p> <p>1: Manager access to manage inventory checklist page.</p> <p>2: Manager clicks the “Thêm mới kiểm kho” button to open create inventory checklist popup.</p> <p>3: Manager finds goods by searching in textbox search. Manager inputs some texts in the search textbox, the appropriate goods are shown, manager chooses goods by clicking. The goods are added to the inventory checklist. The default actual quantity is 0.</p> <p>4: Manager inputs the quantity in fact of goods.</p> <p>5: System auto calculate and generate the quantity discrepancy.</p> <p>6: Managers can remove chosen goods in the inventory checklist by clicking the delete icon in the right of goods item and add a note in the tab “Ghi chú”.</p> <p>7: Manager saves the inventory checklist as a temporary checklist by clicking the “Lưu” button.</p> <p>8: System saves to the database the new inventory checklist, updates quantity in stock of all goods in inventory checklist.</p> <p>9: System redirects to manage inventory checklist page and shows successful message (MSG55).</p>
Alternative Flows:	<p>36.1: Create balanced inventory checklist by updating temporary inventory checklist</p> <p>1. Manager follows step 1-3 of UC-38.0.</p> <p>2. Manager clicks the “Lưu” button.</p> <p>3. System saves to the database the new inventory checklist, updates the quantity in stock of all goods in the inventory checklist.</p> <p>4: System redirects to manage inventory checklist page and shows successful message (MSG58).</p> <p>36.2: Create temporary inventory checklist</p> <p>1: Manager follows step 1-6 of UC-36.0.</p> <p>2: Manager saves the inventory checklist as a temporary checklist by clicking the “Lưu tạm” button.</p> <p>3: System save to the database the new inventory checklist.</p> <p>4: System redirects to manage inventory checklist page and shows successful message (MSG53).</p>
Exceptions:	<p>36.0.E1: No goods are found with search text.</p> <p>3. System shows a message (MSG51) below the search textbox.</p> <p>36.0.E2: Manager clicks save button when inventory checklist has no goods.</p>

	<p>1. System show error message (MSG54) and close create inventory checklist popup.</p> <p>36.0.E3: Manager clicks cancel button instead of save button.</p> <p>7. System close creates a popup with no changes.</p> <p>36.1.E4: No goods are found with search text.</p> <p>1. System shows a message (MSG51) below the search textbox.</p> <p>36.1.E5: Manager clicks save button when inventory checklist has no goods.</p> <p>1. System show error message (MSG59) and close create inventory checklist popup.</p>
Priority:	Low, Should Have
Frequency of Use:	Medium
Business Rules:	BR-18, BR-21, BR-45
Other Information:	N/A
Assumptions:	N/A

2.5.5: UC-37: View details of an inventory checklist

UC ID and Name:	UC-37:View details of an inventory checklist		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view inventory checklist information.		
Description:	Manager wants to view inventory checklist information. Manager logs in to system, goes to list inventory checklist page, find inventory checklist he/she wants to view details, click icon view details to open popup information		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: inventory checklist which the manager wants to view was created.		
Postconditions:	POST-01: System shows all information of inventory checklist in popup.		
Normal Flow:	<p>37.0: View details of an inventory checklist</p> <p>1: Manager access to inventory checklist page</p> <p>2: Manager find, (can search) inventory checklist wants to view and click to icon view details in the right of that inventory checklist . The popup which includes the main information of the inventory checklist is displayed:</p> <ul style="list-style-type: none"> - Code of inventory checklist - Status - Created time - Balanced date 		

	<ul style="list-style-type: none"> - Note - List goods in inventory checklist (code, name, quantity in stock, quantity in actual, quantity of discrepancy, value of discrepancy) - Total quantity in actual of goods - Total quantity of increase discrepancy - Total quantity of decrease discrepancy - Total quantity of discrepancy
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	Medium
Business Rules:	BR-15, BR-45
Other Information:	N/A
Assumptions:	N/A

2.5.6: UC-38: Update inventory checklist (only for temporary checklist)

UC ID and Name:	UC-38: Update inventory checklist		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the inventory checklist.		
Description:	The manager login to system management, choose manage inventory checklist, click inventory checklist manager wants to update. The manager fills in the necessary information, clicking the update button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The inventory checklist is created.		
Postconditions:	POST-01: The inventory checklist is updated in the database.		
Normal Flow:	<p>38.0: Update inventory checklist (only for temporary checklist)</p> <p>1: Manager access to manage inventory checklist page</p> <p>2: Manager finds inventory checklist manager wants to update, click icon update in the right of that inventory checklist to open popup update.</p> <p>3: Manager fill into inventory checklist information</p> <ul style="list-style-type: none"> - Edit list goods - Note <p>4: Manager clicks the button “Lưu tạm” to save as a temporary checklist.</p>		

	<p>5: The inventory checklist will be saved into the database and a successful message (MSG56) is shown.</p> <p>6: System redirect to manage inventory checklist page.</p>
Alternative Flows:	N/A
Exceptions:	<p>38.0.E1: No goods are found with search text.</p> <p>3. System shows a message (MSG51) below the search textbox.</p> <p>38.0.E2: Manager clicks save button when inventory checklist has no goods.</p> <p>1. System show error message (MSG57) and close create inventory checklist popup.</p> <p>38.0.E3: Manager clicks cancel button instead of save button.</p> <p>7. System close update popup with no changes.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-18, BR-21, BR-45
Other Information:	N/A
Assumptions:	N/A

2.5.7: UC-39: Cancel an inventory checklist (only for temporary checklist)

UC ID and Name:	UC-39: Cancel an inventory checklist (only for temporary checklist)		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to cancel an inventory checklist.		
Description:	Manager goes to manage the inventory checklist page, chooses the checklist which he/she wants to cancel, chooses the icon cancel, and the system updates to the database shows the message successfully.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Inventory checklist which manager wants to cancel must exist in database system.		
Postconditions:	POST-01: Inventory checklist which is cancelled is updated to database with status cancelled.		
Normal Flow:	<p>39.0: Cancel an inventory checklist (only for temporary checklist)</p> <p>1: Manager logs in to the system, goes to manage inventory checklist page.</p>		

	<p>2: Manager chooses the inventory checklist wants to cancel by clicking the cancel icon on the right of each inventory checklist. After clicking, a confirm popup will display</p> <p>3: Manager chooses delete action by clicking the “Lưu” button.</p> <p>4: The system changes the status of that inventory checklist to cancelled.</p> <p>5: System closes confirm popup. Successful message (MSG60) is shown.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	N/A
Other Information:	Cancelled inventory checklist is view only, can't be updated.
Assumptions:	N/A

2.6 Manage customer

2.6.1 UC-40: View list customer

UC ID and Name:	UC-40: View list customer		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the list of customers.		
Description:	Manager goes to manage the customer page, view the list of customers.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list of customers.		
Normal Flow:	<p>40.0: View list customer</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage customer pages.</p> <p>3: System gets all customer data, and shows a list of customers with their main information.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>40.0.E1: There is no record of the customer.</p> <p>1: Instead of a table listing customers, the system shows a message (MSG62).</p>		
Priority:	High, Must Have		

Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.2 UC-41: Search customer

UC ID and Name:	UC-41: Search customer		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to find the customer.		
Description:	Manager wants to find a customer. Manager logs in to the system, goes to the list customer page, searches in textbox search.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System show list customer which satisfies with search text and filter with its main information.		
Normal Flow:	<p>41.0: Search, filter customer</p> <p>1: Manager login to the system.</p> <p>2: Manager access to customer page.</p> <p>3: Manager clicks “Bộ lọc” in table list customers, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System filter list customers follows filter field, shows a list of satisfied customers.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>41.0.E1: There is no result for the filter of the customer.</p> <p>1. If there is no customer that has filter and search text, instead of a list of customers, a message (MSG63) is shown.</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.6.3 UC-42: Create customer

UC ID and Name:	UC-42: Create customer		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	Receptionist
Trigger:	Manager wants to create a new customer.		
Description:	The manager login to system management, choose manage customer, click create customer. The manager fills in the necessary information, clicking the create button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The customer is saved in database		
Normal Flow:	<p>42.0: Create customer in manager page</p> <p>1: Manager access to list customer page</p> <p>2: Manager click to “Thêm mới khách hàng” button to open popup create new customer</p> <p>3: Manager fill into customer information</p> <ul style="list-style-type: none"> - Name of customer - Image (not required) - Customer group - Citizen identification code (can't be duplicated) - Address - Phone number - DOB (must be < that day) - Area - Gender - Email - Tax code <p>4: Manager click create button to create new customer</p> <p>5: System checks customer information. If all are valid, the customer will be saved into the database and a successful message (MSG65) is shown.</p> <p>6: System closes create customer popup.</p>		
Alternative Flows:	<p>42.1: Create customer in receptionist page</p> <p>1: Receptionist access to update/ create reservation page</p> <p>2: Receptionist click to “Thêm mới khách hàng” button to open popup create new customer</p> <p>3: Receptionist fill into customer information</p> <ul style="list-style-type: none"> - Name of customer - Image (not required) 		

	<ul style="list-style-type: none"> - Customer group - Citizen identification code (can't be duplicated) - Address - Phone number - DOB (must be < that day) - Area - Gender - Email - Tax code <p>4: Receptionist click create button to create new customer</p> <p>5: System checks customer information. If all are valid, the customer will be saved into the database and a successful message (MSG65) is shown.</p> <p>6: System closes create customer popup.</p>
Exceptions:	<p>42.0.E1, 42.1.E1: Duplicate citizen identification code</p> <p>1. System closes the popup and shows an error message (MSG64).</p> <p>42.0.E2: Manager create customer with empty name</p> <p>1. System show warning message (MSG02).</p> <p>42.1.E3: Receptionist create customer with empty name</p> <p>1. System show warning message (MSG02).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-25, BR-26, BR-03, BR-27, BR-22, BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.4 UC-43: View detail customer

UC ID and Name:	UC-43: View detail customer		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view customer information.		
Description:	Manager wants to view customer information. Manager login to the system, go to the customer page, find the customer he/she wants to view details, click icon view details to open popup information.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Customer which the manager wants to view was created.		

Postconditions:	POST-01: System shows all information of customer in popup.
Normal Flow:	<p>43.0: View details customer</p> <p>1: Manager access to customer page</p> <p>2: Manager find, (can search) customer wants to view and click to icon view details that customer. The popup which includes the main information of the customer is displayed.</p> <ul style="list-style-type: none"> - Name of customer - Image (not required) - Customer group - Citizen identification code (can't be duplicated) - Address - Phone number - DOB (must be < that day) - Area - Gender - Email - Tax code
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.5 UC-44: Update customer information

UC ID and Name:	UC-44: Update customer information.		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	Receptionist
Trigger:	Manager wants to update customer information.		
Description:	Manager wants to update customer information. Manager logs in to the system, goes to the customer page, finds the customer he/she wants to update, clicks the icon update to open a popup, fill updated information and update. System update new information to database, show success message and redirect to list customer page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Customer which manager wants to update was created.		

Postconditions:	POST-01: New information of customers is updated to the database.
Normal Flow:	<p>44.0: Update customer information in manager page</p> <p>1: Manager access to customer page</p> <p>2: Manager finds (can search) customer wants to update and clicks the icon update. Popup update displays.</p> <p>3: Manager fills in new information and clicks the button “Luu”.</p> <p>4: System checks if new information is valid or not. If valid, new information will be updated to the database, and a successful message (MSG66) is shown.</p> <p>5: Popup update closed.</p> <p>6: System is on the customer page.</p>
Alternative Flows:	<p>44.1: Update customer information in receptionist page (customer book room)</p> <p>1: Receptionist access to update/ create reservation page.</p> <p>2: System goes to update the reservation page.</p> <p>3: Receptionist clicks to customer of that reservation to open popup update customer.</p> <p>4: Follow steps 3-5 of 45.0.</p> <p>5: System update reservation page.</p> <p>44.2: Update customer information in receptionist page (customer is visiter)</p> <p>1: Receptionist access to update/ create reservation page.</p> <p>2: System goes to update the reservation page.</p> <p>3: Receptionist clicks on the customer icon of the room of that reservation to open a popup list of visited customers in that room.</p> <p>3: System open a popup list of visited customers in that room.</p> <p>4: Receptionist clicks on update icon of visited receptionist wants to update.</p> <p>5: System opens update popup.</p> <p>6: Follow step 3-5 of 45.0.</p> <p>7: System is in popup list of visited customers in that room.</p>
Exceptions:	<p>44.0.E1: Duplicate citizen identification code</p> <p>1. System closes the popup and shows an error message (MSG67).</p> <p>44.0.E2: Manager update customer with empty name</p> <p>1. System show warning message (MSG02).</p>
Priority:	High, Must Have

Frequency of Use:	High
Business Rules:	BR-25, BR-26, BR-03, BR-27, BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.6 UC-45: Delete customer

UC ID and Name:	UC-45: Delete customer		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete the customer.		
Description:	Manager wants to delete the customer. Manager login to the system, goes to the customer page, finds the customer he/she wants to update, click icon delete to open popup confirm. Manager confirms to delete the customer and the system will delete that customer. Redirecting to list customer page, list customer doesn't have deleted customer.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Customer which the manager wants to update was created, existed in the system.		
Postconditions:	POST-01: Deleted customer will have status “deleted”, it is hidden in the list customer and the manager can't view, see that customer.		
Normal Flow:	<p>45.0: Delete a customer</p> <p>1: Manager access to customer page</p> <p>2: Manager find, (can search) customer wants to delete and clicks the icon delete on the right of each customer. Popup confirms delete displays.</p> <p>3: Manager chooses save by clicking the “Lưu” button in the popup confirm.</p> <p>4: System checks that the customer has any working reservation. If no reservation is working, the system changes the status of that customer to “Deleted”, hiding that customer in the list.</p> <p>5: System closes popup, shows successful message (MSG68).</p>		
Alternative Flows:	<p>45.1: Delete list customers</p> <p>1: Manager access to manage customers page.</p> <p>2: Manager finds (can search) customer wants to delete and chooses the checkbox in the left of each customer then manager chooses action delete in header. Popup confirms displays.</p> <p>3: Manager confirm and click button save.</p>		

	4: System shows a successful message (MSG68). 5: System is on the customer page.
Exceptions:	45.0.E1, 45.1.E1: Customer who manager wants to delete is having working reservation 1. System shows an error message (MSG69) and closes popup.
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.7 UC-46: Create customer group

UC ID and Name:	UC-46: Create customer group		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to add a customer group to manage the customer better.		
Description:	Manager wants to add a new customer group to manage the customer. Manager logs in the system, goes to manage the customer page. Manager click + button in field customer group filter to add new customer group.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: New customer group is added to the database.		
Normal Flow:	<p>46.0: Create customer group</p> <p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage customer page, click + button in field customer group filter to open popup and add customer group.</p> <p>3: Manager fill name of new customer group, click save.</p> <p>4: System check name of new customer group is duplicated or not. If valid, a new customer group is added to the database. A successful message (MSG71) is shown.</p> <p>5: System is on manage the customer page.</p>		
Alternative Flows:	<p>46.1: Create new customer group when create new customer</p> <p>1. Manager goes to manage the customer page, clicks the create new customer button.</p> <p>2. System opens a popup to create a new customer.</p>		

	<p>3. Manager clicks the icon next to the customer group field.</p> <p>4. System opens a popup to create a new customer group.</p> <p>5. Manager follows step 3,4 in 46.0.</p> <p>6. System backs to the popup to create a corresponding customer.</p> <p>46.2: Create new customer group when update customer</p> <p>1. Manager goes to manage the customer page, clicks the update customer icon.</p> <p>2. System opens a popup to update customers.</p> <p>3. Manager clicks the icon next to the customer group field.</p> <p>4. System opens a popup to create a new customer group.</p> <p>5. Manager follows step 3,4 in 46.0.</p> <p>6. System backs to the popup to update a corresponding customer.</p>
Exceptions:	46.0.E1: Name of customer group is duplicated 1. System shows an error message (MSG70) and doesn't save the customer group to the database.
Priority:	High, Must Have
Frequency of Use:	Low
Business Rules:	BR-10, BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.8 UC-47: Update customer group

UC ID and Name:	UC-47: Update customer group		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the name of a customer group to manage the customer better.		
Description:	Manager wants to update the name of a customer group to manage the customer. Manager login system, goes to manage the customer page. Manager clicks the update button in the right customer group which the manager wants to update.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Customer group was created.		
Postconditions:	POST-01: Customer group is updated to the database.		

Normal Flow:	<p>47.0: Update customer group</p> <p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage the customer page, clicks the update button on the right of the customer group which the manager wants to update.</p> <p>3: Manager fill name of customer group, click save to open popup confirm.</p> <p>4: Manager confirms yes to update customer group.</p> <p>5: System check name of customer group is duplicated or not. If valid, the customer group is updated to the database. A successful message (MSG72) is shown.</p> <p>6: System backs to manage the customer page.</p>
Alternative Flows:	N/A
Exceptions:	<p>47.0.E1: Name of customer group is duplicated</p> <p>1. System shows an error message (MSG73) and doesn't save the customer group to the database.</p>
Priority:	Medium, Must Have
Frequency of Use:	Low
Business Rules:	BR-10, BR-13, BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.9 UC-48: Delete customer group

UC ID and Name:	UC-48: Delete customer group		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete a customer group.		
Description:	Manager wants to delete a customer group to manage the customer. Manager login system, goes to manage the customer page. Manager clicks the delete button to delete the customer group.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Customer group was created.		
Postconditions:	POST-01: Customer group is updated to the database with “deleted” status.		
Normal Flow:	<p>48.0: Delete customer group</p> <p>1: Manager logs in to the system.</p>		

	<p>2: Manager goes to manage the customer page, clicks the delete button on the right of the customer group which the manager wants to delete.</p> <p>3: System opens popup confirm.</p> <p>4: Manager confirms yes to delete customer group.</p> <p>5: System checks if the customer group has a customer or not. If the customer group has no customer, the system changes the status of that customer group to “deleted”, showing a successful message (MSG74).</p> <p>6: System backs manage the customer page.</p>
Alternative Flows:	N/A
Exceptions:	<p>48.0.E1: Customer group has one or some customers</p> <p>5. Customer group has one or some customers, and the system shows an error message (MSG74).</p>
Priority:	Medium, Must Have
Frequency of Use:	Low
Business Rules:	BR-13, BR-45
Other Information:	N/A
Assumptions:	N/A

2.6.10 UC-49: Export file customers

UC ID and Name:	UC-49: Export file customer		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export file customers.		
Description:	The manager login to system management, chooses to manage customers, and clicks the export button. After some seconds, the browser auto downloads the file of all the customers.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The file of list customers is auto download		
Normal Flow:	<p>49.0: Export file customers</p> <p>1: Manager access to manage customer page</p> <p>2: Manager click icon export, choose type of file export is csv or print.</p> <p>3: System auto download file of all customers.</p>		
Alternative Flows:	N/A		

Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	Low
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.7 Manage policy

2.7.1 UC-50: View list price list

UC ID and Name:	UC-50: View list price list		
Created By:	Cu Thi Ha Thu	Date Created:	02/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view a price list.		
Description:	Manager logs in system, goes to manage price list page. System shows list price lists with their main information.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System saves new price list into database.		
Normal Flow:	<p>50.0: View list price list</p> <p>1: Manager logged in the system, goes to manage the price list page.</p> <p>2: System show list price list with their main information</p> <p>3: Manager clicks “Bộ lọc” in table list price list, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System filter list price lists follow the filter field, showing a list of satisfied price lists.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>50.0.E1: There is no price list in list</p> <p>1: Instead of a table listing price list, the system shows a message (MSG78).</p> <p>50.0.E2: There is no price list in the search result.</p> <p>1. Instead of a table listing price list, the system shows a message (MSG79).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		

Other Information:	N/A
Assumptions:	N/A

2.7.2 UC-51: Create a new price list

UC ID and Name:	UC-51: Create new price list		
Created By:	Cu Thi Ha Thu	Date Created:	03/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager want to create a price list		
Description:	Manager logs in system, goes to manage price list page, clicks button create price list, fills necessary fields and submit. System checks information, saves a new price list into the database and shows a successful message.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System saves new price list into database.		
Normal Flow:	<p>51.0: Create new price list</p> <ol style="list-style-type: none"> 1: Manager logged in the system, goes to manage the price list page. 2: System shows list price list with their main information. 3: Manager clicks button create to open popup create new price list 4: System open popup create price list 5: Manager fills all necessary fields (name, price for room class), clicks save button. 6: System checks all required fields, all information and saves the new price list into the database. System redirects to manage the price list page and shows a successful message (MSG81). 		
Alternative Flows:	N/A		
Exceptions:	<p>51.0.E1: Duplicate price list name</p> <ol style="list-style-type: none"> 1. System closes the popup and shows an error message (MSG80). <p>51.0.E2: Manager create price list with empty name</p> <ol style="list-style-type: none"> 1. System show warning message (MSG02). 		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-29, BR-30, BR-35, BR-36, BR-37, BR-38, BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.7.3 UC-52: View detail of price list

UC ID and Name:	UC-52: View details price list		
Created By:	Cu Thi Ha Thu	Date Created:	03/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view price list information.		
Description:	Manager wants to view price list information. Manager login to the system, go to the price list page, find the price list he/she wants to view details, click icon view details to open popup information.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Price list which the manager wants to view was created.		
Postconditions:	POST-01: System shows all information of price list in popup.		
Normal Flow:	<p>52.0: View details price list</p> <p>1: Manager access to price list page</p> <p>2: Manager find, (can search) price list wants to view and click to icon view details that price list. The popup which includes the main information of the price list is displayed.</p> <ul style="list-style-type: none"> - Code - Name - Created date - Price of each room class 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.7.4 UC-53: Update price list

UC ID and Name:	UC-53: Update price list		
Created By:	Cu Thi Ha Thu	Date Created:	03/11/2023
Primary Actor:	Manager	Secondary Actors:	

Trigger:	Manager want to update a price list
Description:	Manager logs in system, goes to manage price list page, finds price list, clicks button update price list, updates necessary fields and submit. System checks information, saves the price list into the database and shows a successful message.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The price list which the manager wants to update has been created.
Postconditions:	POST-01: System saves price list into database.
Normal Flow:	<p>53.0: Update price list</p> <p>1: Manager logged in the system, goes to manage the price list page.</p> <p>2: System shows list price list with their main information.</p> <p>3: Manager finds price list which manager wants to update, clicks update button in the right of that price list.</p> <p>4: System open popup update price list.</p> <p>5: Manager updates information and clicks save button.</p> <p>6: System checks new information. If valid, price list information will be updated into the database. System closes the popup and shows a successful message (MSG82).</p>
Alternative Flows:	N/A
Exceptions:	<p>53.0.E1: Duplicate price list name</p> <p>1. System closes the popup and shows an error message (MSG83).</p> <p>53.0.E2: Manager update price list with empty name</p> <p>1. System show warning message (MSG02).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-29, BR-30, BR-35, BR-36, BR-37, BR-38, BR-45
Other Information:	N/A
Assumptions:	N/A

2.7.5 UC-54: Delete price list

UC ID and Name:	UC-54: Delete price list		
Created By:	Cu Thi Ha Thu	Date Created:	03/11/2023
Primary Actor:	Manager	Secondary Actors:	

Trigger:	Manager wants to delete a price list.
Description:	Manager logs in system, goes to manage price list page, finds price list, clicks icon delete price list and confirms. System deletes the price list and shows a successful message.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The price list which the manager wants to delete has been created.
Postconditions:	POST-01: System updates status of price list is deleted into the database.
Normal Flow:	<p>54.0: Delete price list</p> <p>1: Manager logged in the system, goes to manage the price list page.</p> <p>2: System shows list price list with their main information.</p> <p>3: Manager finds price list which manager wants to delete, clicks delete icon on the right of item price list.</p> <p>4: System open popup confirm.</p> <p>5. Manager confirms by clicking the save button.</p> <p>6. System changes the status of that price list to delete and doesn't show it in the list price list, shows a successful message (MSG84).</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-50
Other Information:	N/A
Assumptions:	N/A

2.7.6 UC-55: View list other surcharge

UC ID and Name:	UC-55: View list other surcharge		
Created By:	Cu Thi Ha Thu	Date Created:	30/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the list other surcharges.		
Description:	Manager accesses to manage surcharge page, view list surcharge.		
Preconditions:	PRE-01: Manager logged in system with role manager successfully.		
Postconditions:	POST-01: System shows list surcharge with their main information.		

Normal Flow:	55.0: View list <i>other</i> surcharge 1: Manager logs in system, access manage surcharge page. 2: System shows a list surcharge with their main information. 3: Manager clicks “Bộ lọc” in table list surcharge, chooses column manager wants to filter, chooses operator and value to search, filter. 4: System filter list surcharge follows filter field, shows a list of satisfied surcharge.
Alternative Flows:	N/A
Exceptions:	55.0.E1: There is no <i>other</i> in list 1: Instead of a table listing surcharge, the system shows a message (MSG86). 55.0.E2: There is no <i>other</i> in the search result. 1. Instead of a table listing surcharge, the system shows a message (MSG87).
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.7.7 UC-56: Create a new *other* surcharge

UC ID and Name:	UC-56: Create a new <i>other</i> surcharge		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a surcharge.		
Description:	Manager logs in system, accesses to manage surcharge page. Manager clicks button create surcharge to open popup create surcharge, fills necessary fields and submit. System checks information and saves surcharges.		
Preconditions:	PRE-01: Manager logs in to the system with manager role successfully.		
Postconditions:	POST-01: System saves new surcharge to database.		
Normal Flow:	56.0: Create a new surcharge 1: Manager accesses to manage policy page, clicks on tab manage different surcharge, clicks on button create surcharge 2: System opens popup to create surcharge. 3: Manager fills information:		

	<ul style="list-style-type: none"> - Name of surcharge (required) (can't be duplicated) - Type of value (VND / percentage) - Value of surcharge (required) - Checkbox add to invoice automatically <p>4: Manager clicks button save to create new surcharge.</p> <p>5: System checks information and saves new surcharge to database, shows successful message (MSG89).</p>
Alternative Flows:	N/A
Exceptions:	<p>56.0.E1: Duplicate surcharge name</p> <p>1. System closes the popup and shows an error message (MSG88).</p> <p>56.0.E2: Manager create surcharge with empty name</p> <p>1. System show warning message (MSG02).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-39, BR-40, BR-41, BR-42, BR-08, BR-45
Other Information:	Status of the new surcharge is active.
Assumptions:	N/A

2.7.8 UC-57: Update the other surcharge

UC ID and Name:	UC-57: Update the other surcharge		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the surcharge.		
Description:	Manager logs in to the system, accesses to manage surcharge page, finds surcharge which manager wants to update, clicks icon update. Manager updates information and saves. System check information and save into database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully. PRE-02: surcharge which manager wants to update has been created.		
Postconditions:	POST-01: System updates information of surcharge successfully.		
Normal Flow:	<p>59.0: Update other surcharge</p> <p>1: Manager accesses to manage policy page, clicks on tab manage different surcharge, finds surcharge he/she wants to update, clicks update icon in the right of item surcharge.</p> <p>2: System show popup update surcharge with information of this surcharge.</p>		

	3: Manager updates information, clicks update button. 4: System checks information. If valid, the system updates updated information in the database, closes popup and shows a successful message (MSG90).
Alternative Flows:	N/A
Exceptions:	<p>57.0.E1: Duplicate surcharge name 1. System closes the popup and shows an error message (MSG91).</p> <p>57.0.E2: Manager save surcharge with empty name 1. System show warning message (MSG02).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-39, BR-40, BR-41, BR-42, BR-08, BR-45
Other Information:	N/A
Assumptions:	N/A

2.7.9 UC-58: Delete the other surcharge

UC ID and Name:	UC-58: Delete the other surcharge		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete the surcharge.		
Description:	Manager logs in to the system, accesses to manage surcharge page, finds surcharge which manager wants to delete, click button delete. System confirms with the manager and saves it into the database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully. PRE-02: Surcharge which manager wants to delete has been created.		
Postconditions:	POST-01: System updates status of surcharge “deleted”.		
Normal Flow:	<p>58.0: Delete other surcharge</p> <ol style="list-style-type: none"> 1: Manager accesses the policy page, clicks on the tab manage other surcharge, finds the surcharge he/she wants to delete, and clicks the delete icon in the right of the item. 2: System show popup confirm delete surcharge 3: Manager clicks yes button to confirm delete surcharge. 4: System changes surcharge to “deleted”, hide surcharge in list surcharge. 		
Alternative Flows:	N/A		

Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-42
Other Information:	N/A
Assumptions:	N/A

2.7.10 UC-59: Config time using (limit time of reserving by hour, day,)

UC ID and Name:	UC-59: Config time using		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to set common config		
Description:	Manager logs in to the system, accesses to manage policy page, setting and save. System saves config into database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	<p>59.0: Config time using</p> <p>1: Manager accesses to manage policy page, choose time using tap in the left of page</p> <p>2: System shows popup setting time using:</p> <ul style="list-style-type: none"> - With reservation by hour, over ... minute as 1 hour. - With reservation by night, check-in time is: ..., check-out time is ... - With reservation by day, check-in time is:..., check-out time is:...., over ... hours as 1 day. <p>3: Manager configures all fields, clicks save button.</p> <p>4: System checks information, saves into database and shows successful message (MSG94).</p>		
Alternative Flows:	N/A		
Exceptions:	59.0.E1: Saving process has error		
	1. System closes popup, shows error message (MSG95) and no change with database.		
Priority:	High, Must Have		
Frequency of Use:	High		

Business Rules:	BR-42
Other Information:	N/A
Assumptions:	N/A

2.7.11 UC-60: Set surcharge of early check-in, late check-out

UC ID and Name:	UC-60: Set surcharge of early check-in, late check-out		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to set config of surcharge early check-in		
Description:	Manager logs in to the system, accesses to manage policy page, setting and save. System saves config into database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	<p>60.0: Set surcharge of early check-in, late check-out</p> <p>1: Manager accesses to manage policy page, choose setting surcharge early check-in tap in the left of page</p> <p>2: System shows popup setting surcharge early check-in</p> <p>3: Manager configs time, manager can add range of time to calculate surcharge. Managers can configure different surcharges with different ranges of time.</p> <p>Example: Check-in early ..1.. hour -> value: ..10.. % price of room class.</p> <p>Check-in early ..2.. hour -> value: ..20.. % price of room class.</p> <p>4: Manager configures all fields, clicks save.</p> <p>5: System checks information, saves into database.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-44, BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.7.12 UC-61: Set surcharge of over number of people

UC ID and Name:	UC-61: Set surcharge of over number of people		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to set a surcharge for over a number of people.		
Description:	Manager logs in to the system, accesses to manage policy page, setting and save. System saves config into database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	<p>61.0: Set surcharge of over number of people</p> <p>1: Manager accesses to manage policy page, choose setting surcharge tap in the left of page</p> <p>2: System shows a popup setting surcharge over people.</p> <p>3: With each room class, the manager can choose a different percentage of surcharge.</p> <p>Example: Adding adult: from people number ..1.. -> price: ..10..% price of room class.</p> <p>Adding adult: from people number ..2.. -> price: ..50..% price of room class.</p> <p>For example: Add child: child from .0.. years old to under 6 years old -> price: ..0..% of room price.</p> <p>Add child: child from 6 years old to under 12 years old -> price: ..100..% of room price</p> <p>Add child: child from 12 years old to under ..16.. years old -> price: ..100..% of room price</p> <p>4: System checks information, save into database.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-44, BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.7.13 UC-62: Set of surcharge of cancelling reservation

UC ID and Name:	UC-62: Set surcharge of cancelling reservation		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to set a surcharge for cancelling the reservation.		
Description:	Manager logs in to the system, accesses to manage policy page, setting and save. System saves config into database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	<p>62.0: Set surcharge of cancel reservation</p> <p>1: Manager accesses to manage policy page, choose setting surcharge of cancelling reservation tap in the left of page.</p> <p>2: System shows popup setting surcharge cancelling reservation.</p> <p>3: Manager can add a range of time to calculate the surcharge. Managers can configure different surcharges with different ranges of time. With each range of time, the manager fills a percentage of the deposit.</p> <p>4: Manager configs all fields, clicks save button.</p> <p>5: System checks information, saves into database and shows successful message (MSG96).</p>		
Alternative Flows:	N/A		
Exceptions:	<p>62.0.E1: Saving process has error</p> <p>1. System closes the popup and shows an error message (MSG97).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.7.14 UC-63: Config deposit

UC ID and Name:	UC-63: Config deposit		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023

Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to set a percentage for the deposit.		
Description:	Manager logs in to the system, accesses to manage policy page, setting and save. System saves config into database.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	<p>63.0: Config deposit</p> <p>1: Manager accesses to manage policy page, choose setting deposit tap in the left of page</p> <p>2: System shows popup setting deposit.</p> <p>3: Manager fills percentage for deposit fields.</p> <p>4: System checks information, saves it into the database and shows a successful message (MSG98).</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-44, BR-45, BR-51		
Other Information:	N/A		
Assumptions:	N/A		

2.7.15 UC-64: Rule of receiving points in promotion

UC ID and Name:	UC-64: Rule of receiving points in promotion		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to configure the rule of receiving points in promotion.		
Description:	Manager logs in to the system, accesses to manage policy page, clicks on tab promotion, chooses configure receiving points.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	64.0: Rule of receiving point in promotion		

	1: Manager logs in system, access manages policy page, chooses tab promotion, clicks configure receiving points button. 2: System shows popup configure receiving points. 3: Manager fills: ... VND -> ... points. Manager clicks the save button. 4: System checks value. If valid, the system saves changes to the database and shows a successful message (MSG101).
Alternative Flows:	N/A
Exceptions:	<p>64.0.E1: Money is less than 1 4: System shows a warning message (MSG100) and the popup is still open.</p> <p>64.0.E2: Point is less than 1 4: System shows a warning message (MSG100) and the popup is still open.</p> <p>64.0.E3: Saving process has error 4: System closes popup and shows an error message (MSG102).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-08
Other Information:	N/A
Assumptions:	N/A

2.7.16 UC-65: Rule of changing points in promotion

UC ID and Name:	UC-65: Rule of changing points in promotion		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to		
Description:	Manager logs in to the system, accesses to manage policy pages, clicks on tab promotion, chooses to configure changing points.		
Preconditions:	PRE-01: Manager logs in system with role manager successfully.		
Postconditions:	POST-01: System saves configuration into database.		
Normal Flow:	<p>65.0: Rule of changing points in promotion</p> <p>1: Manager logs in system, access manages policy page, chooses tab promotion, clicks configure changing points button.</p>		

	2: System shows popup configure changing points. 3: Manager fills: ... points -> ... VND. Manager clicks the save button. 4: System checks value. If valid, the system saves changes to the database and shows a successful message (MSG103).
Alternative Flows:	N/A
Exceptions:	<p>65.0.E1: Money is less than 1 4: System shows a warning message (MSG100) and the popup is still open.</p> <p>65.0.E2: Point is less than 1 4: System shows a warning message (MSG100) and the popup is still open.</p> <p>65.0.E3: Saving process has error 4: System closes popup and shows an error message (MSG104).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-08
Other Information:	N/A
Assumptions:	N/A

2.8 Manage hotel reservation

2.8.1 UC-66: View list room in calendar

UC ID and Name:	UC-66: View list room in calendar		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist want to view room reservation schedule and take some actions		
Description:	After logging in, the system redirects to the room reservation schedule page. Receptionist can view all the room reservation schedules here.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role. PRE-02: This account has permission to view room reservation schedules.		
Postconditions:	POST-01: System show list active room with its booking status.		
Normal Flow:	<p>66.0: View list room in calendar</p> <p>1: User logs in to the system with a role receptionist.</p> <p>2: System redirect to the room reservation schedule page. System shows all active room follows in a calendar chart:</p>		

	<ul style="list-style-type: none"> - In header, receptionist can choose range of time (default value is: that day) - Rooms are arranged with room class - Each room, calendar shows all reservations in range of time <p>3: Receptionist changes the range of time by choosing the type of time (day, month or week) and chooses specific time.</p> <p>4: After each action of the receptionist, the system shows corresponding data on a chart.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.2 UC-67: View list reservation

UC ID and Name:	UC-67: View list reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist want to view list reservation		
Description:	After logging in, the system redirects to the room reservation schedule page. Receptionist click list to access to tab list receptionist. Receptionist can view all the reservations here (Sorted by Id of reservation).		
Preconditions:	PRE-01: User logged in system successfully with receptionist role. PRE-02: This account has permission to view list reservations.		
Postconditions:	POST-01: System show list active room with its booking status.		
Normal Flow:	67.0: View list reservation 1: User logs in to the system with a role receptionist. 2: System redirect to the room reservation schedule page. Receptionist click “Danh sách đặt phòng” to access tap list reservation. 3: System change to list reservation, show all reservations with their main information: <ul style="list-style-type: none"> - Reservation code - Customer information (customer name) 		

	<ul style="list-style-type: none"> - Time check-in, check-out - Booking status of room <ul style="list-style-type: none"> - Empty: white/ no colour - Yellow: has been reserved - Green: having customer - Total price - Total money paid - Appropriate action <ul style="list-style-type: none"> - Check-in - Check-out - View order - Update reservation (with yellow or green room) - Cancel reservation
Alternative Flows:	N/A
Exceptions:	<p>67.0.E1: There is no record of reservation in range of time</p> <p>1. System shows nothing in table of list reservations</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.3 UC-68: Search reservation in list room calendar

UC ID and Name:	UC-68: Search reservation in list room calendar		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to find rooms with reservations.		
Description:	Receptionist wants to find rooms/ a room with reservations on that day. Receptionist logged in to the system, input name of room, reservation code or customer name, identify to search; choose booking status, condition status, room area, room class to filter. System will list appropriate rooms.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System lists appropriate rooms with booking status.		
Normal Flow:	<p>68.0: Search reservation in list room calendar</p> <p>1: Receptionist accesses the room reservation schedule page.</p> <p>2: System redirect to the room reservation schedule page. System shows all active rooms in a calendar chart.</p>		

	<p>3: Receptionist changes the range of time by choosing the type of time (day, month or week) and chooses specific time.</p> <p>4: After each action of the receptionist, the system shows corresponding data on a chart.</p> <p>5: Receptionist chooses option to filter by click on checkbox in the left of each status of reservation:</p> <ul style="list-style-type: none"> - Check-out - Booking - Using - Waiting for invoice <p>Default is all of above status.</p> <p>6: After choosing, the calendar shows corresponding reservations.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.4 UC-69: Search reservation in list reservation

UC ID and Name:	UC-69: Search reservation in list reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to find a reservation.		
Description:	Receptionist find a reservation		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System lists appropriate rooms with booking status.		
Normal Flow:	<p>69.0: Search reservation in list reservation</p> <p>1: Receptionist accesses to list reservation page</p> <p>2: System shows all reservations on that day with their main information.</p> <p>3: Receptionist changes the range of time by choosing the type of time (day, month or year) and chooses specific time (default value is that day).</p>		

	<p>4: After each action of the receptionist, the system shows corresponding data on a chart.</p> <p>5: Receptionist chooses option to filter by click on checkbox in the left of each status of reservation:</p> <ul style="list-style-type: none"> - Check-out - Booking - Using <p>Default is all of above status.</p> <p>6: After choosing, the calendar shows corresponding reservations.</p> <p>7: Receptionist search reservation by:</p> <ul style="list-style-type: none"> - Reservation code - Customer name or customer identification number or phone number of customer <p>Receptionist inputs into search textbox.</p> <p>8: System shows list reservation in list below search.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.5 UC-70: Create reservation

UC ID and Name:	UC-70: Create reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to create a reservation.		
Description:	Receptionist clicks the create button to open create reservation page. Fill in the information and submit. System check information, save to database and show successful messages.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System saves new reservation into the database.		
Normal Flow:	70.0: Create reservation in add reservation page		

	<p>1: Receptionist clicks to create reservation button to go to create reservation page.</p> <p>2: System opens create reservation page.</p> <p>3: Receptionist clicks add room button.</p> <p>4: System shows choose room popup:</p> <ul style="list-style-type: none"> - Drop down list type of reservation: by hour, night, day - Check-in, check-out time <ul style="list-style-type: none"> - By hour: check-in time is that moment, check-out is after 1 hour - By night: check-in time is that night (config in manager page), check-out is after 1 night - By day: check-in time is that day (config in manager page), check-out is after 1 day - List room class <ul style="list-style-type: none"> - Room class name - Maximum of people (capacity) - Total number of empty room in that range of time - Number of reserving room (input, maximum is number of empty room of previous column) - Price / unit (price/ hour or price/ night or price / day) - Button cancel, save. <p>5: Receptionist chooses type of time to reserve:</p> <ul style="list-style-type: none"> - By hour - By night - By day <p>6: After choosing the type of time of time check-in, check-out is updated appropriately.</p> <p>7: Receptionist chooses time to check-in, check-out.</p> <p>8: After choosing, list room class is listed by being empty in that time.</p> <p>9: Receptionist chooses the number of rooms in each room class. Clicking the save button to input details of reservation.</p> <p>10: System goes to reserving room page with default details:</p> <ul style="list-style-type: none"> - Total number of customer: total of capacity of chosen room class - Pricelist - List rooms, each room is placed each tap <ul style="list-style-type: none"> - Room class - Type of reservation (by hour, night, day) - Specific room - Status of this room in this reservation - Time check-in, check-out - Anticipated renting time (1h, 1day...) - Order - Button add room to open popup choose room class
--	---

	<ul style="list-style-type: none"> - Price list - Button check-in, reserve (depends on each room) - Button payment <p>11: Receptionist can update customer visited information by clicking the customer button in the header of the room tap to open a popup to update customer information for this room. (receptionist create, update customer follow UC-42, UC-44)</p> <p>12: Receptionist adds order for reservation (Follow UC-73).</p> <p>13: Receptionists can change the price list by choosing the drop down list in the header.</p> <p>14: After the receptionist chooses the price list, the system updates the price of reservation automatically.</p> <p>14: Receptionist click button check-in (follow UC-72) or change room (follow UC-77).</p> <p>15: System check information, save reservation to the database.</p>
Alternative Flows:	N/A
Exceptions:	<p>70.0.E1: Receptionist clicks save button without choosing room class</p> <p>1. System close popup with no changes.</p> <p>70.0.E2: Receptionist creates reservation when there is no customer.</p> <p>1. System doesn't allow you to create reservations.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-04, BR-05, BR-07, BR-08, BR-11, BR-12, BR-16, BR-17, BR-22, BR-25, BR-26, BR-28, BR-29, BR-31, BR-32, BR-33, BR-34, BR-35, BR-43, BR-45, BR-46, BR-47, BR-48, BR-49, BR-50, BR-51
Other Information:	After choosing a room, the system saves new reservations into the database.
Assumptions:	N/A

2.8.6 UC-71: View detail of a reservation by room

UC ID and Name:	UC-71: View detail of a reservation by room		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to view the nearest reservation in a room		
Description:	Receptionist goes to the list room page for the receptionist. Clicking to a room, system opens a popup reservation details		

Preconditions:	PRE-01: User logged in system successfully with receptionist role.
Postconditions:	POST-01: System shows reservation details in popup.
Normal Flow:	<p>71.0: View detail of a reservation by room</p> <p>1: Receptionist goes to list room calendar page for receptionist, clicks a reservation in calendar.</p> <p>2: System open a popup with reservation details:</p> <ul style="list-style-type: none"> - Room name, room class name - Check-in, check-out time - Customer - Total time - Total people - Status of reservation - Button check-in/ check-out, update, change room
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.7 UC-72: *Check-in*

UC ID and Name:	UC-72: Check-in		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to check-in for customers.		
Description:	Receptionist searches for a reservation and clicks check-in. System update reservation status, redirects to reservation details page.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role. PRE-02: The reservation was created.		
Postconditions:	POST-01: System updates check-in time actually into the database.		
Normal Flow:	<p>72.0: Check-in</p> <p>1: Receptionist finds reservation, clicks the check-in button.</p>		

	2: System check information and update status of room and reservation, calculate policy early check-in (if having) automatically.
Alternative Flows:	N/A
Exceptions:	72.0.E1: Receptionist check-in when reservation has no data about customer. (visited customer). 1. System doesn't allow check-in.
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-57
Other Information:	N/A
Assumptions:	N/A

2.8.8 UC-73: Create order for reservation

UC ID and Name:	UC-73: Create order for reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Customer wants to order goods, service		
Description:	Receptionist finds the reservation, clicks the update button to go to the reservation details page. Receptionist clicks to add button to open popup add goods, service, finds and chooses goods, services, updates quantity, price. Receptionists save changes.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System saves new order into the database for that reservation.		
Normal Flow:	<p>73.0: Create order for reservation</p> <p>1: Receptionist finds reservation. Receptionist clicks update to go to page update reservation.</p> <p>2: System goes to update the reservation page.</p> <p>3: Receptionist clicks the “Tạo hóa đơn” button in the room tap of reservation.</p> <p>4: System opens a popup for the receptionist to create an order.</p> <p>5: Receptionist finds goods or services by searching in textbox search.</p> <p>6: System shows the corresponding list goods and services below the search textbox.</p> <p>7: Receptionist chooses goods or services by clicking on that goods, service.</p>		

	<p>8: System adds that goods, service into list goods and service (in the right of Popup).</p> <p>9: Receptionist updates quantity of each goods, service by quantity textbox of each item goods, service.</p> <p>10. Receptionist remove goods, service by clicking the remove icon in the right of each item goods, service.</p> <p>11. System removes that goods, service in list order detail.</p> <p>12: Receptionist clicks save button to create order.</p> <p>13: System saves reservation details and order which is added to reservation with status not confirmed, shows successful message (MSG138).</p> <p>14: Receptionist can view detail of order by clicking on view detail icon of order item.</p> <p>15: System opens order details popup:</p> <ul style="list-style-type: none"> - Code of order - Status - Total price - List goods, service of order <p>16: Receptionists can print orders by clicking on the print icon of the order item.</p> <p>17: System prints this order.</p>
Alternative Flows:	N/A
Exceptions:	<p>73.0.E1: Create order with empty goods, service</p> <p>1. System shows error message (MSG139)</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45,
Other Information:	New order has status not confirmed.
Assumptions:	N/A

2.8.9 UC-74: Update order for reservation

UC ID and Name:	UC-74: Update update order for reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Customer wants to update order goods, service		

Description:	Receptionist finds a reservation, clicks the update button to go to the reservation details page. Receptionist clicks to update icon to open popup chooses goods, service, finds and chooses goods, services, updates quantity, price. Receptionists save changes.
Preconditions:	PRE-01: User logged in system successfully with receptionist role.
Postconditions:	POST-01: System saves updated order into the database for that reservation.
Normal Flow:	<p>74.0: Update goods and service in order</p> <p>1: Receptionist finds reservation. Receptionist clicks update to go to page update reservation.</p> <p>2: System goes to update reservation page.</p> <p>.3: Receptionist can update order by clicking on update icon of order item. (only for not confirm order)</p> <p>4: System opens a popup for the receptionist to update order.</p> <p>5: Receptionist finds goods or service by searching in textbox search.</p> <p>6: System shows corresponding list goods and service below search textbox.</p> <p>7: Receptionist chooses goods or service by clicking on that goods, service.</p> <p>8: System adds that goods, service into list goods and service (in the right of popup).</p> <p>9: Receptionist updates quantity of each goods, service by quantity textbox of each item goods, service.</p> <p>10. Receptionist remove goods, service by clicking remove icon in the right of each item goods, service.</p> <p>11. System removes that goods, service in list order detail.</p> <p>12: Receptionist clicks save button to update order.</p> <p>13: System saves reservation details and order which is added to reservation, shows successful message (MSG140).</p>
Alternative Flows:	<p>74.1: Update status of order</p> <p>1: Follow step 1-2 in .0.</p> <p>2: Receptionist changes status of order by clicking change status icon in the right of item order. (not for cancelled order)</p> <p>3. System opens confirms popup.</p> <p>4: Receptionist confirms by clicking save button.</p> <p>5: System closes popup, saves changes, shows successful message (MSG140)</p> <p>74.2: Cancel order</p> <p>1: Follow step 1-2 in .0.</p>

	<p>2: Receptionist cancels order by clicking cancel icon in the right of item order. (only for not confirm order).</p> <p>3. System opens confirms popup.</p> <p>4: Receptionist confirms by clicking save button.</p> <p>5: System closes popup, saves changes, shows successful message (MSG144).</p>
Exceptions:	74.0.E1: Update order with empty goods, service 1. System shows error message (MSG141)
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.10 UC-75: Check-out

UC ID and Name:	UC-75: Check-out		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Customer wants to check-out		
Description:	Receptionist finds a reservation, clicks the check-out button. Receptionist updates payment (if needed) in the reservation details page, clicks the check-out button to complete check-out.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System updates status of room detail in reservation.		
Normal Flow:	<p>75.0: Check-out</p> <p>1: Receptionist finds reservation, clicks check-out button.</p> <p>2: System goes to the reservation details page.</p> <p>3: Receptionist clicks button check-out in room tap which receptionist checks-out.</p> <p>4: System shows confirm popup.</p> <p>5: Receptionist confirms by clicking button save.</p> <p>6: System updates status of room detail in reservation.</p>		

Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-56
Other Information:	N/A
Assumptions:	N/A

2.8.11 UC-76: Cancel reservation

UC ID and Name:	UC-76: Cancel reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Customer want to cancel reservation		
Description:	Receptionist finds reservation, clicks cancel button. System open confirm popup. After receptionist confirms, if need to pay surcharge, system redirects to reservation details page, open payment popup. If not, system save reservation information.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System updates reservation status into the database successfully.		
Normal Flow:	<p>76.0: Cancel reservation</p> <ol style="list-style-type: none"> 1: Receptionist finds reservation, chooses reservation, clicks cancel button 2: System opens popup confirm. 3: Receptionist clicks yes button 4: System calculates surcharge, redirects to reservation details page, open payment popup. 5: Receptionist updates payment, click save button. 6: System checks, save information, changes status of reservation to cancelled. System redirects to list room reservation page and shows a successful message (MSG109). 		
Alternative Flows:	N/A		
Exceptions:	<p>76.0.E1: Surcharge is equal to 0.</p> <p>4. System skip step 4,5 and do step 6.</p>		
Priority:	High, Must Have		

Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.12 UC-77: Change room in reservation

UC ID and Name:	UC-77: Change room in reservation		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Customer wants to change room or receptionist changes room for customer without surcharge.		
Description:	Receptionist finds reservation, clicks change room button to open popup choose new room. Receptionist chooses room class room, chooses room, chooses price list and confirm. System checks information, saves changes.		
Preconditions:	PRE-01: User logged in system successfully with receptionist role.		
Postconditions:	POST-01: System save new room for reservation detail.		
Normal Flow:	<p>77.0: Change room in reservation.</p> <p>1: Receptionist finds reservation, clocks change room button to open popup choose room.</p> <p>2: System prepares list empty room for this room class</p> <p>3: Receptionist chooses a room class (which has an empty room) in the drop down list.</p> <p>4: Receptionist chooses the room and clicks the save button.</p> <p>5: System shows option about price:</p> <ul style="list-style-type: none"> - Change all reserve time into the new room (default). - Keep the price of the old room. <p>6: The receptionist confirms the change room and clicks the save button..</p> <p>7: System updates room and reservation information.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-52, BR-45		

Other Information:	N/A		
Assumptions:	N/A		

2.8.13 UC-78: Update room status (housekeeping status)

UC ID and Name:	UC-78: Update room status (housekeeping status)		
Created By:	Cu Thi Ha Thu	Date Created:	19/10/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist want to update housekeeping status for room		
Description:	Receptionist wants the housekeeper clean some rooms, the receptionist announces them and changes the status of room. After cleaning, receptionist update status “cleaned” of rooms.		
Preconditions:	PRE-01: Receptionist logged in successfully. PRE-02: Room which receptionist wants to update status is active.		
Postconditions:	POST-01: Condition status of room is updated in database		
Normal Flow:	<p>78.0: Update room status (housekeeping status)</p> <p>1: Receptionist accesses to list room calendar page.</p> <p>2: Receptionist finds room which he/she wants to update status, click icon in the left of that room</p> <p>3: System shows popup confirm.</p> <p>4: Receptionist confirms by clicking save button.</p> <p>5: System changes condition status of this room.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	After being checked-out, the condition of the room is auto changed to dirty.		
Assumptions:	N/A		

2.8.14 UC-79: Online payment

UC ID and Name:	UC-79: Online payment		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023

Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Customer wants to have QR code for online payment.		
Description:	Receptionist in payment step, chooses online payment, add account and total price of transaction and save. System shows a QR code which has transaction information.		
Preconditions:	PRE-01: Receptionist logs in system with role receptionist successfully. PRE-02: Receptionist is in payment step of creating invoice.		
Postconditions:	POST-01: System shows a QR code which has transaction information.		
Normal Flow:	<p>79.0: Online payment</p> <ol style="list-style-type: none"> 1. Receptionist is in payment page. Receptionist chooses payment method is online payment. 2. System shows area for receptionist to choose bank account, receive QR code. 3. Receptionist chooses bank account, clicks save button. 4. System shows a QR code. 5. Receptionist can print that QR code by button print near QR code. Receptionist clicks save button to complete payment. 6. System saves payment. 		
Alternative Flows:	<p>79.1: Receptionist have no bank account</p> <ol style="list-style-type: none"> 1. Receptionist adds a new bank account by clicking the button create bank account. 2. System opens a popup to create a bank account. 3. Receptionist fills necessary information and clicks save button. 4. System creates a new bank account and chooses that bank account automatically. 5. Follow steps 3-6 in 79.0. 		
Exceptions:	<p>79.1.E1: Bank account has error account number.</p> <ol style="list-style-type: none"> 8. System shows QR code but customer can't scan it. 		
Priority:	High, Should Have		
Frequency of Use:	Medium		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.8.15 UC-80: Create retail invoice

UC ID and Name:	UC-80: Create retail invoice		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to create a retail invoice.		
Description:	Receptionist login to system, accesses to create retail invoice page, chooses goods and service and clicks save button. System saves invoice into database.		
Preconditions:	PRE-01: Receptionist logs in system with role receptionist successfully.		
Postconditions:	POST-01: System saves new retail invoice into database.		
Normal Flow:	<p>80.0: Create retail invoice</p> <ol style="list-style-type: none"> 1. Receptionist logs in the system. 2. System redirects to list room schedule page. 3. Receptionist clicks on create retail invoice button. 4. System redirects to create a retail invoice page. 5. Receptionist chooses goods and services on the left of the page by clicking on them or searching in text box search. 6. System adds chosen goods and services into the invoice after the receptionist clicks on goods and services. 7. Receptionist updates the quantity of chosen goods and services. Receptionist creates a new invoice by clicking the save button. 8. System saves a new invoice. 9. Receptionist can print the invoice by clicking the print button. 		
Alternative Flows:	<p>80.1: Customer chooses online payment</p> <ol style="list-style-type: none"> 8. Follow UC-79. 		
Exceptions:	N/A		
Priority:	Medium, Should Have		
Frequency of Use:	Medium		
Business Rules:	BR-45		
Other Information:	Retail invoice can have customers or not.		
Assumptions:	N/A		

2.8.16 UC-81: Create reservation invoice

UC ID and Name:	UC-81: Create reservation invoice		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Receptionist	Secondary Actors:	
Trigger:	Receptionist wants to create a reservation invoice.		
Description:	Receptionist login to system, accesses to manage policy page, setting and save. System saves config into database.		
Preconditions:	PRE-01: Receptionist logs in system with role receptionist successfully.		
Postconditions:	POST-01: System saves new invoice of reservation detail into database.		
Normal Flow:	<p>81.0: Create reservation invoice</p> <ol style="list-style-type: none"> 1. Receptionist finds the reservation which the receptionist wants to create invoice, clicks update button to go to update reservation page. 2. System goes to update reservation page. 3. Receptionist clicks on the payment button. 4. System shows the popup invoice details of reservation. 5. Receptionist clicks button “Tạo hóa đơn mới phần”. 6. System opens a popup create new invoice. 7. Receptionist chooses which room wants to pay for and chooses the type of payment. 8. If a customer chooses online payment, follow UC-79. 9. Receptionist clicks save button. 10. System creates new invoice, opens popup print automatically, saves new invoice into the database. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45, BR-53		
Other Information:	N/A		
Assumptions:	N/A		

2.9 Manage human resource

2.9.1 UC-82: View list staff

UC ID and Name:	UC-82: View list staff		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the list of staff.		
Description:	Manager goes to manage the staff page, view the list of staff.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list of staff.		
Normal Flow:	<p>82.0: View list staff</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage staff page.</p> <p>3: System gets all the staff data, and shows the staff with their main information.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>82.0.E1: There is no record of staff.</p> <p>1: Instead of a table listing staff, the system shows a message (MSG113).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.9.2 UC-83: Search staff

UC ID and Name:	UC-83: Search staff		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to find the staff.		
Description:	Manager wants to find a staff member. Manager logs in to the system, goes to the list staff page, searches in textbox search.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		

Postconditions:	POST-01: System show list staff which satisfies with search text and filter with its main information.
Normal Flow:	<p>83.0: Search, filter staff</p> <p>1: Manager login to the system.</p> <p>2: Manager access to employee page.</p> <p>3: Manager clicks “Bộ lọc” in table list staff, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System filter list staff follows filter field, shows a list of satisfied staffs.</p>
Alternative Flows:	N/A
Exceptions:	<p>83.0.E1: There is no result for the filter of the staff.</p> <p>1. If there is no staff that has a filter and search text, instead of a list of staff, a message (MSG114) is shown.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.9.3 UC-84: Create staff

UC ID and Name:	UC-84: Create staff		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a new staff.		
Description:	The manager login to system management, choose manage staff, click create staff button. The manager fills in the necessary information, clicking the create button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The new staff is saved in the database.		
Normal Flow:	<p>84.0: Create staff</p> <p>1: Manager access to list staff page.</p> <p>2: Manager click to “Thêm mới nhân viên” button to open popup create new staff.</p>		

	<p>3: Manager fill into staff information</p> <ul style="list-style-type: none"> - Name of staff - Image (not required) - Username (if manager fills this field, system will create an account for this staff and password will be sent by email) - Citizen identification code (can't be duplicated) - Address - Phone number - DOB (must be < that day) - Gender - Email - Department <p>4: Manager clicks save button to save new staff.</p> <p>5: System checks staff information. If all are valid, the staff will be saved into the database and a successful message (MSG116) is shown.</p> <p>6: System closes create staff popup.</p>
Alternative Flows:	N/A
Exceptions:	<p>84.0.E1: Duplicate email.</p> <p>1. System closes the popup and shows an error message (MSG117).</p> <p>84.0.E2: Manager create staff with empty name</p> <p>1. System show warning message (MSG02).</p> <p>84.0.E3: Date of birth is smaller than that day.</p> <p>1. System closes the popup and shows an error message (MSG118).</p> <p>84.0.E4: Duplicate citizen identification code</p> <p>1. System closes the popup and shows an error message (MSG115).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-03, BR-07, BR-22, BR-23, BR-25, BR-45, BR-54
Other Information:	New staff who have an account have a role as receptionist automatically.
Assumptions:	N/A

2.9.4 UC-85: View detail staff

UC ID and Name:	UC-85: View detail staff		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	

Trigger:	Manager wants to view staff information.
Description:	Manager wants to view staff information. Manager login to the system, go to the staff page, find the staff he/she wants to view details, click icon view details to open popup information.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Staff which the manager wants to view was created.
Postconditions:	POST-01: System shows all information of staff in popup.
Normal Flow:	<p>85.0: View details staff</p> <p>1: Manager access to staff page</p> <p>2: Manager find, (can search) staff wants to view and click to icon view details that staff. The popup which includes the main information of the staff is displayed.</p> <ul style="list-style-type: none"> - Code of staff - Name of staff - Image - Username - Role - Status - Date of birth - Address - Email - Gender - Citizen identification code - Phone number - Department
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.9.5 UC-86: Update staff

UC ID and Name:	UC-86: Update staff		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	

Trigger:	Manager wants to update staff information.
Description:	Manager wants to update staff information. Manager logs in to system, goes to list staff page, find staff he/she wants to update, click icon update to open popup, fill updated information and update. System update new information to database, show success message and redirect to list staff page.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Staff which manager wants to update was created.
Postconditions:	POST-01: New information of staff is updated to the database.
Normal Flow:	<p>86.0: Update staff information</p> <p>1: Manager access to staff page</p> <p>2: Manager finds (can search) staff wants to update and clicks the icon update. Popup update displays.</p> <p>3: Manager fills in new information and clicks the button “Lưu”.</p> <p>4: System checks if new information is valid or not. If valid, new information will be updated to the database, and a successful message (MSG116) is shown.</p> <p>5: Popup update closed. System is in the staff page.</p>
Alternative Flows:	<p>86.1: Update role of staff from receptionist to admin</p> <p>1: Manager access to staff page</p> <p>2: Manager finds (can search) staff wants to update and clicks the icon change to admin.</p> <p>3. Popup confirms displays.</p> <p>4. Manager clicks the save button to confirm.</p> <p>5. System changes the role of staff to admin and saves to the database. System closes popup and shows successful message (MSG116)</p>
Exceptions:	<p>86.0.E1: Duplicate email.</p> <p>1. System closes the popup and shows an error message (MSG117).</p> <p>86.0.E2: Manager create staff with empty name</p> <p>1. System show warning message (MSG02).</p> <p>86.0.E3: Date of birth is smaller than that day.</p> <p>1. System closes the popup and shows an error message (MSG118).</p> <p>86.0.E4: Duplicate citizen identification code</p> <p>1. System closes the popup and shows an error message (MSG115).</p>
Priority:	High, Must Have
Frequency of Use:	High

Business Rules:	BR-03, BR-07, BR-22, BR-23, BR-25, BR-45, BR-54
Other Information:	If manager fills username field, system will create an account for this staff and password will be sent by email
Assumptions:	N/A

2.9.6 UC-87: Delete staff

UC ID and Name:	UC-87: Delete staff		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete the staff.		
Description:	Manager wants to delete the staff. Manager login to the system, goes to the staff page, finds the staff he/she wants to update, click icon delete to open popup confirm. Manager confirms to delete the staff and the system will staff that customer. Redirecting to the list staff page, list staff doesn't have deleted staff.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Staff which the manager wants to update was created, existed in the system.		
Postconditions:	POST-01: Deleted staff will have status "deleted", it is hidden in the list staff and the manager can't view, see that staff.		
Normal Flow:	<p>87.0: Delete a staff</p> <p>1: Manager access to staff page</p> <p>2: Manager find, (can search) staff wants to delete and clicks the icon delete on the right of each staff. Popup confirms delete displays.</p> <p>3: Manager chooses save by clicking the "Lưu" button in the popup confirm.</p> <p>4: System changes the status of that staff to "Deleted", hiding that staff in the list.</p> <p>5: System closes popup, shows successful message (MSG19).</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.9.7 UC-88: Create department

UC ID and Name:	UC-88: Create department		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to add a department to manage the staff better.		
Description:	Manager wants to add a new department to manage the staff. Manager logs in the system, goes to manage the staff page. Manager click + button in field department filter to add new department.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: New department is added to the database.		
Normal Flow:	<p>88.0: Create department</p> <p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage staff page, click + button in field department filter to open popup add department.</p> <p>3: Manager fill name of new department, click save.</p> <p>4: System check name of new department is duplicated or not. If valid, a new department is added to the database. A successful message (MSG122) is shown.</p>		
Alternative Flows:	<p>88.1: Create new department when create new staff</p> <ol style="list-style-type: none"> 1. Manager goes to manage staff page, clicks the create new staff button. 2. System opens a popup to create a new staff. 3. Manager clicks the icon add next to the department field. 4. System opens a popup to create a new department. 5. Manager follows step 3,4 in .0. 6. System backs to the popup to create a corresponding staff. <p>88.2: Create new department when update staff</p> <ol style="list-style-type: none"> 1. Manager goes to manage staff, clicks the update staff icon. 2. System opens a popup to update staff. 3. Manager clicks the icon add next to the department field. 4. System opens a popup to create a new department. 		

	5. Manager follows step 3,4 in .0. 6. System backs to the popup to update a corresponding staff.
Exceptions:	88.0.E1: Name of department is duplicated 1. System shows an error message (MSG121) and doesn't save the department to the database.
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-55, BR-03
Other Information:	N/A
Assumptions:	N/A

2.9.8 UC-89: Update department

UC ID and Name:	UC-89: Update department		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the name of a department to manage the staff better.		
Description:	Manager wants to update the name of a department to manage the staff . Manager login system, goes to manage staff page. Manager clicks the update button in the right department which the manager wants to update.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Department was created.		
Postconditions:	POST-01: Department is updated to the database.		
Normal Flow:	89.0: Update department 1: Manager logs in to the system. 2: Manager goes to manage staff page, clicks the update button on the right of the department which the manager wants to update. 3: Manager fill name of department, click save to open popup confirm. 4: Manager confirms yes to update department. 5: System check name of department is duplicated or not. If valid, the department is updated to the database. A successful message (MSG123) is shown. 6: System backs to manage staff page.		

Alternative Flows:	N/A
Exceptions:	<p>89.0.E1: Name of department is duplicated</p> <p>1. System shows an error message (MSG124) and doesn't save the department to the database.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-55, BR-03
Other Information:	N/A
Assumptions:	N/A

2.9.9 UC-90: Delete department

UC ID and Name:	UC-90: Delete department		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to delete a department.		
Description:	Manager wants to delete a department to manage the staff. Manager login system, goes to manage department. Manager clicks the delete button to delete the department.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Department was created.		
Postconditions:	POST-01: Department is updated to the database with “deleted” status.		
Normal Flow:	<p>90.0: Delete department</p> <p>1: Manager logs in to the system.</p> <p>2: Manager goes to manage staff, clicks the delete button in the right of the department which manager wants to delete.</p> <p>3: System opens popup confirm.</p> <p>4: Manager confirms yes to delete department.</p> <p>5: System checks if the department has a staff or not. If the department has no staff, the system changes the status of that staff to “deleted”, showing a successful message (MSG125).</p> <p>6: System backs manage staff page.</p>		
Alternative Flows:	N/A		
Exceptions:	90.0.E1: Department has one or some staffs		

	5. Department has one or some staffs, and the system shows an error message (MSG126).
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.8.10 UC-91: Export file staffs

UC ID and Name:	UC-91: Export file staff		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export file staffs.		
Description:	The manager login to system management, chooses to manage staff, and clicks the export button. After some seconds, the browser auto downloads files of all the staffs.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The file of list staffs is auto download		
Normal Flow:	<p>91.0: Export file staffs</p> <p>1: Manager access to manage staff page</p> <p>2: Manager click icon export, choose type of file export is csv or print.</p> <p>3: System auto download file of all staffs.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Low, ShouldHave		
Frequency of Use:	Low		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.10 Manage profile:

2.10.1 UC-92: View detail profile

UC ID and Name:	UC-92: View detail profile		
Created By:	Cu Thi Ha Thu	Date Created:	05/10/2023
Primary Actor:	Manager	Secondary Actors:	Receptionist
Trigger:	User wants to view the profile.		
Description:	User wants to view the profile. User login to the system, hold on icon more information and clicks manage profile. System show profile page.		
Preconditions:	PRE-01: User login to system successfully.		
Postconditions:	POST-01: System shows all information of user.		
Normal Flow:	<p>92.0: View details profile</p> <p>1: User login to the system, hold on icon more information and clicks manage profile</p> <p>2: System show profile page with user's information:</p> <ul style="list-style-type: none"> - Image - Staff code - Name of staff - Username - Gender - Address - Phone number - Date of birth - Email - Identify citizen code 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.10.2 UC-93: Update profile

UC ID and Name:	UC-93: Update profile		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023

Primary Actor:	Manager	Secondary Actors:	Receptionist
Trigger:	User wants to update profile.		
Description:	User wants to update profile. User login to the system, hold on icon more information and clicks manage profile. System show profile page. User update information and clicks save button. System checks information and show successful or failed message.		
Preconditions:	PRE-01: User login to system successfully.		
Postconditions:	POST-01: New information of user is updated to the database.		
Normal Flow:	<p>93.0: Update profile</p> <p>1: User login to the system, hold on icon more information and clicks manage profile</p> <p>2: System show profile page with user's information:</p> <p>3: User inputs updated information and clicks save button.</p> <p>3: System checks new information, if valid, system saves new information into the database and show successful message (MSG127).</p>		
Alternative Flows:	N/A		
Exceptions:	<p>93.0.E1: Duplicate email.</p> <p>1. System shows an error message (MSG117).</p> <p>.0.E2: User update profile with empty name or email or date of birth</p> <p>1. System show warning message (MSG02).</p> <p>93.0.E3: Date of birth is smaller than that day.</p> <p>1. System shows an error message (MSG118).</p> <p>93.0.E4: Duplicate citizen identification code</p> <p>1. System shows an error message (MSG115).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-03, BR-27, BR-22, BR-23, BR-25, BR-45, BR-54		
Other Information:	N/A		
Assumptions:	N/A		

2.10.3 UC-94: Change password

UC ID and Name:	UC-94: Change password
-----------------	-------------------------------

Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	Receptionist
Trigger:	User wants to change the password.		
Description:	User wants to change the password. User login to the system, hold on icon more information and clicks manage profile. System show profile page. User clicks update in field change password. System opens field change password. User change password and clicks change password button. System checks information and show successful or failed message.		
Preconditions:	PRE-01: User login to system successfully.		
Postconditions:	POST-01: New password of user is updated to the database.		
Normal Flow:	<p>94.0: Change password</p> <p>1: User login to the system, hold on icon more information and clicks manage profile</p> <p>2: System show profile page with user's information:</p> <p>3: User clicks update in field change password.</p> <p>4: System opens field to change password for user.</p> <p>5: User input old password, new password and confirm new password. User clicks button change password.</p> <p>6: System checks information, if old password is true and new password match field confirms new password, system saves new password into the database and show successful message (MSG128).</p>		
Alternative Flows:	N/A		
Exceptions:	<p>94.0.E1: User submit with empty password</p> <p>1. System show warning message (MSG02).</p> <p>94.0.E2: User input wrong old password or new password doesn't match repeat new password field</p> <p>1. System shows an error message (MSG129).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-03, BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.11 Manage fund book

2.11.1 UC-95: View fund book

UC ID and Name:	UC-95: View fund book		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the fund book.		
Description:	Manager goes to manage the fund book page, view the fund book.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows fund book.		
Normal Flow:	<p>95.0: View fund book</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage the fund book page.</p> <p>3: System gets all the fund book data, and shows the invoice with their main information:</p> <ul style="list-style-type: none"> - Code of invoice - Created date - Type - Payment method - Value - Status - Paid by - Action <p>Time of list invoice is that month (default)</p> <p>In the header, the system shows the value of the beginning fund, total value of collection invoice, total value of payment invoice and value of fund at that time.</p> <p>4: Manager can choose range of time to view fund book:</p> <ul style="list-style-type: none"> - Choose view in month or in year. - Choose month/ year manager wants. <p>5: After manager chooses, system shows satisfied fund book</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45		

Other Information:	N/A
Assumptions:	N/A

2.11.2 UC-96: Create a new income invoice

UC ID and Name:	UC-96: Create a new income invoice		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a new income invoice.		
Description:	Manager goes to manage the fundbook page, clicks create new income invoice button, fills necessary field and submit. System checks information and shows a successful or failed message.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System saves new income invoice into the database.		
Normal Flow:	<p>96.0: Create a new income invoice</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage the fundbook page.</p> <p>3: System gets all the fundbook data, and shows the invoice with their main information.</p> <p>4: Manager clicks button to create a new income fund book.</p> <p>5: System shows popup create income invoice.</p> <p>6: Manager fills all fields and clicks save button.</p> <p>5: System checks information of new collection fund book. If valid, system saves new income fund book, closes popup and show successful message. (MSG130)</p>		
Alternative Flows:	N/A		
Exceptions:	<p>96.0.E1: Manager submit with empty value of invoice</p> <p>1. System show warning message (MSG02).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45, BR-03, BR-58		
Other Information:	N/A		
Assumptions:	N/A		

2.11.3 UC-97: Create a new expense invoice

UC ID and Name:	UC-97: Create a new expense invoice		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create a new expense invoice.		
Description:	Manager goes to manage the fundbook page, clicks create new expense invoice button, fills necessary field and submit. System checks information and shows a successful or failed message.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System saves new expense invoice into the database.		
Normal Flow:	<p>97.0: Create a new payment invoice</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage the fundbook page.</p> <p>3: System gets all the fundbook data, and shows the invoice with their main information.</p> <p>4: Manager clicks button to create a new expense fundbook.</p> <p>5: System shows popup create expense invoice.</p> <p>6: Manager fills all fields and clicks save button.</p> <p>5: System checks information of new collection fund book. If valid, system saves new expense fundbook, closes popup and show successful message. (MSG132)</p>		
Alternative Flows:	N/A		
Exceptions:	<p>97.0.E1: Manager submit with empty value of invoice</p> <p>1. System show warning message (MSG02).</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-45, BR-03, BR-58		
Other Information:	N/A		
Assumptions:	N/A		

2.11.4: UC-98: Update invoice in fund book

UC ID and Name:	UC-98: Update invoice in fund book
-----------------	---

Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the invoice in fund book.		
Description:	The manager login to system management, choose manage fund book, click icon update of invoice manager wants to update. The manager fills in the necessary information, clicking the update button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The invoice is created. PRE-03: The created date of invoice is on the same day as that day.		
Postconditions:	POST-01: The invoice is updated in the database.		
Normal Flow:	98.0: Update invoice in fund book 1: Manager access to manage fund book page 2: Manager finds income invoice or expense invoice manager wants to update, click icon update in the right of that invoice to open popup update. 3: Manager fill into invoice information and clicks save button. 4: The invoice will be saved into the database and a successful message (MSG146) is shown.		
Alternative Flows:	N/A		
Exceptions:	98.0.E1: Created date of invoice is in another day 1. System doesn't show update button in the right of item invoice.		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-18, BR-21, BR-45, BR-59		
Other Information:	N/A		
Assumptions:	N/A		

2.11.5: UC-99: Cancel invoice in fund book

UC ID and Name:	UC-99: Cancel invoice in fund book		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to cancel the invoice in the fund book.		

Description:	The manager login to system management, choose manage fund book, clicks the cancel button. After some seconds, the system checks information and shows message success or failure.
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The invoice is created. PRE-03: The created date of invoice is on the same day as that day.
Postconditions:	POST-01: The invoice is updated in the database.
Normal Flow:	<p>99.0: Cancel invoice in fund book</p> <p>1: Manager access to manage fund book page</p> <p>2: Manager finds income invoice or expense invoice manager wants to cancel, click icon cancel in the right of that invoice to open popup confirm.</p> <p>3: Manager clicks save button to confirm and clicks save button.</p> <p>4: The invoice will be saved into the database and a successful message (MSG146) is shown.</p>
Alternative Flows:	N/A
Exceptions:	<p>99.0.E1: Created date of invoice is in another day</p> <p>1. System doesn't show update button in the right of item invoice.</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-18, BR-21, BR-45, BR-59
Other Information:	N/A
Assumptions:	N/A

2.12 Manage transaction

2.12.1 UC-100: View list invoice

UC ID and Name:	UC-100: View list invoice		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the list invoice.		
Description:	Manager logs in system, goes to manage transaction page. System shows list invoice with their main information.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		

Postconditions:	POST-01: System gets list invoices from database successfully.
Normal Flow:	<p>100.0: View list invoice</p> <p>1: Manager logged in the system, goes to manage the transaction page.</p> <p>2: System show list invoice with their main information:</p> <ul style="list-style-type: none"> - Code of invoice - Created date - Customer - Discount - Value - Status - Payment method - Action <p>3: Manager clicks “Bộ lọc” in table list invoice, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System filter list invoices follows filter field, shows a list of satisfied invoice.</p>
Alternative Flows:	N/A
Exceptions:	<p>100.0.E1: There is no invoice in list</p> <p>1: Instead of a table listing invoice, the system shows a message (MSG78).</p> <p>100.0.E2: There is no invoice in the search result.</p> <p>1. Instead of a table listing invoice, the system shows a message (MSG79).</p>
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.12.2 UC-101: Export file of transaction

UC ID and Name:	UC-101: View list transaction		
Created By:	Cu Thi Ha Thu	Date Created:	04/11/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export file customers.		
Description:	The manager login to system management, chooses manage customer, and clicks the export button. After some seconds, the browser auto download file of all the customers.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		

Postconditions:	POST-01: The file of list customers is auto download
Normal Flow:	<p>101.0: Export file transactions</p> <p>1: Manager access to manage transaction page</p> <p>2: Manager click icon export, choose type of file export is csv or print.</p> <p>3: System auto download file of all transactions.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45
Other Information:	N/A
Assumptions:	N/A

2.12.3: UC-102: View list import goods order

UC ID and Name:	UC-102: View list import goods order		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the list import goods order.		
Description:	Manager wants to view the list import goods order. Manager logs in to the system, goes to the manage import goods order page.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list import goods order with its main information.		
Normal Flow:	<p>102.0: View list import goods order</p> <p>1: Manager login to the system.</p> <p>2: Manager access to import goods order page.</p> <p>3: System redirect to import goods order page, show list import goods order page with its main information of each purchase goods order.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>102.0.E1: There is no record of import goods order.</p> <p>1: Instead of a table listing import goods order, the system shows a message (MSG136).</p>		

Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-15, BR-18, BR-45
Other Information:	N/A
Assumptions:	N/A

2.12.4: UC-103: Search import goods order

UC ID and Name:	UC-103: Search import goods order		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to find a import goods order.		
Description:	Manager goes to manage import goods order page, view list import goods order. Search and filter import goods order.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: System gets data and shows list result of import goods order.		
Normal Flow:	<p>103.0: Search, filter import goods order</p> <p>1: Manager logs in to the system.</p> <p>2: Manager access to manage import goods order page.</p> <p>3: Manager clicks “Bộ lọc” in import goods order, chooses column manager wants to filter, chooses operator and value to search, filter.</p> <p>4: System filter list import goods order follows filter field, shows a list of satisfied purchase goods order.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>103.0.E1: There is no result for filter of import goods order</p> <p>1. If there is no import goods order that has filter and search text, instead of a list of import goods order, a message (MSG50) is shown.</p>		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	BR-15, BR-18, BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.12.5: UC-104: Create import goods order

UC ID and Name:	UC-104: Create import goods order		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to create import goods order.		
Description:	The manager login to system management, choose to manage import goods order, click create import goods order. The manager finds goods to add, chooses quantity, clicking the create button. After some seconds, the system save from information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: One or some goods has been created.		
Postconditions:	POST-01: The new inventory checklist is saved in the database.		
Normal Flow:	<p>104.0: Create import goods order</p> <p>1: Manager access to manage import goods order page.</p> <p>2: Manager clicks the create button to open create import goods order popup.</p> <p>3: Manager finds goods by searching in textbox search. Manager inputs some texts in the search textbox, the appropriate goods are shown, manager chooses goods by clicking. The goods is added to the import goods order. The default actual quantity is 0.</p> <p>4: Manager inputs the quantity of goods.</p> <p>5: System auto calculate and generate the price.</p> <p>6: Manager can remove chosen goods in the inventory checklist by clicking the delete icon in the right of goods item.</p> <p>7: Manager saves the import goods order. as a temporary import goods order by clicking the “Lưu tạm” button.</p> <p>8: System save to the database the new import goods order.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>104.0.E1: No goods is found with search text.</p> <p>3. System shows a message (MSG51) below the search textbox.</p> <p>104.0.E2: Manager clicks save button when import goods order has no goods.</p> <p>1. System show error message (MSG52) and close create import goods order popup.</p> <p>104.0.E3: Manager clicks cancel button instead of save button.</p> <p>7. System close create popup with no changes.</p>		

Priority:	Low, Should Have
Frequency of Use:	High
Business Rules:	BR-18, BR-21, BR-45
Other Information:	N/A
Assumptions:	N/A

2.12.6: UC-105: View detail of import goods order

UC ID and Name:	UC-105:View detail of import goods order		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view import goods order information.		
Description:	Manager wants to view import goods order information. Manager logs in to system, goes to list import goods order page, find import goods order he/she wants to view details, click icon view details to open popup information		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: import goods order which the manager wants to view was created.		
Postconditions:	POST-01: System shows all information of import goods order in popup.		
Normal Flow:	<p>105.0: View detail of an import goods order</p> <p>1: Manager access to import goods order page</p> <p>2: Manager find, (can search) import goods order wants to view and click to icon view details in the right of that import goods order. The popup which includes the main information of the import goods order is displayed:</p> <ul style="list-style-type: none"> - Code of import goods order - Status - Created time - Note - List goods in import goods order - Total price 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	Medium		
Business Rules:	BR-15, BR-45		
Other Information:	N/A		

Assumptions:	N/A
--------------	-----

2.12.7: UC-106: Update import goods order (only for temporary order)

UC ID and Name:	UC-106: Update import goods order (only for temporary order)		
Created By:	Cu Thi Ha Thu	Date Created:	04/10/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to update the import goods order.		
Description:	The manager login to system management, choose manage import goods order, click import goods order manager wants to update. The manager fills in the necessary information, clicking the update button. After some seconds, the system checks information and shows message success or failure.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: The import goods order is created. PRE-03: The import goods order is a temporary order.		
Postconditions:	POST-01: The import goods order is updated in the database.		
Normal Flow:	<p>106.0: Update import goods order (only for temporary order)</p> <p>1: Manager access to manage import goods order page</p> <p>2: Manager finds import goods order manager wants to update, click icon update in the right of that import goods order to open popup update.</p> <p>3: Manager fill into import goods order information</p> <p>4: Manager clicks the button “Lưu tạm” to save as a temporary order.</p> <p>5: The import goods order will be saved into the database and a successful message (MSG155) is shown.</p>		
Alternative Flows:	N/A		
Exceptions:	<p>106.0.E1: No goods is found with search text.</p> <p>3. System shows a message (MSG51) below the search textbox.</p> <p>106.0.E2: Manager clicks save button when import goods order has no goods.</p> <p>1. System show error message (MSG52) and close create import goods order popup.</p> <p>106.0.E3: Manager clicks cancel button instead of save button.</p> <p>7. System close create popup with no changes.</p>		
Priority:	High, Must Have		
Frequency of Use:	High		

Business Rules:	BR-18, BR-21, BR-45
Other Information:	N/A
Assumptions:	N/A

2.12.8: UC-107: Cancel import goods order (only for temporary order)

UC ID and Name:	UC-107: Cancel import goods order (only for temporary order)		
Created By:	Cu Thi Ha Thu	Date Created:	26/09/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to cancel the import goods order.		
Description:	Manager goes to manage the import goods order page, chooses the import goods order which he/she wants to cancel, chooses the icon cancel, and the system updates to the database shows the message successfully.		
Preconditions:	PRE-01: Manager login to system successfully with role manager. PRE-02: Import goods order which manager wants to cancel must exist in the database system. PRE-03: The import goods order is a temporary order.		
Postconditions:	POST-01: The import goods order is updated in the database.		
Normal Flow:	107.0: Cancel import goods order (only for temporary order) 1: Manager logs in to the system, goes to manage the import goods order page. 2: Manager chooses the import goods order wants to cancel by clicking the cancel icon on the right of each import goods order. After clicking, a confirm popup will display 3: Manager chooses delete action by clicking the save button. 4: The system changes the status of that import goods order to be cancelled. 5: System closes confirm popup. Successful message (MSG156) is shown.		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	High, Must Have		
Frequency of Use:	High		
Business Rules:	N/A		
Other Information:	Cancelled inventory checklist is view only, can't be updated.		
Assumptions:	N/A		

2.12.9 UC-108: Export import goods order

UC ID and Name:	UC-108: Export import goods order		
Created By:	Cu Thi Ha Thu	Date Created:	10/04/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to export file import goods orders.		
Description:	The manager login to system management, choose to manage import goods order, click the export button. After some seconds, the browser auto downloads the file of all the import goods order.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The file of list import goods order is auto download		
Normal Flow:	<p>108.0: Export file import goods order</p> <p>1: Manager access to manage import goods order page</p> <p>2: Manager click icon export, choose type of file export is csv or print.</p> <p>3: System auto download file of all import goods order.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Priority:	Low, Must Have		
Frequency of Use:	Low		
Business Rules:	BR-45		
Other Information:	N/A		
Assumptions:	N/A		

2.13 Manage report**2.13.1 UC-109: View overview**

UC ID and Name:	UC-109: View overview		
Created By:	Cu Thi Ha Thu	Date Created:	11/14/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view an overview of the business situation.		
Description:	The manager login to system management. System shows overview page (dashboard page).		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The system gets data and shows it by chart in the overview page.		

Normal Flow:	<p>109.0: Overview</p> <p>1: Manager login.</p> <p>2: System shows overview page:</p> <ul style="list-style-type: none"> • Wattage of rooms (number of empty room and number of not empty rooms at that moment) • Recent activity (activity of user like creating invoice, booking,...) • Wattage of using rooms • Revenue • Top room class <p>3: With wattage of using rooms, revenue, top room class chart, manager can chooses range of time for chart</p> <ul style="list-style-type: none"> • “Theo ngày trong tháng”: Manager can chooses month to view • “Theo tháng trong năm”: Manager can chooses year to view • “Theo từng năm” <p>With top room class chart, manager can filter with options “Theo số lượng” or “Theo doanh thu”.</p> <p>Chart updates data after the manager chooses.</p>
Alternative Flows:	N/A
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-60, BR-61, BR-62
Other Information:	N/A
Assumptions:	N/A

2.13.2 UC-110: View wattage of rooms chart

UC ID and Name:	UC-110: View wattage of rooms chart		
Created By:	Cu Thi Ha Thu	Date Created:	11/14/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view wattage of rooms chart in a range of time.		
Description:	The manager login to system management. System shows overview page (dashboard page). Manager chooses a range of time and type of time. System shows appropriate data.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The system gets data and shows it by chart in the overview page.		

Normal Flow:	<p>110.0: View wattage of rooms chart with type day in month</p> <p>1: Manager login.</p> <p>2: System shows overview page:</p> <ul style="list-style-type: none"> • Wattage of rooms (number of empty room and number of not empty rooms at that moment) • Recent activity (activity of user like creating invoice, booking,...) • Wattage of using rooms • Revenue • Top room class <p>3: Manager can chooses range of time for chart</p> <ul style="list-style-type: none"> • “Theo ngày trong tháng”: Manager can chooses month to view (default) • “Theo tháng trong năm”: Manager can chooses year to view • “Theo từng năm” <p>4: If the manager chooses “Theo ngày trong tháng”, the system shows appropriate data in chart with two options:</p> <ul style="list-style-type: none"> • By day (day in month) (default) • By day in week <p>5: Manager chooses day in weeks option.</p> <p>6: System shows appropriate data in a chart with days in week.</p>
Alternative Flows:	<p>110.1: View wattage of rooms chart with type month in year</p> <p>1: Follow steps 1-2 in 110.0.</p> <p>2: Manager chooses “Theo tháng trong năm” and chooses the year to view.</p> <p>3: The system shows appropriate data in chart with two options:</p> <ul style="list-style-type: none"> • By month (default) • By day in week <p>4: Manager chooses day in weeks option.</p> <p>6: System shows appropriate data in a chart with days in week.</p> <p>110.2: View wattage of rooms chart with type each year</p> <p>1: Follow steps 1-2 in 110.0.</p> <p>2: Manager chooses “Theo từng năm” and chooses the year to view.</p> <p>3: System shows appropriate data in a chart with years.</p>
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-60

Other Information:	N/A
Assumptions:	N/A

2.13.3 UC-111: View revenue chart

UC ID and Name:	UC-111: View revenue chart		
Created By:	Cu Thi Ha Thu	Date Created:	11/14/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the revenue chart in a range of time.		
Description:	The manager login to system management. System shows overview page (dashboard page). Manager chooses a range of time and type of time. System shows appropriate data.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The system gets data and shows it by chart in the overview page.		
Normal Flow:	<p>111.0: View revenue chart with type day in month</p> <p>1: Manager login.</p> <p>2: System shows overview page:</p> <ul style="list-style-type: none"> • Wattage of rooms (number of empty room and number of not empty rooms at that moment) • Recent activity (activity of user like creating invoice, booking,...) • Wattage of using rooms • Revenue • Top room class <p>3: Manager can chooses range of time for chart</p> <ul style="list-style-type: none"> • “Theo ngày trong tháng”: Manager can chooses month to view (default) • “Theo tháng trong năm”: Manager can chooses year to view • “Theo từng năm” <p>4: If the manager chooses “Theo ngày trong tháng”, the system shows appropriate data in chart with two options:</p> <ul style="list-style-type: none"> • By day (day in month) (default) • By day in week <p>5: Manager chooses day in weeks option.</p> <p>6: System shows appropriate data in a chart with days in week.</p>		
Alternative Flows:	<p>111.1: View revenue chart with type month in year</p> <p>1: Follow steps 1-2 in 110.0.</p> <p>2: Manager chooses “Theo tháng trong năm” and chooses the year to view.</p> <p>3: The system shows appropriate data in chart with two options:</p>		

	<ul style="list-style-type: none"> • By month (default) • By day in week <p>4: Manager chooses day in weeks option.</p> <p>6: System shows appropriate data in a chart with days in week.</p> <p>111.2: View revenue chart with type each year</p> <p>1: Follow steps 1-2 in 110.0.</p> <p>2: Manager chooses “Theo từng năm” and chooses the year to view.</p> <p>3: System shows appropriate data in a chart with years.</p>
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BR-61
Other Information:	N/A
Assumptions:	N/A

2.13.4 UC-112: View top room class chart

UC ID and Name:	UC-112: View top room class chart		
Created By:	Cu Thi Ha Thu	Date Created:	11/14/2023
Primary Actor:	Manager	Secondary Actors:	
Trigger:	Manager wants to view the top room class chart in a range of time.		
Description:	The manager login to system management. System shows overview page (dashboard page). Manager chooses a range of time and type of time. System shows appropriate data.		
Preconditions:	PRE-01: Manager login to system successfully with role manager.		
Postconditions:	POST-01: The system gets data and shows it by chart in the overview page.		
Normal Flow:	<p>112.0: View top room class chart with type day in month</p> <p>1: Manager login.</p> <p>2: System shows overview page:</p> <ul style="list-style-type: none"> - Wattage of rooms (number of empty room and number of not empty rooms at that moment) - Recent activity (activity of user like creating invoice, booking,...) - Wattage of using rooms - Revenue 		

	<ul style="list-style-type: none"> - Top room class <p>3: Manager can chooses range of time for chart</p> <ul style="list-style-type: none"> - “Theo ngày trong tháng”: Manager can chooses month to view (default) - “Theo tháng trong năm”: Manager can chooses year to view - “Theo từng năm” <p>4: If the manager chooses “Theo ngày trong tháng”, the system shows appropriate data in chart with two options:</p> <ul style="list-style-type: none"> - By revenue (default) - By quantity <p>5: Manager chooses quantity option.</p> <p>6: System shows appropriate data in a chart with quantity.</p>
Alternative Flows:	<p>112.1: View top room class chart with type month in year</p> <p>1: Follow steps 1-2 in 110.0.</p> <p>2: Manager chooses “Theo tháng trong năm” and chooses the year to view.</p> <p>3: The system shows appropriate data in chart with two options:</p> <ul style="list-style-type: none"> - By revenue (default) - By quantity <p>4: Manager chooses quantity option.</p> <p>5: System shows appropriate data in a chart with quantity.</p> <p>112.2: View top room class chart with type each year</p> <p>1: Follow steps 1-2 in 110.0.</p> <p>2: Manager chooses “Theo từng năm” and chooses the year to view.</p> <p>3: The system shows appropriate data in chart with two options:</p> <ul style="list-style-type: none"> - By revenue (default) - By quantity <p>4: Manager chooses quantity option.</p> <p>5: System shows appropriate data in a chart with quantity.</p>
Exceptions:	N/A
Priority:	High, Must Have
Frequency of Use:	High
Business Rules:	BR-45, BE62
Other Information:	N/A

Assumptions:	N/A
--------------	-----

3. UI Requirements

3.1 Authentication

3.1.1 Login

3.1.1.1: Login

- ❖ This screen allows user log in to use system
- ❖ Related use case: UC-01
- ❖ Prototype/ Mock-up

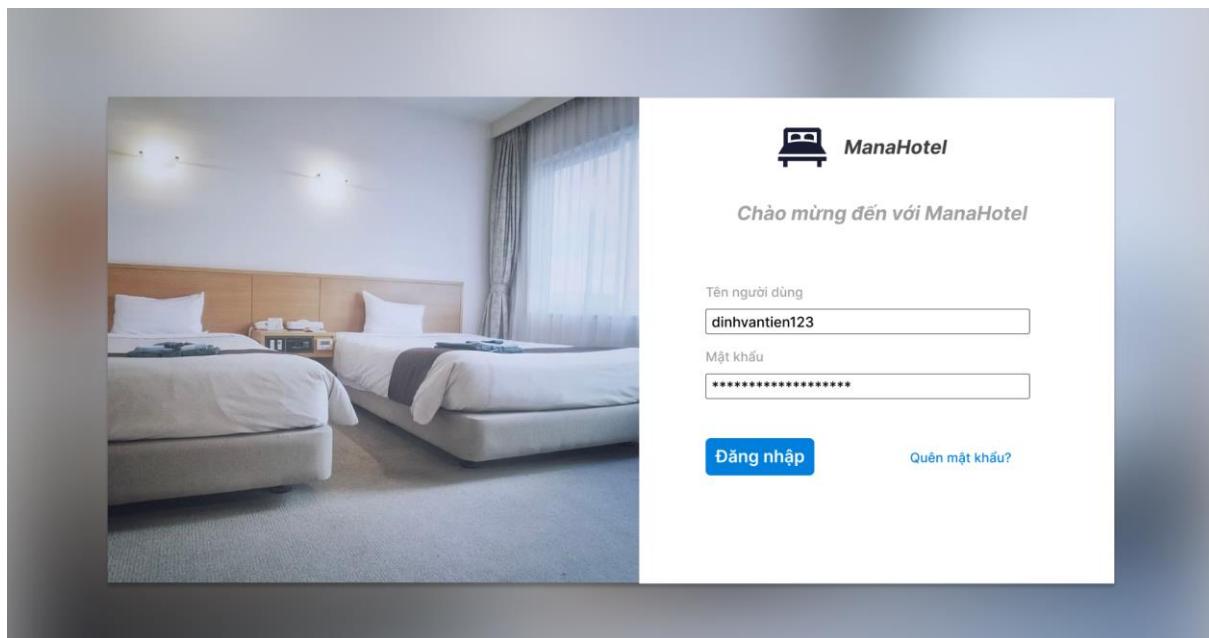


Figure 20: Login

- ❖ UI Requirements:

Table 19: UI Requirements: Login

Field Name	Field Type	Description
Username	Text box	Username to login
Password	Text box	Password to login
Login	Button	Button to submit form login
Forgot password	Link	Link to page forgot password

3.1.2: Forgot password.

3.1.2.1: Forgot password (input email)

- ❖ This screen allows user input email to reset password to access to system.
- ❖ Related use case: UC-03
- ❖ Prototype/ Mock-up

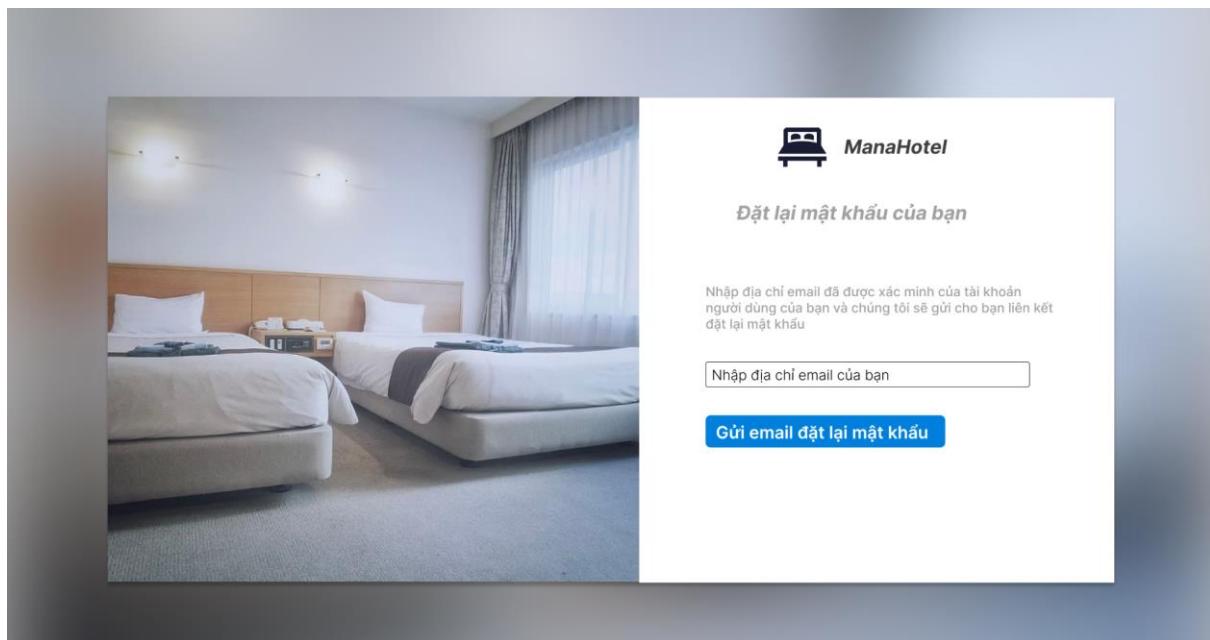


Figure 21: Forgot password

❖ UI Requirements:

Table 20: Forgot password (input email)

Field Name	Field Type	Description
Email	Text box	Input email to reset password
Send email	Button	Send email to reset password

3.1.2.2: Forgot password (send email successfully)

- ❖ This screen shows a successful message and a button back to the login page.
- ❖ Related use case: UC-03
- ❖ Prototype/ Mock-up

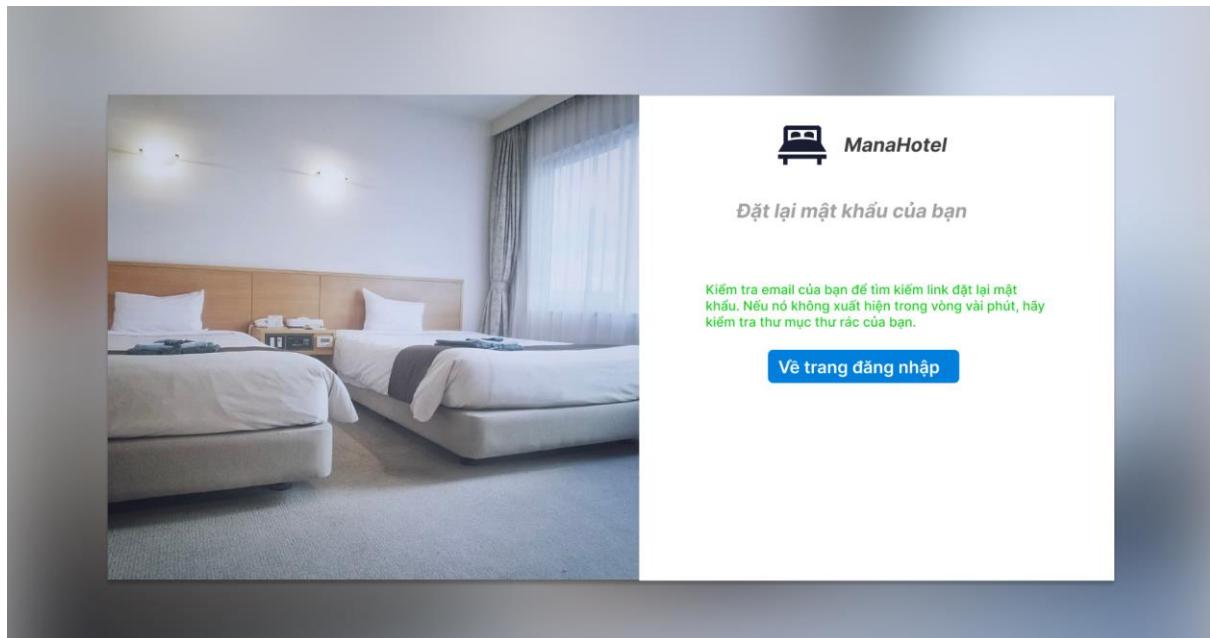


Figure 22: Forgot password (send email successfully)

- ❖ UI Requirements:

Table 21: Forgot password (send email successfully)

Field Name	Field Type	Description
Message	Text view	Message tells user check mail
Back to login page	Button	To back to login page

3.1.2.3: Forgot password (input new password)

- ❖ This screen allows user input new password to reset password to access to system
- ❖ Related use case: UC-03
- ❖ Prototype/ Mock-up

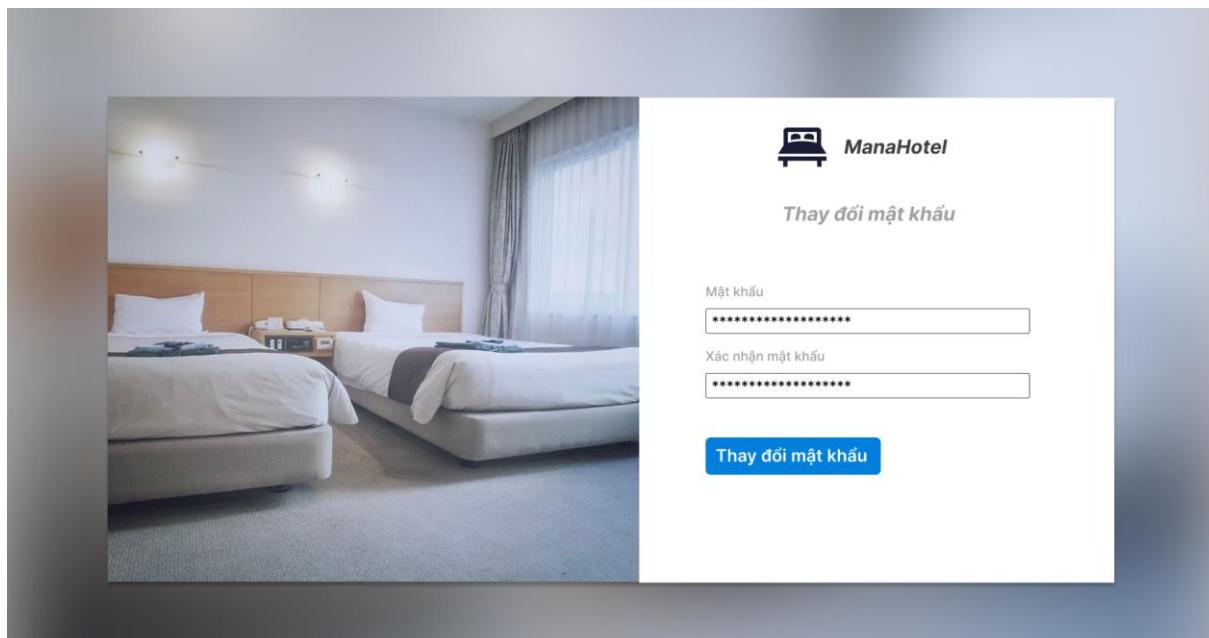


Figure 23: Forgot password (input new password)

- ❖ UI Requirements:

Table 22: Forgot password (input new password)

Field Name	Field Type	Description
New password	Text box	New password
Confirm new password	Text box	Repeat new password
Change password	Button	To confirm apply new password

3.2 Room class management

3.2.1: Room class management

3.2.1.1: View, search, filter, mass action with list room class

- ❖ This screen allows user view list room class.
- ❖ Related use case: UC-04, UC-05, UC-10, UC-11
- ❖ Prototype/ Mock-up

Figure 24: List room class

❖ UI Requirements:

Table 23: Room class management

Field Name	Field Type	Description
Header bar	Button	Button to redirect to other pages.
Add room class	Button	Button to add a new room class
Add room	Button	Button to open popup add new room
Column	Button	Button to customise which column is hidden, which column is shown in table list room class.
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customize the distance between 2 lines
Export	Button	To export file of all room class.

3.2.1.2: Create a new room class.

- ❖ This popup to create a new room class.
- ❖ Related use case: UC-06
- ❖ Prototype/ Mock-up

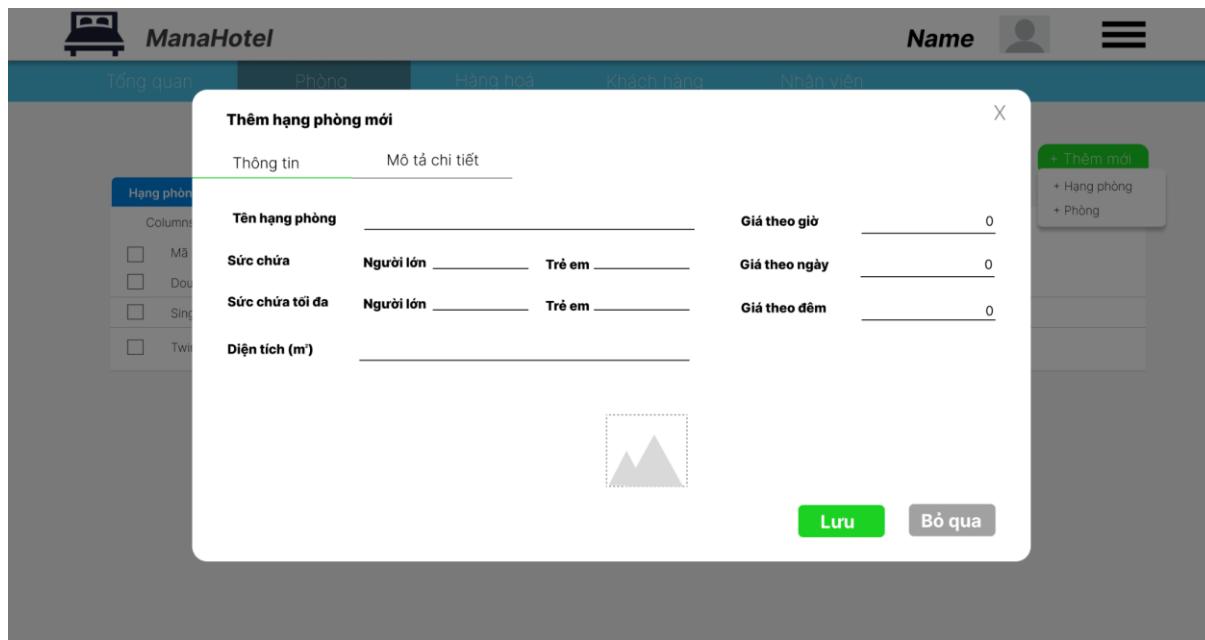


Figure 25: Create new room class

- ❖ UI Requirements:

Table 24: Create a new room class.

Field Name	Field Type	Description
Name of room class	Text box	Input text name of room class
Capacity standard of adult	Text box	Input number standard of adults
Capacity standard of children	Text box	Input number standard of children
Capacity maximum of adult	Text box	Input number of maximum adults
Capacity maximum of children	Text box	Input number of maximum children
Price by hour	Text box	Price/ hour of this room class
Price by night	Text box	Price/ night of this room class
Price by day	Text box	Price/ day of this room class
Save	Button	Save new room class
Cancel	Button	Cancel adding new room class
Image	Select	Add image for this room class

3.2.1.3: Details of room class

- ❖ This popup allows user view details of room class.
- ❖ Related use case: UC-07
- ❖ Prototype/ Mock-up

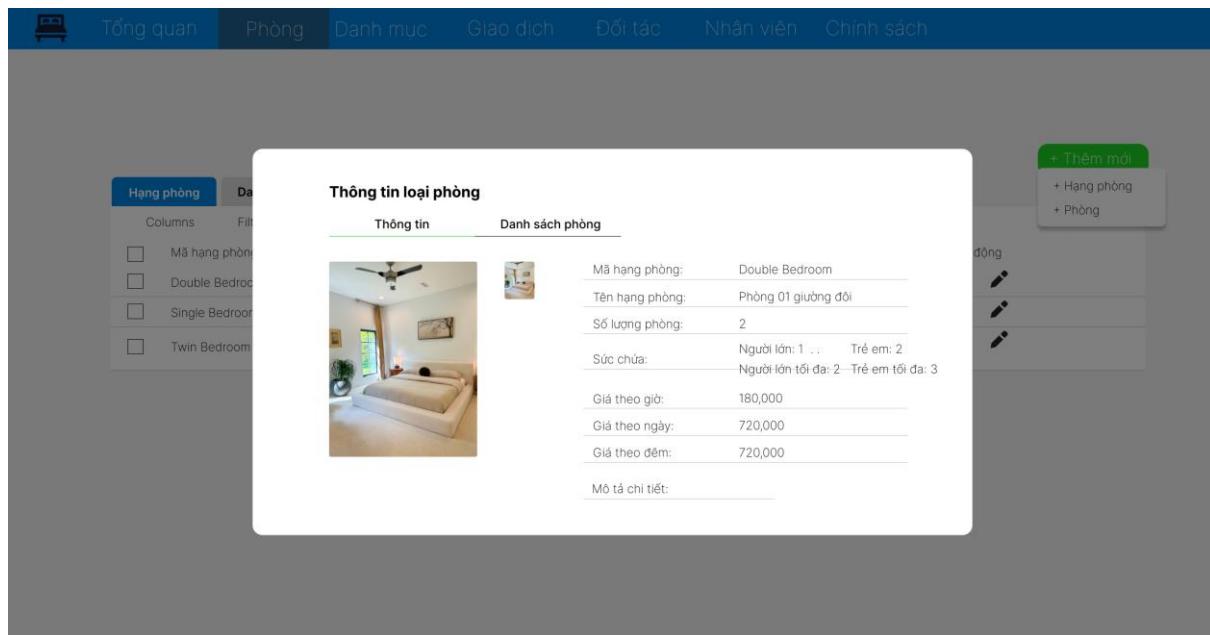


Figure 26: Details of room class (1)

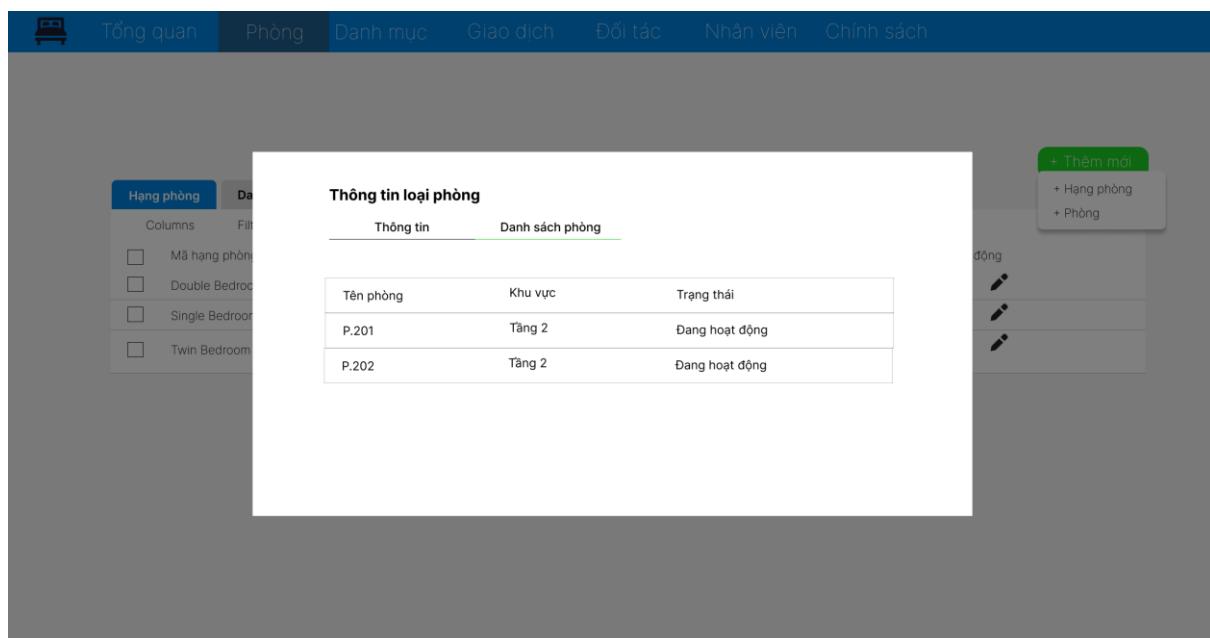


Figure 27: Details of room class(2)

❖ UI Requirements:

Table 25: Details of room class

Field Name	Field Type	Description
room class code	Text box view only	Code of room class
Name room class	Text view	Name of room class
Number of rooms	Text view	Total rooms in this room class

Capacity standard of adults	Text view	Number standard of adults in each room in this room class
Capacity standard of children	Text view	Number standard of children in each room in this room class
Capacity maximum of adults	Text view	Number maximum of adults in each room in this room class
Capacity maximum of children	Text view	Number maximum of children in each room in this room class
Price by hour	Text view	Price/ hour of this room class
Price by night	Text view	Price/ night of this room class
Price by day	Text view	Price/ day of this room class
Note	Text view	Details descriptions
List room	Table view	List rooms with their name, area, status in this room class

3.2.1.4: Update room class

- ❖ This popup allows user view details and updates room class.
- ❖ Related use case: UC-08
- ❖ Prototype/ Mock-up

Figure 28: Update room class (1)

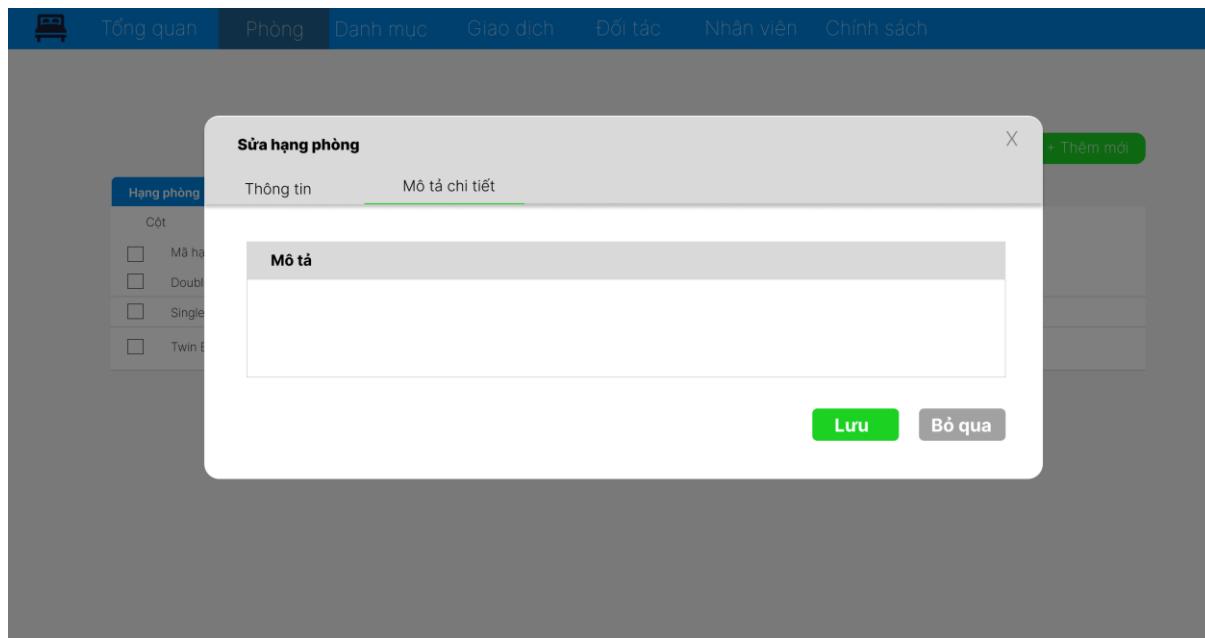


Figure 29: Update room class(2)

❖ UI Requirements:

Table 26: Update room class

Field Name	Field Type	Description
room class code	Text view	Code of room class
Name room class	Text box	Name of room class
Capacity standard of adults	Text box	Number standard of adults in each room in this room class
Capacity standard of children	Text box	Number standard of children in each room in this room class
Capacity maximum of adults	Text box	Number maximum of adults in each room in this room class
Capacity maximum of children	Text box	Number maximum of children in each room in this room class
Price by hour	Text box	Price/ hour of this room class
Price by night	Text box	Price/ night of this room class
Price by day	Text box	Price/ day of this room class
Note	Text box	Details descriptions
Image	Select	Add image for this room class
Save	Button	Save new information of this room class
Cancel	Button	Cancel update this room class

3.2.1.5: Delete room class.

- ❖ This popup allows user delete one or multiple room class.
- ❖ Related use case: UC-10
- ❖ Prototype/ Mock-up

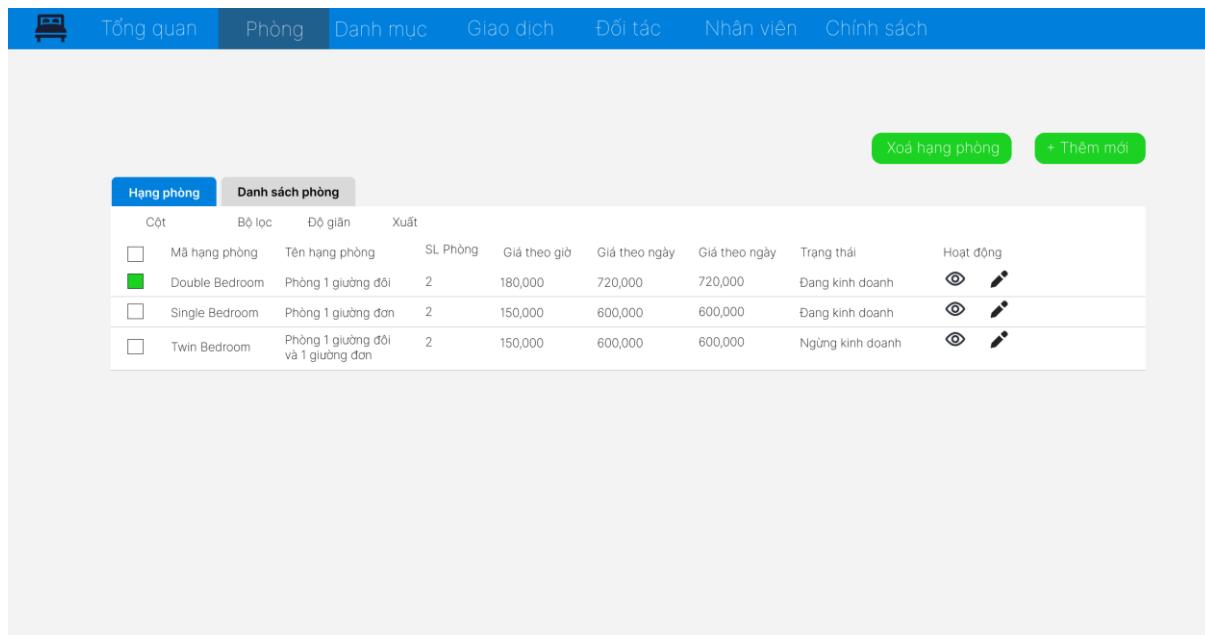


Figure 30: Delete room class.

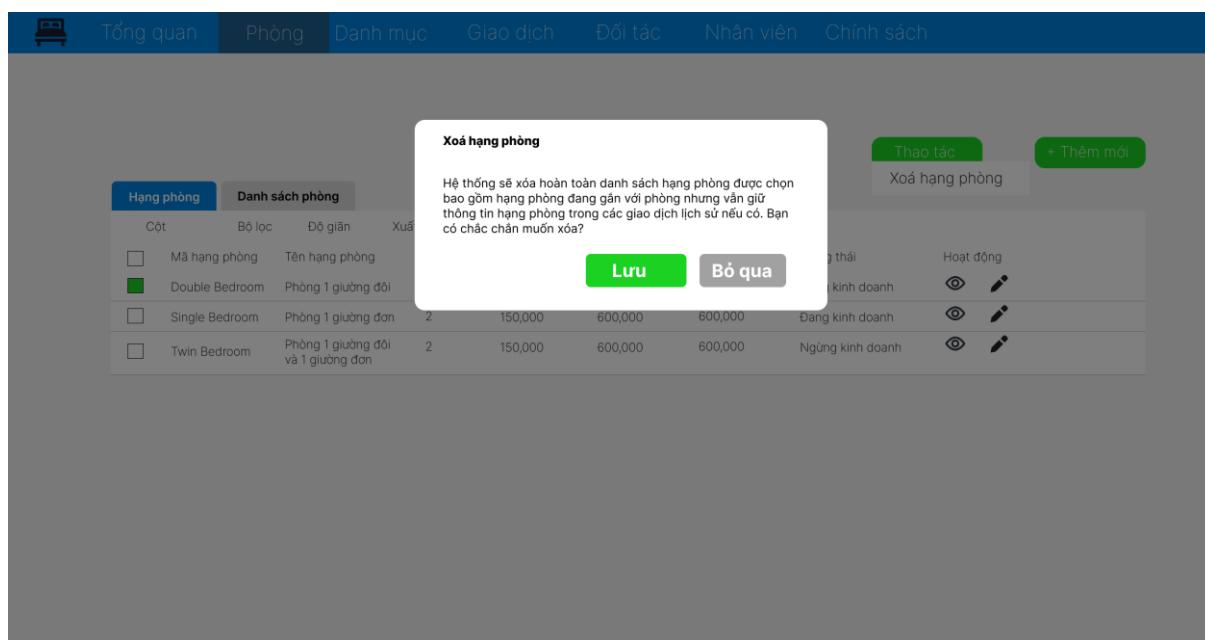


Figure 31: Confirm delete room class.

❖ UI Requirements:

Table 27: Delete room class.

Field Name	Field Type	Description
Select room class	Checkbox	Checkbox to select room class
Delete room class	Button	To open popup confirm delete room class
Save	Button	Confirm to delete room class
Cancel	Button	Cancel deleting room class

3.3 Room management

3.3.1: Room management

3.3.1.1: View, search, filter, mass action with list room

- ❖ This screen allows user view list room.
- ❖ Related use case: UC-08, UC-09, UC-19
- ❖ Prototype/ Mock-up

Hàng phòng		Danh sách phòng											
Khu vực	+ Tim kiếm	Cột	Bộ lọc	Độ giãn	Xuất	Khu vực	Giá theo giờ	Giá theo ngày	Trạng thái	Hoạt động			
Tất cả khu vực		<input type="checkbox"/> Tên phòng	<input type="checkbox"/> Hạng phòng			Khu vực							
Tầng 1		<input type="checkbox"/> P.201	Phòng 01 giường đôi cho 2 người		Tầng 2	180,000	720,000	720,000	Đang hoạt động				
Tầng 2		<input type="checkbox"/> P.202	Phòng 01 giường đôi cho 2 người		Tầng 2	180,000	720,000	720,000	Đang hoạt động				
		<input type="checkbox"/> P.301	Phòng 1 giường đôi và 1 giường đơn		Tầng 3	150,000	600,000	600,000	Ngừng hoạt động				

Figure 32: List room

- ❖ UI Requirements:

Table 28: Room management

Field Name	Field Type	Description
Header bar	Button	Button to redirect to other pages.
Add room class	Button	Button to add a new room class
Add room	Button	Button to open popup add new room
Column	Button	Button to customise which column is hidden, which column is shown in table list room.
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customize the distance between 2 lines
Export	Button	To export file of all room.
Add area	Button	To open popup create area
Search area	Textbox	Textbox to input to search area
List area	List	List all area

3.3.1.2: Create a new room.

- ❖ This popup to create a new room.
- ❖ Related use case: UC-10

❖ Prototype/ Mock-up

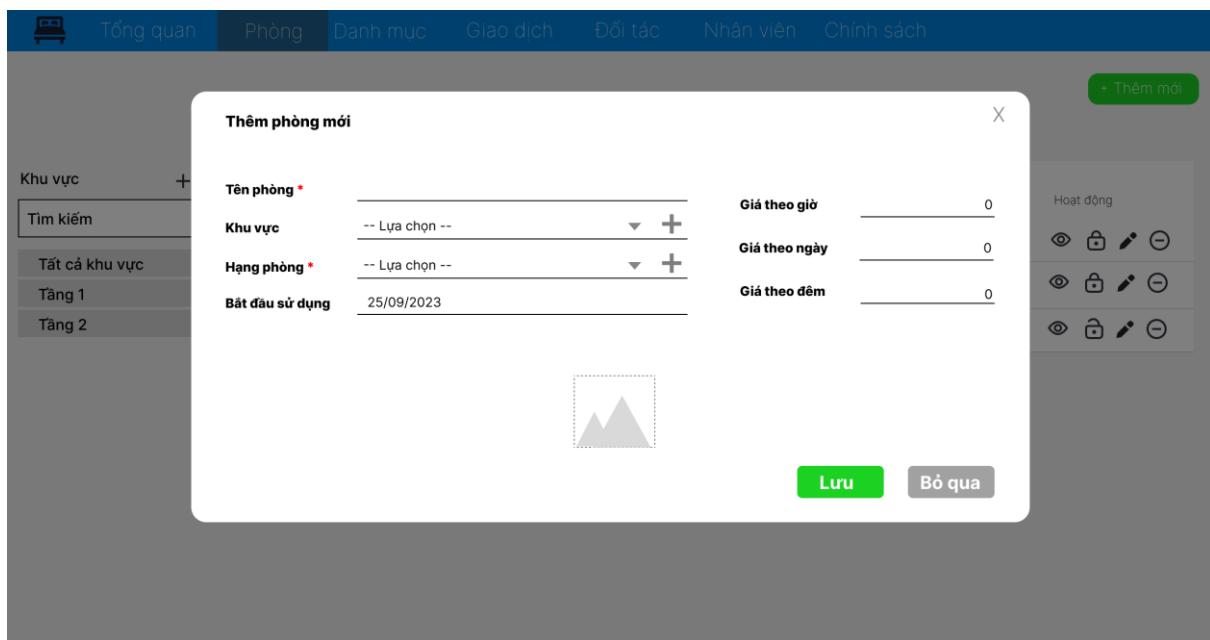


Figure 33: Create a new room.

❖ UI Requirements:

Table 29: Create a new room.

Field Name	Field Type	Description
Name of room	Text box	Input text name of room
Area	Drop down list	Select appropriate area for this room
Add area	Button	Open popup add new area
room class	Drop down list	Select appropriate room class for this room
Add room class	Button	Open popup add new room class
Time starts using	Datetime	Time to start using this room
Price by hour	Text view	Price/ hour of this room class
Price by night	Text view	Price/ night of this room class
Price by day	Text view	Price/ day of this room class
Image	Select image	Add image for this room
Save	Button	Save new room
Cancel	Button	Cancel adding new room

3.3.1.3: Details of room

- ❖ This popup allows user view details of room.
- ❖ Related use case: UC-04
- ❖ Prototype/ Mock-up

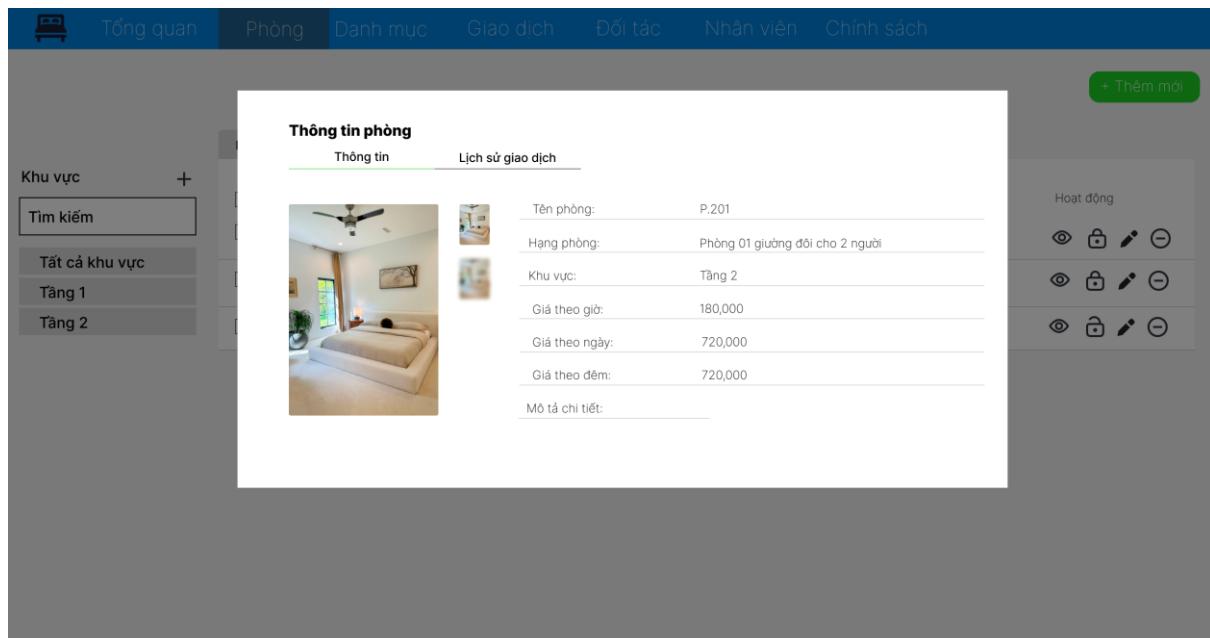


Figure 34: Details of room (1)

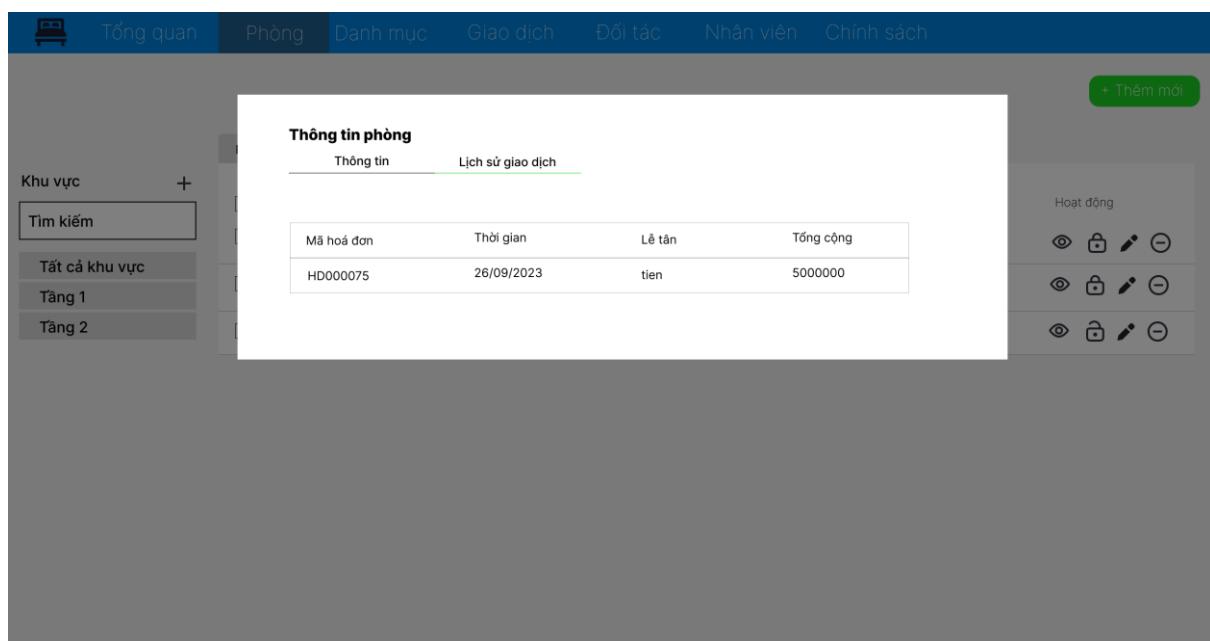


Figure 35: Details of room (2)

❖ UI Requirements:

Table 30: Details of room

Field Name	Field Type	Description
Room code	Text box view only	Code of room
Name room	Text view	Name of room
Area	Text view	Area of this room
Price by hour	Text view	Price/ hour of this room class
Price by night	Text view	Price/ night of this room class

Price by day	Text view	Price/ day of this room class
Note	Text view	Details descriptions
List reservation	Table view	List reservation with reservation code, created time, created by receptionist, total price includes this room

3.3.1.4: Update room class

- ❖ This popup allows user view details and updates room class.
- ❖ Related use case: UC-05
- ❖ Prototype/ Mock-up

Figure 36: Update room class

- ❖ UI Requirements:

Table 31: Update room class

Field Name	Field Type	Description
Room code	Text view	Code of room
Name of room	Text box	Input text name of room
Area	Drop down list	Select appropriate area for this room
Add area	Button	Open popup add new area
room class	Drop down list	Select appropriate room class for this room
Add room class	Button	Open popup add new room class
Time start using	Datetime	Time to start using this room
Price by hour	Text view	Price/ hour of this room class
Price by night	Text view	Price/ night of this room class
Price by day	Text view	Price/ day of this room class
Image	Select image	Add image for this room
Save	Button	Save update information of room

Cancel	Button	Cancel updating room
--------	--------	----------------------

3.3.1.5: Delete room.

- ❖ This screen allows user delete one or multiple room.
- ❖ Related use case: UC-07
- ❖ Prototype/ Mock-up

The screenshot shows the ManaHotel software interface. At the top, there is a navigation bar with tabs: Tổng quan, Phòng, Danh mục, Giao dịch, Đối tác, Nhân viên, and Chính sách. The 'Phòng' tab is currently selected. Below the navigation bar, there is a search bar labeled 'Tim kiếm' and a sidebar with filters for 'Khu vực' (Tất cả khu vực, Tầng 1, Tầng 2). The main content area displays a table titled 'Danh sách phòng' (Room List) with columns: Cột, Tên phòng, Hàng phòng, Khu vực, Giá theo giờ, Giá theo ngày, Trạng thái, and Hoạt động. The table contains three rows of room data. At the bottom right of the table, there are four icons: eye, lock, edit, and delete. A green button labeled 'Xoá phòng' (Delete room) is located at the top right of the main content area.

Figure 37: Delete room.

The screenshot shows the ManaHotel software interface with a confirmation dialog box overlaid. The dialog box is titled 'Xoá phòng' (Delete room) and contains the following message: 'Hệ thống sẽ xoá hoàn toàn danh sách hạng phòng được chọn bao gồm hạng phòng đang gắn với phòng nhưng vẫn giữ thông tin hạng phòng trong các giao dịch lịch sử nếu có. Bạn có chắc chắn muốn xoá?'. Below the message are two buttons: 'Lưu' (Save) and 'Bỏ qua' (Ignore). The background shows the same room management interface as Figure 37, with room P.201 selected in the list.

Figure 38: Confirm delete room.

❖ UI Requirements:

Table 32: Delete room.

Field Name	Field Type	Description
Select room	Checkbox	Checkbox to select room
Delete room	Button	To open popup confirm delete room
Save	Button	Confirm to delete room class
Cancel	Button	Cancel deleting room class

3.3.1.6: Create area.

- ❖ This popup allow user to create a new area.
- ❖ Related use case: UC-14
- ❖ Prototype/ Mock-up

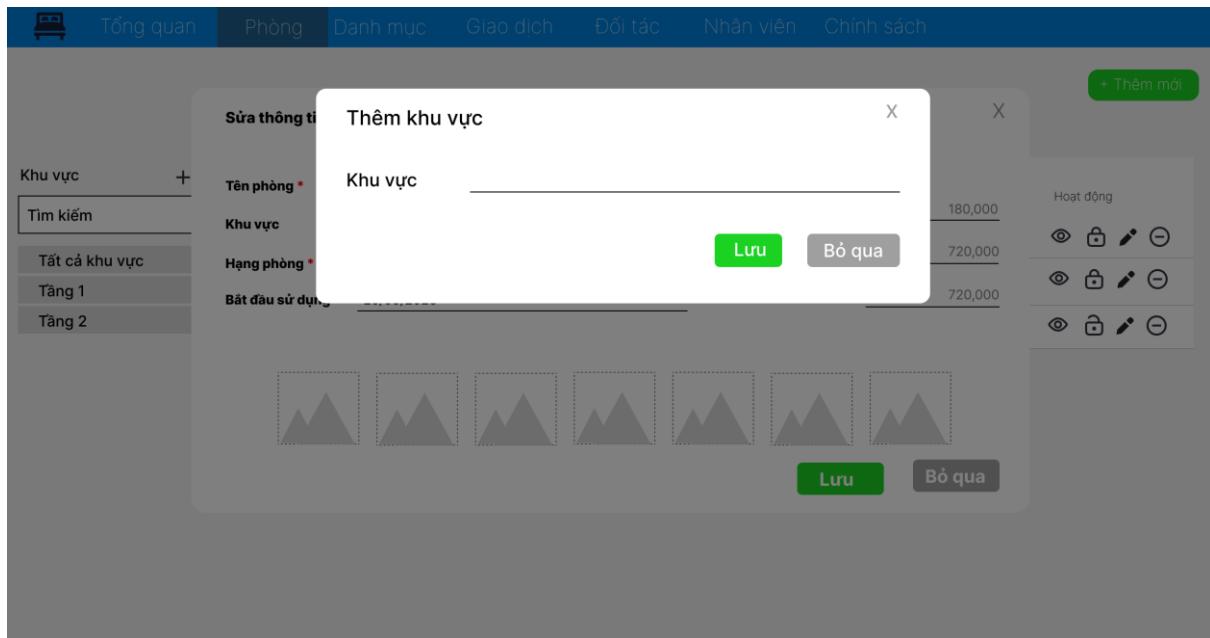


Figure 39: Create area.

❖ UI Requirements:

Table 33: Create area.

Field Name	Field Type	Description
Name of area	Text box	Name of area
Save	Button	Confirm to create a new area
Cancel	Button	Cancel adding area

3.4 Goods, service management:

3.4.1: Goods, service management

3.4.1.1: View, search, filter, mass action with goods, service

- ❖ This screen allows user view, search, filter, delete list goods, service.

- ❖ Related use case: UC-23, UC-24
- ❖ Prototype/ Mock-up

Figure 40: List goods, service

- ❖ UI Requirements:

Table 34: Goods, service management

Field Name	Field Type	Description
Header bar	Button	Button to redirect to other pages.
Add goods	Button	Button to add a new goods
Add service	Button	Button to open popup add new service
Column	Button	Button to customise which column is hidden, which column is shown in table list goods and service.
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customize the distance between 2 lines
Export	Button	To export file of all goods and service.
Select goods and service	Checkbox	Click to choose goods/ service
Delete	Button	To delete all chosen goods, service

3.4.1.2: Popup confirm delete goods/ service:

- ❖ This popup allow user to confirm delete or not delete goods, service.
- ❖ Related use case: UC-32
- ❖ Prototype/ Mock-up

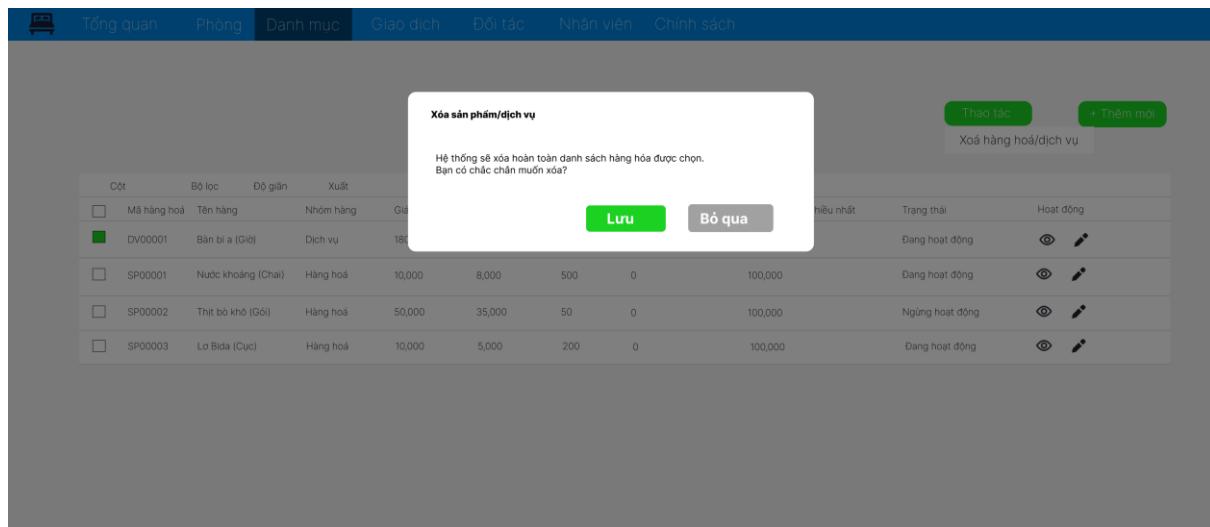


Figure 41: Confirm delete goods/service

- ❖ UI Requirements:

Table 35: Popup confirm delete goods/service:

Field Name	Field Type	Description
Save	Button	Confirm delete chosen goods, service.
Cancel	Button	Cancel deleting goods, service

3.4.1.3: Create goods.

- ❖ This popup allow user to create a new goods
- ❖ Related use case: UC-27
- ❖ Prototype/ Mock-up

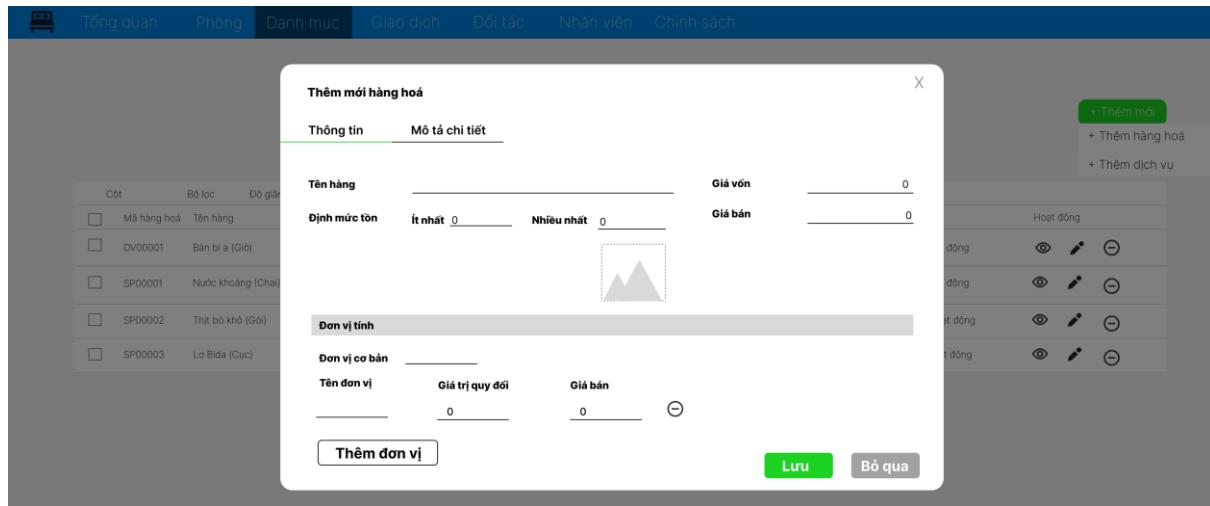


Figure 42: Create goods.(1)

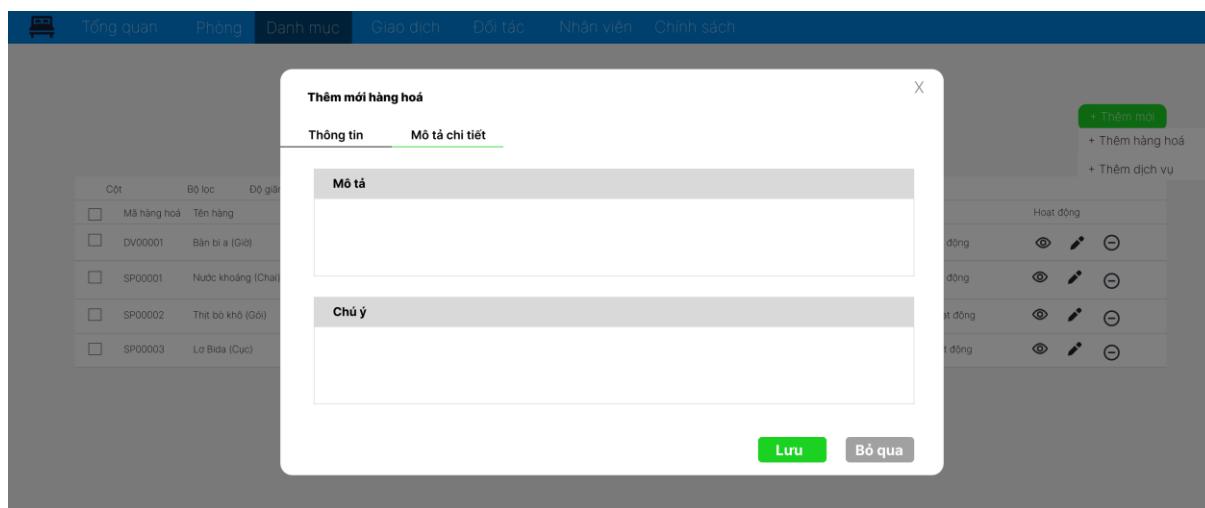


Figure 43: Create goods.(2)

❖ UI Requirements:

Table 36: Create goods.

Field Name	Field Type	Description
Name	Text box	Name of goods
Minimum quantity in stock	Text box	Minimum quantity of goods to be in stock
Maximum quantity in stock	Text box	Maximum quantity of goods to be in stock
Capital price	Text box	Capital price / basic unit of goods
Selling price	Text box	Selling price / basic unit of goods
Image	Select	Image for goods
Base unit	Text box	Base unit of goods
Add unit	Button	To add new unit
Name of new unit	Text box	Name of new unit
Exchange value	Text box	Exchange value of a new unit with base unit
Selling price of new unit	Text box	Selling price / new unit of goods
Delete unit	Button	To delete new unit
Details description	Text area	Details description of goods
Note	Text area	Note for this goods
Save	Button	Save new goods
Cancel	Button	Cancel add new goods

3.4.1.4: Create service.

- ❖ This popup allow user to create a new service.
- ❖ Related use case: UC-28
- ❖ Prototype/ Mock-up

Figure 44: Create service.(1)

Figure 45: Create service.(2)

❖ UI Requirements:

Table 37: Create service.

Field Name	Field Type	Description
Name	Text box	Name of service
Selling price	Text box	Selling price / basic unit of service
Image	Select	Image for service
Base unit	Text box	Base unit of service
Add unit	Button	To add new unit
Name of new unit	Text box	Name of new unit
Exchange value	Text box	Exchange value of a new unit with base unit
Selling price of new unit	Text box	Selling price / new unit of service
Delete unit	Button	To delete new unit
Details description	Text area	Details description of goods

Note	Text area	Note for this goods
Save	Button	Save new goods
Cancel	Button	Cancel add new goods

3.4.1.5: View details goods

- ❖ This popup allows user view details of a goods.
- ❖ Related use case: UC-25
- ❖ Prototype/ Mock-up

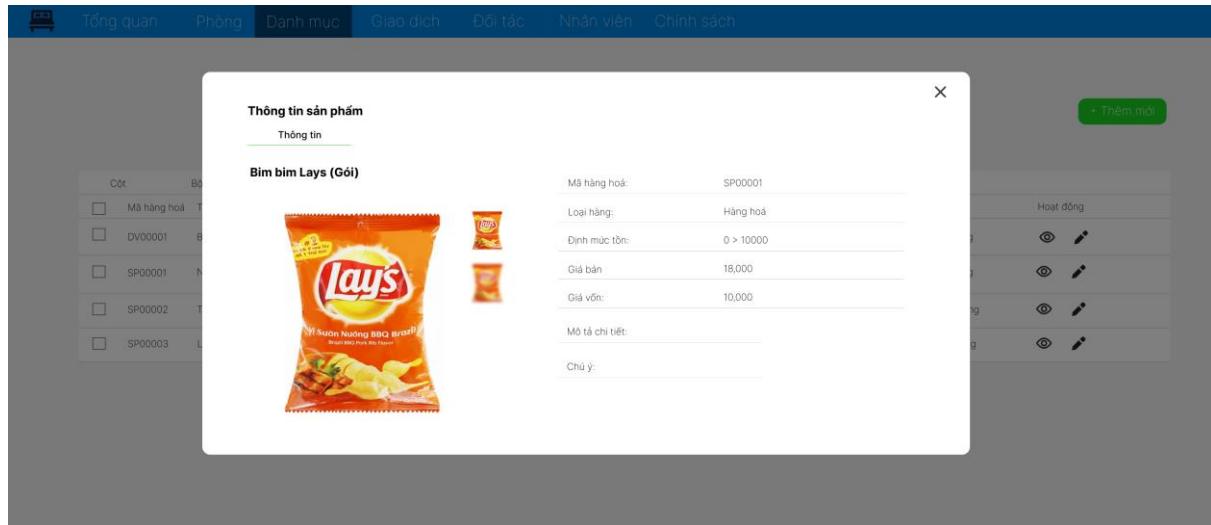


Figure 46: View details goods

- ❖ UI Requirements:

Table 38: View details goods

Field Name	Field Type	Description
Name	Text view	Name of goods
Range quantity in stock	Text view	Minimum quantity of goods to be in stock
Capital price	Text view	Capital price / basic unit of goods
Selling price	Text view	Selling price / basic unit of goods
Image	Text view	Image for goods

3.4.1.6: View details service

- ❖ This popup allows user view details of service.
- ❖ Related use case: UC-26
- ❖ Prototype/ Mock-up

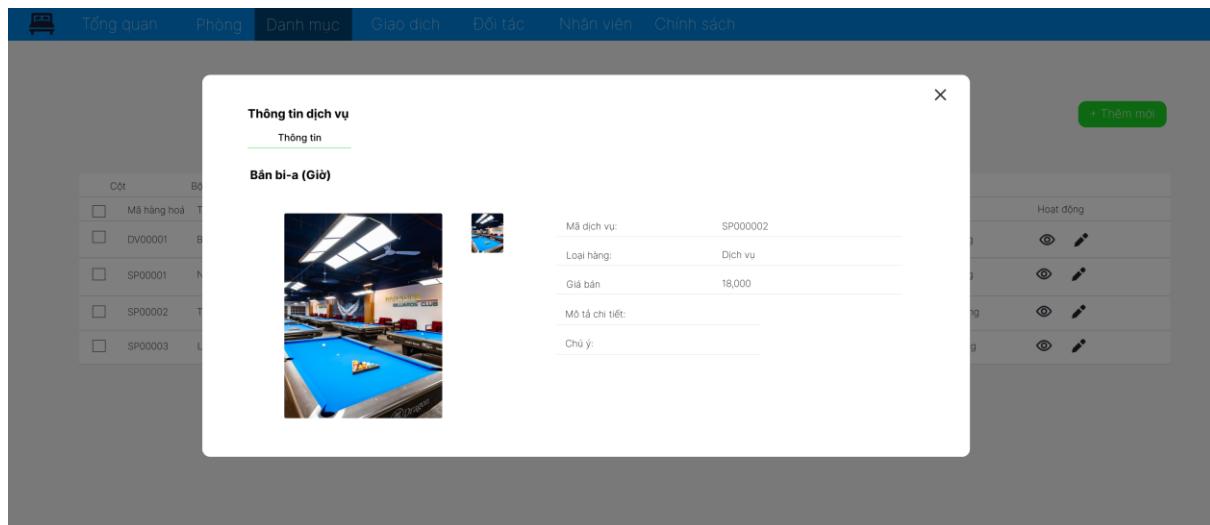


Figure 47: View details service

- ❖ UI Requirements:

Table 39: View details service

Field Name	Field Type	Description
Name	Text view	Name of service
Selling price	Text view	Selling price / basic unit of goods
Image	Text view	Image for goods
Detail description	Text view	Details description
Note	Text view	Note

3.4.1.7: Update goods

- ❖ This popup allows user update goods.
- ❖ Related use case: UC-29
- ❖ Prototype/ Mock-up

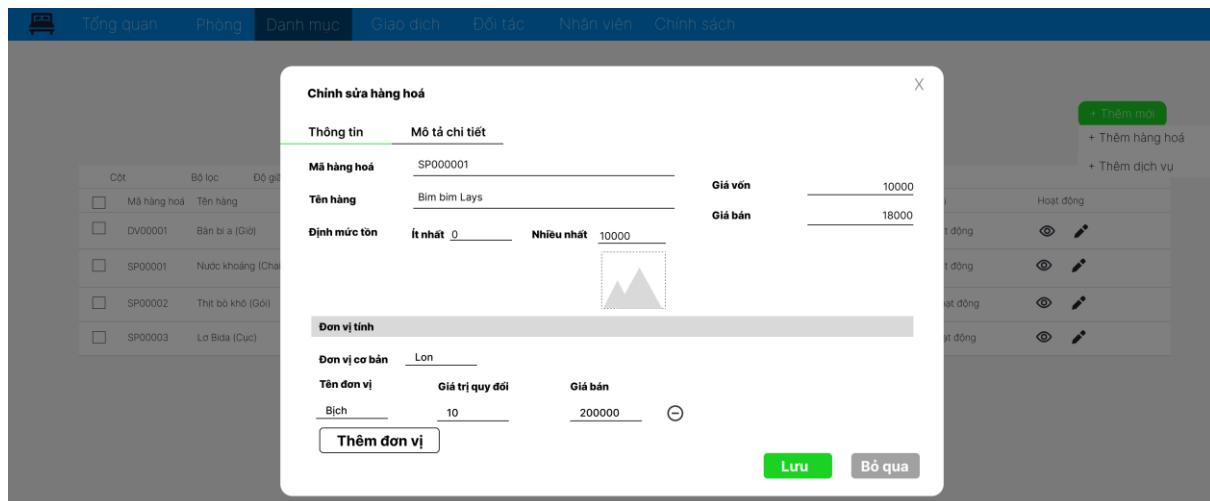


Figure 48: Update goods (1)

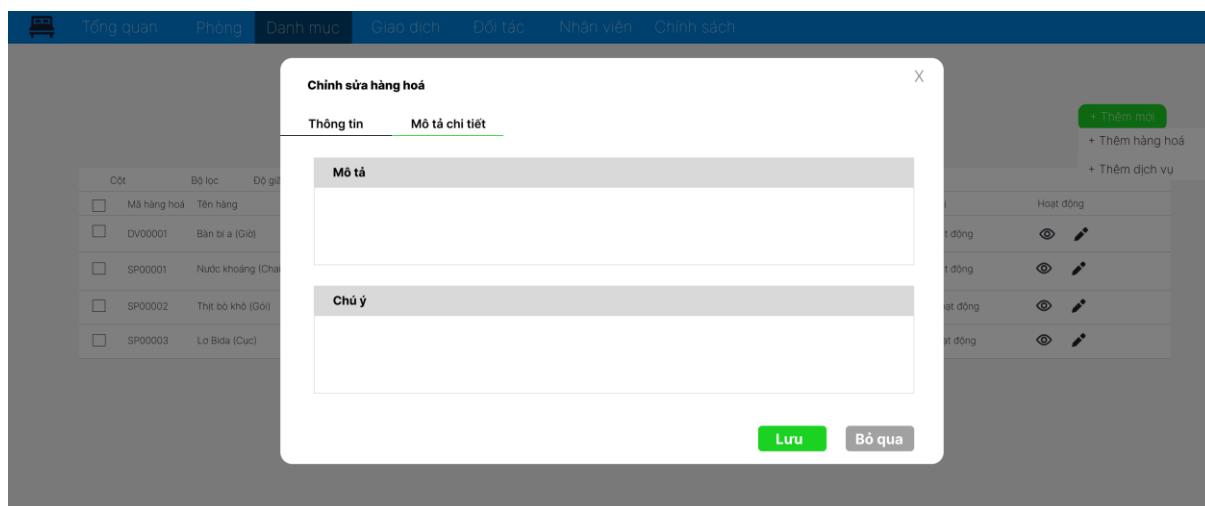


Figure 49: Update goods (2)

- ❖ UI Requirements:

Table 40: Update goods

Field Name	Field Type	Description
Name	Text box	Name of goods
Minimum quantity in stock	Text box	Minimum quantity of goods to be in stock
Maximum quantity in stock	Text box	Maximum quantity of goods to be in stock
Capital price	Text box	Capital price / basic unit of goods
Selling price	Text box	Selling price / basic unit of goods
Image	Select	Image for goods
Base unit	Text box	Base unit of goods
Add unit	Button	To add option unit
Name of option unit	Text box	Name of option unit
Exchange value	Text box	Exchange value of a option unit with base unit
Selling price of option unit	Text box	Selling price / new unit of goods
Delete unit	Button	To delete option unit
Details description	Text area	Details description of goods
Note	Text area	Note for these goods
Save	Button	Save update of goods
Cancel	Button	Cancel update goods

3.4.1.8: Update service

- ❖ This screen allows user update service.
- ❖ Related use case: UC-30
- ❖ Prototype/ Mock-up

Figure 50: Update service (1)

Figure 51: Update service (2)

❖ UI Requirements:

Table 41: Update service

Field Name	Field Type	Description
Name	Text box	Name of service
Selling price	Text box	Selling price / basic unit of service
Image	Select	Image for service
Base unit	Text box	Base unit of service
Add unit	Button	To add option unit
Name of option unit	Text box	Name of option unit
Exchange value	Text box	Exchange value of a option unit with base unit
Selling price of new unit	Text box	Selling price / option unit of service
Delete unit	Button	To delete option unit
Details description	Text area	Details description of goods
Note	Text area	Note for this goods

Save	Button	Save new goods
Cancel	Button	Cancel add new goods

3.5: Inventory management:

3.5.1: Inventory management

3.5.1.1: View, search, filter, take mass action list inventory checklist

- ❖ This screen allow user to view all inventory checklist.
- ❖ Related use case: UC-33, UC-34, UC-38
- ❖ Prototype/ Mock-up

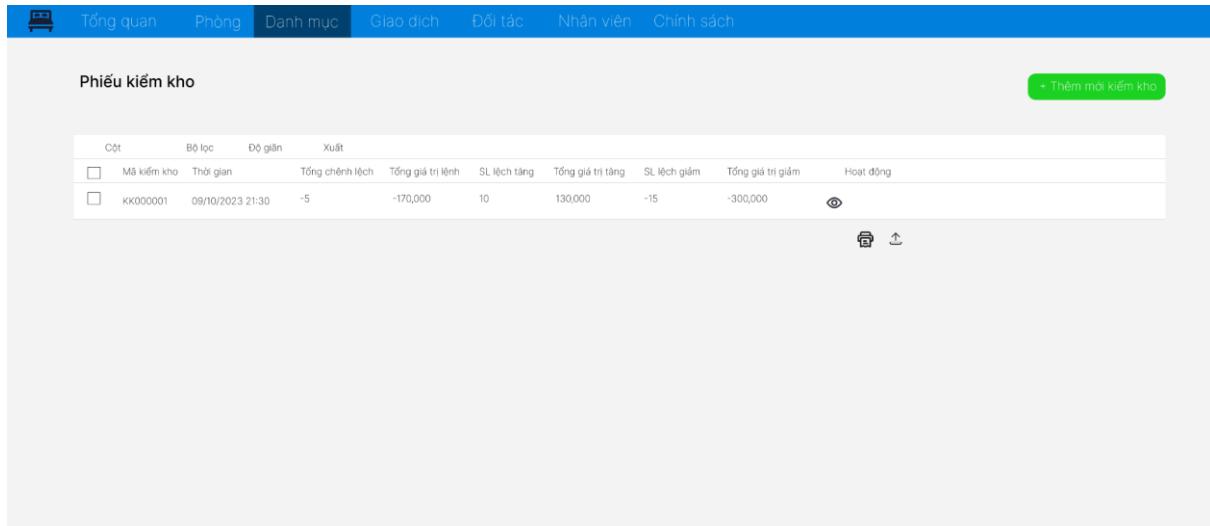


Figure 52: List inventory

- ❖ UI Requirements:

Table 42: Inventory management

Field Name	Field Type	Description
Header bar	Button	Button to redirect to other pages.
Add inventory checklist	Button	Button to add a new inventory checklist
Column	Button	Button to customise which column is hidden, which column is shown in table list goods and service.
Bô lọc	Button	To search and filter
Độ giãn	Button	To customize the distance between 2 lines
Export	Button	To export file of all inventory checklist.
Select goods and service	Checkbox	Click to choose goods/ service
Delete	Button	To delete all chosen goods, service
View detail	Button	Button of each inventory checklist to view detail of inventory checklist
Update	Button	Button of each inventory checklist to update inventory checklist
Print	Button	Button of each inventory checklist to print inventory checklist

3.5.1.2: Add new, update inventory checklist.

- ❖ This popup allow user to create, update an inventory checklist.
- ❖ Related use case: UC-35, UC-36, UC-37
- ❖ Prototype/ Mock-up

The screenshot shows a modal window titled "Thêm kiểm kho mới" (Add New Inventory Checklist). At the top right is a close button (X). Below it is a search bar labeled "Tim hàng hóa". At the bottom are two buttons: a green "Lưu" (Save) button and a grey "Bỏ qua" (Cancel) button. The background shows a dark grey dashboard with tabs like "Tổng quan", "Phòng", "Danh mục", etc.

Figure 53: Create inventory checklist (1)

The screenshot shows the same modal window as Figure 53, but now it contains a table with data. The table has columns: Mã hàng hóa, Tên hàng, Tồn kho, Thực tế, SL lệnh, and Giá trị lệnh. The first row shows HD000055, Mỳ tôm (Gói), 100, 99, -1, and -10,000. At the bottom of the table are three buttons: a green "Lưu" (Save), an orange "Lưu tạm" (Save Temporarily), and a grey "BỎ QUA" (Cancel).

Figure 54: Create inventory checklist (2)

- ❖ UI Requirements:

Table 43: : Add new, update inventory checklist.

Field Name	Field Type	Description
Find goods	Textbox	Test box search to find goods
List goods	List view	List goods in inventory checklist
Quantity in actual	Text box	Quantity in actual of goods
Save	Button	Save new inventory checklist
Cancel	Button	Cancel add new inventory checklist
Save as temporary	Button	Save new inventory checklist as a temporary

3.5.1.3: View detail of an inventory checklist

- ❖ This popup allows user view details of an inventory checklist.
- ❖ Related use case: UC-39
- ❖ Prototype/ Mock-up

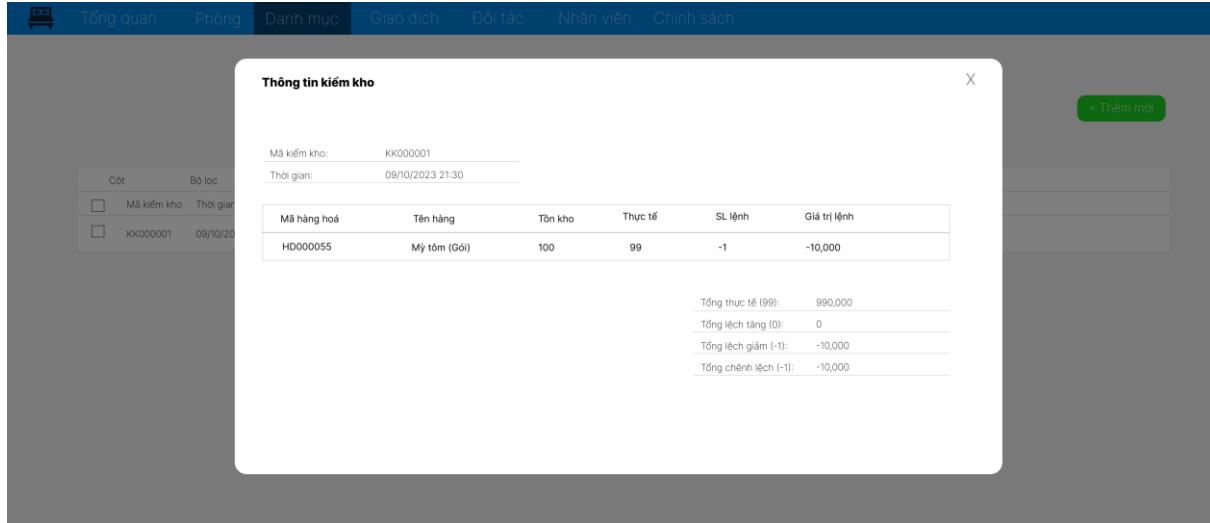


Figure 55: View detail of an inventory checklist

- ❖ UI Requirements:

Table 44: View detail of an inventory checklist

Field Name	Field Type	Description
Inventory checklist code	Text view	Code of inventory checklist
Created time	Text view	Time inventory checklist was created
List goods	Text view	List goods in this inventory checklist
Total quantity of goods in actual	Text view	Total quantity of goods in actual
Total increase variance	Text view	Total increase variance of quantity in actual and in system
Total decrease variance	Text view	Total decrease variance of quantity in actual and in system
Total variance	Text view	Total variance of quantity in actual and in system
Close	Button	To close popup view details

3.6 Customer management

3.6.1: View customer

3.6.1.1: View, search, filter, take mass action list customer.

- ❖ This screen allow user to view all customers.
- ❖ Related use case: UC-40, UC-41, UC-46
- ❖ Prototype/ Mock-up

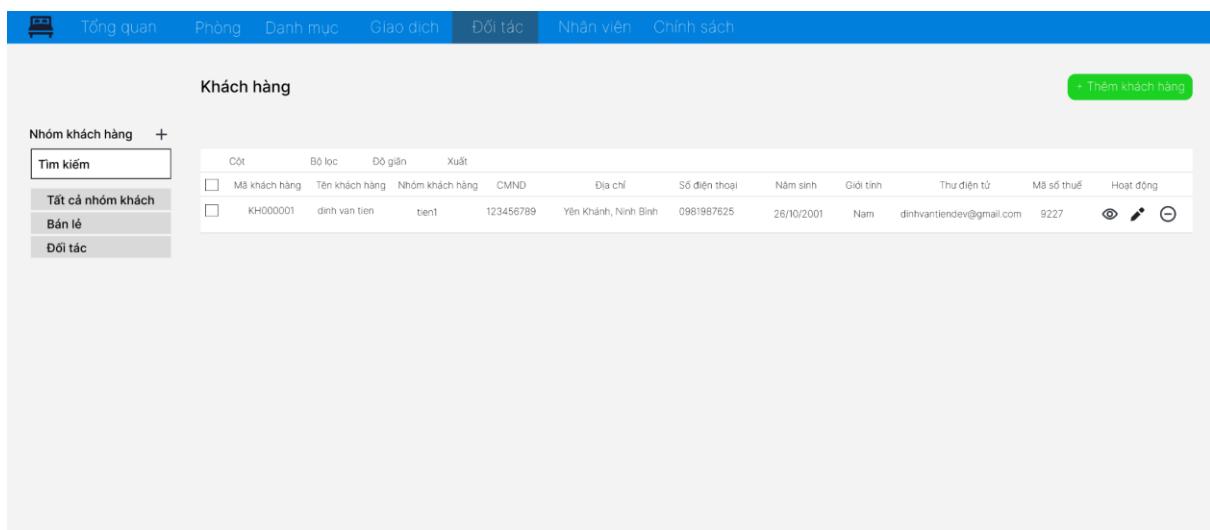


Figure 56: List customer

❖ UI Requirements:

Table 45: View customer

Field Name	Field Type	Description
List customer	List view (table)	List all customers with filter status default is active. The shown information: - Code of customer - Customer name - Phone number
Header bar	Button	Button to redirect to other pages.
Add new customer	Button	Button to add a new customer
Delete all	Button	To delete all customer
Column	Button	Button to customise which column is hidden, which column is shown in table list customer.
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customise the distance between 2 lines
Export	Button	To export file of all customer.
Select customer	Checkbox	Click to choose customer
Delete	Button	To delete all chosen customer
Add customer group	Button	To open popup create customer group
Search customer group	Textbox	To search customer group
List customer group	List view	List name of all customer group

3.6.1.2: Create a new customer.

- ❖ This popup allow user to create a customers.
- ❖ Related use case: UC-42

❖ Prototype/ Mock-up

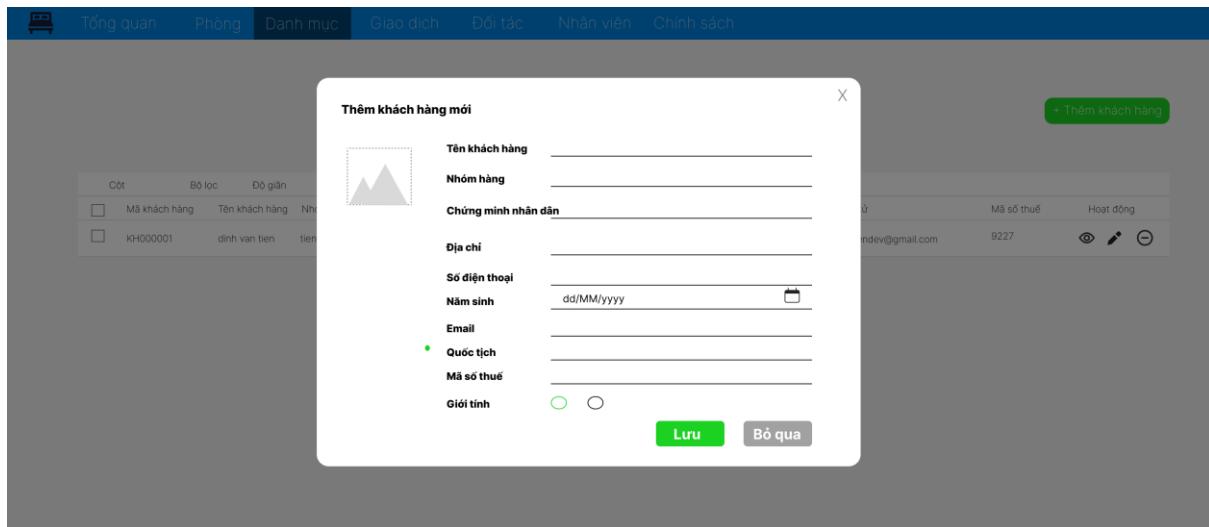


Figure 57: Create a new customer.

❖ UI Requirements:

Table 46: Create a new customer.

Field Name	Field Type	Description
Name	Text box	Customer name
Type customer	Text box	Customer type
Identification number	Text box	The identification number of customer
Address	Text box	Address
Phone number	Text box	Phone number
Date of birth	Text box	Date of birth
Email	Text box	Email
Nationality	Text box	Nationality
Gender	Text box	Male or female
Tax code	Text box	Tax code
Save	Button	Save new customer
Cancel	Button	Cancel adding new customer

3.6.1.3: View customer details

- ❖ This popup allows user view details of a customers.
- ❖ Related use case: UC-43
- ❖ Prototype/ Mock-up

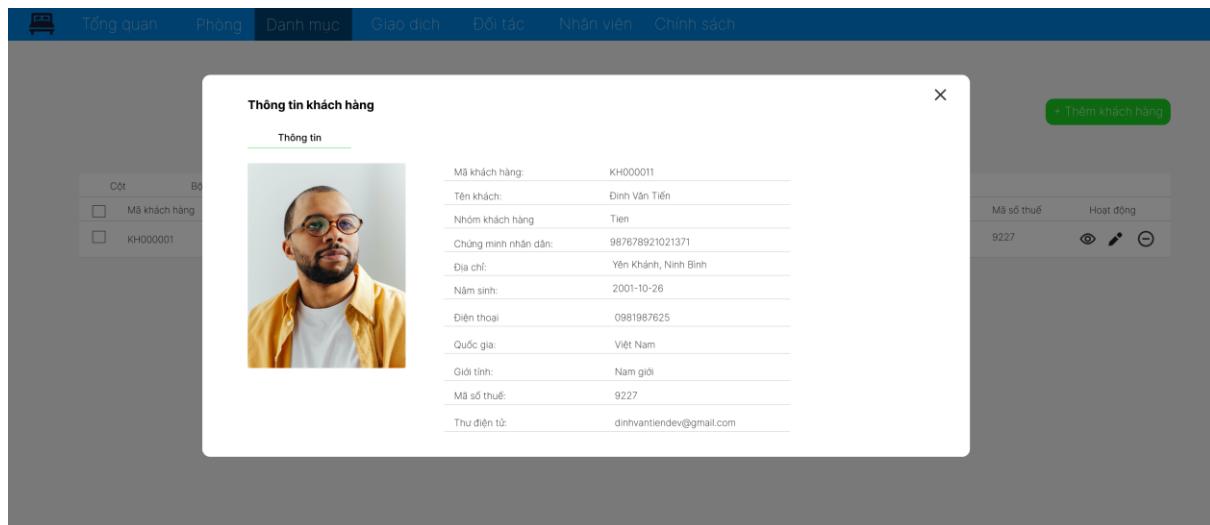


Figure 58: View customer details (1)

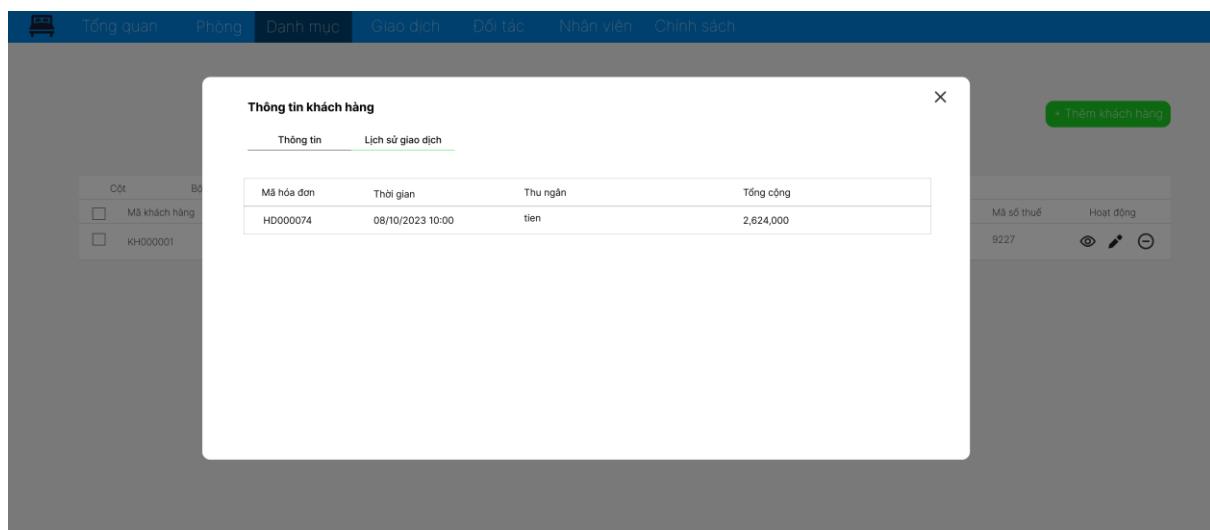


Figure 59: View customer details (2)

❖ UI Requirements:

Table 47: View customer details

Field Name	Field Type	Description
Code	Text view	Code of customer
Name	Text view	Customer name
Type customer	Text view	Customer type
Identification number	Text view	The identification number of customer
Address	Text view	Address
Phone number	Text view	Phone number
Date of birth	Text view	Date of birth
Email	Text view	Email
Nationality	Text view	Nationality
Gender	Text view	Male or female

Tax code	Text view	Tax code
History transaction	List view	List transaction this customer used (code of order, time, total price)

3.6.1.4: Update customer

- ❖ This popup allow user to update a customer.
- ❖ Related use case: UC-44
- ❖ Prototype/ Mock-up

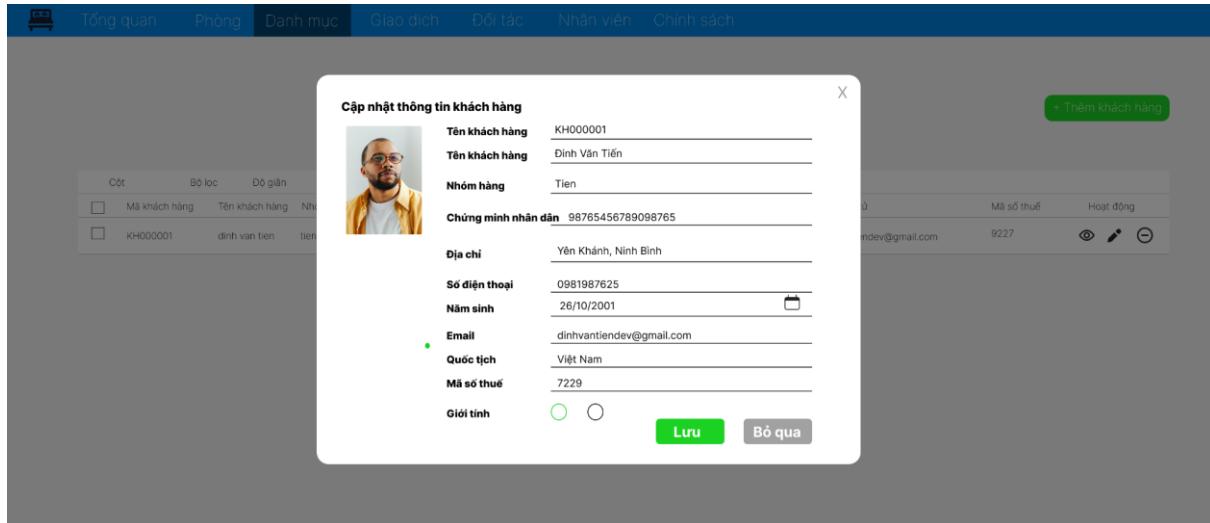


Figure 60: Update customer

- ❖ UI Requirements:

Table 48: Update customer

Field Name	Field Type	Description
Name	Text box	Customer name
Type customer	Text box	Customer type
Identification number	Text box	The identification number of customer
Address	Text box	Address
Phone number	Text box	Phone number
Date of birth	Text box	Date of birth
Email	Text box	Email
Nationality	Text box	Nationality
Gender	Text box	Male or female
Tax code	Text box	Tax code
Save	Button	Save customer
Cancel	Button	Cancel updating customer

3.6.2: Customer group management:

3.6.2.1: Create customer group.

- ❖ This popup allows users to create a new customer group for customer.

- ❖ Related use case: UC-46
- ❖ Prototype/ Mock-up

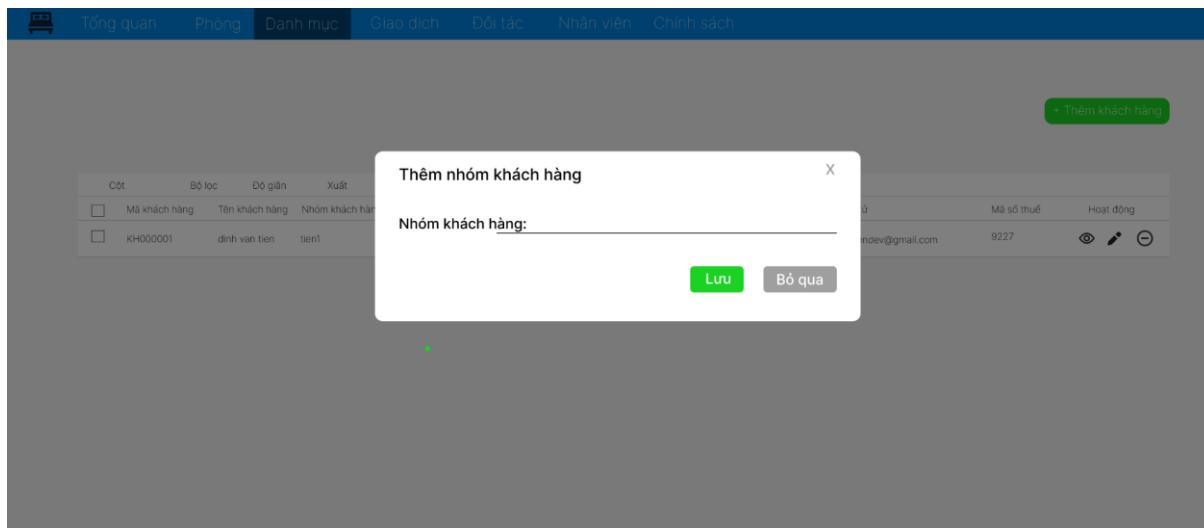


Figure 61: Create customer group.

- ❖ UI Requirements:

Table 49: Create customer group.

Field Name	Field Type	Description
Name of customer group	Textbox	Name of customer group
Save	Button	To create customer group
Cancel	Button	To close popup
Close	Button	To close popup

3.6.2.2: Update customer group

- ❖ This popup allows user to update customer group for customer.
- ❖ Related use case: UC-47
- ❖ Prototype/ Mock-up

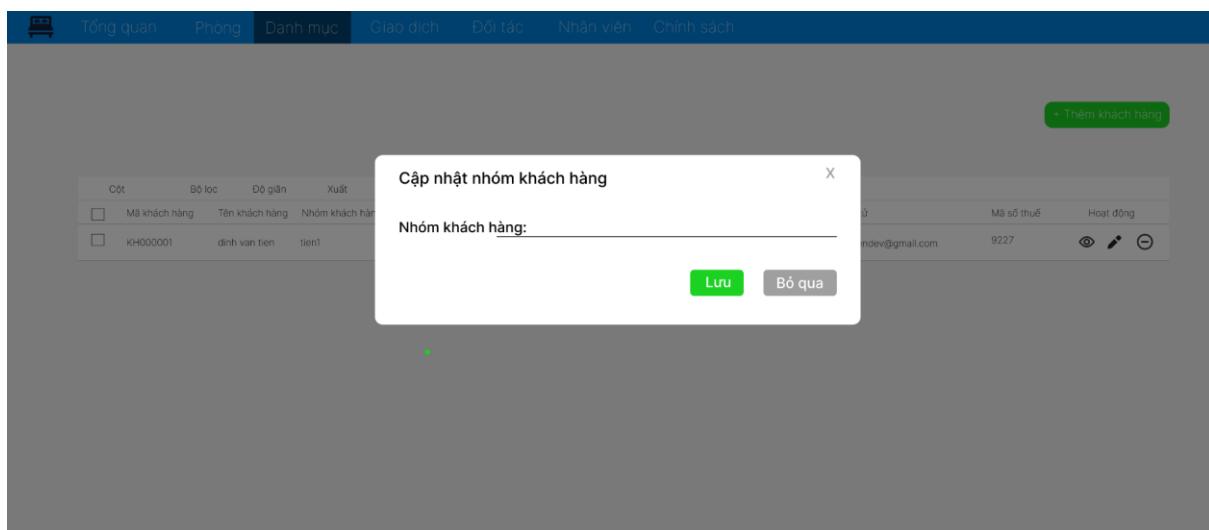


Figure 62: Update customer group

- ❖ UI Requirements:

Table 50: Update customer group

Field Name	Field Type	Description
Name of customer group	Textbox	Name of customer group
Save	Button	To update customer group
Cancel	Button	To close popup
Close	Button	To close popup

3.7 Policy management

3.7.1: Price list management

3.7.1.1: Pop up create price list.

- ❖ This pop up allow user to create a new price list
- ❖ Related use case: UC-51
- ❖ Prototype/ Mock-up

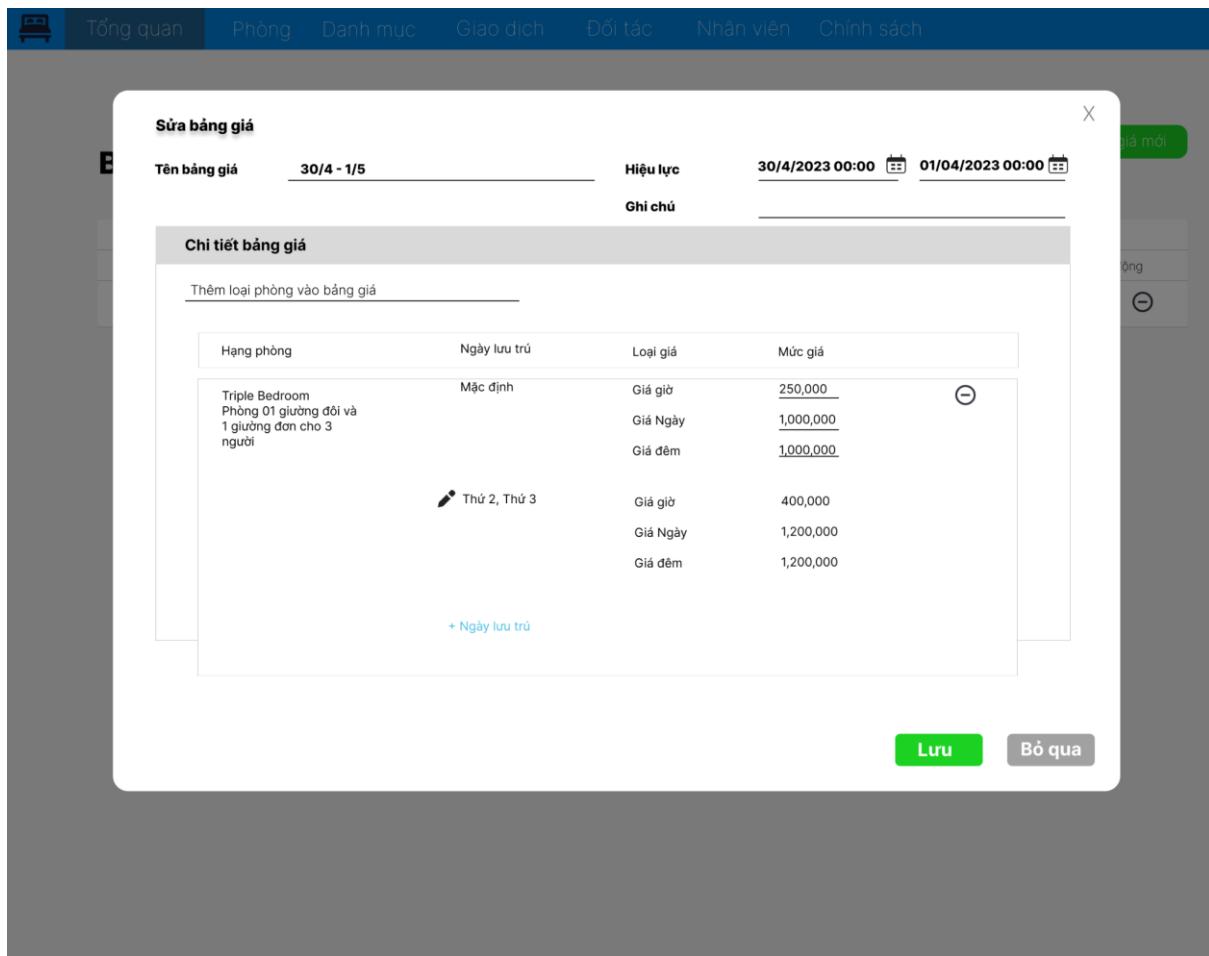


Figure 63: Popup create price list.

❖ UI Requirements:

Table 51: Popup create price list.

Field Name	Field Type	Description
Name price list	Text box	Required field. Name of price list is unique name
Active time start	Datetime input	Time user can use this price list. Default is that time
Active time end	Datetime input	End time for user to use this price list. Default is after 1 year of that time.
Note	Text box	Note for this price list
Search room class	Text box	For user input code/ name of room class to find room class, add room class to this price list.
Detail price list	Table	List room class with their price. Default is all room class and their base price.
Name of room class	Text view	In detail price list, this column shows name of room class.
Stay duration	Multiple choice	In detail price list, this column shows times this price list can be applied. Default value: default (can't be removed)
Price by hour	Text box	Price by hour of this room class and this stay duration Default: base price of that room class

Price by night	Text box	Price by night of this room class and this stay duration Default: base price of that room class
Price by day	Text box	Price by day of this room class and this stay duration Default: base price of that room class
Add price by hour	Text box	Add requirement for calculation price of reserve by hour Default: 1 hour and price is base price of that room class
Remove this room class	Button	Button is in the right of each room class to remove this room class out of detail price list.
Save	Button	Save this price list
Cancel	Button	To close without saving this popup

3.7.1.2: Popup choose stay duration for a room class in price list.

- ❖ This popup allow user choose time to apply special price.
- ❖ Related use case: UC-51
- ❖ Prototype/ Mock-up

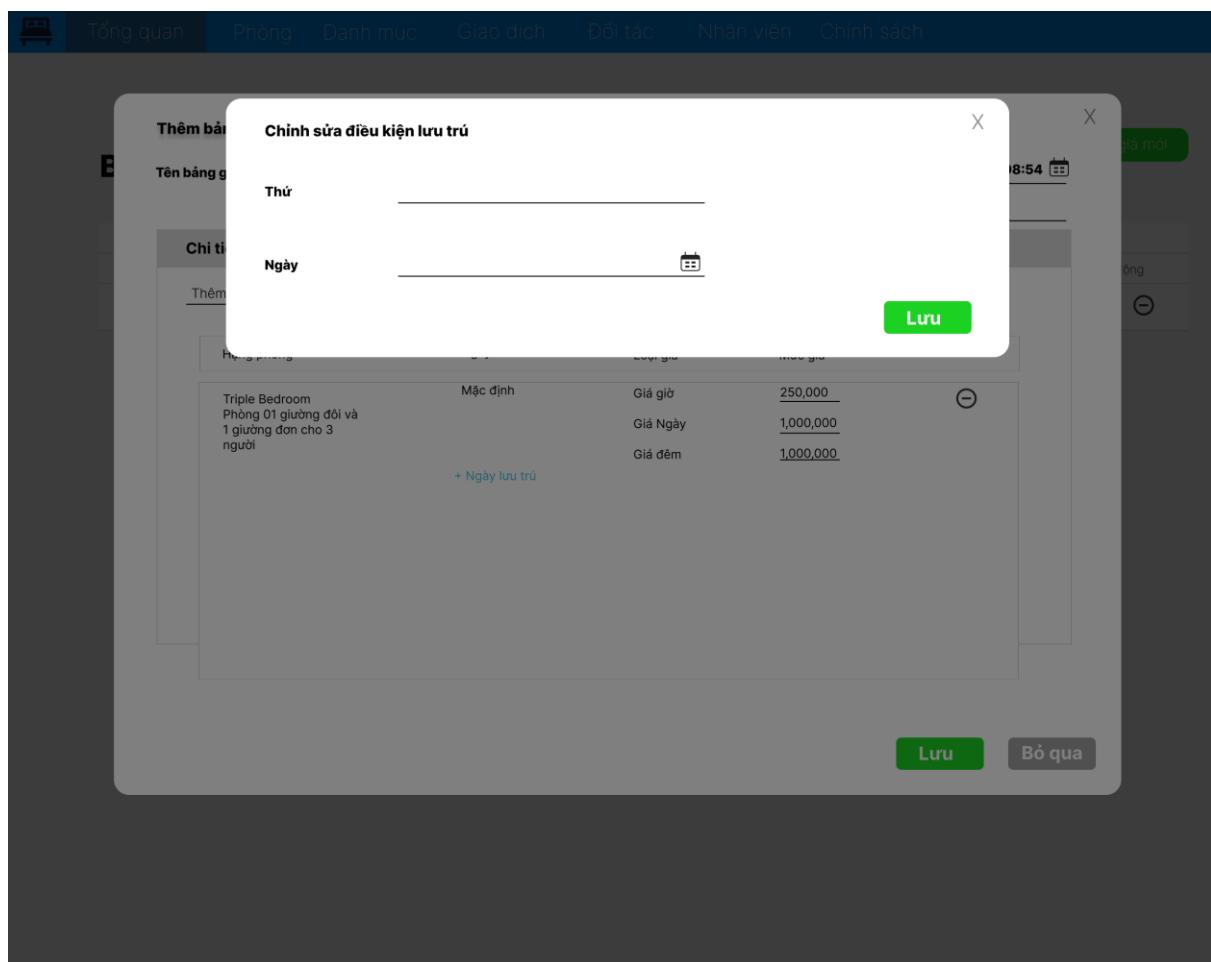


Figure 64: Popup choose stay duration for a room class in price list.(1)

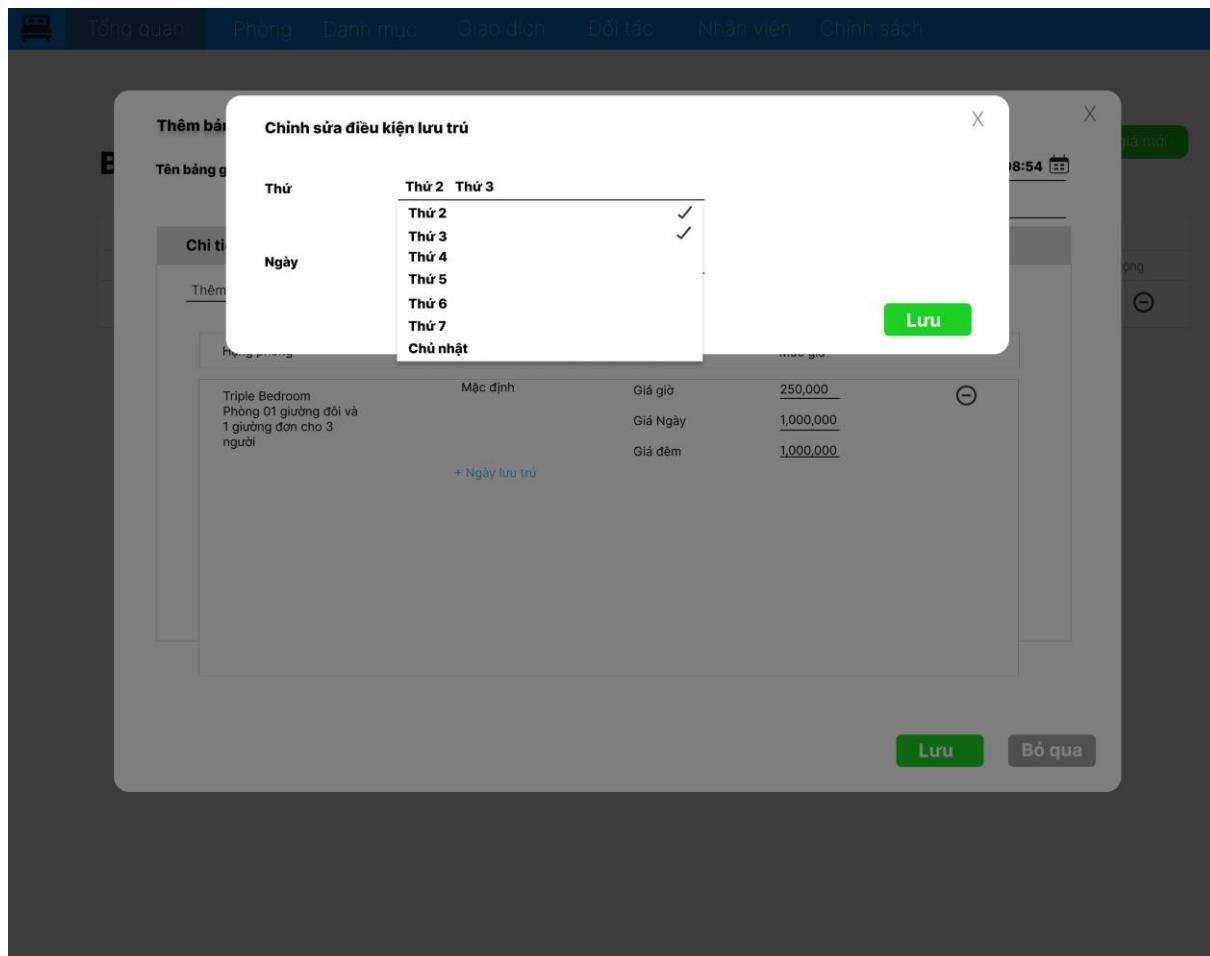


Figure 65: Popup choose stay duration for a room class in price list.(2)

❖ UI Requirements:

Table 52: Popup choose stay duration for a room class in price list.

Field Name	Field Type	Description
Day in week	Multiple choice	Manager can choose day or some days in week to apply that price
Special day	Datetime textbox	Manager can choose special day to apply that price for this room class
Save	Button	To save chosen time.

3.7.1.3: View detail price list:

- ❖ This popup allows users to view details of the price list.
- ❖ Related use case: UC-52
- ❖ Prototype/ Mock-up

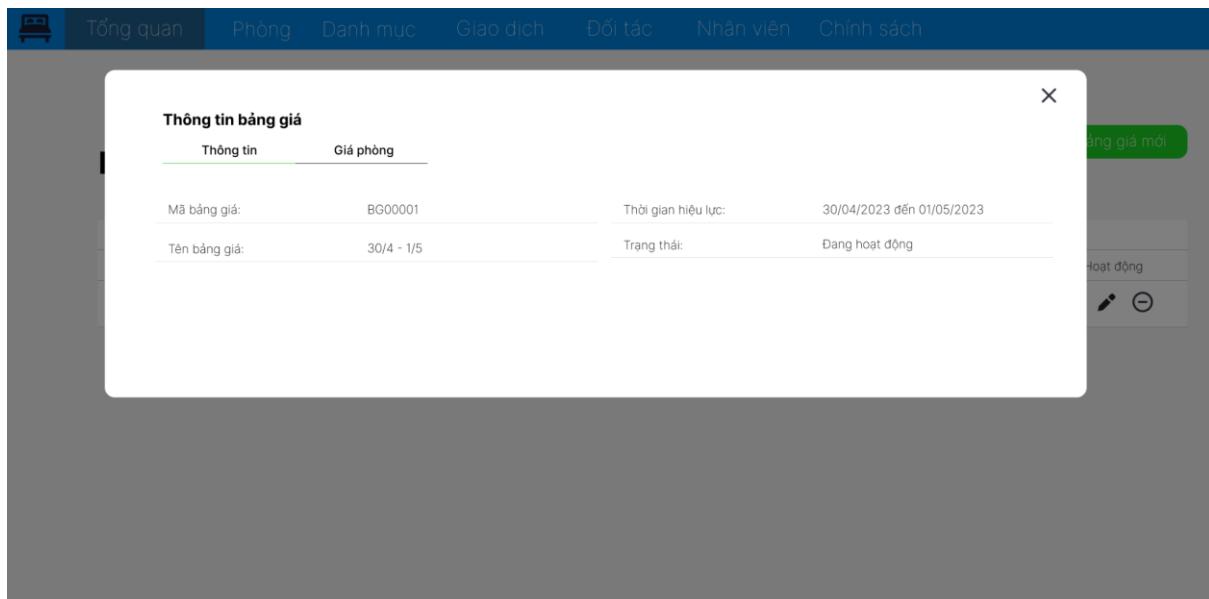


Figure 66: View detail price list (1)

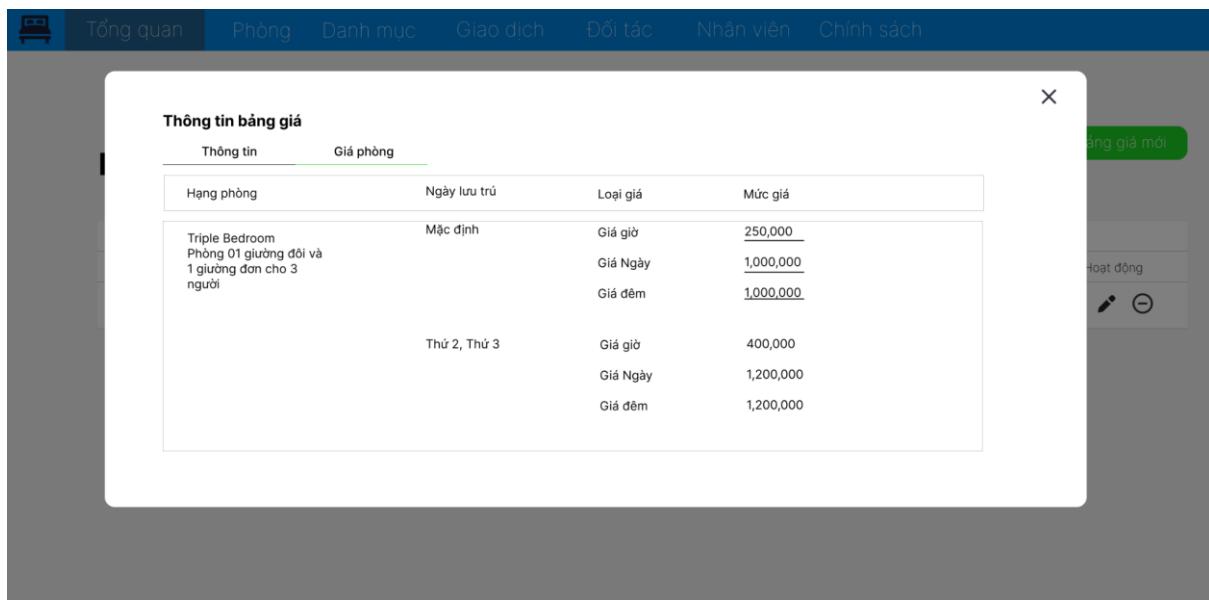


Figure 67: View detail price list:(2)

❖ UI Requirements:

Table 53: View detail price list:

Field Name	Field Type	Description
Name price list	Text view	Name of price list is unique name
Code of price list	Text view	Code of price list
Active time start	Datetime input	Time user can use this price list. Default is that time
Active time end	Datetime input	End time for user to use this price list. Default is after 1 year of that time.
Note	Text view	Note for this price list
Status	Text view	Status of price list

Detail price list	Table	List room class with their price. Default is all room class and their base price.
Name of room class	Text view	In detail price list, this column shows name of room class.
Stay duration	Multiple choice	In detail price list, this column shows times this price list can be applied. Default value: default (can't be removed)
Price by hour	Text box	Price by hour of this room class and this stay duration Default: base price of that room class
Price by night	Text box	Price by night of this room class and this stay duration Default: base price of that room class
Price by day	Text box	Price by day of this room class and this stay duration Default: base price of that room class
Exit	Button	To close this popup

3.7.1.4: Screen price list management

- ❖ This screen allows user to view list price list
- ❖ Related use case: UC-50
- ❖ Prototype/ mock-up

Figure 68: List price list

- ❖ UI Requirements:

Table 54: Screen price list management

Field Name	Field Type	Description
Navigation bar	Button	List button to go to other pages.
Add price list	Button	To open popup create price list
List price list	Table	List price list and main information
Code price list	Text view	Column code of price list
Name	Text view	Column name of price list

Status	Text view	Column status of price list
Active time	Text view	Column shows active time
View detail	Button	To view detail of price list
Update	Button	To open popup update

3.7.2 Surcharge management

3.7.2.1: Popup create new other surcharges.

- ❖ This popup allow user to create a new other surcharge
- ❖ Related use case: UC-56
- ❖ Prototype/ Mock up

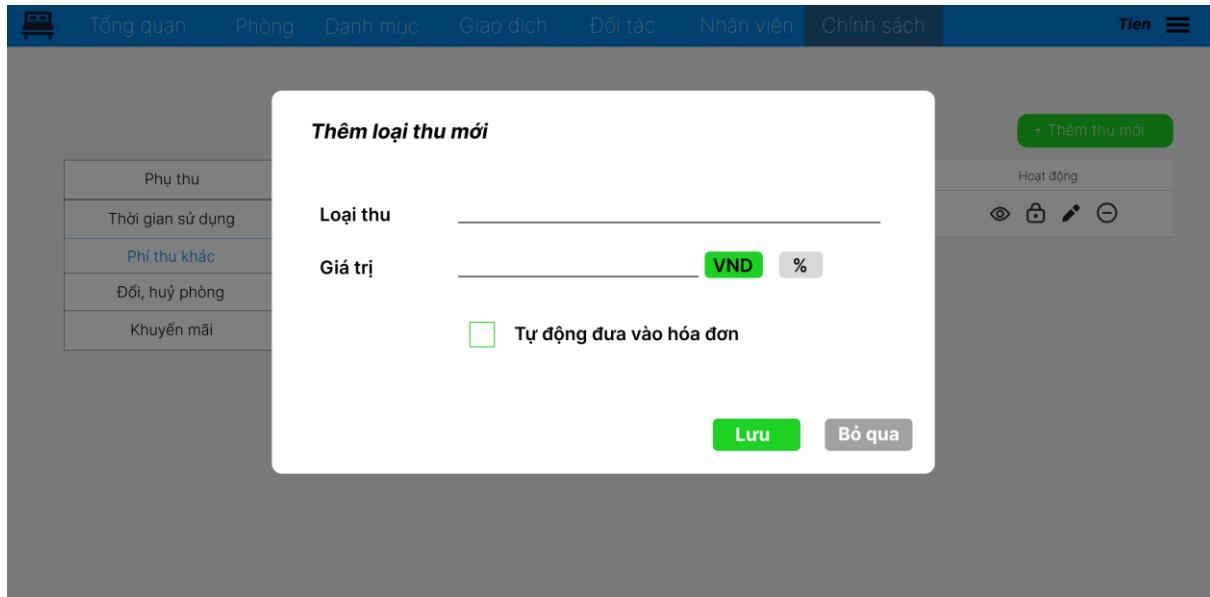


Figure 69: Popup create new other surcharges.

- ❖ UI Requirements:

Table 55: Popup create new other surcharges.

Field Name	Field Type	Description
Name of surcharge	Text box	Name of surcharge(required)
Type of value	Radio button	User chooses VND or % (percentage) to calculate value. Default: VND
Value	Text box	User fills value Required
Auto add to invoice	Checkbox	User chooses to add this policy automatically to invoice Default: not select
Save	Button	Save this surcharge
Cancel	Button	To close without saving this popup

3.7.2.2: Popup update other surcharge.

- ❖ This popup allow user create a new policy
- ❖ Related use case: UC-57
- ❖ Prototype/ Mock up

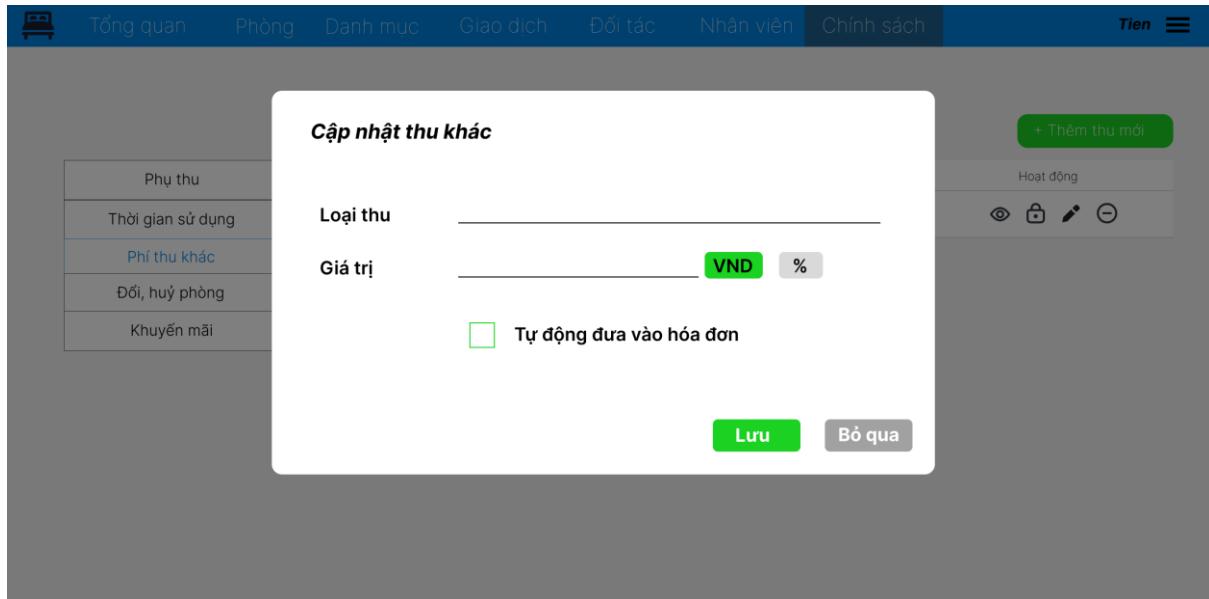


Figure 70: Popup update other surcharge.

- ❖ UI Requirements:

Table 56: Popup update other surcharge.

Field Name	Field Type	Description
Name of policy	Text box	Name of policy (required)
Type of value	Radio button	User chooses VND or % (percentage) to calculate value. Default: VND
Value	Text box	User fills value Required
Auto add to invoice	Checkbox	User chooses to add this policy automatically to invoice Default: not select
Save	Button	Save this price list
Cancel	Button	To close without saving this popup

3.7.2.3: Config time using

- ❖ This popup allow user setting rule of time using
- ❖ Related use case: UC-59
- ❖ Prototype/ Mock up

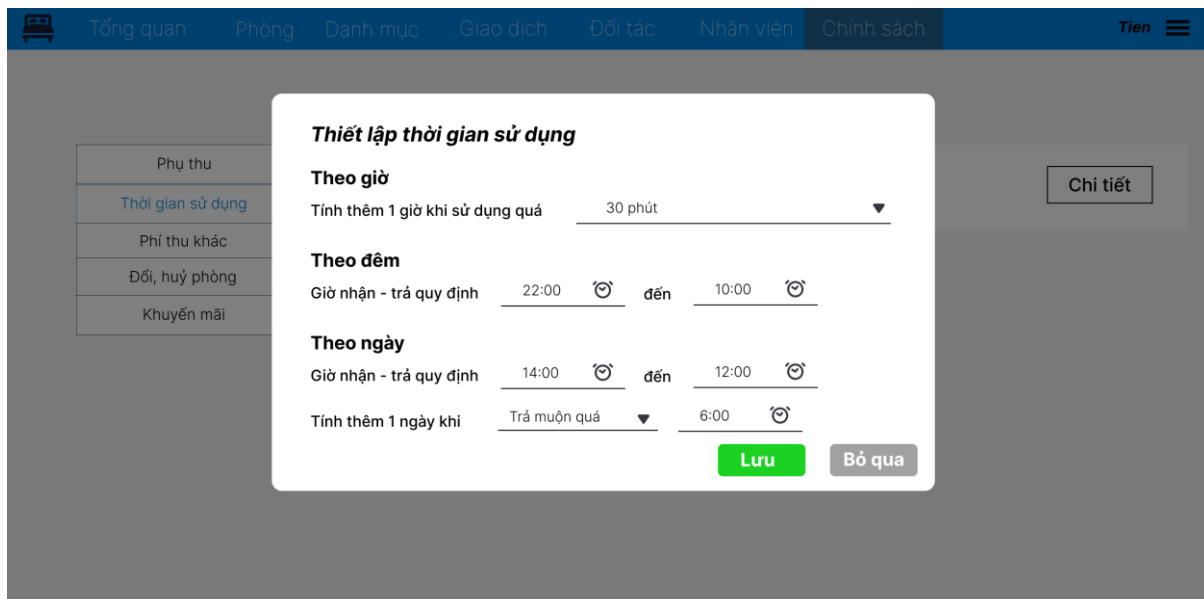


Figure 71: Config time using

❖ UI Requirements:

Table 57: Config time using

Field Name	Field Type	Description
Reserve by hour: add 1 hour when using more than	Text box	User inputs minute time (1-59) Default: 30'
Reserve by night: check-in time regulation	Drop down list	User chooses check-in time for reserve by night Default: 21h (value of drop downlist is from 0h-23h30, each value has different 30')
Reserve by night: check-out time regulation	Drop down list	User chooses check-out time for reserve by night Default: 9h (value of drop downlist is from 0h-23h30, each value has different 30')
Reserve by day: check-in time regulation	Drop down list	User chooses check-in time for reserve by day Default: 14h (value of drop downlist is from 0h-23h30, each value has different 30')
Reserve by day: check-out time regulation	Drop down list	User chooses check-out time for reserve by day Default: 12h (value of drop downlist is from 0h-23h30, each value has different 30')
Reserve by day: add 1 day when check-in earlier or check-out later than	Textbox	User input hour time Default: 6h
Save	Button	Save this configuration.
Cancel	Button	To close popup with no change

3.7.2.4: Policy management:

- ❖ This screen allows user to view list policy.
- ❖ Related use case: UC-60, UC-61
- ❖ Prototype/ Mock up

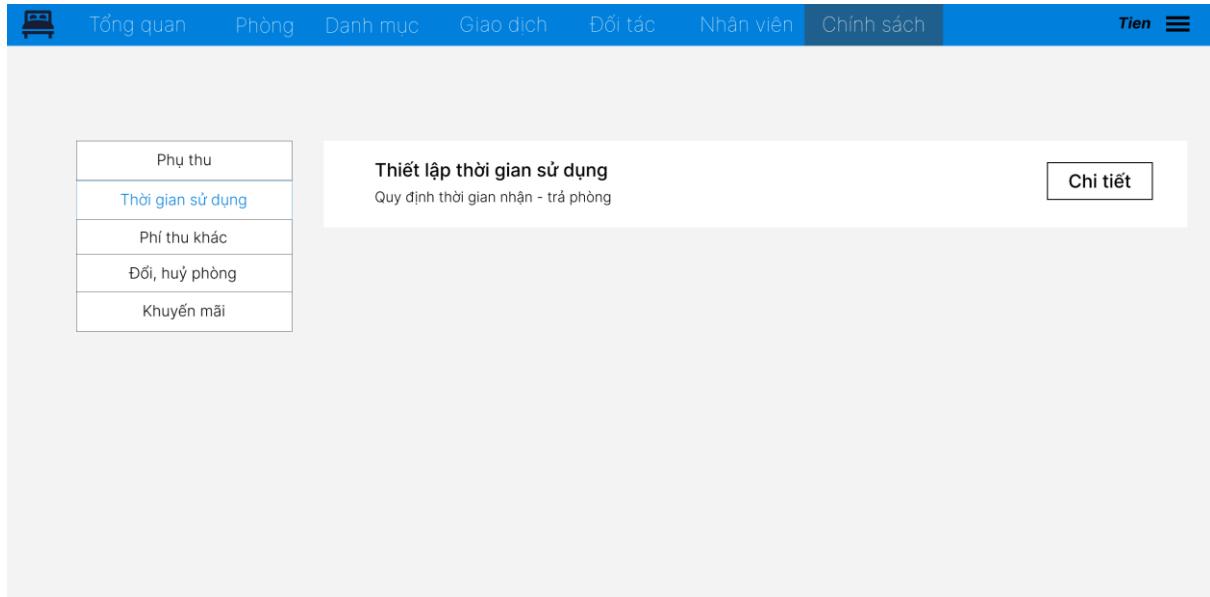


Figure 72: Policy management:

- ❖ UI Requirements:

Table 58: Policy management:

Field Name	Field Type	Description
Header bar	Header bar	To go to another page
List policy tap	Button	To go to another policy page
Detail surcharge of adding time	Button	To open popup update surcharge of adding time.
Detail surcharge of over number of people	Button	To open popup update surcharge of over number of people.

3.7.2.5: Setting surcharge of early check-in, late check-out

- ❖ This popup allows user to set surcharge of early check-in, late check-out.
- ❖ Related use case: UC-60
- ❖ Prototype/ Mock up

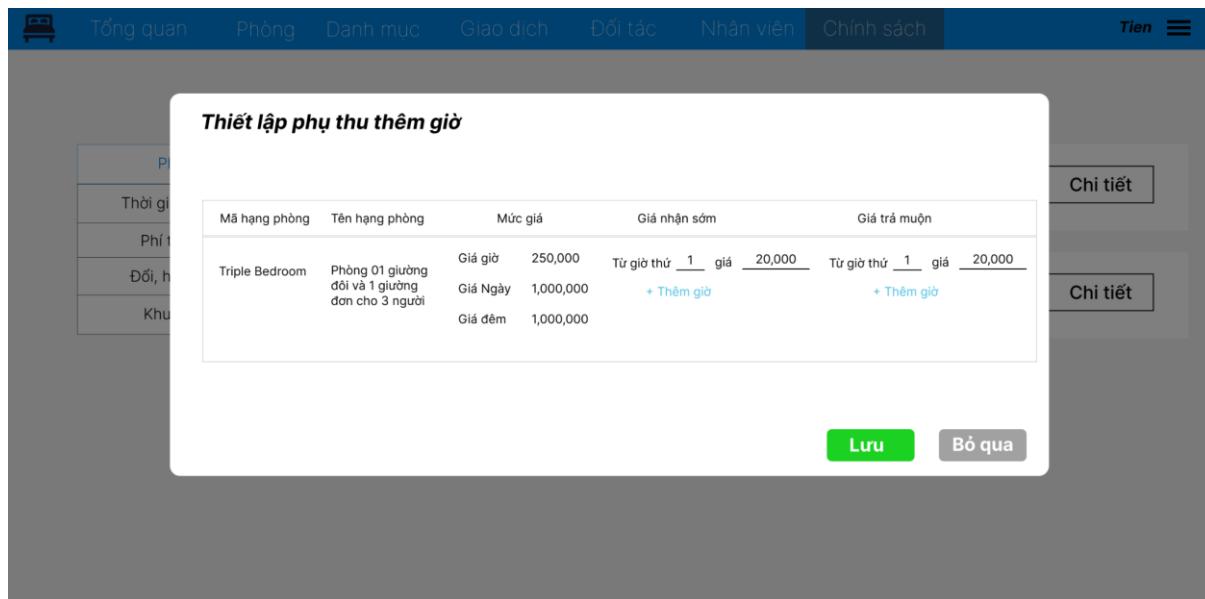


Figure 73: Setting surcharge of early check-in, late check-out

- ❖ UI Requirements:

Table 59: Setting surcharge of early check-in, late check-out

Field Name	Field Type	Description
List room class	List view	List room class with their information: - Code - Name - Base price
Time	Textbox	To fill time to calculate surcharge
Price	Textbox	Price to calculate surcharge in below over time.
Add hour	Button	To add range of time to set config
Save	Button	To save change
Cancel	Button	To close popup

3.7.2.6: Setting surcharge of over quantity of people

- ❖ This popup allows users to set surcharges for over a number of people.
- ❖ Related use case: UC-61
- ❖ Prototype/ Mock up

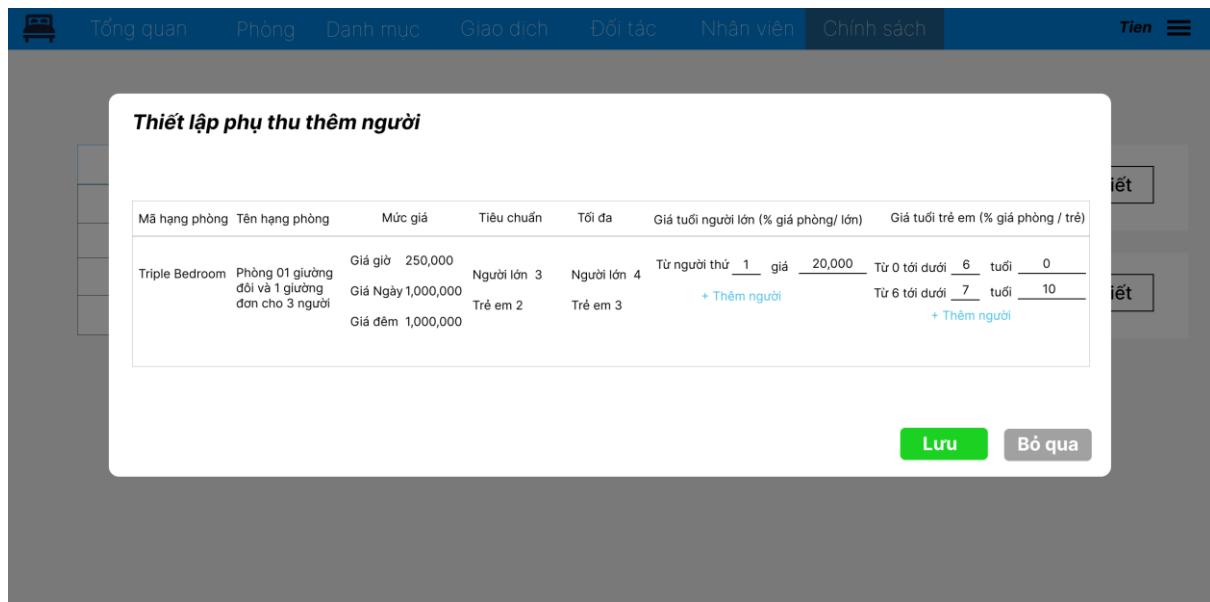


Figure 74: Setting surcharge of over quantity of people

❖ UI Requirements:

Table 60: Setting surcharge of over quantity of people

Field Name	Field Type	Description
List room class	List view	List room class with their information: - Code - Name - Base price - Number of people in standard, maximum
Number of people	Textbox	To fill number of people to calculate surcharge
Price of adult	Textbox	Price to calculate surcharge in below over people.
Age of children	Textbox	Range of children' age to calculate surcharge
Price of children		Price to calculate surcharge in below over people in below age..
Add range	Button	To add range of age to set config
Save	Button	To save change
Cancel	Button	To close popup

3.7.2.7: Config deposit and cancel reservation

- ❖ This screen allows the user to view list policy about deposit and cancel reservations.
- ❖ Related use case: UC-62, UC-63
- ❖ Prototype/ Mock up

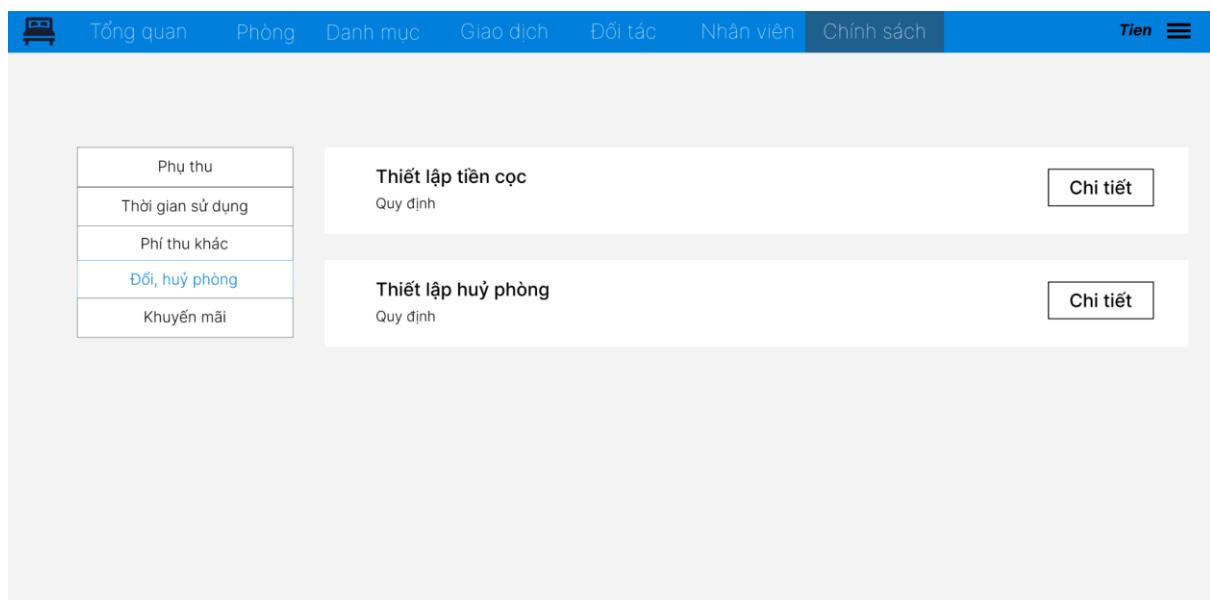


Figure 75: Config deposit and cancel reservation

- ❖ UI Requirements:

Table 61: Config deposit and cancel reservation

Field Name	Field Type	Description
Header bar	Header bar	To go to another page
List policy tap	Button	To go to another policy page
Detail deposit	Button	To open popup update deposit
Detail surcharge of cancelling reservation	Button	To open a popup update surcharge of cancelling reservation.

3.7.2.8: Config deposit

- ❖ This popup allows the user to configure deposits.
- ❖ Related use case: UC-63
- ❖ Prototype/ Mock-up

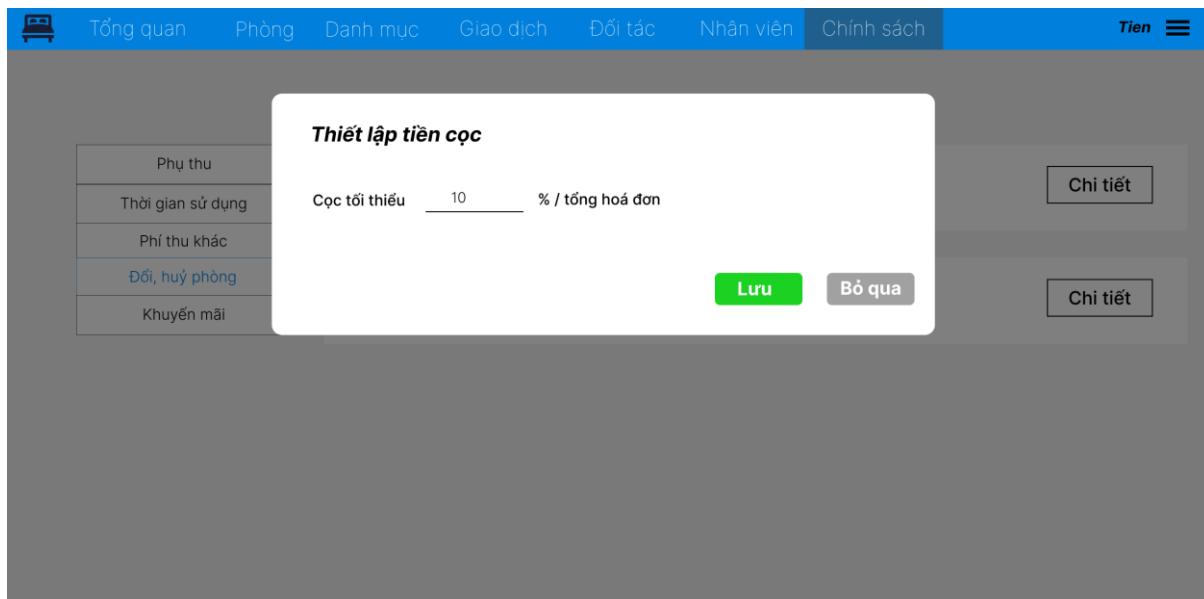


Figure 76: Config deposit

- ❖ UI Requirements:

Table 62: Config deposit

Field Name	Field Type	Description
Deposit	Textbox	Value of deposit (0-100)
Save	Button	To save deposit
Cancel	Button	To close popup with no changes

3.7.2.9: Config cancel reservation.

- ❖ This popup allows the user to configure surcharges for cancelling reservations.
- ❖ Related use case: UC-62
- ❖ Prototype/ Mock-up

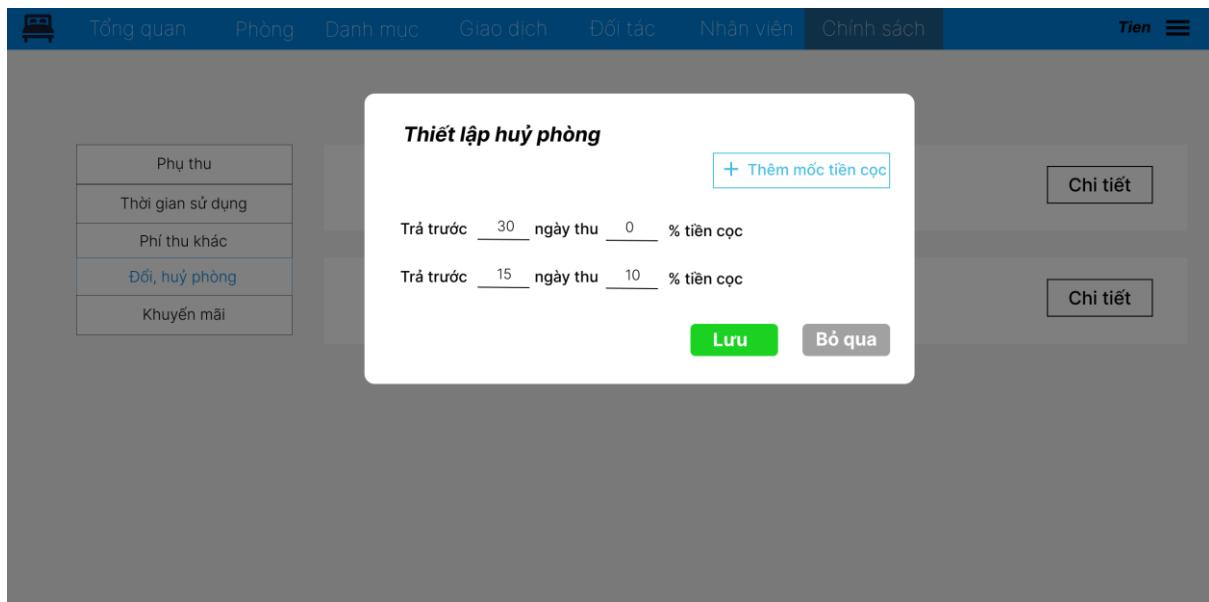


Figure 77: Config cancel reservation.

- ❖ UI Requirements:

Table 63: Config cancel reservation.

Field Name	Field Type	Description
Time	Text Box	Time to check-in time
Surcharge	Text box	Value of surcharge
Save	Button	To save deposit
Cancel	Button	To close popup with no changes

3.7.2.10: Promotion management

- ❖ This screen allows user to view list configuration about promotion.
- ❖ Related use case: UC-64, UC-65
- ❖ Prototype/ Mock-up

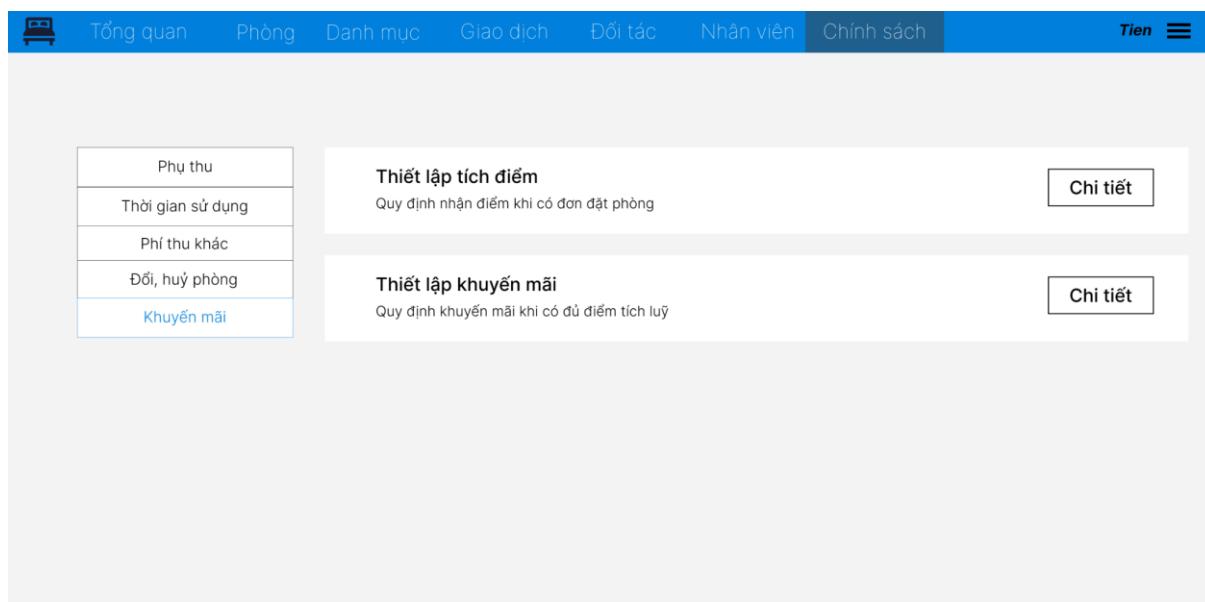


Figure 78: Promotion management

❖ UI Requirements:

Table 64: Promotion management

Field Name	Field Type	Description
Header bar	Header bar	To go to another page
List policy tap	Button	To go to another policy page
Detail rule of receiving points	Button	To open popup update rule of receiving points.
Detail rule of changing points	Button	To open popup update rule of changing points.

3.7.2.11: Rule of receiving points.

- ❖ This popup allows the user to configure the rule of receiving points.
- ❖ Related use case: UC-64
- ❖ Prototype/ Mock-up

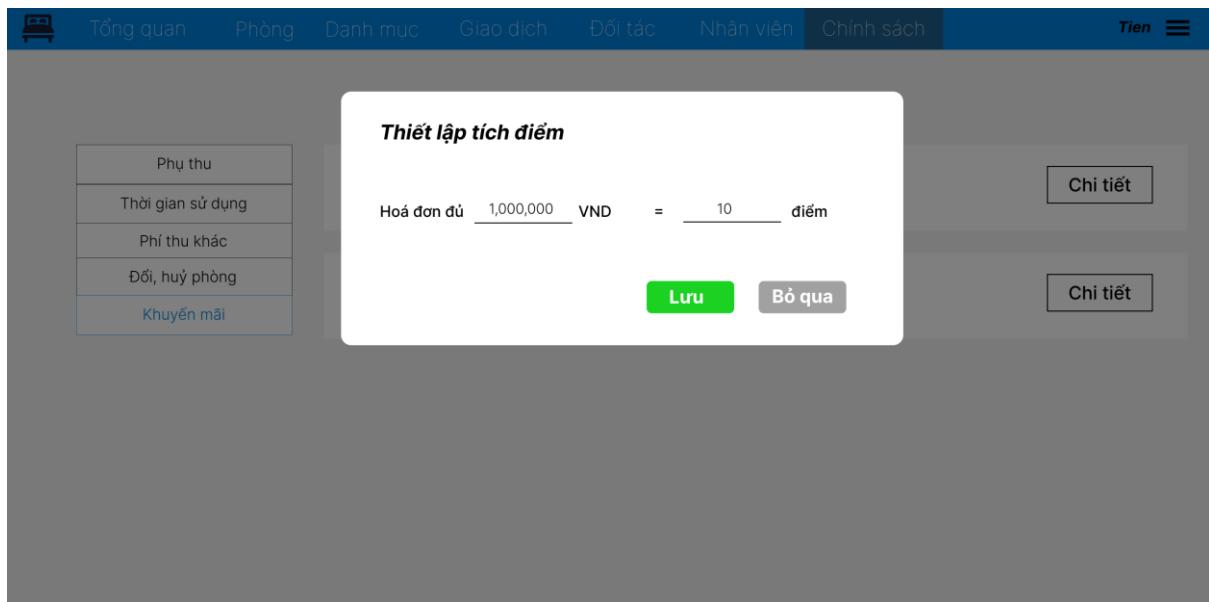


Figure 79: Rule of receiving points.

- ❖ UI Requirements:

Table 65: Rule of receiving points.

Field Name	Field Type	Description
Price of invoice	Text Box	Total price minimum of invoice
Point	Text box	Points
Save	Button	To save promotion
Cancel	Button	To close popup with no changes

3.7.2.12: Rule of changing points

- ❖ This popup allows the user to configure the rule of changing points.
- ❖ Related use case: UC-65
- ❖ Prototype/ Mock-up

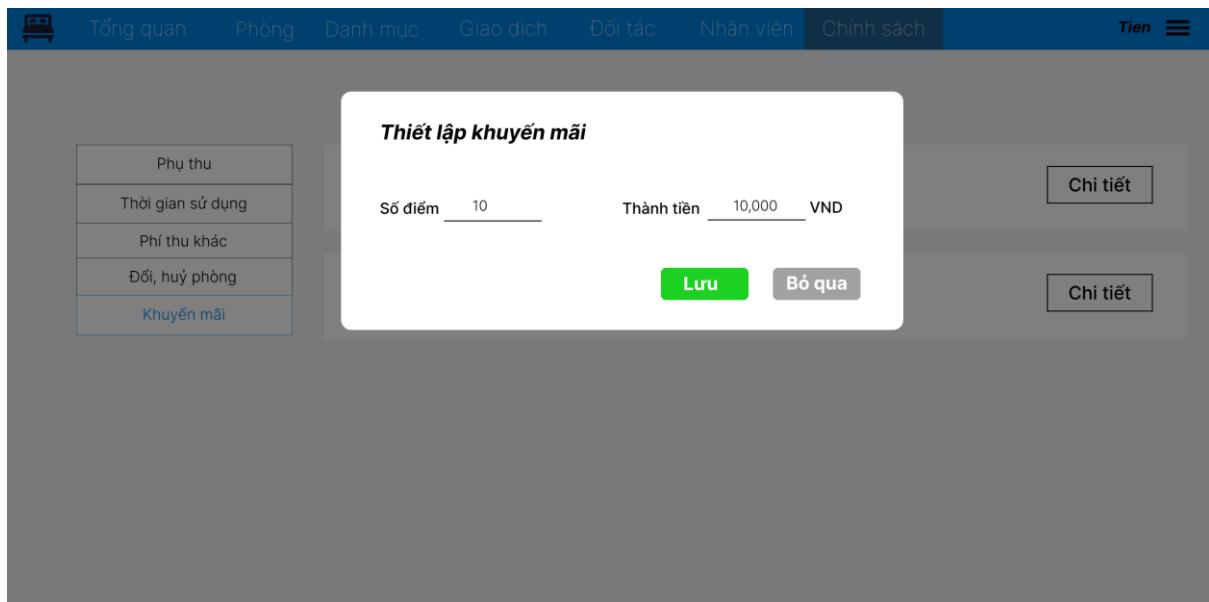


Figure 80: Rule of changing points

- ❖ UI Requirements:

Table 66: Rule of changing points

Field Name	Field Type	Description
Point	Text Box	Point to change
Value	Text box	Value of points
Save	Button	To save deposit
Cancel	Button	To close popup with no changes

3.7.2.13: Policy management: config time using.

- ❖ This screen allows users to view configuration about time using.
- ❖ Related use case: UC-59
- ❖ Prototype/ Mock-up

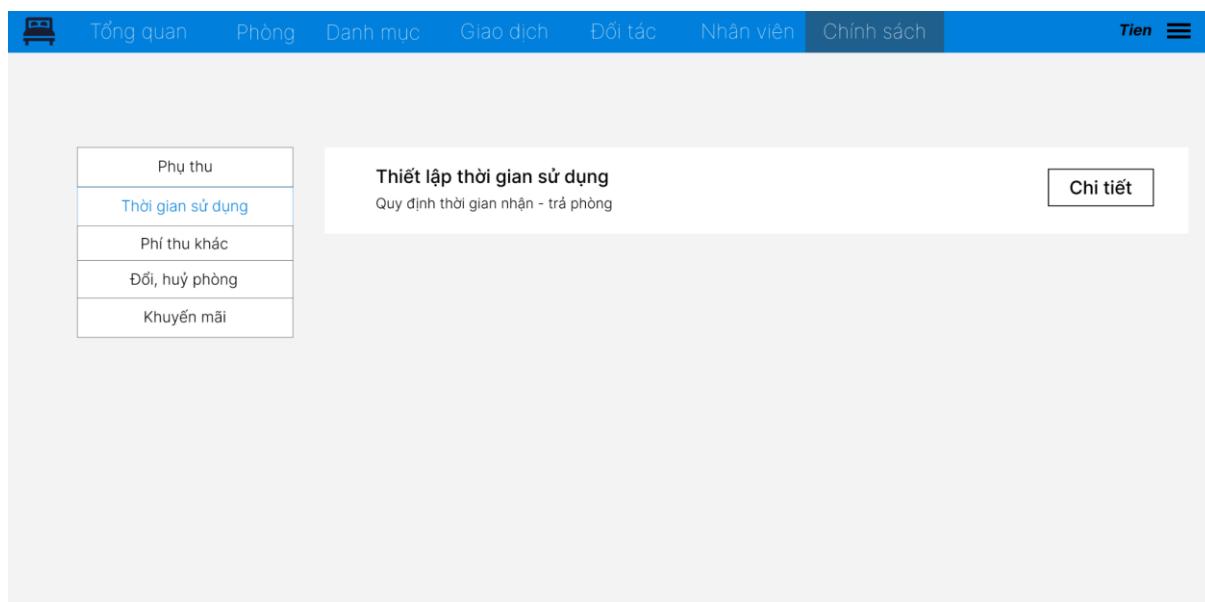


Figure 81: Policy management: config time using.

- ❖ UI Requirements:

Table 67: Policy management: config time using.

Field Name	Field Type	Description
Header bar	Header bar	To go to another page
List policy tap	Button	To go to another policy page
Detail configuration about time using	Button	To open popup update configuration time using.

3.7.2.14: Policy management: other surcharge

- ❖ This screen allows user to view list surcharges.
- ❖ Related use case: UC-55
- ❖ Prototype/ Mock up

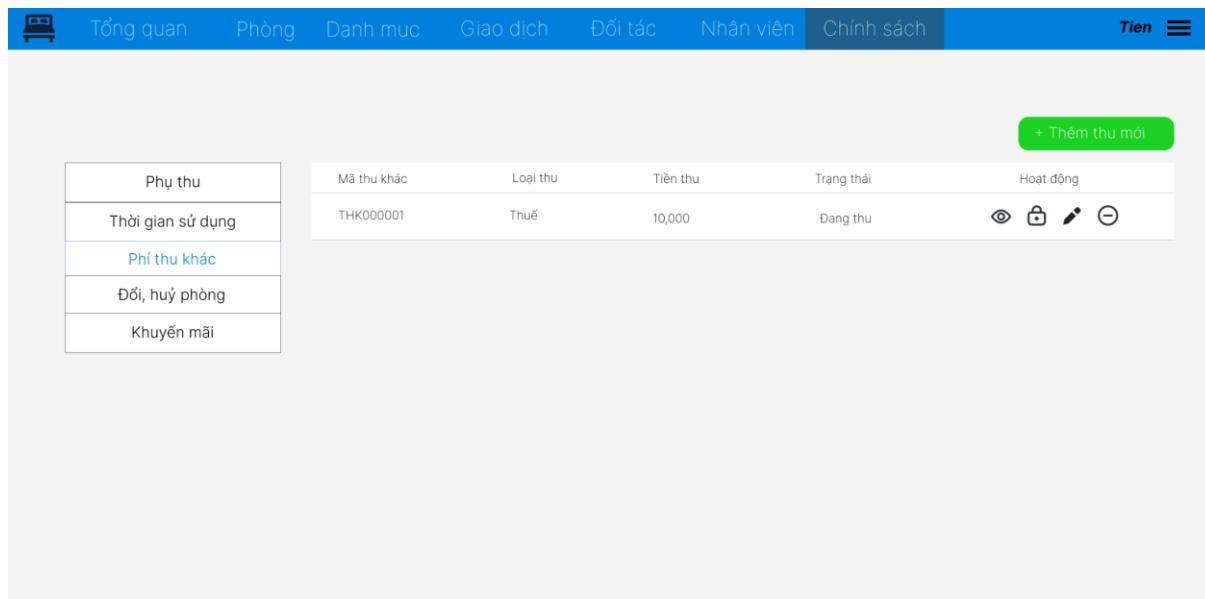


Figure 82: Policy management: other surcharge

❖ UI Requirements:

Table 68: Policy management: other surcharge

Field Name	Field Type	Description
Header bar	Header bar	To go to another page
List policy tap	Button	To go to another policy page
Create new other surcharge	Button	To open popup create new other surcharge
List surcharge	List view	List other surcharges with their main information. - Code - Type - Value - Status - Action
Update status	Button	Button of item in list to update status of surcharge.
Update surcharge	Button	Button of item in list to open update popup.
Delete	Button	Button of item in list to delete surcharge.

3.8 Reservation management

3.8.1: Reserve room (for receptionist)

3.8.1.1: View, search and filter list room calendar with reservation

- ❖ This screen allow user view all active room to take action about reservation.
- ❖ Related use case: UC-66, UC-68
- ❖ Prototype/ Mock-up

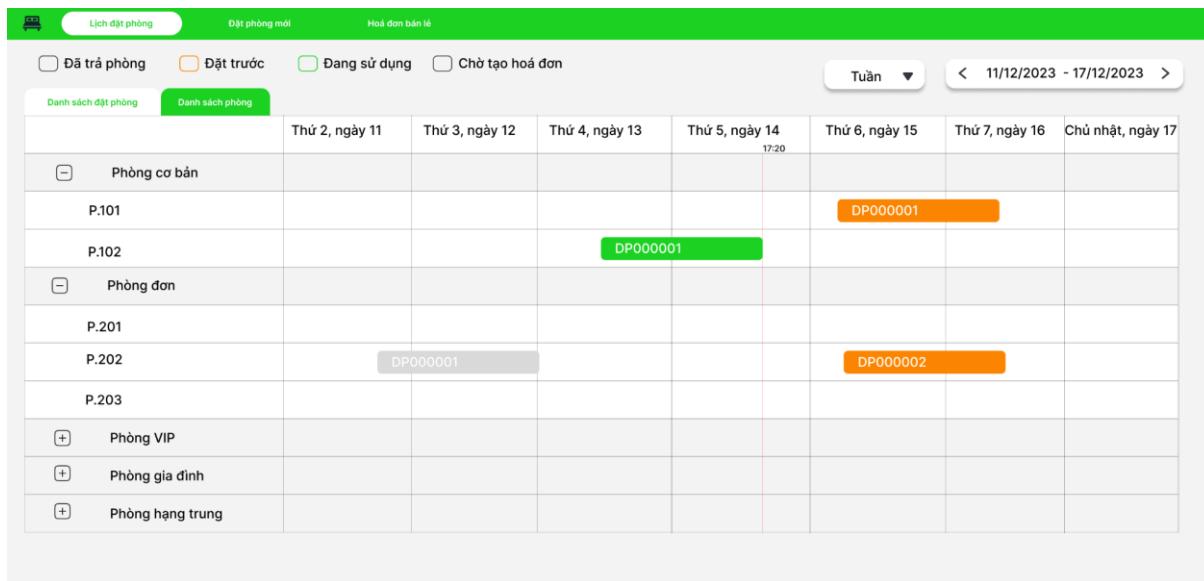


Figure 83: Reserve room (for receptionist)

❖ UI Requirements:

Table 69: Reserve room (for receptionist)

Field Name	Field Type	Description
List room	List view (table)	List all active rooms with their reservation with status which is display by colour: - No colour: is empty - Green: room is reserved, and customer is using it - Yellow: booking with check-in
Filter	Checkbox	Filter by range of time, booking status of room, condition status of room, room class, area
Schedule reservation	Button	To go to list reservation page.
Create reservation	Button	Click this button to open screen create a new reservation
Retail invoice	Button	Click to open create new retail invoice page
Account information	Button	Click to open list action for this receptionist account
Logout	Button	After click avatar, receptionist click this button to logout system
List reservation	Button	To opens screen list reservation

3.8.1.2: View, search and filter list reservation (list reservation page)

- ❖ This screen allow user view all reservation.
- ❖ Related use case: UC-67, UC-69
- ❖ Prototype/ Mock up

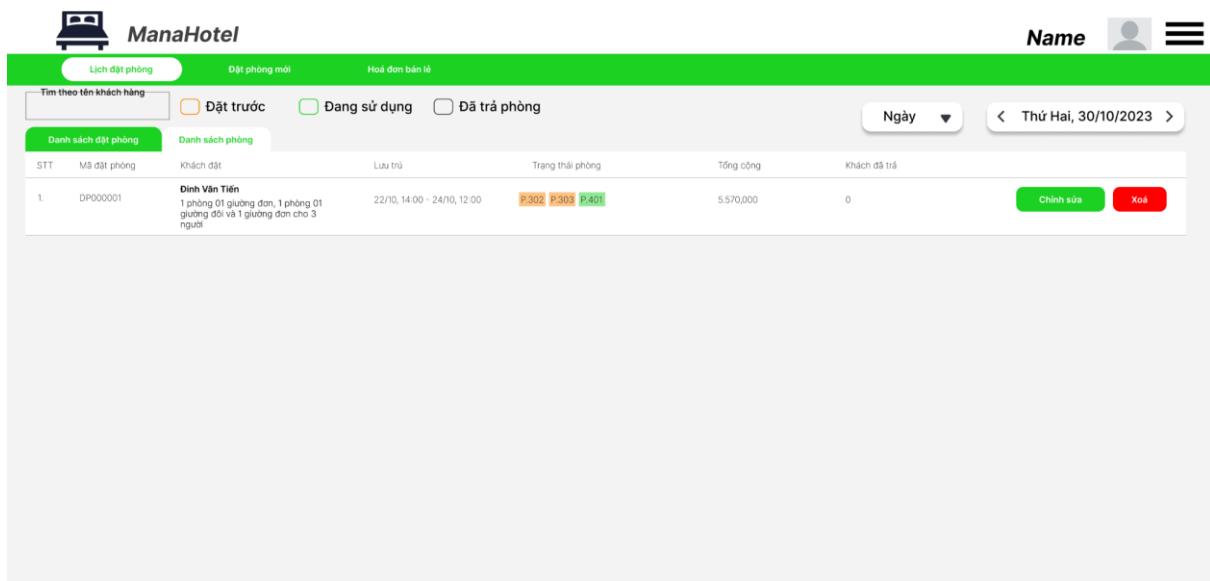


Figure 84: List reservation

❖ UI Requirements:

Table 70: List reservation

Field Name	Field Type	Description
List reservation	List view (table)	List all reservation with their main information: <ul style="list-style-type: none"> - Reservation code, created time - Customer name, room class - Check-in, check-out time - Room name and its booking status - Total price - Total money paid. - Appropriate action (check-in, check-out or view reservation details)
Type of time	Drop down list	Option day, month or week
Range of time	Time picker	Appropriate time with type of time
Search	Textbox	Receptionist can search by room name, customer name, code of reservation (result is active rooms with have customer and reservation in that day)
Filter	Checkbox	Filter by range of time, booking status
Schedule reservation	Button	To go to list reservation page.
Create reservation	Button	Click this button to open screen create a new reservation
Retail invoice	Button	Click to open create new retail invoice page
Export	Button	Export all reservation in list at that time
Account information	Button	Click to open list action for this receptionist account
Logout	Button	After click avatar, receptionist click this button to logout system
List room	Button	To open screen list room calendar

3.8.1.3: Reservation details, room details (popup in room reservation schedule)

- ❖ This popup allows the user to view details of a reservation.
- ❖ Related use case: UC-71
- ❖ Prototype/ Mock up

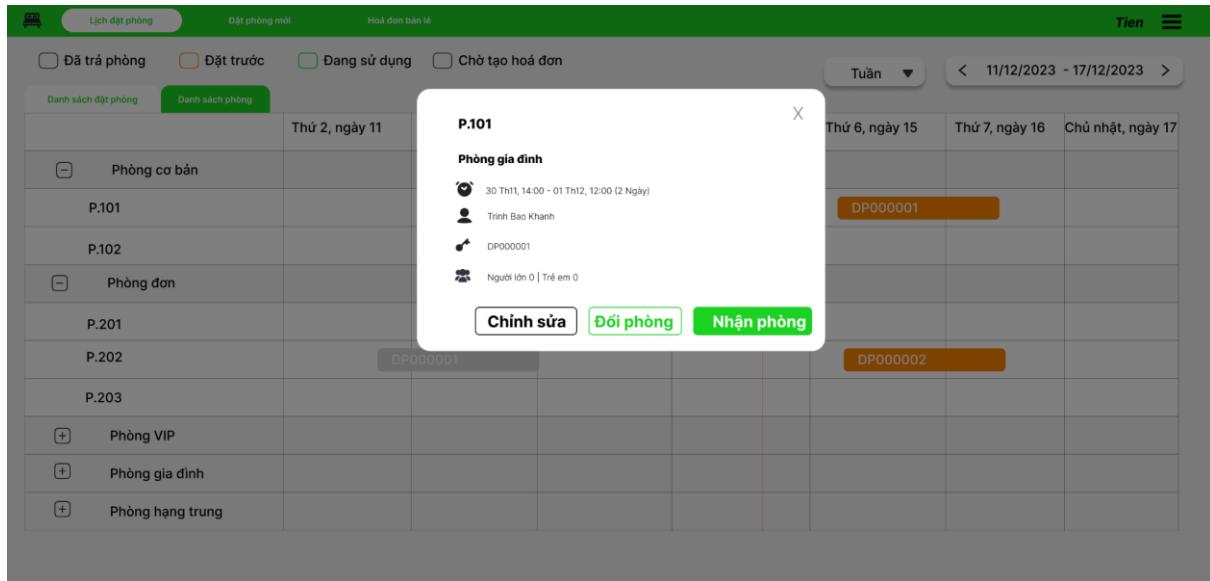


Figure 85: Reservation details

- ❖ UI Requirements:

Table 71: Reservation details

Field Name	Field Type	Description
Room name	Text view	Room name
Room class	Text view	Name of room class
Check-in	Text view	Check - in time
Check-out	Text view	Check-out time
Total time spent	Text view	Total time customer using this room in this reservation
Customer name	Text view	Customer name
Reservation code	Text view	Code of reservation
Total adults, children	Text view	Total number of adults, children
Update	Button	Update to go to update reservation details page
Change room	Button	Button to open popup change room
Check-in / check-out	Button	Button to appropriate action

3.8.1.4: Screen create reservation

- ❖ This screen allow user start to create a new reservation
- ❖ Related use case: UC-70
- ❖ Prototype/ Mock up

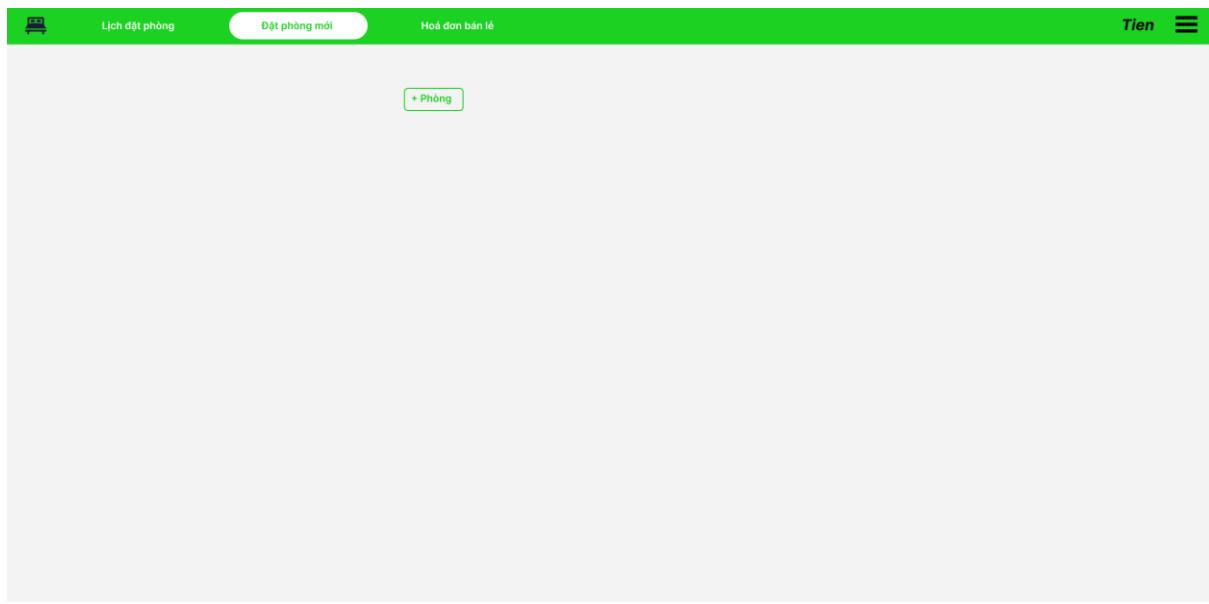


Figure 86: Screen create reservation

- ❖ UI Requirements:

Table 72: Screen create reservation

Field Name	Field Type	Description
Add room	Button	To open popup add room to this reservation
Schedule reservation	Button	To go to list reservation page.
Create reservation	Button	Click this button to open screen create a new reservation
Retail invoice	Button	Click to open create new retail invoice page

3.8.1.5: Update reservation page

- ❖ This screen allows the user to view details, update order for a reservation.
- ❖ Related use case: UC-72, UC-73, UC-74, UC-75
- ❖ Prototype/ Mock up

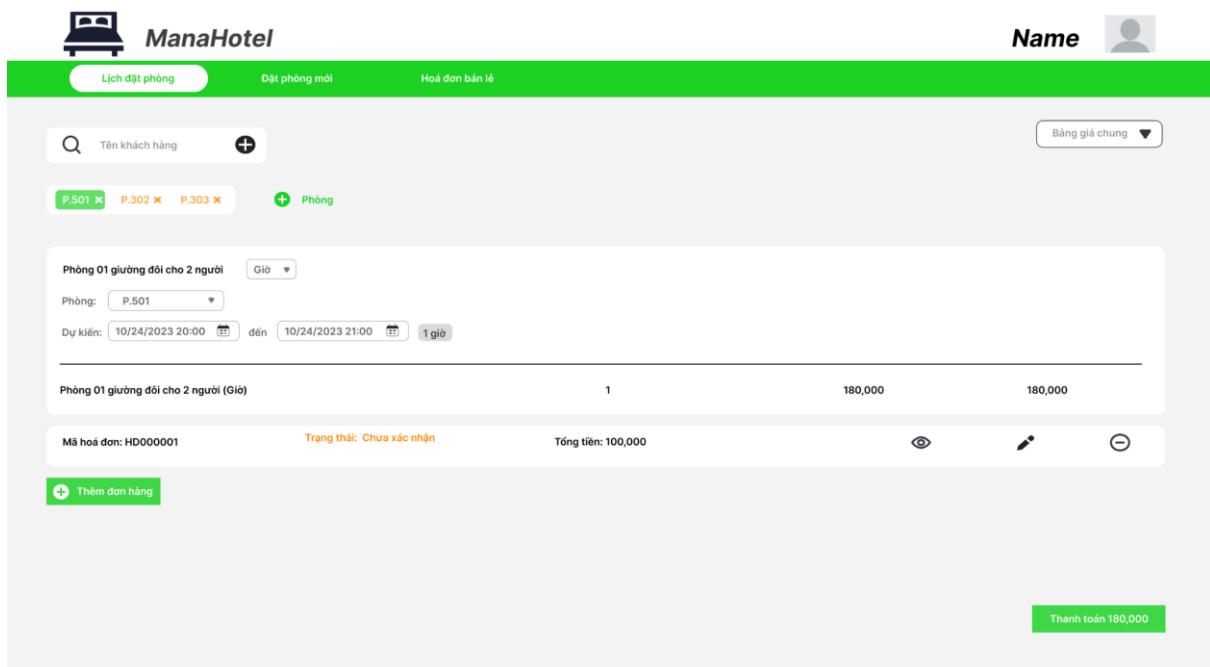


Figure 87: Update reservation page

❖ UI Requirements:

Table 73: Update reservation page

Field Name	Field Type	Description
Customer reserve	Text box	Text box to find customer reserve room. After receptionist choose customer, this text box show customer name and can't search another customer. If receptionist clicks to customer name, popup update customer information is shown.
Schedule reservation	Button	To go to list reservation page.
Create reservation	Button	Click this button to open screen create a new reservation
Retail invoice	Button	Click to open create new retail invoice page
Add new customer	Button	To open popup create new customer (only show when receptionist hasn't chosen customer)
Delete customer	Button	This button is shown next to customer name only after receptionist choose customer to cancel this customer, choose another.
Customer information	Button	To open popup update information of companion
Price list	Drop down list	Receptionist select to choose price list
Status	Drop down list	Receptionist can choose status for this reservation (created, reserved)
Name of room	Tap	Each room is displayed like a tap, each tap includes information about that room
Name of room class	Text view	In tap room, this column show name of room class

Type of reservation	Drop down list	In tap room, this column show type or reservation (by hour, by night, by day)
Check-in time	Text box select datetime	In tap room, this column show time to check-in
Check-out time	Text box select datetime	In tap room, this column show time to check-out
Quantity	Text view	In tap room, this column show total quantity estimate (calculate by time check-in, check-out) (1hour, 2 days,...)
Add room	Button	To open popup choose room class popup
Note	Text box	Note for this reservation
Total price	Text view	Total price of this reservation
Total money paid	Text box	Total money customer paid for this reservation
Change room	Button	To open popup change room
Check-in/ check-out / reserve	Button	To change status of room and reservation
Cancel	Button	To cancel this reservation
Save	Button	To save changes
Payment	Button	To open popup payment
Add order	Button	To add order to this reservation
Total price of order	Text view	Total price of this order
Status	Drop down list	Receptionist can choose status for order
Place order	Button	To place this order
Print	Button	To print this order
Customer name	Text box	Customer of this order, if being empty, customer is customer reserves this room

3.8.1.6: Choose room popup (for create reservation)

- ❖ This popup allows the user to add room for reservation.
- ❖ Related use case: UC-70
- ❖ Prototype/ Mock up

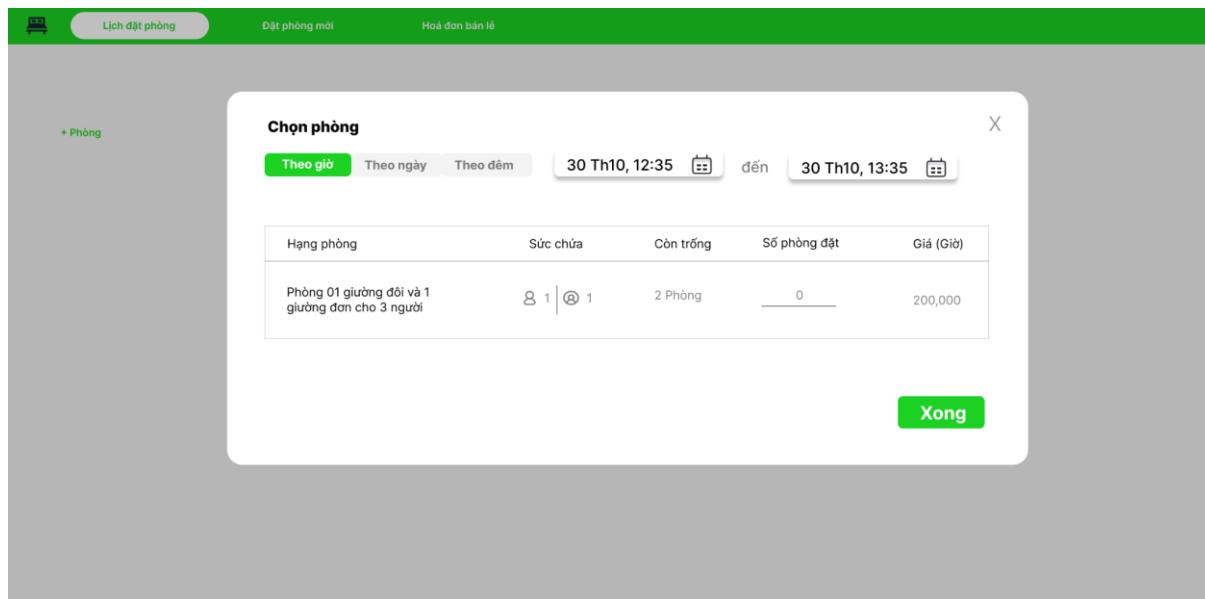


Figure 88: Choose room

❖ UI Requirements:

Table 74: Choose room popup (for create reservation)

Field Name	Field Type	Description
Type of reservation	Radio button	Receptionist choose type of reservation for this room (by hour, night, day)
Check-in time	Text box select datetime	Time to check-in
Check-out time	Text box select datetime	Time to check-out
List room class	List view	List room class for receptionist
Name room class	Text view	In list room class, this column show name of room class
Capacity	Text view	In list room class, this column show capacity of this room class
Empty room	Text view	In list room class, this column show total empty room in range between check-in and check-out time of this room class
Number room to reserve	Text box	Receptionist input number of room to reserve of this room class (can > number of empty room)
Price	Text view	In list room class, this column show price by type reservation of this room class
Cancel	Button	To close popup and go back
Confirm	Button	To confirm number of room in room class and go to next step.

3.8.1.7: Popup update information of visited customer

- ❖ This screen allows the user to view and update companion information for reservation.

- ❖ Related use case:
- ❖ Prototype/ Mock up

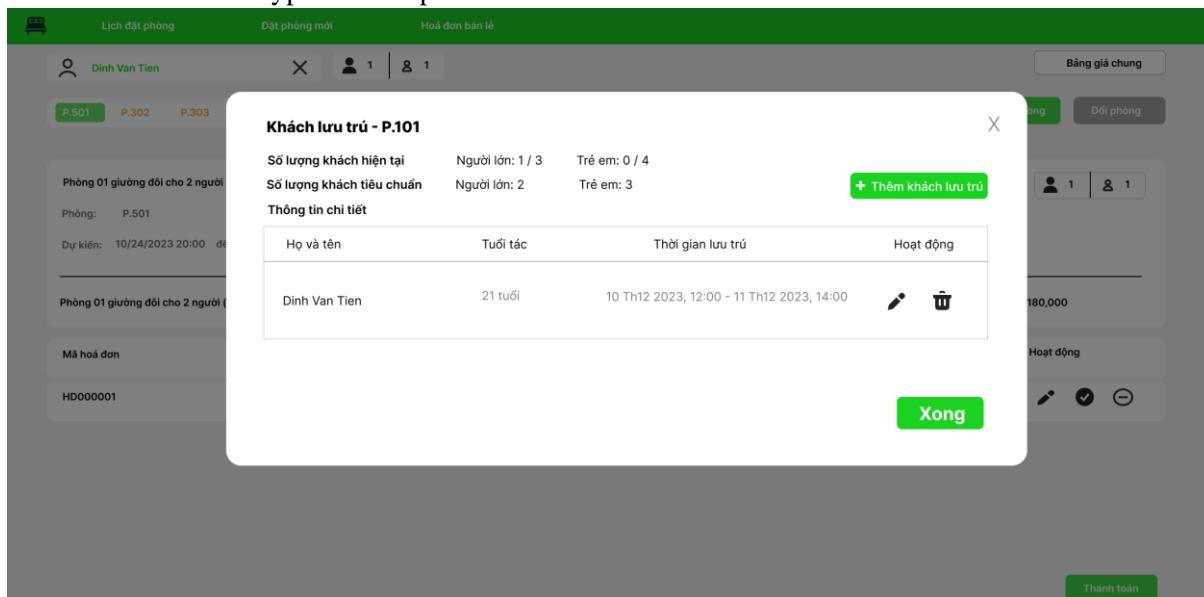


Figure 89: Popup update information of visited customer

- ❖ UI Requirements:

Table 75: Popup update information of visited customer

Field Name	Field Type	Description
Total adult	Text box	Receptionist input total number of adult (include customer reserves)
Total children	Text box	Receptionist input total number of children
Number adult and children standard, maximum each room	Text view	List room with its standard number of adults, children and maximum number of adult, children
Search customer	Text box	Search customer by name or identification number to select this customer
Add new customer	Button	To open popup add new customer
List customer	List view	List selected customer
Name of customer	Text view	In list customer, this column shows name of customer
Gender	Text view	In list customer, this column show gender of this customer
Room	Drop down list	In list customer, this column shows room this customer will live, receptionist can select room in list chosen room
Start time	Datetime text box	In list customer, this column shows time this customer start living in this room
Living time	Text view	In list customer, this column show range between check-in, check-out time of this customer
Update	Button	In list customer, this button to open popup update information for this customer

Delete	Button	In list customer, this button to delete this customer out of this list customer
Confirm	Button	To confirm, save this list customer

3.8.1.8: Popup change room (choose room in same room class)

- ❖ This popup allows the user to change rooms of reservation.
- ❖ Related use case: UC-44
- ❖ Prototype/ Mock up

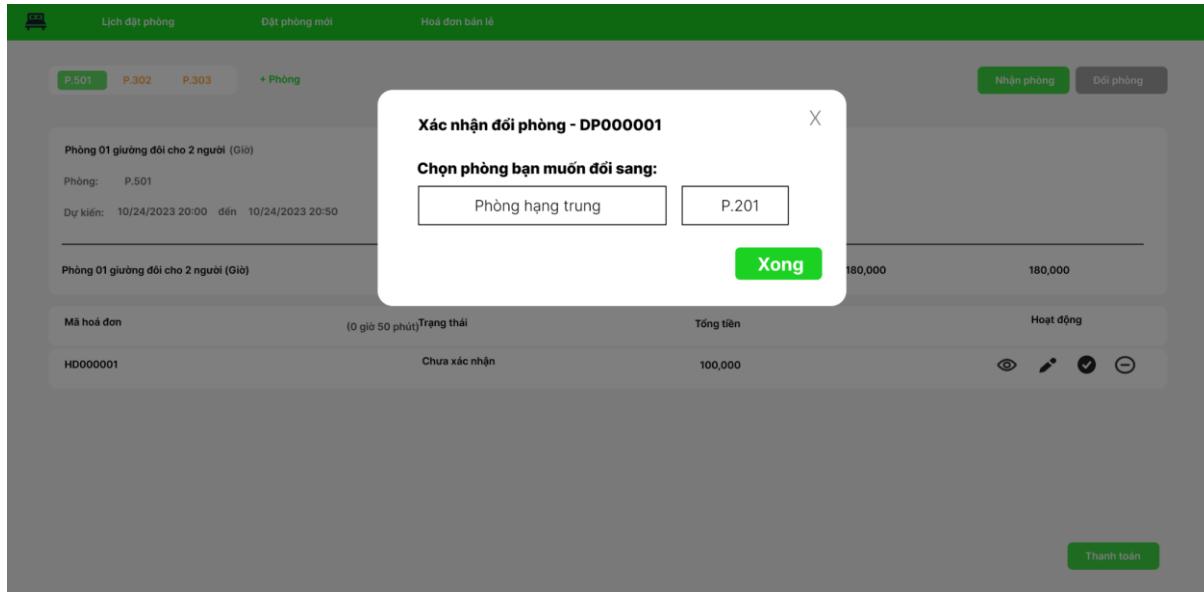


Figure 90: Popup change room

- ❖ UI Requirements:

Table 76: Popup change room (choose room in same room class)

Field Name	Field Type	Description
Room class	Drop down list	List all room class has empty room in that range check-in, check-out time
Room	Drop down list	List all empty room in that range of check-in, check-out time, if receptionist choose room class, list room must be in chosen room class
Confirm	Button	To confirm change room
Close	Button	Close popup and cancel change room

3.8.1.9: Popup change room (choose room in another room class)

- ❖ This popup allows the user to change rooms of reservation.
- ❖ Related use case: UC-44
- ❖ Prototype/ Mock up

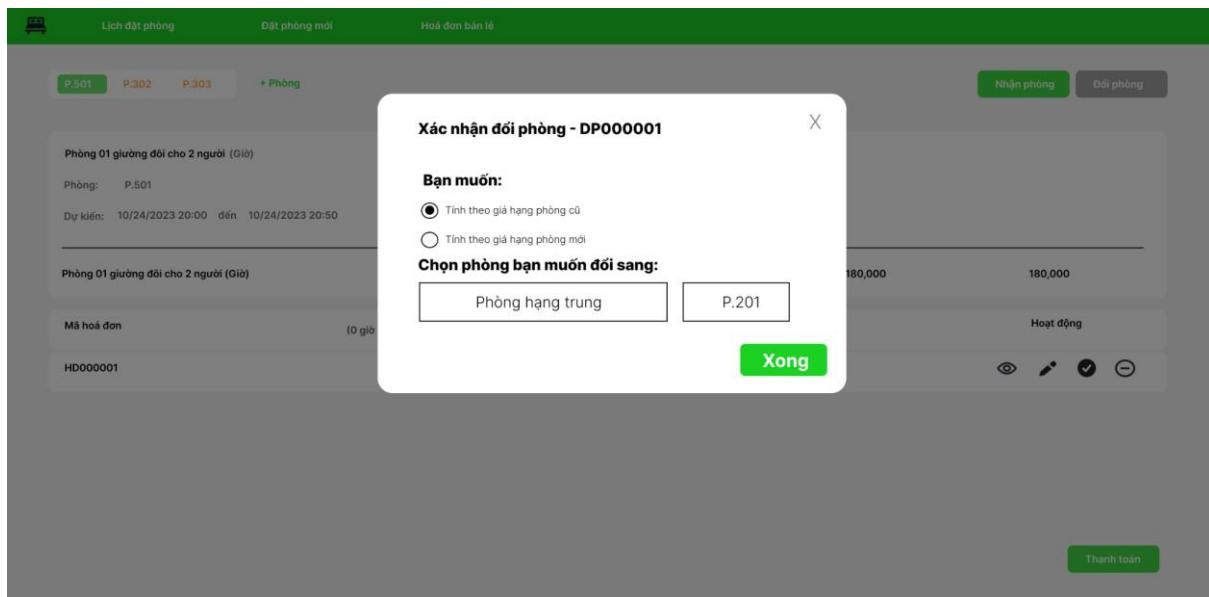


Figure 91: Popup change room

❖ UI Requirements:

Table 77: Popup change room (choose room in another room class)

Field Name	Field Type	Description
Calculate by price of old room class	Radio button	To apply the price of old room class to reservation.
Calculate by price of new room class	Radio button	To apply the price of new room class to reservation.
Room class	Drop down list	List all room class has empty room in that range check-in, check-out time
Room	Drop down list	List all empty room in that range of check-in, check-out time, if receptionist choose room class, list room must be in chosen room class
Confirm	Button	To confirm change room
Close	Button	Close popup and cancel change room

3.8.1.10: Popup confirm check-in

- ❖ This popup allows the user to confirm check-in that room.
- ❖ Related use case: UC-72
- ❖ Prototype/ Mock up

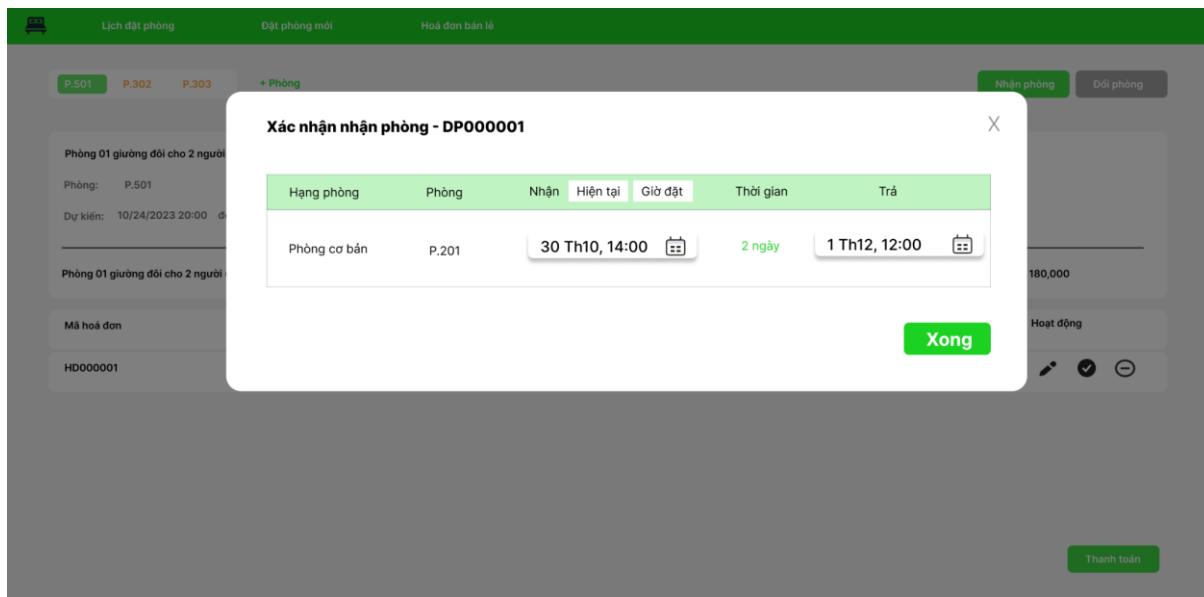


Figure 92: Popup confirm check-in

❖ UI Requirements:

Table 78: Popup confirm check-in

Field Name	Field Type	Description
Reservation code	Text view	Code of reservation
Room class	Text view	Name of room class
Room	Text view	Name of room
Check-in time	Datetime picker	Check-in time
Check-out time	Datetime picker	Check-out time
Total time	Text view	Total using time of reservation
Now	Button	To change time check-in to now
Reserve time	Button	To change check-in time to the default reserve time
Save	Button	Save button to save change

3.8.1.11: Popup confirm check-out

- ❖ This popup allows the user to confirm check-out that room.
- ❖ Related use case: UC-75
- ❖ Prototype/ Mock up

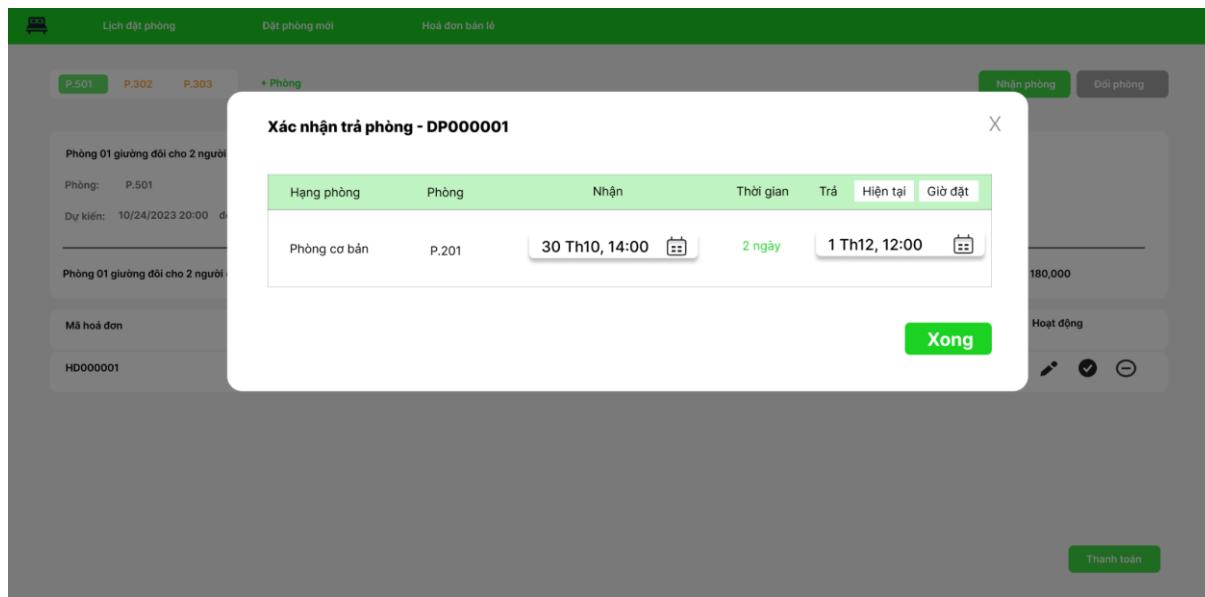


Figure 93: Popup confirm check-out

❖ UI Requirements:

Table 79: Popup confirm check-out

Field Name	Field Type	Description
Reservation code	Text view	Code of reservation
Room class	Text view	Name of room class
Room	Text view	Name of room
Check-in time	Datetime picker	Check-in time
Check-out time	Datetime picker	Check-out time
Total time	Text view	Total using time of reservation
Now	Button	To change time check-out to now
Reserve time	Button	To change check-out time to the default reserve time
Save	Button	To save change

3.8.1.12: Popup add order

- ❖ This popup allows the user to add order in a room for reservation
- ❖ Related use case: UC-73
- ❖ Prototype/ Mock up

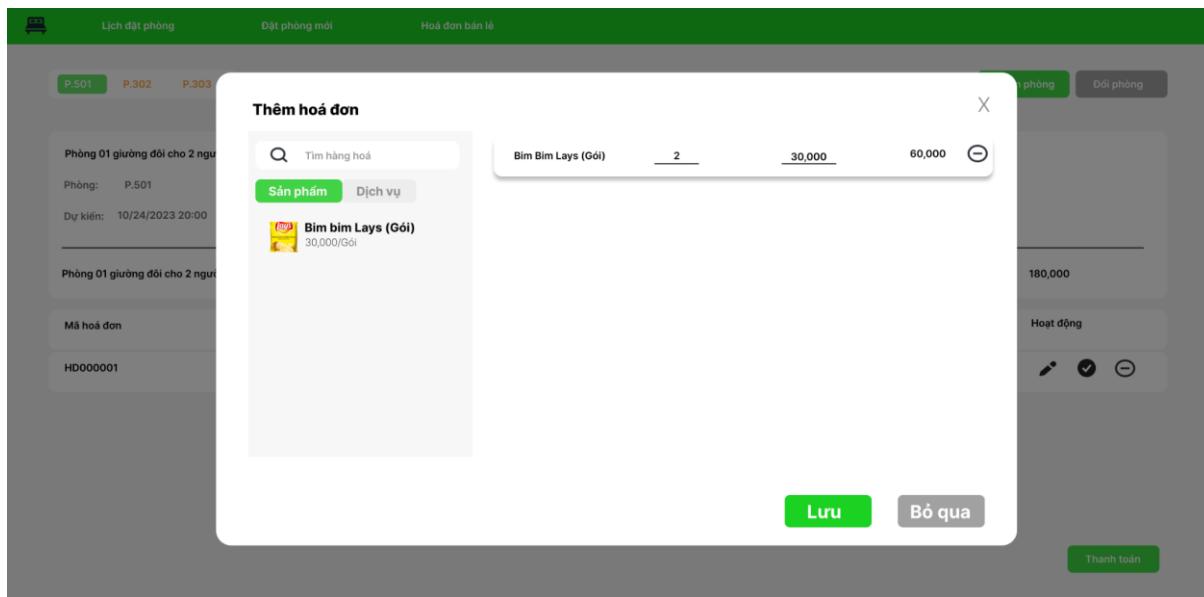


Figure 94: Popup add order

❖ UI Requirements:

Table 80: Popup add order

Field Name	Field Type	Description
Search	Textbox	To search goods, service to add to list
List goods, service	Table	List goods, service: - Name - Quantity - Price
Remove	Textbox	To remove goods, service in list
Save	Button	To save this order
Cancel	Button	To cancel create invoice

3.8.1.13: Popup customer information of reservation (visited customer)

- ❖ This popup allows the user to view list visited customer information
- ❖ Related use case: UC-70
- ❖ Prototype/ Mock-up

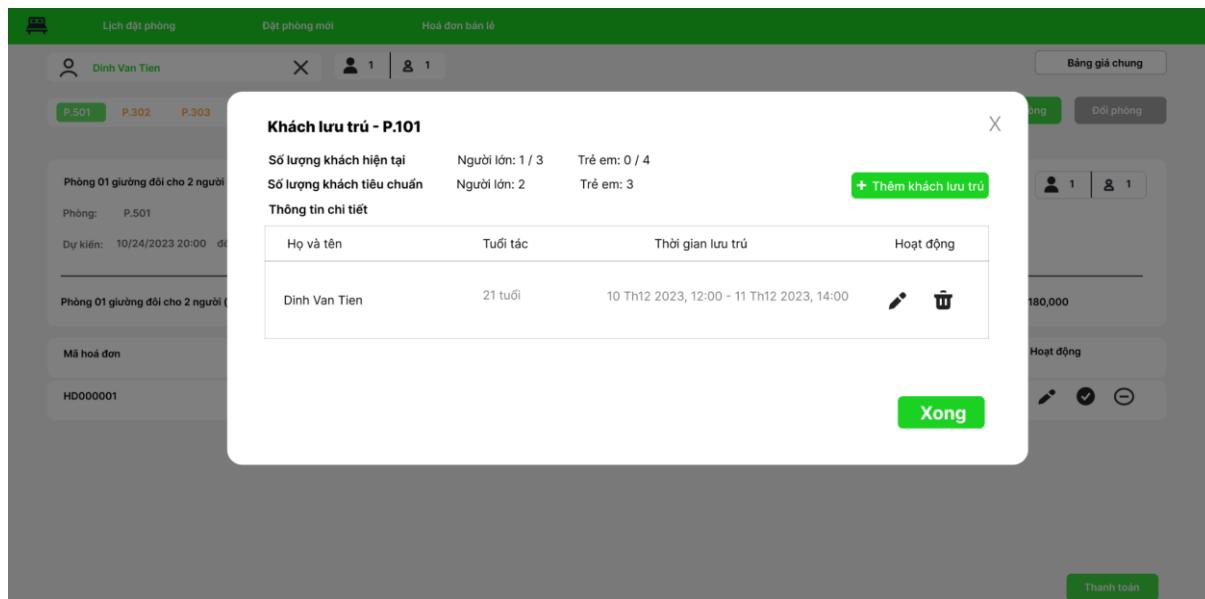


Figure 95: Popup customer information of reservation (visited customer)

- ❖ UI Requirements:

Table 81: Popup customer information of reservation (visited customer)

Field Name	Field Type	Description
Number of customer in room	Text view	Number of adults, children in the room at that time.
Maximum customer	Text view	Maximum customer of that room
Standard customer	Text view	Standard number of customer of that room
Add customer	Button	To open popup create visited customer
List customer	Table	List visited customer in that room
Customer name	Text view	Customer name
Age	Text view	Age of customer
Check-in, check-out	Text view	Check-in, check-out time
Update	Button	Button to update customer
Delete	Button	Button to remove customer in list
Done	Button	To save changes

3.8.1.14: Popup create visited customer.

- ❖ This popup allows the user to create visited customer information.
- ❖ Related use case: UC-70
- ❖ Prototype/ Mock-up

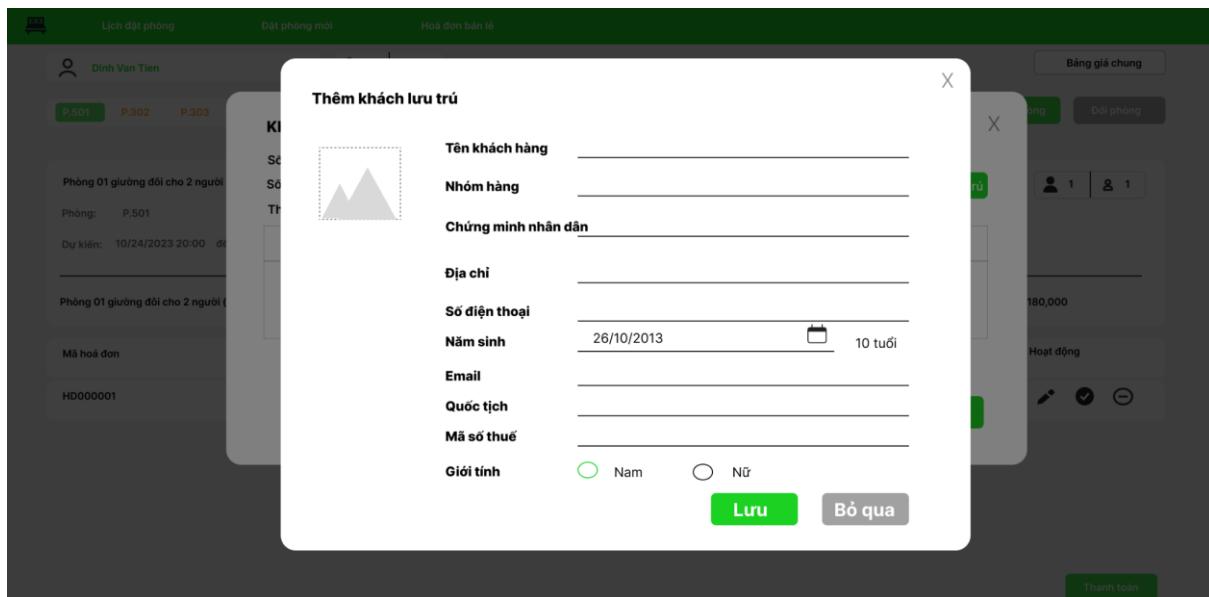


Figure 96: Popup create visited customer.

❖ UI Requirements:

Table 82: Popup create visited customer.

Field Name	Field Type	Description
Image	Button	Image for customer
Name	Textbox	Name of customer
Customer group	Drop down list	List customer group
Identify code	Textbox	Identify citizen code of customer
Address	Textbox	Address of customer
Phone number	Textbox	Phone number of customer
Date of birth	Datetime picker	Date of birth of customer
Age	Text view	System calculates age of customer automatically
Email	Textbox	Email of customer
National	Textbox	Nationality of customer
Tax code	Textbox	Tax code of customer
Gender	Radio button	Gender of button
Save	Button	To save customer
Cancel	Button	To close popup with no changes

3.8.1.15: Popup payment

- ❖ This popup allows the user to pay invoice of reservation.
- ❖ Related use case: UC-70
- ❖ Prototype/ Mock-up

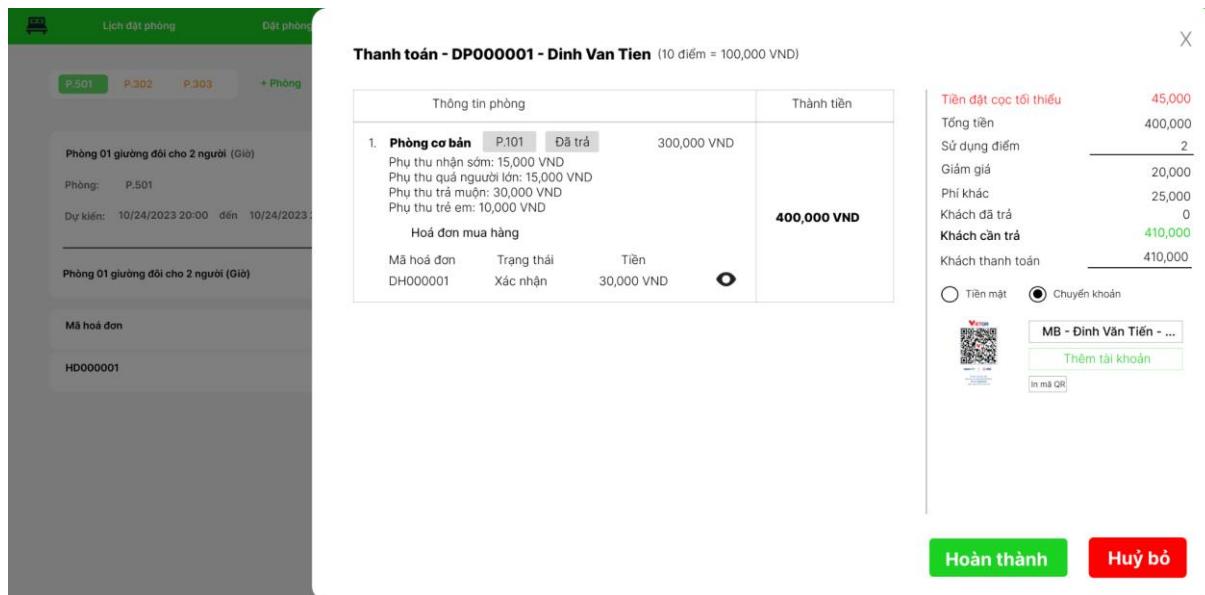


Figure 97: Popup payment

❖ UI Requirements:

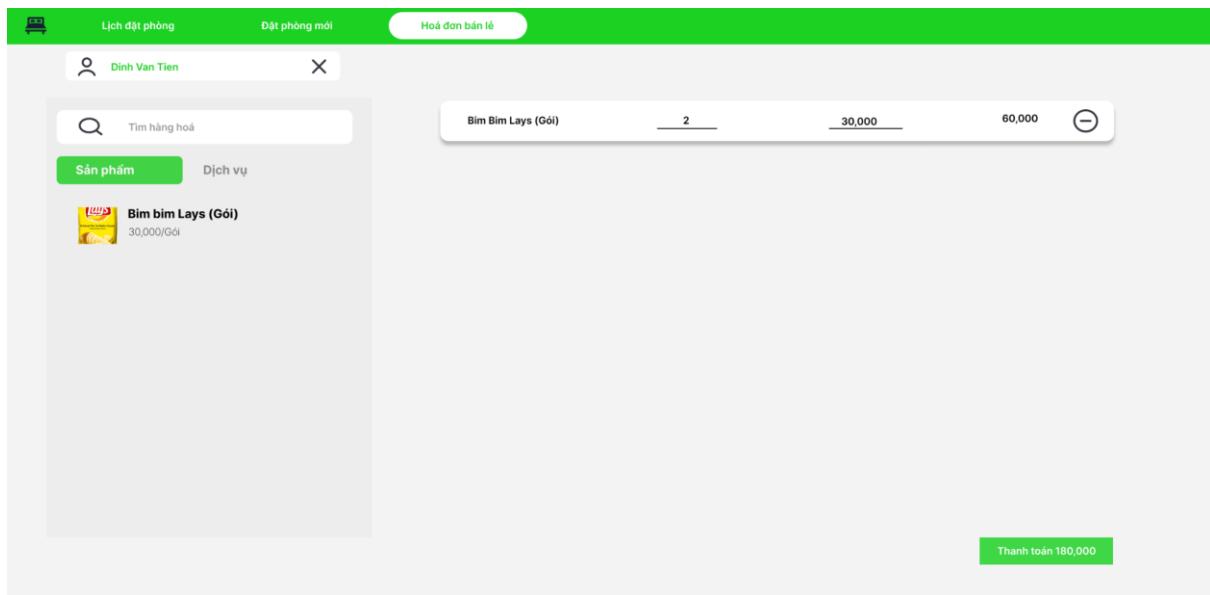
Table 83: Popup payment

Field Name	Field Type	Description
Reservation code	Text view	Code of that reservation
Point	List view	Total point of that customer
Value of point	List view	Value of point after changing
Room detail	Table	Detail of each room in reservation
Room class name	List view	In room detail, name of room class
Room name	List view	In room detail, name of room
Status	List view	Status of room with reservation
Policy	List view	List policy of that room: - Text view policy name - Text view value of policy
List order	Table	List order of goods, service of that room - Text view order code - Text view status of order - Text view price of order - Button view detail of order
Deposit	List view	Minimum of deposit
Total price	List view	Total price of reservation
Using point	Textbox	Point customer wants to use
Discount	Textbox	Discount for reservation
Other surcharge	List view	Total price of other surcharge
Paid	List view	Total price customer paid
Need to pay	List view	Value of money customer need to pay
Customer pays	Textbox	Value of money customer pays
QR code	Image	QR code of payment
Bank account	Drop down list	List all bank account
Add bank account	Button	To open popup create bank account
Print QR code	Button	To print QR code
Payment method	Radio button	Cash or online payment
Done	Button	To complete payment
Cancel	Button	To cancel payment and close popup

3.8.2: Create retail invoice

3.8.2.1: Create retail invoice

- ❖ This screen allows the user to view all active rooms to take action about reservation.
- ❖ Related use case: UC-80
- ❖ Prototype/ Mock up

*Figure 98: Create retail invoice*

❖ UI Requirements:

Table 84: Create retail invoice

Field Name	Field Type	Description
Schedule reservation	Button	To go to the list reservation page.
Create reservation	Button	Click this button to open screen create a new reservation
Retail invoice	Button	Click to open create new retail invoice page
Search customer	Textbox	To choose customer (can be empty)
Search goods, service	Textbox	To input text about goods, service to add to list.
List goods, service	List view	List goods in invoice
Payment	Button	Button to open popup payment.

3.8.2.2: Popup payment

- ❖ This popup allows the user to pay retail invoice.
- ❖ Related use case: UC-80
- ❖ Prototype/ Mock-up

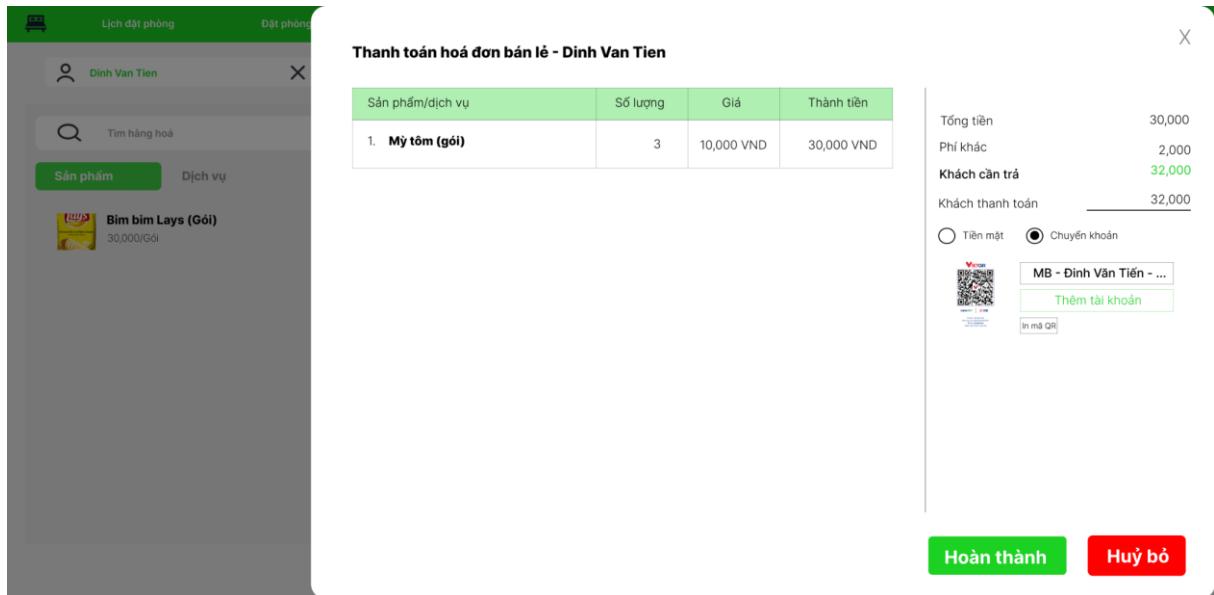


Figure 99: Popup payment

❖ UI Requirements:

Table 85: Popup payment

Field Name	Field Type	Description
Customer		Customer name
Invoice detail	Table	List all goods, service in table - Text view goods, service name - Text view quantity of goods, service - Text view price
Total price	Text view	Total price of invoice
Other surcharge	Textbox	Other surcharge
Need to pay	List view	Value of money customer need to pay
Customer pays	Textbox	Value of money customer pays
QR code	Image	QR code of payment
Bank account	Drop down list	List all bank account
Add bank account	Button	To open popup create bank account
Print QR code	Button	To print QR code
Payment method	Radio button	Cash or online payment
Done	Button	To complete invoice
Cancel	Button	To cancel payment and close popup

3.9 Human resource management

3.9.1: Staff management:

3.9.1.1: List staff

- ❖ This screen allow user view list all staff.
- ❖ Related use case: UC-82, UC-83
- ❖ Prototype/ Mock-up

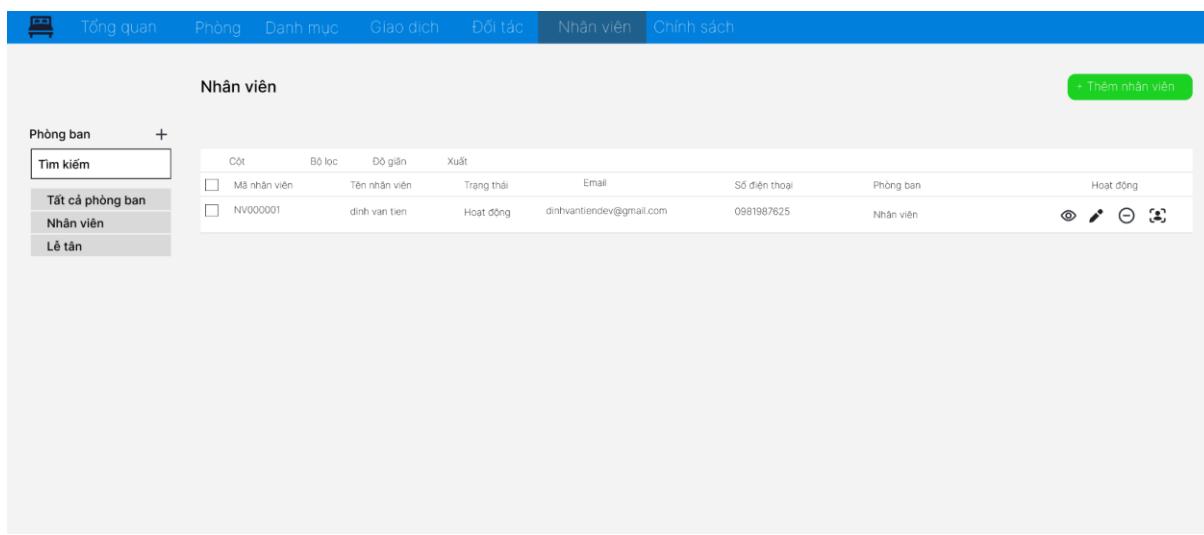


Figure 100: List staff

❖ UI Requirements:

Table 86: List staff

Field Name	Field Type	Description
List staff	List view (table)	List all staffs, table shown information: - Code of staff - Staff name - Status - Email - Phone number - Department - Action
Header bar	Button	Button to redirect to other pages.
Add new staff	Button	Button to add a new staff
Column	Button	Button to customise which column is hidden, which column is shown in table list customer.
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customise the distance between 2 lines
Export	Button	To export file of all items in list..
Select staff	Checkbox	Click to choose staff
View detail	Button	To open popup view detail
Update	Button	To open popup update
Delete	Button	To delete staff
Change to admin	Button	To open popup confirm change staff from role receptionist to manager.
Add department	Button	To open popup create department
Search	Textbox	Search department
List department	List view	List name of department

3.9.1.2: Create staff

- ❖ This popup allow user create new staff.
- ❖ Related use case: UC-84
- ❖ Prototype/ Mock-up

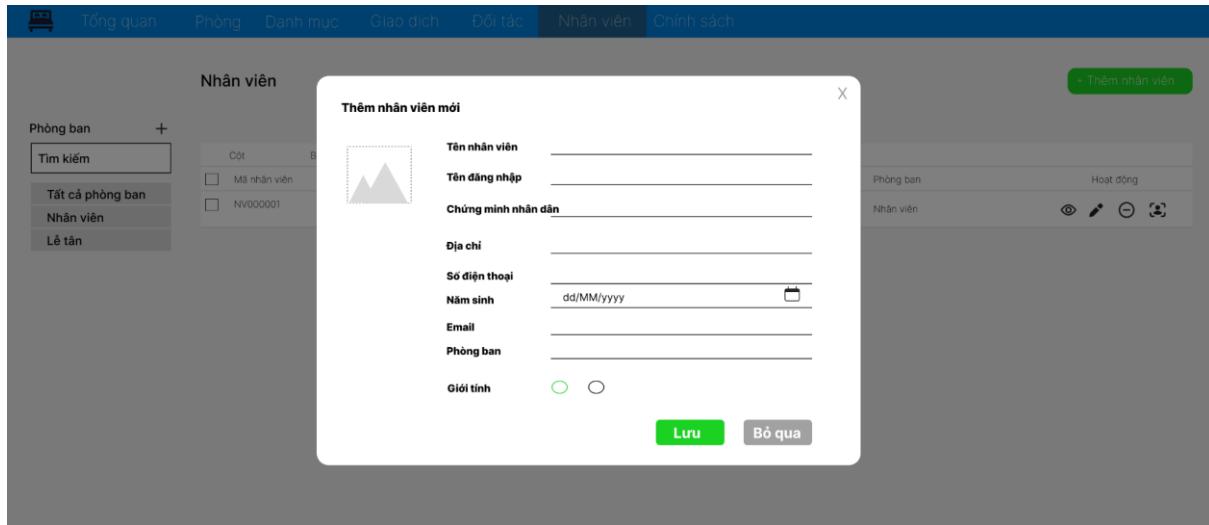


Figure 101: Create staff

- ❖ UI Requirements:

Table 87: Create staff

Field Name	Field Type	Description
Image	Button	Avatar of staff
Staff name	Textbox	Name of staff
Username	Textbox	Login name
Identify code	Textbox	Identify code of staff
Address	Textbox	Address of staff
Phone number	Textbox	Phone number
Date of birth	Textbox	Date of birth
Email	Textbox	Email
Department	Drop down list	Choose in list department
Add department	Button	To open popup create department
Gender	Radio button	Gender
Save	Button	To create staff
Cancel	Button	To close popup
Close	Button	To close popup

3.9.1.3: View detail staff

- ❖ This popup allows user view detail staff.
- ❖ Related use case: UC-85
- ❖ Prototype/ Mock-up

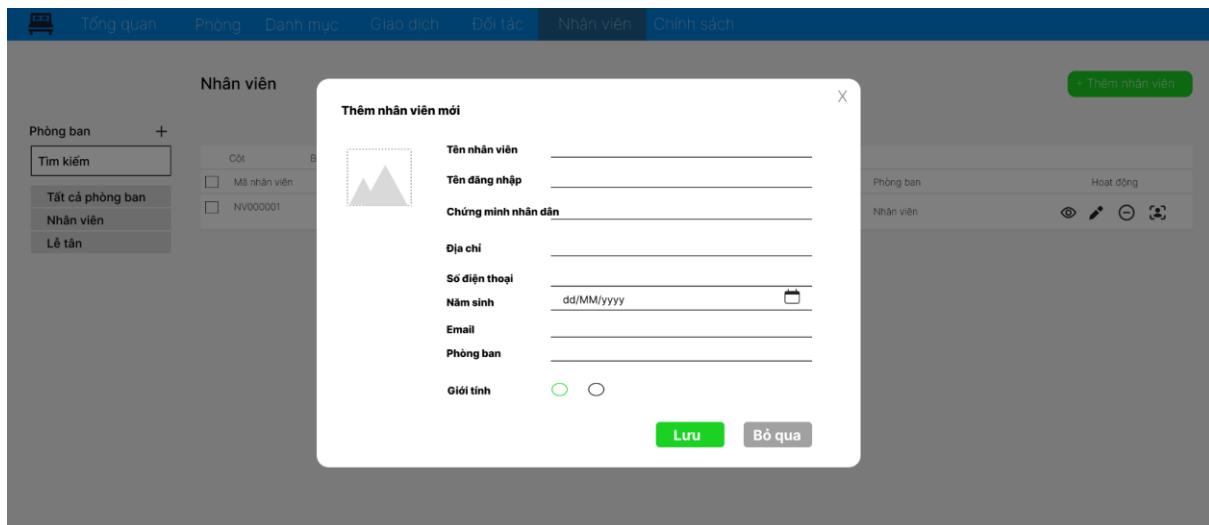


Figure 102: View detail staff

- ❖ UI Requirements:

Table 88: View detail staff

Field Name	Field Type	Description
Image	Text view	Avatar of staff
Staff code	Text view	Code of staff
Staff name	Text view	Name of staff
Username	Text view	Login name
Identify code	Text view	Identify code of staff
Address	Text view	Address of staff
Phone number	Text view	Phone number
Date of birth	Text view	Date of birth
Email	Text view	Email
Department	Text view	Choose in list department
Gender	Text view	Gender
Close	Button	To close popup

3.9.1.4: Update staff

- ❖ This popup allows user update information of staff.
- ❖ Related use case: UC-86
- ❖ Prototype/ Mock-up

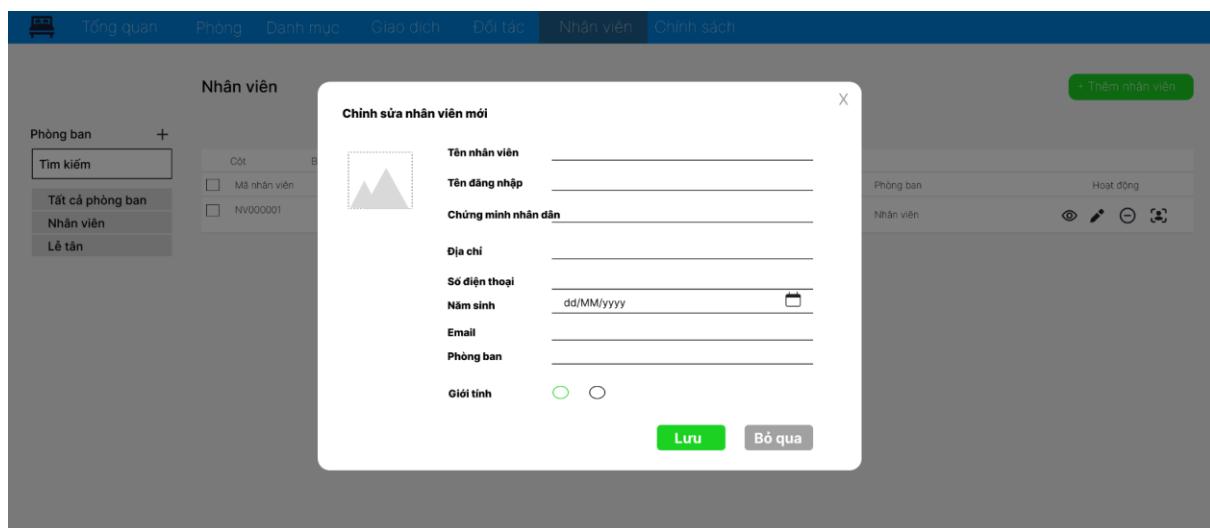


Figure 103: Update staff

❖ UI Requirements:

Table 89: Update staff

Field Name	Field Type	Description
Image	Button	Avatar of staff
Staff code	Text view	Code of staff
Staff name	Textbox	Name of staff
Username	Textbox	Login name
Identify code	Textbox	Identify code of staff
Address	Textbox	Address of staff
Phone number	Textbox	Phone number
Date of birth	Textbox	Date of birth
Email	Textbox	Email
Department	Drop down list	Choose in list department
Add department	Button	To open popup create department
Gender	Radio button	Gender
Save	Button	To create staff
Cancel	Button	To close popup
Close	Button	To close popup

3.9.2: Department management:

3.9.2.1: Create department.

- ❖ This popup allows users to create a new department for staff.
- ❖ Related use case: UC-88
- ❖ Prototype/ Mock-up

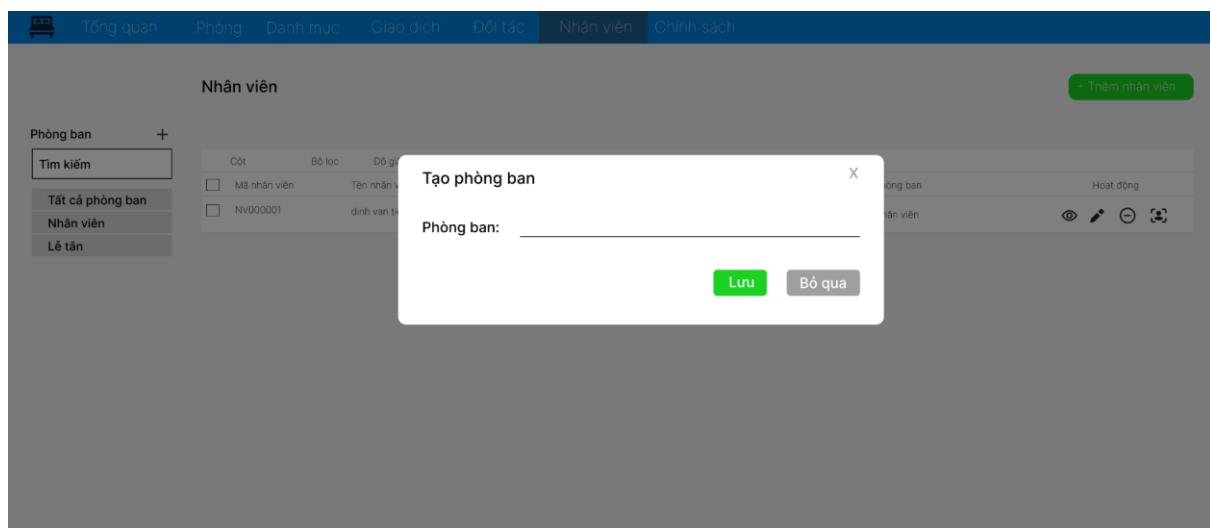


Figure 104: Create department.

- ❖ UI Requirements:

Table 90: Create department.

Field Name	Field Type	Description
Name of department	Textbox	Name of department
Save	Button	To create staff
Cancel	Button	To close popup
Close	Button	To close popup

3.9.2.2: Update department

- ❖ This popup allows user to update departments for staff.
- ❖ Related use case: UC-89
- ❖ Prototype/ Mock up

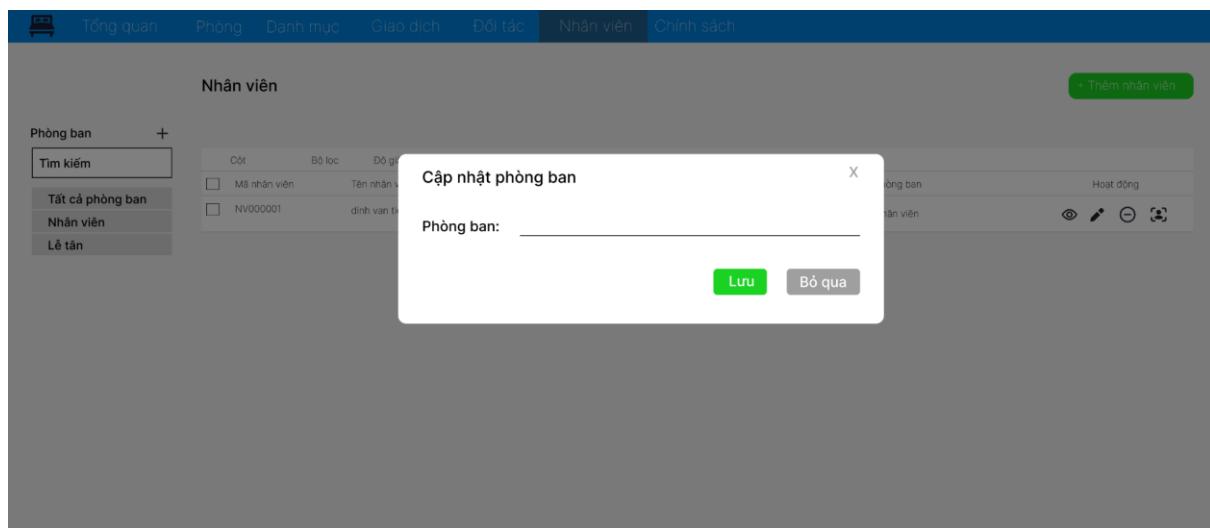


Figure 105: Update department

- ❖ UI Requirements:

Table 91: Update department

Field Name	Field Type	Description
Name of department	Textbox	Name of department
Save	Button	To update department
Cancel	Button	To close popup
Close	Button	To close popup

3.10 Profile management

3.10.1: Profile management:

3.10.1.1: Profile

- ❖ This screen allows user to update departments for staff.
- ❖ Related use case: UC-92, UC-93
- ❖ Prototype/ Mock-up

Figure 106: Profile management:

- ❖ UI Requirements:

Table 92: Profile management:

Field Name	Field Type	Description
Image	Button	Avatar of account
Account code	Text view	Code of account
Name	Textbox	Name of staff
Username	Textbox	Login name
Identify code	Textbox	Identify code of staff

Address	Textbox	Address
Phone number	Textbox	Phone number
Date of birth	Textbox	Date of birth
Email	Textbox	Email
Gender	Radio button	Gender
Save profile	Button	To save change to update profile
Change password	Button	To open popup change password

3.10.1.2: Change password

- ❖ This screen allows user to update departments for staff.
- ❖ Related use case: UC-94
- ❖ Prototype/ Mock-up

Figure 107: Change password

- ❖ UI Requirements:

Table 93: Change password

Field Name	Field Type	Description
Image	Button	Avatar of account
Account code	Text view	Code of account
Name	Textbox	Name of staff
Username	Textbox	Login name
Identify code	Textbox	Identify code of staff
Address	Textbox	Address
Phone number	Textbox	Phone number
Date of birth	Textbox	Date of birth
Email	Textbox	Email
Gender	Radio button	Gender

Save profile	Button	To save change to update profile
Old password	Textbox	To input old password
New password	Textbox	To input new password
Confirm new password	Textbox	To confirm new password
Change password	Button	To apply change to change password
Cancel	Button	To cancel change password

3.11 Fund book management

3.11.1: Fund book management:

3.11.1.1: View fund book

- ❖ This screen allows user view fund book.
- ❖ Related use case: UC-95
- ❖ Prototype/ Mock-up

Figure 108: List fund book

- ❖ UI Requirements:

Table 94: View fund book

Field Name	Field Type	Description
List fund book	List view (table)	<p>List all fund book, table shown information:</p> <ul style="list-style-type: none"> - Code - Created date - Note - Payment method - Value - Status - User - Action

Header bar	Button	Button to redirect to other pages.
Filter time	Drop down list	Choose filter by month or year
Time	Time picker	Choose range of time to view fund book
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customise the distance between 2 lines
Export	Button	To export file of all items in list..
View detail	Button	To open popup view detail
Update	Button	To open popup update
Cancel	Button	To cancel fund book
Create income invoice	Button	To open popup create income invoice
Create expense invoice	Button	To open popup create expense invoice

3.11.1.1: Create income invoice

- ❖ This popup allows users to create an income invoice.
- ❖ Related use case: UC-96
- ❖ Prototype/ Mock up

Figure 109: Create income invoice

- ❖ UI Requirements:

Table 95: Create income invoice

Field Name	Field Type	Description
Payment method	Drop down list	By cash or online payment
Value	Textbox	Value of invoice
Submitter	Textbox	Name of the submitter
Created date	Datetime picker	Created date
Note	Textbox	Note for invoice

Type	Drop down list	Income or other
Save	Button	To save new invoice
Cancel	Button	To close popup with no changes
Close	Button	To close popup with no changes

3.11.1.1: Create expense invoice

- ❖ This popup allows users to create an expense invoice.
- ❖ Related use case: UC-97
- ❖ Prototype/ Mock up

The screenshot shows a software interface with a dark grey background. At the top, there is a navigation bar with tabs: 'Tổng quan', 'Phòng', 'Danh mục', 'Giao dịch' (which is highlighted in blue), 'Đối tác', 'Nhân viên', and 'Chính sách'. Below the navigation bar, there is a sidebar on the left labeled 'Sổ quỹ' with checkboxes for 'Cột', 'Số hiệu chứng', and 'TTHD000006'. The main area contains a white modal window titled 'Lập phiếu chi'. Inside the modal, there are several input fields: a dropdown for 'Hình thức' (Payment method) set to 'Tiền mặt'; a text input for 'Giá trị' (Value); a text input for 'Người nộp' (Submitter); a text input for 'Ghi chú' (Note); and a dropdown for 'Loại thu' (Type) set to 'Chi phí'. At the bottom of the modal are two buttons: a green 'Lưu' (Save) button and a grey 'Bỏ qua' (Cancel) button. To the right of the modal, there is a small button labeled '+ Lập phiếu chi' and some icons for 'nộp' (submit) and 'Hoạt động' (activity).

Figure 110: Create expense invoice

- ❖ UI Requirements:

Table 96: Create expense invoice

Field Name	Field Type	Description
Payment method	Drop down list	By cash or online payment
Value	Textbox	Value of invoice
Submitter	Textbox	Name of the submitter
Created date	Datetime picker	Created date
Note	Textbox	Note for invoice
Type	Drop down list	Income or other
Save	Button	To save new invoice
Cancel	Button	To close popup with no changes
Close	Button	To close popup with no changes

3.11.1.1: Update invoice

- ❖ This popup allows users to update an expense or income invoice.
- ❖ Related use case: UC-98
- ❖ Prototype/ Mock up

Tổng quan Phòng Danh mục Giao dịch Đối tác Nhân viên Chính sách

Sổ quỹ

Cập nhật phiếu thu

Hình thức: Tiền mặt

Giá trị:

Người nộp:

Ghi chú:

Loại thu: Thu nhập

Lưu Bỏ qua

Figure 111: Update invoice (income invoice)

Tổng quan Phòng Danh mục Giao dịch Đối tác Nhân viên Chính sách

Sổ quỹ

Cập nhật phiếu chi

Hình thức: Tiền mặt

Giá trị:

Người nộp:

Ghi chú:

Loại thu: Chi phí

Lưu Bỏ qua

Figure 112: Update invoice (expense invoice)

- ❖ UI Requirements:

Table 97: Update invoice

Field Name	Field Type	Description
Payment method	Drop down list	By cash or online payment
Value	Textbox	Value of invoice
Submitter	Textbox	Name of the submitter

Created date	Datetime picker	Created date
Note	Textbox	Note for invoice
Type	Drop down list	Income or other
Save	Button	To save updated information
Cancel	Button	To close popup with no changes
Close	Button	To close popup with no changes

3.12 Transaction management

3.12.1: List invoice management:

3.12.1.1: List invoice

- ❖ This screen allows users to view list invoices.
- ❖ Related use case: UC-100, UC-101
- ❖ Prototype/ Mock up

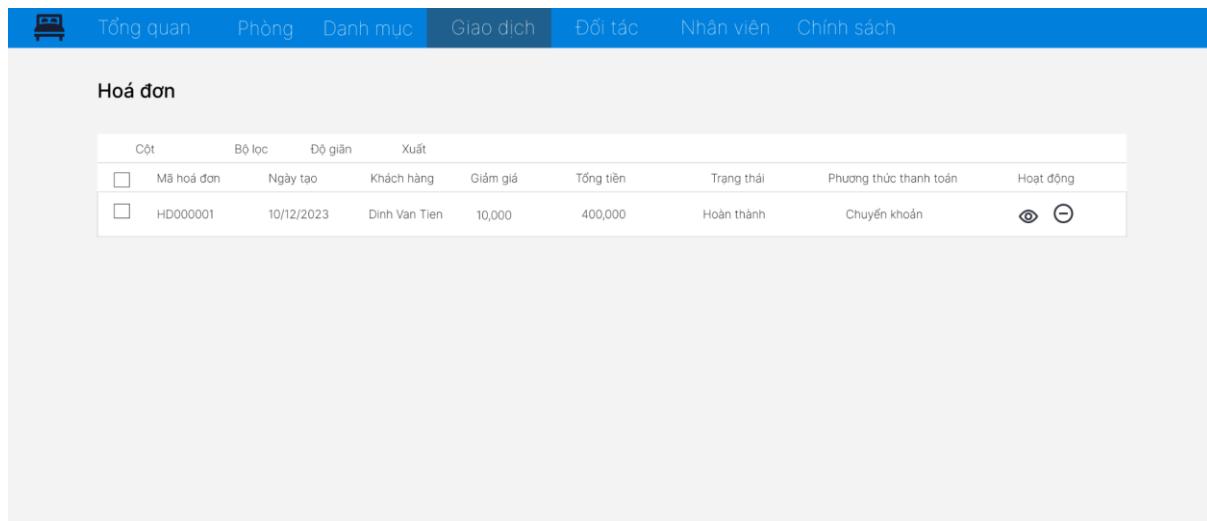


Figure 113: List invoice

- ❖ UI Requirements:

Table 98: List invoice

Field Name	Field Type	Description
List invoice	List view (table)	<p>List all invoice, table shown information:</p> <ul style="list-style-type: none"> - Code - Created date - Customer - Discount - Total price - Status - Payment method - Action

Header bar	Button	Button to redirect to other pages.
Time	Time picker	Choose range of time to view fund book
Bộ lọc	Button	To search and filter
Dộ giãn	Button	To customise the distance between 2 lines
Export	Button	To export file of all items in list..
View detail	Button	To open popup view detail

3.12.1.2: View detail invoice

- ❖ This popup allows the user to view detailed invoices.
- ❖ Related use case: UC-85
- ❖ Prototype/ Mock up

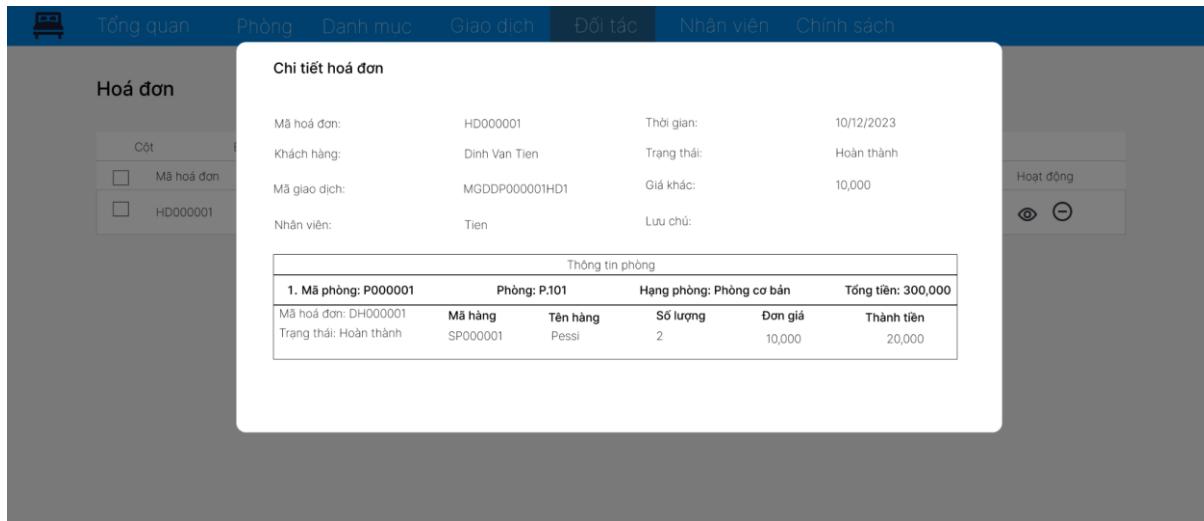


Figure 114: View detail invoice

- ❖ UI Requirements:

Table 99: View detail invoice

Field Name	Field Type	Description
Code	Text view	Code
Status	Text view	Status
Create date	Text view	Create date
Note	Text view	Note
Customer	Text view	Customer name of this invoice
Total price	Text view	Total price
Invoice detail	Text view	Detail of invoice (reservation information, goods,...)
Created by staff	Text view	Name of staff created this invoice.
Close	Button	To close this popup.

3.12.2: Import goods order management:

3.12.2.1: List import goods order

- ❖ This screen allows the user to view all imported goods orders.
- ❖ Related use case: UC-102, UC-103
- ❖ Prototype/ Mock-up

Figure 115: List import goods order

- ❖ UI Requirements:

Table 100: List import goods order

Field Name	Field Type	Description
Header bar	Button	Button to redirect to other pages.
Add import goods order	Button	Button to add a new import goods order
Column	Button	Button to customise which column is hidden, which column is shown in table list goods and service.
Bộ lọc	Button	To search and filter
Độ giãn	Button	To customise the distance between 2 lines
Export	Button	To export file of all items.
Cancel	Button	To cancel order
View detail	Button	Button of each order to view detail of import goods order
Update	Button	Button of each item to update import goods order
Print	Button	Button of each item to print import goods order

3.12.2.2: Create import goods order.

- ❖ This popup allows users to create an import goods order.
- ❖ Related use case: UC-104
- ❖ Prototype/ Mock-up

The screenshot shows a modal window titled 'Nhập hàng mới' (New Import). It contains fields for 'Ngày nhập' (Import Date), 'Nhà cung cấp' (Supplier), 'Đã trả' (Returned), and a search field 'Tim hàng hóa' (Search Goods). At the bottom are 'Lưu' (Save) and 'Bỏ qua' (Cancel) buttons.

Figure 116: Create import goods order.(1)

The screenshot shows the same modal window as Figure 116, but it now displays a table with one row of data. The table columns are 'Mã hàng hóa', 'Tên hàng', 'Đơn giá', 'Số lượng', 'Thành tiền', and 'Hoạt động'. The data row is: HD000055, Mì tôm (Gói), 5,000, 10, 50,000, and a delete icon. Below the table, the text 'Tổng cộng: 50,000' is displayed. The bottom buttons remain 'Lưu', 'Lưu tạm', and 'Bỏ qua'.

Figure 117: Create import goods order.(2)

❖ UI Requirements:

Table 101: Create import goods order.

Field Name	Field Type	Description
Find goods	Textbox	Test box search to find goods
List goods	List view	List goods in order
Quantity	Text box	Quantity of goods
Save	Button	Save new order
Cancel	Button	Cancel add new inventory checklist
Save as temporary	Button	Save new import goods order as a temporary

3.12.2.3: Update import goods order

- ❖ This popup allows users to update an import goods order.
- ❖ Related use case: UC-106
- ❖ Prototype/ Mock-up

The screenshot shows a modal window titled 'Cập nhật nhập hàng' (Update Import Goods). It contains fields for 'Ngày nhập' (Import Date), 'Nhà cung cấp' (Supplier), 'Đã trả' (Returned), and a search field 'Tim hàng hóa' (Search Goods). At the bottom are 'Lưu' (Save) and 'Bỏ qua' (Cancel) buttons.

Figure 118: Update import goods order(1)

The screenshot shows a modal window titled 'Cập nhật nhập hàng' (Update Import Goods) with a table of goods details. The table has columns: Mã hàng hóa, Tên hàng, Đơn giá, Số lượng, Thành tiền, and Hoạt động. One row is visible: HD000055, Mỳ tôm (Gói), 5,000, 10, 50,000, and a delete icon. Below the table, it says 'Tổng cộng: 50,000'. At the bottom are 'Lưu' (Save), 'Lưu tạm' (Save Temporarily), and 'Bỏ qua' (Cancel) buttons.

Figure 119: Update import goods order(2)

❖ UI Requirements:

Table 102: Update import goods order

Field Name	Field Type	Description
Find goods	Textbox	Test box search to find goods
List goods	List view	List goods in order
Quantity	Text box	Quantity of goods
Save	Button	Save import goods order
Cancel	Button	Cancel add new inventory checklist
Save as temporary	Button	Save import goods order as a temporary

3.12.2.4: Import goods order detail

- ❖ This popup allows the user to view details of an import goods order.
- ❖ Related use case: UC-105
- ❖ Prototype/ Mock-up

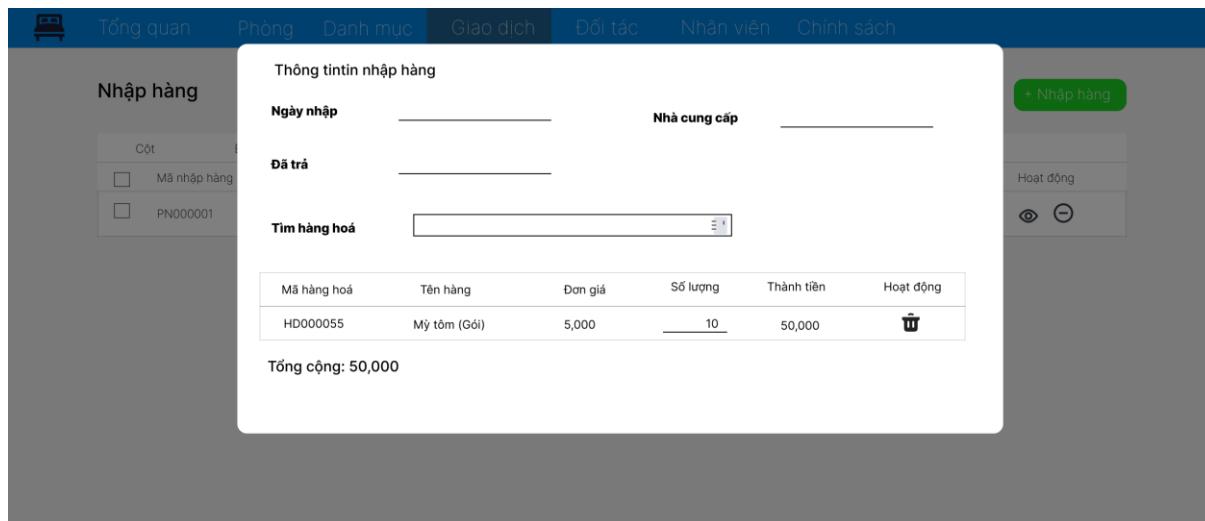


Figure 120: Import goods order detail

❖ UI Requirements:

Table 103: Import goods order detail

Field Name	Field Type	Description
Code	Text view	Code of import goods order
Created time	Text view	Time order was created
List goods	Text view	List goods in this order
Total price	Text view	Total price of this order
Close	Button	To close popup view details

3.13 Report management

3.13.1: Report management:

3.13.1.1: Overview

- ❖ This screen allows the user to overview about the business of the hotel.
- ❖ Related use case: UC-109
- ❖ Prototype/ Mock-up

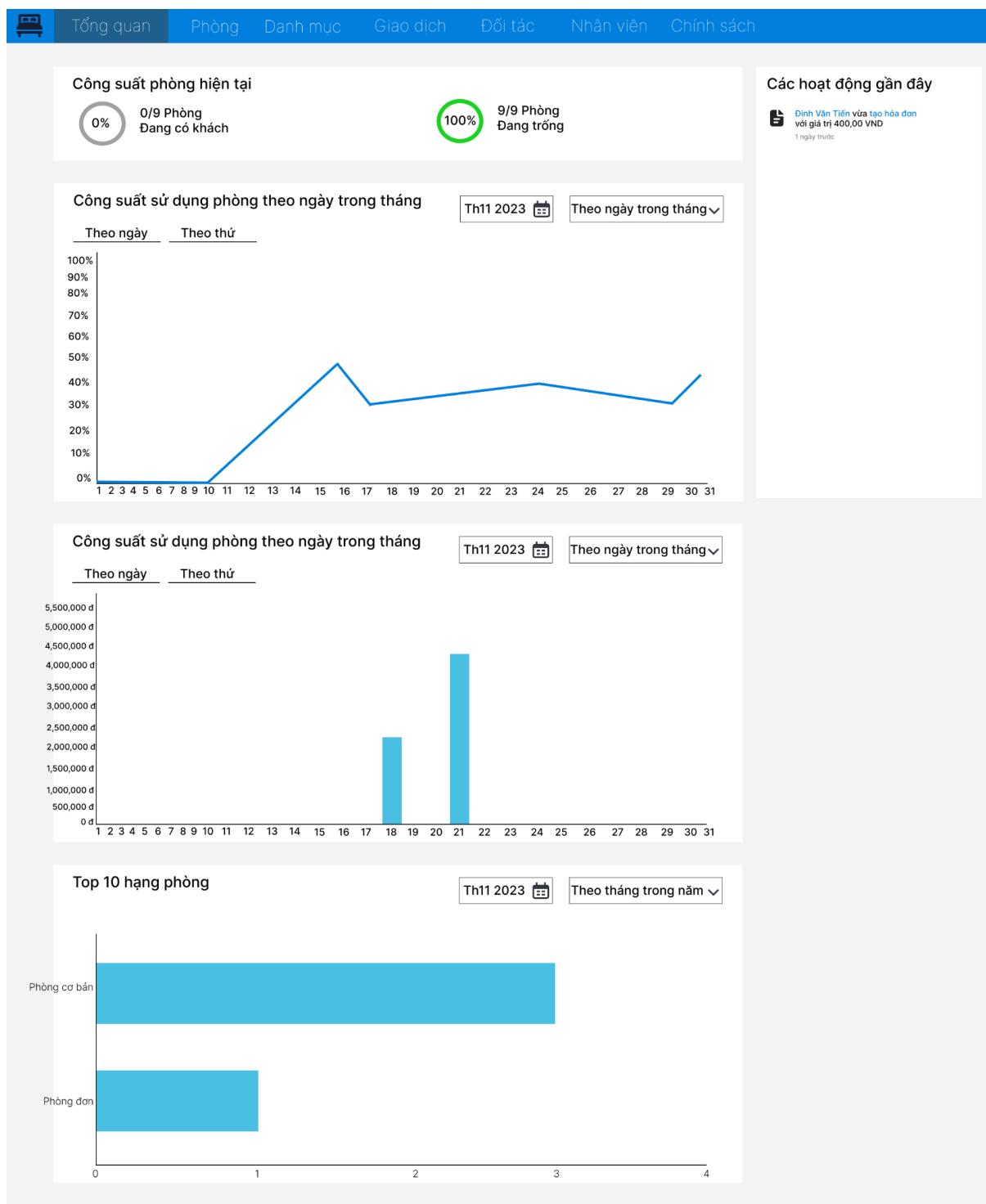


Figure 121: Overview

❖ UI Requirements:

Table 104: Overview

Field Name	Field Type	Description
Number empty room	Text view	Number of empty rooms at that moment.

Number of non empty room	Text view	Number of non-empty rooms at that moment.
Recent activity	List view	List recent action with created- person
Wattage of using rooms chart	Chart	Shows wattage of using rooms. Chart can be shown by day in month or by day in week.
Revenue chart	Chart	Shows revenue. Chart can be shown by day in month or by day in week.
Top room class chart	Chart	Shows top room class. Chart can be shown by revenue or quantity.
Option to show	Drop down list	By day in month By month in year By year

4. Non-Functional Requirements

4.1 External Interfaces

4.1.1 User interfaces

UI-01: The user interface is simple.

UI-02: UI must be shown on the web.

UI-03: Language used in the system is Vietnamese.

4.1.2 Communications interfaces

CI-01: The system calls API through data transferred by HTTP.

4.2 Quality Attributes

4.2.1 Usability

US-01: It takes a short time (about 5 hours) for a formal user to become productive.

4.2.2 Performance

PE-01: To ensure fast response time, the system should be optimised for speed and efficiency. The system should also be able to handle a large number of simultaneous connections without slowing down or crashing.

4.2.3 Security

SE-01: Users are divided into 2 roles: manager and receptionist.

SE-02: Token-based authentication using JWT.

SE-03: All data must be validated before saving to the database.

4.2.4 Maintainability

MA-01: Requirement to ensure system stability and reliability, include the ability to recover data after an incident and limiting errors that affect the user experience.

4.2.5 Scalability

SA-01: Design architecture to allow for easy expansion of functionalities.

5. Requirement Appendix

5.1 Business Rules

Table 105: Business Rules

ID	Rule Definition
BR-01	Name of active room class can't be duplicated
BR-02	Id of the room class can't be duplicated.
BR-03	Length of text input field must be in range 1-255 characters
BR-04	Range of number of people in a room class must be integer and ≥ 0
BR-05	Room can be reserved only when it has a class and working status. If a room has working status and working reservation, it can't be displayed on the receptionist page.
BR-06	Name of the room can't be duplicated.
BR-07	Format of date is mm/dd/yyyy HH/MM
BR-08	All price have unit VND must be rather than or equal to 1
BR-09	Each room has to have its room class.
BR-10	Floor (area) of rooms can't be duplicated.
BR-11	Each reservation reserves a minimum one room.
BR-12	All reserved rooms exist and are active in the system.
BR-13	Each room must be in an area (a floor).
BR-14	Goods and service code mustn't be duplicated.
BR-15	System shows a list of active objects by default in the manage page.
BR-16	Only active and in stock goods, service can be bought.
BR-17	All goods must have a basic unit.
BR-18	All deleted objects can't be restored and viewed.
BR-19	Time response must be less than 3 seconds.
BR-20	Manager can't export when the list has no data.
BR-21	Inventory checklist is only for active goods.
BR-22	Email must have '@' and tail '.' something.
BR-23	Each email of staff can't be the same, each email is a Stanford account.
BR-24	Each employee must have a different username.
BR-25	Citizen identification code of each person must be different.
BR-26	Customer is reserving must have information in the system.

ID	Rule Definition
BR-27	All date have format MM/DD/YYYY
BR-28	A room can't be reserved more than once at the same moment.
BR-29	Some price lists can have the same active time.
BR-30	Price list must have name and be unique name
BR-31	In reservation by hour, if total reserve time is less than 1 hour, the system will calculate is 1 hour.
BR-32	In reservation by hour, reserve time always is integer and more than 0. If actual reserve time is float, the system will calculate reserve time depending on configuration one more hour when using more than config time.
BR-33	In reservation by night, the receptionist can't choose check-in, check-out time. They are set in configuration check-in, check-out time for reservation by night.
BR-34	In reservation by day, the receptionist can't choose check-in, check-out time. They are set in configuration check-in, check-out time for reservation by day.
BR-35	In price list, in price for reservation by hour, there are two options for type to calculate price: each hour, entire block. Each hour is applied with an hour configured from that hour with this price. Entire block is applied all time from configured hour with this price.
BR-36	Price list must have name and be unique name
BR-37	In a price list, in a room class, in the same stay duration, the manager only can set a price for reserving by day, a price for reserving by night, hour to calculate reserving by hour must be different from others.
BR-38	A price list must have minimum one room class in detail.
BR-39	Each surcharge has a different name and code from others.
BR-40	With surcharge has a percentage type of value, value must be in range 0% - 100%.
BR-41	Code of all surcharges must be different from others, but the name of the surcharge can be the same as the deleted surcharge.
BR-42	All items in list had been deleted can't be shown in list
BR-43	Receptionist can choose 0-many surcharge to add to the invoice.
BR-44	Age of children calculated surcharge must be more than age of children no surcharge.
BR-45	If any errors come from connection to the database, the system redirects to the error page.
BR-46	In a room class, the price of reserving by hour must be less than by night, and by night must be less than by day.
BR-47	In a room class, the standard number of adults, children must be equal or less than the maximum number of adults, children.
BR-48	Maximum capacity of each image is 512KB.
BR-49	Date of birth of each person's object in the system must be less than the created date.

ID	Rule Definition
BR-50	If a price list is in use in a reservation and the manager deletes it, the price list will still be shown in the receptionist page only with reservation using that price list.
BR-51	Deposit is calculated / sum of value of a reservation.
BR-52	With changing rooms, if the receptionist chooses to calculate the price in an old room, the system calculates the price of old rooms for all time of reservation. If the receptionist chooses to calculate the price in a new room, the system calculates the price of new rooms for all time of reservation.
BR-53	Only the check-out room can be added into the invoice on reservation.
BR-54	Each staff member who has an account has a unique username.
BR-55	Each department of staff must have a different name.
BR-56	Only the check-out room can be paid.
BR-57	Room of reservation which is checked-in successfully must have a minimum number of people.
BR-58	Income invoice and expense invoice has created date on that day automatically.
BR-59	Income invoice and expense invoice is updated or cancelled only when its created date is on the same day.
BR-60	In the wattage of rooms chart, the wattage is total using time of rooms / total time in range.
BR-61	In the revenue chart, the revenue is the total price of income invoice in range of time.
BR-62	In top room class chart type by quantity, the quantity is the number of successful reservations of that room class.

5.2 Common Requirements

- The user must have an account and login to start to use the system.

5.3 Application Messages List

Table 106: Application Messages List

#	Message code	Message Type	Context	Content
1	MSG01	In line, red	There is not any record of room class.	Không có hạng phòng nào, hãy tạo hạng phòng!
2	MSG02	Under the text box	Input-required fields are empty.	<i>Please fill out this field!</i>
3	MSG03	In line, red	Adding a new room class failed.	<i>Thêm hạng phòng thất bại!</i>
4	MSG04	In line, green	Adding a new room class successfully.	<i>Thêm hạng phòng thành công!</i>
5	MSG05	In line, green	Check email to get a reset password link.	<i>Kiểm tra email của bạn để tìm kiếm link đặt lại mật</i>

#	Message code	Message Type	Context	Content
				khẩu. Nếu nó không xuất hiện trong vòng vài phút, hãy kiểm tra thư mục rác của bạn.
6	MSG06	In line, red	Result of a search, filter room class object is no result.	Không tìm thấy hạng phòng nào!
7	MSG07	In line, green	Updating room class information successfully.	Cập nhật hạng phòng thành công!
8	MSG08	In line, red	Updating room class information failed.	Cập nhật hạng phòng thất bại!
9	MSG09	In line, red	Username or password is not correct when clicking sign-in.	Tên người dùng hoặc mật khẩu sai!
10	MSG10	In line, red	Email doesn't match any account in the system.	Không tìm thấy email!
11	MSG11	In line, red	New password doesn't match confirm new password.	Mật khẩu không khớp với mật khẩu xác nhận.
12	MSG12	Inline, below the textbox	Requirement of value in textbox must be greater than or equal to * value.	Value must be greater than or equal to *!
13	MSG13	Inline, below the textbox	Requirement name of room class can't be empty	Không được để trống tên hạng phòng!
14	MSG14	In line, green	Updating room class status successfully.	Cập nhật trạng thái hạng phòng thành công!
15	MSG15	In line, red	Updating room class status failed.	Cập nhật trạng thái hạng phòng thất bại!
16	MSG16	In line, green	Deleting room class successfully with code of room class is *.	Xóa hạng phòng thành công có mã hạng phòng là *!
17	MSG17	In line, red	Deleting room class failed with code of room class is *.	Xóa hạng phòng thất bại có mã hạng phòng là *!
18	MSG18	Inline, red	There is not any record of the room.	Không có phòng nào, hãy tạo phòng!
19	MSG19	In line, red	Result of a search, filter room object is no result.	Không tìm thấy phòng nào!
20	MSG20	In line, red	Adding a new room failed.	Thêm phòng thất bại!
21	MSG21	In line, green	Adding a new room successfully.	Thêm phòng thành công!
22	MSG22	In line, green	Updating room status successfully.	Cập nhật trạng thái phòng thành công!
23	MSG23	In line, red	Updating room status failed.	Cập nhật trạng thái phòng thất bại!

#	Messag e code	Message Type	Context	Content
24	MSG24	In line, green	Updating room information successfully.	Cập nhật phòng thành công!
25	MSG25	In line, red	Updating room information failed.	Cập nhật phòng thất bại!
26	MSG26	Inline, below the textbox	Requirement name of room can't be empty	Không được để trống tên phòng!
27	MSG27	In line, green	Deleting room successfully with code of room is *.	Xóa phòng thành công có mã phòng là *!
28	MSG28	In line, red	Deleting room failed with code of room is *.	Xóa phòng thất bại có mã phòng là *!
29	MSG29	In line, green	Adding a new area for the room successfully.	Thêm khu vực thành công!
30	MSG30	In line, red	Adding a new area failed.	Thêm khu vực thất bại!
31	MSG31	In line, green	Updating the area successfully.	Cập nhật khu vực thành công!
32	MSG32	In line, red	Updating the area failed.	Cập nhật khu vực thất bại!
33	MSG33	In line, green	Deleting area successfully with name of area is *.	Xóa khu vực thành công có tên khu vực là *!
34	MSG34	In line, red	Deleting area failed with name of area is *.	Xóa khu vực thất bại có tên khu vực là *!
35	MSG35	Inline, red	There is not any record of the goods and service.	Không có hàng hóa hay dịch vụ nào, hãy tạo hàng hóa và dịch vụ!
36	MSG36	In line, red	Result of a search, filter goods and service object is no result.	Không tìm thấy hàng hóa hay dịch vụ nào!
37	MSG37	In line, red	Adding new goods failed.	Thêm hàng hóa thất bại!
38	MSG38	In line, red	Adding new services failed.	Thêm dịch vụ thất bại!
39	MSG39	In line, green	Adding new goods successfully.	Thêm hàng hóa thành công!
40	MSG40	In line, green	Adding a new service successfully.	Thêm dịch vụ thành công!
41	MSG41	In line, green	Updating goods information successfully.	Cập nhật hàng hóa thành công!
42	MSG42	In line, green	Updating service information successfully.	Cập nhật dịch vụ thành công!
43	MSG43	In line, red	Updating goods information failed.	Cập nhật hàng hóa thất bại!
44	MSG44	In line, red	Updating service information failed.	Cập nhật dịch vụ thất bại!
45	MSG45	In line, green	Deleting goods successfully with code of goods is *.	Xóa hàng hóa thành công có mã hàng hóa là *!

#	Message code	Message Type	Context	Content
46	MSG46	In line, green	Deleting service successfully with code of service is *.	Xóa dịch vụ thành công có mã dịch vụ là *!
47	MSG47	In line, red	Deleting goods failed with code of goods is *.	Xóa hàng hóa thất bại có mã dịch vụ là *!
48	MSG48	In line, red	Deleting service failed with code of service is *.	Xóa dịch vụ thất bại có mã dịch vụ là *!
49	MSG49	Inline, red	There is not any record of the inventory checklist.	Không có phiếu kiểm kho nào, hãy tạo mới!
50	MSG50	In line, red	Result of a search, filter inventory checklist object is no result.	Không tìm thấy phiếu kiểm kho nào!
51	MSG51	Below the textbox	No result of search goods for inventory checklist.	Không tìm thấy hàng hóa phù hợp.
52	MSG52	In line, red	Adding a new temporary inventory checklist failed.	Tạo phiếu tạm kiểm kho thất bại!
53	MSG53	In line, green	Adding a new temporary inventory checklist successfully.	Tạo phiếu tạm kiểm kho thành công!
54	MSG54	In line, red	Adding a new balanced inventory checklist failed.	Tạo cân bằng kiểm kho thất bại!
55	MSG55	In line, green	Adding a new balanced inventory checklist successfully.	Tạo cân bằng kiểm kho thành công!
56	MSG56	In line, green	Updating temporary inventory checklist information successfully.	Cập nhật phiếu tạm kiểm kho thành công!
57	MSG57	In line, red	Updating temporary inventory checklist information failed.	Cập nhật phiếu tạm kiểm kho thất bại!
58	MSG58	In line, green	Updating temporary inventory checklist information to become a balanced inventory checklist successfully.	Cập nhật cân bằng kiểm kho thành công!
59	MSG59	In line, red	Updating temporary inventory checklist information to become a balanced inventory checklist failed.	Cập nhật cân bằng kiểm kho thất bại!
60	MSG60	In line, green	Cancel temporary inventory checklist successfully.	Hủy kiểm kho thành công!
61	MSG61	In line, red	Cancel temporary inventory checklist failed.	Hủy kiểm kho thất bại!
62	MSG62	Inline, red	There is not any record of the customer.	Không có khách hàng nào, hãy tạo khách hàng!

#	Message code	Message Type	Context	Content
63	MSG63	In line, red	Result of a search, filter customer object is no result.	<i>Không tìm thấy khách hàng nào!</i>
64	MSG64	In line, red	Adding a new customer failed.	<i>Thêm khách hàng thất bại!</i>
65	MSG65	In line, green	Adding a new customer successfully.	<i>Thêm khách hàng thành công!</i>
66	MSG66	In line, green	Updating customer's information successfully.	<i>Cập nhật khách hàng thành công!</i>
67	MSG67	In line, red	Updating customer's information failed.	<i>Cập nhật khách hàng thất bại!</i>
68	MSG68	In line, green	Deleting customer successfully with code of customer is *.	<i>Xóa thông tin khách hàng thành công có mã sản phẩm là *.</i>
69	MSG69	In line, red	Deleting customer failed with code of customer is *.	<i>Xóa thông tin khách hàng thất bại có mã sản phẩm là *.</i>
70	MSG70	In line, red	Adding a new customer group failed.	<i>Thêm nhóm khách hàng thất bại!</i>
71	MSG71	In line, green	Adding a new customer group successfully.	<i>Thêm nhóm khách hàng thành công!</i>
72	MSG72	In line, green	Updating customer group 's information successfully.	<i>Cập nhật nhóm khách hàng thành công!</i>
73	MSG73	In line, red	Updating customer group 's information failed.	<i>Cập nhật nhóm khách hàng thất bại!</i>
74	MSG74	In line, green	Deleting customer group successfully with code of customer is *.	<i>Xóa nhóm khách hàng thành công.</i>
75	MSG75	In line, red	Deleting customer group failed with code of customer is *.	<i>Xóa nhóm khách hàng thất bại.</i>
76	MSG76	Inline, red	Error server when login	<i>Đang có lỗi bên phía máy chủ</i>
77	MSG77	Inline, red	There is not any record of the room.	<i>Không có phòng nào!</i>
78	MSG78	Inline, red	There is not any record of the price list.	<i>Không có bảng giá nào!</i>
79	MSG79	In line, red	Result of a search, filter price list object is no result.	<i>Không tìm thấy bảng giá nào!</i>
80	MSG80	In line, red	Adding a new price list failed.	<i>Thêm bảng giá thất bại!</i>
81	MSG81	In line, green	Adding a new price list successfully.	<i>Thêm bảng giá thành công!</i>
82	MSG82	In line, green	Updating price list information successfully.	<i>Cập nhật bảng giá thành công!</i>

#	Message code	Message Type	Context	Content
83	MSG83	In line, red	Updating price list information failed.	Cập nhật bảng giá thất bại!
84	MSG84	In line, green	Deleting price list successfully with code of price list is *.	Xóa thông tin bảng giá thành công có mã sản phẩm là *.
85	MSG85	In line, red	Deleting price list failed with code of price list is *.	Xóa thông tin bảng giá thất bại có mã sản phẩm là *.
86	MSG86	Inline, red	There is not any record of the surcharge.	Không có phí thu khác nào!
87	MSG87	In line, red	Result of a search, filter surcharge object is no result.	Không tìm thấy phí thu khác nào!
88	MSG88	In line, red	Adding a new surcharge failed.	Thêm phí thu khác thất bại!
89	MSG89	In line, green	Adding a new surcharge successfully.	Thêm phí thu khác thành công!
90	MSG90	In line, green	Updating surcharge information successfully.	Cập nhật phí thu khác thành công!
91	MSG91	In line, red	Updating surcharge information failed.	Cập nhật phí thu khác thất bại!
92	MSG92	In line, green	Deleting surcharge successfully with code of surcharge is *.	Xóa thông tin phí thu khác thành công có mã sản phẩm là *.
93	MSG93	In line, red	Deleting surcharge failed with code of surcharge is *.	Xóa thông tin phí thu khác thất bại có mã sản phẩm là *.
94	MSG94	Inline, green	Saving config time using database successfully.	Cập nhật thời gian sử dụng dụng thành công!
95	MSG95	Inline, red	Saving config time using into database failed.	Cập nhật thời gian sử dụng thất bại!
96	MSG96	Inline, green	Saving settings cancel reservations into the database successfully.	Cập nhật giá hủy phòng thành công!
97	MSG97	Inline, red	Saving settings cancel reservation into database failed.	Cập nhật giá hủy phòng thất bại!
98	MSG98	Inline, green	Saving settings deposit into the database successfully.	Cập nhật giá tiền cọc thành công!
99	MSG99	Inline, red	Saving settings deposit into database failed.	Cập nhật giá tiền cọc thất bại!
100	MSG100	Inline	Value in the field must be greater than or equal to 1.	Value must be greater than or equal to 1.
101	MSG101	Green	Saving configure receiving points successfully.	Cập nhật tích điểm thành công!

#	Message code	Message Type	Context	Content
102	MSG102	Red	Saving configure receiving points failed.	Cập nhật tích điểm thất bại!
103	MSG103	Green	Saving configure changing points successfully.	Cập nhật khuyến mãi thành công!
104	MSG104	Red	Saving configure changing points failed.	Cập nhật khuyến mãi thất bại!
105	MSG105	Green	Saving new retail invoice successfully.	Tạo hóa đơn bán lẻ thành công!
106	MSG106	Red	Saving a new retail invoice failed.	Tạo hóa đơn bán lẻ thất bại!
107	MSG107	Green	Updating housekeeping status for room successfully.	Cập nhật trạng thái buồng phòng thành công!
108	MSG108	Red	Updating housekeeping status for room failed.	Cập nhật trạng thái buồng phòng thất bại!
109	MSG109	Green	Cancel reservation successfully.	Hủy đơn đặt phòng thành công!
110	MSG110	Red	Cancel reservation failed.	Hủy đơn đặt phòng thất bại!
111	MSG111	Inline, red	There is not any record of the transaction.	Không có giao dịch nào!
112	MSG112	In line, red	Result of a search, filter transaction object is no result.	Không tìm thấy giao dịch nào!
113	MSG113	Inline, red	There is not any record of the employee.	Không có nhân viên nào, hãy tạo nhân viên!
114	MSG114	In line, red	Result of a search, filter employee object is no result.	Không tìm thấy nhân viên nào!
115	MSG115	In line, red	Adding a new staff failed.	Lưu thất bại!
116	MSG116	In line, green	Adding a new staff, update staff successfully.	Lưu thành công!
117	MSG117	Red	Adding a new staff with duplicate email.	Email đã tồn tại!
118	MSG118	Red	Date of birth of new staff is smaller than that day.	Ngày sinh nhỏ hơn ngày hiện tại!
119	MSG119	In line, green	Deleting employee successfully with code of employee is *.	Xóa thành công có mã nhân viên là *.
120	MSG120	In line, red	Deleting employee failed with code of employee is *.	Xóa thất bại có mã nhân viên là *.
121	MSG121	In line, red	Adding a new employee department failed.	Thêm phòng ban thất bại!
122	MSG122	In line, green	Adding a new employee department successfully.	Thêm phòng ban thành công!

#	Message code	Message Type	Context	Content
123	MSG123	In line, green	Updating employee department's information successfully.	Cập nhật phòng ban thành công!
124	MSG124	In line, red	Updating the employee department's information failed.	Cập nhật phòng ban thất bại!
125	MSG125	In line, green	Deleting employee department successfully with code of employee is *.	Xóa phòng ban thành công.
126	MSG126	In line, red	Deleting employee department failed with code of employee is *.	Xóa phòng ban thất bại.
127	MSG127	Green	Update profile successfully!	Lưu thành công!
128	MSG128	Green	Change password successfully!	Thay đổi mật khẩu thành công!
129	MSG129	Red	Change password failed!	Thay đổi mật khẩu thất bại!
130	MSG130	Green	Create a new collection fund book successfully!	Tạo phiếu thành công!
131	MSG131	Red	Create new collection fund book failed!	Tạo phiếu thất bại!
132	MSG132	Green	Create new payment fund book successfully!	Tạo phiếu thành công!
133	MSG133	Red	Create new payment fund book failed!	Tạo phiếu thất bại!
134	MSG134	Green	Cancel an invoice successfully!	Hủy hóa đơn thành công!
135	MSG135	Red	Cancel an invoice failed!	Hủy hóa đơn thất bại!
136	MSG136	Inline, red	There is not any record of the purchase goods order.	Không có đơn nhập hàng nào, hãy tạo mới!
137	MSG137	In line, red	Result of a search, filter purchase goods order object is no result.	Không tìm thấy đơn nhập hàng nào!
138	MSG138	Green	Create order for reservation successfully!	Tạo hóa đơn thành công!
139	MSG139	Red	Create order for reservation failed!	Tạo hóa đơn thất bại!
140	MSG140	Green	Update order for reservation successfully!	Cập nhật hóa đơn thành công!
141	MSG141	Red	Update order for reservation failed!	Cập nhật hóa đơn thất bại!
142	MSG142	Green	Update status of order for reservation successfully!	Xác nhận hóa đơn thành công!

#	Message code	Message Type	Context	Content
143	MSG143	Red	Update status of order for reservation failed!	Xác nhận hóa đơn thất bại!
144	MSG144	Green	Cancel order for reservation successfully!	Hủy hóa đơn thành công!
145	MSG145	Red	Cancel order for reservation failed!	Hủy hóa đơn thất bại!
146	MSG146	Green	Update income, expense invoice successfully!	Cập nhật hóa đơn đơn thành công!
147	MSG147	Red	Update income, expense invoice failed!	Cập nhật hóa đơn đơn thất bại!
148	MSG148	Green	Cancel income, expense invoice successfully!	Hủy hóa đơn đơn thành công!
149	MSG149	Red	Cancel income, expense invoice failed!	Hủy hóa đơn đơn thất bại!
150	MSG150	In line, green	Adding a new import goods order successfully.	Tạo đơn nhập hàng thành công!
151	MSG151	Red	Adding a new import goods order failed.	Tạo đơn nhập hàng thất bại!
152	MSG152	In line, green	Adding a new temporary import goods order successfully.	Tạo đơn tạm nhập hàng thành công!
153	MSG153	Red	Adding a new temporary import goods order failed.	Tạo đơn tạm nhập hàng thất bại!
154	MSG154	In line, red	Updating temporary import goods order information failed.	Cập nhật đơn tạm nhập hàng thất bại!
155	MSG155	Green	Updating temporary import goods order information successfully.	Cập nhật đơn tạm nhập hàng thành công!
156	MSG156	In line, green	Cancel temporary import goods order successfully.	Hủy đơn tạm nhập hàng thành công!
157	MSG157	In line, red	Cancel temporary import goods order failed.	Hủy đơn tạm nhập hàng thất bại!

5.4 Other Requirements...

IV. Software Design Description

1. System Design

1.1 System Architecture

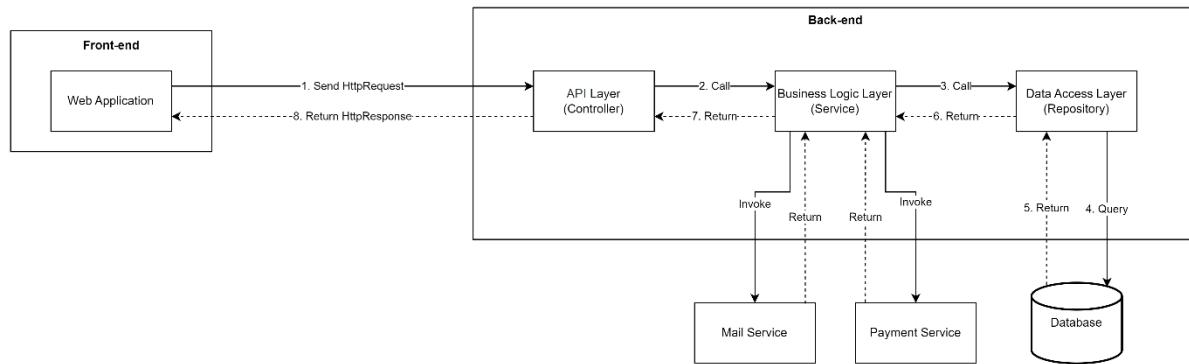


Figure 122: System Architecture

Table 107: System Architecture Description

No.	Name	Description
1	Api Layer	Api Layer is responsible for receiving and processing requests from clients through API
2	Business Logic Layer	The business layer handles all the business logic. It consists of service classes and uses services provided by data access layers.
3	Data Access Layer	In the database layer, CRUD operations are performed.
4	Mail Service	It handles sending emails.
5	Payment service	It supports generating payment QR codes that support payments
6	Business Logic Layer	It handles the business logic of the system.
7	Database	Stores system data
8	UI	Client components for rendering and displaying data from the server. Client components provide the following functionality: For managers: Manage room categories, rooms, goods and services, customers, employees, warehouses, cash books, policies. For receptionists: View reservation list, room list, reservation, check-in, check-out, payment, create invoice

1.2: System Architecture Explanation

1.2.1 Spring Boot



Figure 123: Spring Boot

Spring Boot is an open source, microservice-based Java web framework. Spring Boot provides a good platform for Java developers to develop a stand-alone and production-grade spring application that you can just run. You can get started with minimum configurations without the need for an entire Spring configuration setup.

Advantages

Spring Boot offers the following advantages to its developers:

- ❖ Easy to understand and develop spring applications.
- ❖ Increases productivity.
- ❖ Reduces the development time.

Goals

Spring Boot is designed with the following goals:

- ❖ To avoid complex XML configuration in Spring
- ❖ To develop a production-ready Spring applications in an easier way
- ❖ To reduce the development time and run the application independently.
- ❖ Offer an easier way of getting started with the application.

1.2.2 Spring JPA

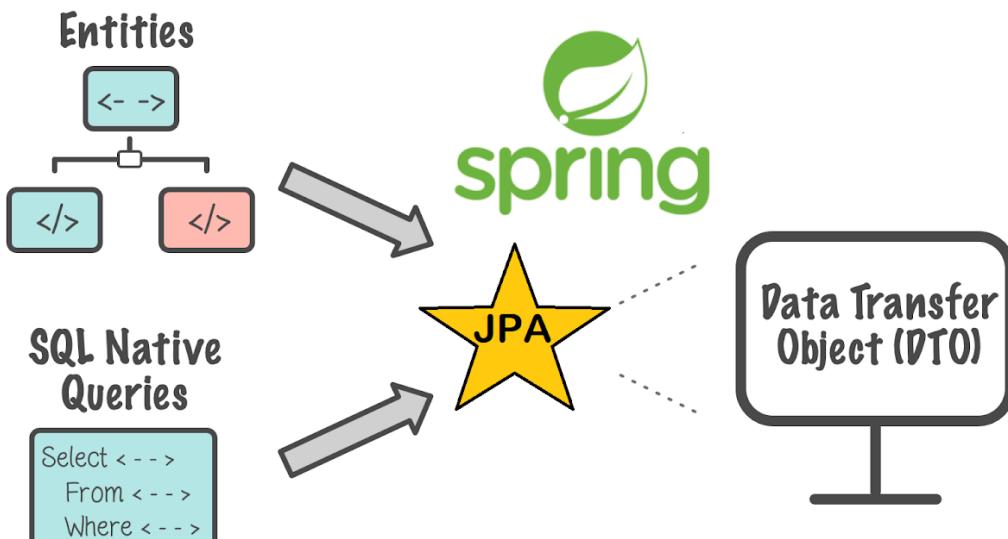


Figure 124: Spring JPA

Spring Boot JPA is a Java specification for managing **relational** data in Java applications. It allows us to access and persist data between Java objects/classes and relational databases. JPA follows **Object - Relational Mapping (ORM)**. It is a set of interfaces. It also provides a runtime Entity Manager API for processing queries and transactions on the objects against the database. It uses a platform-independent object-oriented query language JPQL (Java Persistence Query Language).

In the context of persistence, it covers three areas:

- ❖ The Java Persistence API
- ❖ Object-Relational metadata
- ❖ The API itself, defined in the persistence package.
- ❖ JPA is not a framework. It defines a concept that can be implemented by any framework.

JPA is widely used:

- ❖ It is simpler, cleaner, and less labour-intensive than JDBC, SQL, and hand-written mapping.
- ❖ It allows mapping in XML or using Java annotations.
- ❖ When we need to perform queries using JPQL, it allows us to express the queries in terms of Java entities rather than the (native) SQL table and columns.

1.2.3 Spring Security



Figure 125: Spring Security

Spring Security is a powerful and highly customizable authentication and access-control framework. It is the de-facto standard for securing Spring-based applications.

Spring Security is a framework that focuses on providing both authentication and authorization to Java applications. Like all Spring projects, the real power of Spring Security is found in how easily it can be extended to meet custom requirements.

Features

- ❖ Comprehensive and extensible support for both Authentication and Authorization
- ❖ Protection against attacks like session fixation, clickjacking, cross site request forgery, etc
- ❖ Servlet API integration
- ❖ Optional integration with Spring Web MVC

1.2.4 My SQL



Figure 126: MySQL

MySQL is an open-source relational database management system developed and maintained by Oracle Corporation. It is primarily designed to manage structured data in a relational model, using the SQL query language. MySQL is known for its safety, security, and high performance, supporting multiple operating systems and storage engines. With a strong and diverse community, MySQL is a popular choice for a wide range of applications, from small projects to large enterprise systems.



Figure 127: REST API

REST API (Representational State Transfer Application Programming Interface) with its simple architecture, easy-to-understand, and user-friendly design makes it an excellent choice for project development. It offers easy integration, making it a preferred option for project development.

1.3 Package Diagram

1.3.1 Backend- Package Diagram

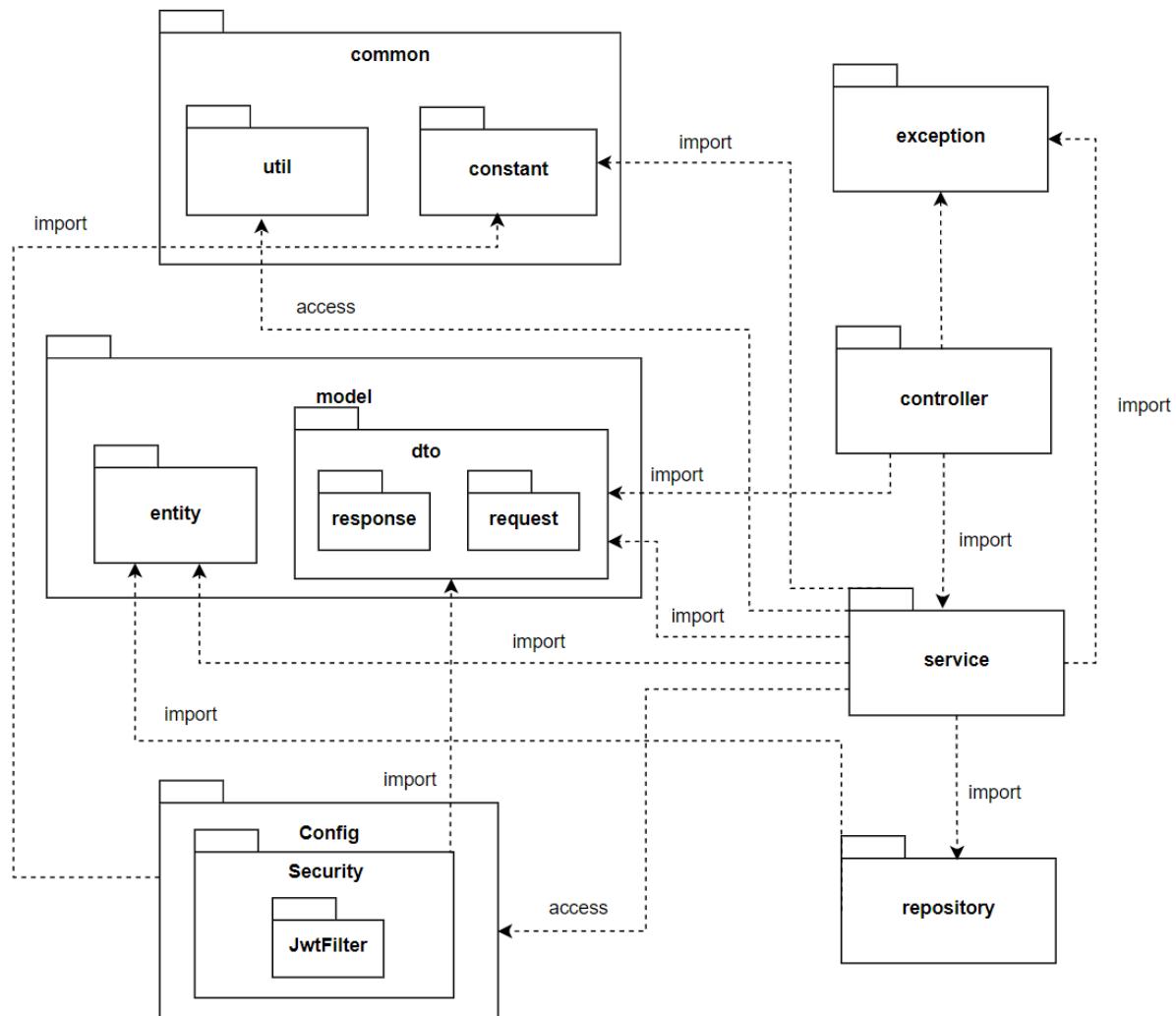


Figure 128: Back-end Package Diagram

Package descriptions

Table 108: Package descriptions

No	Package	Description
01	entity	A package contains classes representing data models, mapping directly to database tables. These classes define the structure and properties of application data.
02	dto	A package contains a collection of classes and interfaces designed to serve as Data Transfer Objects (DTOs). These DTOs facilitate the smooth exchange of data within the application.
03	repository	A package encompasses classes that implement the Data Access Object (DAO) interface using Spring Data JPA. These classes offer functionalities for interacting with the database, facilitating seamless data access operations within the application.

04	constant	A package that houses all the publicly accessible static constants is essentially a centralised repository for storing unchanging values used throughout the codebase. This package serves as a convenient and organised way to manage and access these constants across the application.
05	service	Is a place to contain the interfaces of the business layer that handles all the business logic. It consists of service classes and uses services provided by data access layers. It also performs authorization and validation
06	util	A place to store classes that support common business in the system
07	security	A package encompasses classes and interfaces responsible for the implementation of security measures within the application.
08	JwtFilter	JwtFilter is a filter. It checks token validity, determines access rights, and manages the expiration time of each request sent to the system.
09	controller	Responsible for processing incoming REST API requests, preparing a model, and returning the view to be rendered as a response in the REST API standard format (JSON)
10	config	A package comprises classes and interfaces essential for setting up and configuring various aspects of the application.

1.3.2 Front-end Package Diagram

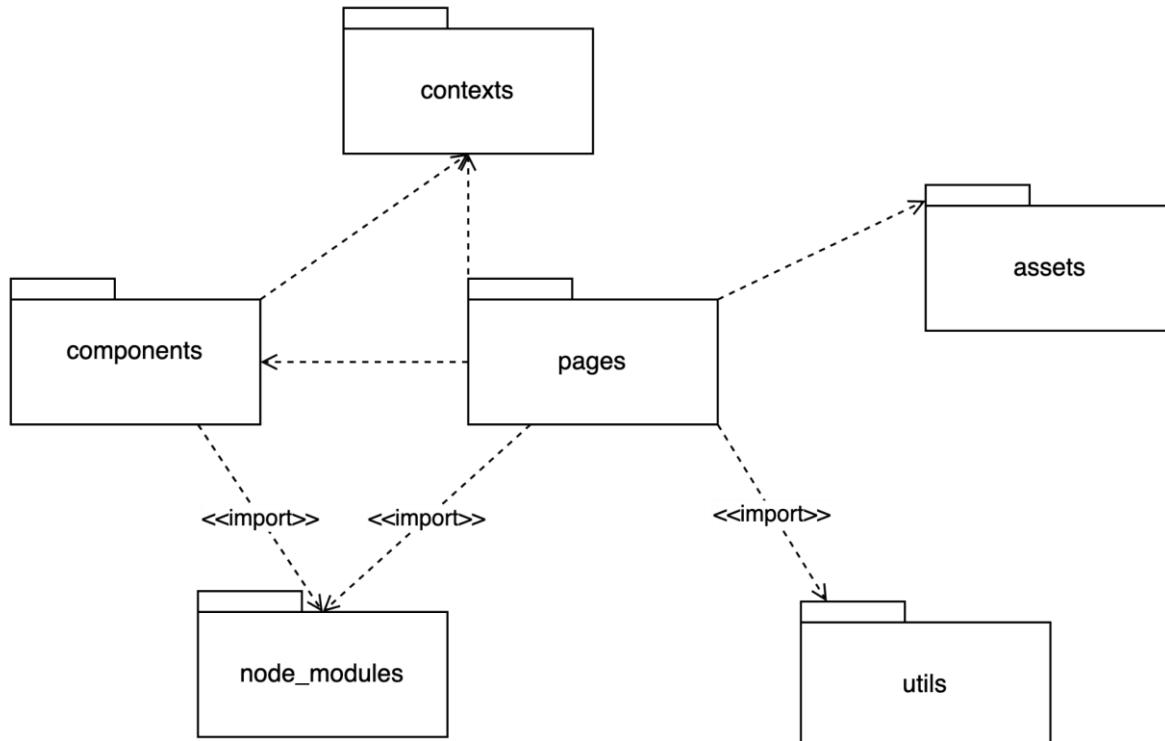


Figure 129: Front-end Package Diagram

Package descriptions

Table 109: Package descriptions

No	Package	Description
01	node modules	A package contains all the external libraries and packages (also known as dependencies).
02	components	A package contains a collection of reusable components.
03	pages	This package contains all the pages of the project.
04	utils	This package is used for the config api and common function of the project.
05	contexts	Using to share data that can be considered “global” for a tree of React components.
06	assets	This package contains the application's un-compiled assets such as files, images, or fonts.

2. Database Design

2.1 Database Diagram

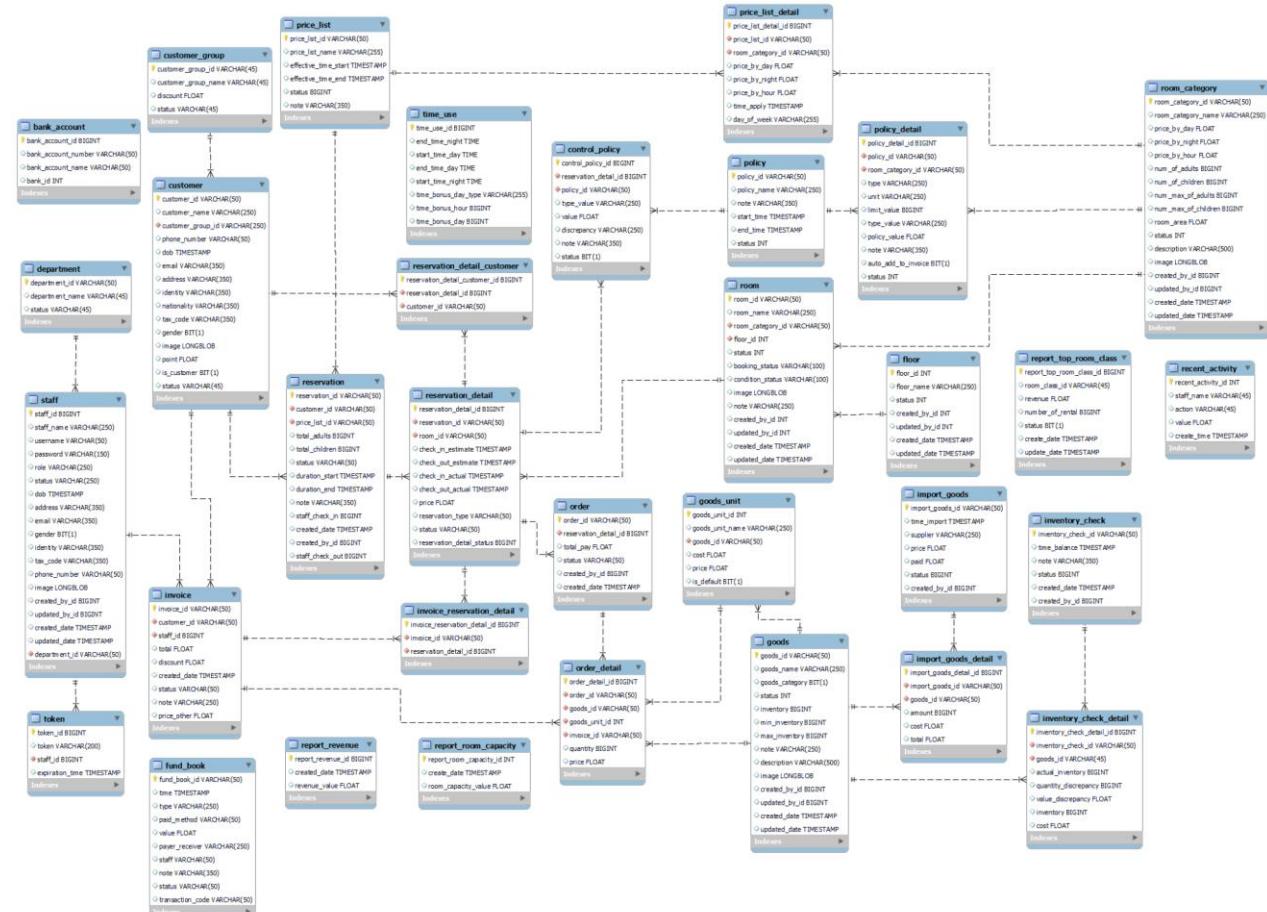


Figure 130: Database Diagram

2.2 Table Description

2.2.1 Table List

Table 110: Table List

No	Table	Key	Description
01	customer	primary key: customer_id foreign key: customer_group_id	Table containing information of customers
02	room	primary key: room_id foreign key: room_category_id, floor_id	Table containing information of rooms
03	room_category	primary key: room_category_id foreign key:	Table containing information of room classes
04	token	primary key: token_id foreign key: staff_id	Table containing information about tokens used for authentication and authorization within the system
05	staff	primary key: staff_id foreign key: department_id	Table containing information of staffs
06	floor	primary key: floor_id foreign key: N/A	Table containing floors
07	goods	primary key: goods_id foreign key:	Table containing information of goods or service that can be used to serve customer at hotel
08	goods_unit	primary key: goods_unit_id foreign key: goods_id	Table containing list units of goods or service
09	inventory_check	primary key: inventory_check_id foreign key: N/A	Table containing information of inventory checks for counting and verifying the quantity and condition of goods
10	inventory_check_detail	primary key: inventory_check_detail_id foreign key: inventory_check	Table containing list detail information of the inventory check
11	reservation	primary key: reservation_id foreign key: customer_id, price_list_id	Table stores information of hotel reservation
12	reservation_detail	primary key: reservation_detail_id foreign key: reservation_id, room_id	Table containing list detail information of the reservation
13	reservation_detail_customer	primary key: reservation_detail_customer_id foreign key: reservation_detail_id, customer_id	Table stores guests who staying in the room of reservation
14	order	primary key: order_id foreign key: reservation_detail_id	Table stores list orders of goods or service from customers in room of reservation
15	order_detail	primary key: order_detail_id foreign key: order_id, goods_id, goods_unit_id, invoice_id	Table containing list information details of order
16	price_list	primary key: price_list_id foreign key: N/A	Table stores list of manage pricing information for room classes with applicable date
17	price_list_detail	primary key: price_list_detail_id foreign key: price_list_id	Table containing list information details of price list
18	time_use	primary key: time_use_id foreign key: N/A	Table stores configuration of managing time periods during which

			rooms are available for booking or occupancy
19	policy	primary key: policy_id foreign key: N/A	Table contains rules, principles, guidelines established by a hotel to manage relationships with customers and ensure smooth operations
20	policy_detail	primary key: policy_detail_id foreign key: policy_id, room_category_id	Table containing list information details of policy
21	control_policy	primary key: control_policy_id foreign key: reservation_detail_id, policy_id	Table stores list room of reservation that violate the policy
22	customer_group	primary key: customer_group_id foreign key:	Table containing list of customer groups
23	department	primary key: department_id foreign key:	Table containing list of departments
24	fund_book	primary key: fund_book_id foreign key: N/A	Table containing information that refer to a record-keeping system used to track and document cash transactions such as payments, services, and other cash-related activities
25	import_goods	primary key: import_goods_id foreign key: N/A	Table stores information of receipt of goods that the hotel has ordered from suppliers
26	import_goods_detail	primary key: import_goods_detail_id foreign key: import_goods_id, goods_id	Table containing list information details of import goods
27	invoice	primary key: invoice_id foreign key: customer_id, staff_id	Table stores information of invoices including prices and charges
28	invoice_reservation_detail	primary key: invoice_reservation_detail_id foreign key: invoice_id, reservation_detail_id	Table stores information room of reservation for invoice
39	recent_activity	primary key: recent_activity_id foreign key: N/A	Table stores user actions such as creating invoices, inventory checks,...
30	report_revenue	primary key: report_revenue_id foreign key: N/A	Table stores data of revenue during a specific period
31	report_room_capacity	primary key: report_room_capacity_id foreign key: N/A	Table stores data refers to a metric that measures the usage of hotel rooms during a specific period
32	report_top_room_class	primary key: report_top_room_class_id foreign key: N/A	Table stores data of room class that gain income during a specific period
33	bank_account	primary key: bank_account_id foreign key: N/A	Table stores bank account information for payment transactions

2.2.2 Table Specification

2.2.2.1 Table customer

Table 111: Table customer

customer		
Attribute	Data Type	Description
customer_id	varchar	An unique identifier for the customer
customer_name	varchar	The customer's full name
customer_group_id	varchar	The id of the customer group
phone_number	varchar	The customer's phone number
dob	timestamp	The customer's date of birth
image	blob	The customer's profile image
email	varchar	The customer's email address
address	varchar	The customer's home address
identity	varchar	The customer's identity number
nationality	varchar	The customer's nationality
tax_code	varchar	The customer's tax code
gender	bit	The customer's gender
point	float	The customer's points for loyalty program
is_customer	bit	Whether they're customer or not
status	varchar	The customer's status

2.2.2.2 Table room

Table 112: Table room

room		
Attribute	Data Type	Description
room_id	varchar	An unique identifier for the room
room_name	varchar	The name of the room
room_category_id	varchar	The id of the room category
floor_id	varchar	The id of the floor
status	int	Whether the room has been deleted or not
booking_status	int	The status of the room such as "using" or "empty"
condition_status	bit	Whether the room has been cleaned or not
image	blob	The image preview of the room
note	varchar	The room's note
created_by_id	int	The user created the room track by Id
updated_by_id	int	The user updated the room track by Id
updated_date	timestamp	The time the room was last updated
created_date	timestamp	The time the room was last created

2.2.2.3 Table room_category

Table 113: Table room_category

room_category		
Attribute	Data Type	Description
room_category_id	varchar	An unique identifier for the room category
room_category_name	varchar	Name of the room class
price_by_day	float	Price by day
price_by_night	float	Price by night
price_by_hour	float	Price by hour
num_of_adults	int	Adults capacity for a room
num_of_children	int	Children capacity for a room
num_max_of_adults	int	Maximum room capacity for adults
num_max_of_children	int	Maximum room capacity for children
room_area	float	The area of the room
status	int	Whether the room has been deleted or not
description	varchar	A description of the room class
image	blob	The preview image of the room class
created_by_id	int	The user created the room class track by Id
updated_by_id	int	The user updated the room class track by Id
updated_date	timestamp	The time the room class was last updated
created_date	timestamp	The time the room class was last created

2.2.2.4 Table staff

Table 114: Table staff

staff		
Attribute	Data Type	Description
staff_id	int	An unique identifier for the staff
staff_name	varchar	The staff's name
department_id	varchar	The id of the department
username	varchar	The staff's username to login to the system
password	varchar	The staff's password to authenticate the account when login
role	varchar	The staff's role
status	int	Whether the staff has been deleted or not
dob	timestamp	The staff's date of birth
phone_number	varchar	The staff's phone number
email	varchar	The staff's email address
address	varchar	The staff's home address
identity	varchar	The staff's identity number
nationality	varchar	The staff's nationality
tax_code	varchar	The staff's tax code
image	blob	The preview image of the staff
gender	bit	The staff's gender
created_by_id	int	The user created the staff track by Id
updated_by_id	int	The user updated the staff track by Id
updated_date	timestamp	The time the staff was last updated
created_date	timestamp	The time the staff was last created

2.2.2.5 Table goods

Table 115: Table goods

goods		
Attribute	Data Type	Description
goods_id	varchar	An unique identifier for the item or service
goods_name	varchar	Name of the item or service
goods_category	bit	The category of the item or service
status	int	Whether the item or service has been deleted or not
inventory	int	The number of items or services are in-stock
min_inventory	int	The lowest of the item or price's inventory level
max_inventory	int	The highest of the item or price's inventory level
note	varchar	The item or service's note
description	varchar	The item or service's description
image	blob	The preview image of the item of service
created_by_id	int	The user created the item or service track by Id
updated_by_id	int	The user updated the item or service track by Id
updated_date	timestamp	The time the item or service was last updated
created_date	timestamp	The time the item or service was last created

2.2.2.6 Table goods_unit

Table 116: Table goods_unit

goods_unit		
Attribute	Data Type	Description
goods_unit_id	int	An unique identifier for the goods unit
goods_unit_name	varchar	The name of the unit
goods_id	varchar	The id of the item or service
cost	float	The cost of item or service by the unit
price	float	The price of item or service by the unit
is_default	bit	Whether the unit is following the price and cost by default or not

2.2.2.7 Table inventory_check

Table 117: Table inventory_check

inventory_check		
Attribute	Data Type	Description
inventory_check_id	varchar	An unique identifier for the inventory check
time_balance	timestamp	The time the inventory checked is balanced
note	varchar	The inventory check's note
status	int	Whether the inventory check is balanced, temporary or canceled
created_by_id	int	The user who created the inventory check
created_date	timestamp	The time the inventory check was last created

2.2.2.8 Table inventory_check_detail

Table 118: Table inventory_check_detail

inventory_check_detail		
Attribute	Data Type	Description
inventory_check_detail_id	int	An unique identifier for the inventory check
inventory_check_id	varchar	The id of the inventory check
goods_id	varchar	The id of the goods
actual_inventory	int	The actual quantity of the goods
quantity_discrepancy	int	Discrepancy quantity between inventory and actual inventory
value_discrepancy	int	Discrepancy quantity value between inventory value and actual inventory value
inventory	int	The history quantity of the goods
cost	int	The history cost of the goods

2.2.2.9 Table floor

Table 119: Table floor

floor		
Attribute	Data Type	Description
floor_id	int	An unique identifier for the floor
floor_name	varchar	Name of the floor
status	int	Whether the floor has been deleted or not
created_by_id	int	The user created the floor track by Id
updated_by_id	int	The user updated the floor track by Id
updated_date	timestamp	The time the floor was last updated
created_date	timestamp	The time the floor was last created

2.2.2.10 Table token

Table 120: Table token

token		
Attribute	Data Type	Description
token_id	int	An unique identifier for the token
token	varchar	The token value
staff_id	int	The id of the staff
expiration_time	timestamp	The token's expired time

2.2.2.11 Table department

Table 121: Table department

department		
Attribute	Data Type	Description
department_id	varchar	An unique identifier for the department
department_name	varchar	The department's name
status	varchar	The department's status

2.2.2.12 Table reservation

Table 122: Table reservation

reservation		
Attribute	Data Type	Description
reservation_id	varchar	An unique identifier for the reservation
customer_id	varchar	The id of the customer
price_list_id	varchar	The id of the price list
total_adults	int	The total number of adults
total_children	int	The total number of children
status	varchar	The reservation's status
duration_start	timestamp	The begin time of the reservation
duration_end	timestamp	The end time of the reservation
note	varchar	The reservation's note
staff_check_in	int	The id of the staff who do the check-in
staff_check_out	int	The id of the staff who do the check-out
created_date	timestamp	The time the reservation created
created_by_id	int	The id of the person who created the reservation

2.2.2.13 Table reservation_detail

Table 123: Table reservation_detail

reservation_detail		
Attribute	Data Type	Description
reservation_detail_id	int	An unique identifier for the reservation detail
reservation_id	varchar	The id of the reservation
room_id	varchar	The id of the room
check_in_estimate	timestamp	Expect time of check-in
check_out_estimate	timestamp	Expect time of check-out
check_in_actual	timestamp	Actual time of check-in
check_out_actual	timestamp	Actual time of check-out
price	float	The price of room in reservation

2.2.2.14 Table order

Table 124: Table order

order		
Attribute	Data Type	Description
order_id	varchar	An unique identifier for the order
reservation_detail_id	int	The id of the reservation detail
total_pay	float	The total amount price of the order
status	varchar	The order's status
created_by_id	int	The id of person who created the order
created_date	timestamp	The time the order was created

2.2.2.15 Table order_detail

Table 125: Table order_detail

order_detail		
Attribute	Data Type	Description
order_detail_id	int	An unique identifier for the order detail
order_id	varchar	The id of the order
goods_id	varchar	The id of the goods
goods_unit_id	int	The id of the goods unit
invoice_id	varchar	The id of the invoice
quantity	int	The quantity amount of the order detail
price	float	The order detail's price

2.2.2.16 Table policy

Table 126: Table policy

policy		
Attribute	Data Type	Description
policy_id	varchar	An unique identifier for the policy
policy_name	varchar	Name of the policy
note	varchar	The policy's note
start_time	timestamp	The begin time of the policy
end_time	timestamp	The end time of the policy
status	int	The policy's status

2.2.2.17 Table policy_detail

Table 127: Table policy_detail

policy_detail		
Attribute	Data Type	Description
policy_detail_id	int	An unique identifier for the policy detail
policy_id	varchar	The id of the policy
type	varchar	The policy detail's type
unit	varchar	The policy detail's unit
limit_value	int	The policy detail's limit value
type_value	varchar	The policy detail's value whether if it is % or VND
policy_value	float	The policy detail's value
note	varchar	The policy detail's note
auto_add_to_invoice	bit	Whether if it have been added to invoice or not
status	int	The policy detail's status

2.2.2.18 Table control_policy

Table 128: Table control_policy

control_policy		
Attribute	Data Type	Description
control_policy_id	int	An unique identifier for the control policy
reservation_detail_id	int	The id of the reservation detail

control_policy		
Attribute	Data Type	Description
policy_id	varchar	The id of the policy
type_value	varchar	The control policy's value whether if it is % or VND
value	float	The control policy's value
discrepancy	varchar	The control policy's discrepancy
note	varchar	The control policy's note
status	bit	The control policy's status

2.2.2.19 Table time_use

Table 129: Table time_use

time_use		
Attribute	Data Type	Description
time_use_id	int	An unique identifier for the time use
end_time_night	time	The end time for night reservation
start_time_night	time	The start time for night reservation
end_time_day	time	The end time for day reservation
start_time_day	time	The start time for day reservation
time_bonus_day_type	varchar	The type of time use
time_bonus_hour	int	The time use's limit for hour reservation
time_bonus_day	int	The time use's limit for day reservation

2.2.2.20 Table import_goods

Table 130: Table import_goods

import_goods		
Attribute	Data Type	Description
import_goods_id	varchar	An unique identifier for the import goods
time_import	timestamp	The time that list goods were imported
supplier	varchar	Name of the supplier
price	float	The price of the list import
paid	float	The amount of money that already paid
status	int	The import goods's status

2.2.2.21 Table import_goods_detail

Table 131: Table import_goods_detail

import_goods_detail		
Attribute	Data Type	Description
import_goods_detail_id	int	An unique identifier for the import goods detail
import_goods_id	varchar	The id of the import goods
goods_id	varchar	The id of the goods
goods_unit_id	int	The id of the goods unit
amount	int	The amount of the goods
cost	float	The cost of the goods
total	float	The total of the amount and cost

2.2.2.22 Table price_list

Table 132: Table price_list

price_list		
Attribute	Data Type	Description
price_list_id	varchar	An unique identifier for the price list
price_list_name	varchar	Name of the price list
effective_time_start	timestamp	The time that make price list applicable
effective_time_end	timestamp	The time that make price list no longer applicable
status	int	The price list's status
note	varchar	The price list's note

2.2.2.23 Table price_list_detail

Table 133: Table price_list_detail

price_list_detail		
Attribute	Data Type	Description
price_list_detail_id	int	An unique identifier for the price list detail
price_list_id	varchar	The id of the price list
room_category_id	varchar	The id of the room category
price_by_day	float	The price of the day reservation
price_by_night	float	The price of the night reservation
price_by_hour	float	The price of the hour reservation
time_apply	timestamp	The price list detail's applicable time
day_of_week	varchar	The day that apply the price list

2.2.2.24 Table invoice

Table 134: Table invoice

invoice		
Attribute	Data Type	Description
invoice_id	varchar	An unique identifier for the invoice
customer_id	varchar	The id of the customer
staff_id	int	The id of the staff
total	float	The total money of the invoice
discount	float	The discount of the invoice
created_date	timestamp	The time the invoice was created
status	varchar	The invoice's status
note	varchar	The invoice's note
price_other	float	The other price of the invoice

2.2.2.25 Table invoice_reservation_detail

Table 135: Table invoice_reservation_detail

invoice_reservation_detail		
Attribute	Data Type	Description
invoice_reservation_detail_id	int	An unique identifier for the invoice reservation detail

invoice_reservation_detail		
Attribute	Data Type	Description
invoice_id	varchar	The id of the invoice
reservation_detail_id	int	The id of the reservation detail

2.2.2.26 Table bank_account

Table 136: Table bank_account

bank_account		
Attribute	Data Type	Description
bank_account_id	int	An unique identifier for the bank account
bank_account_number	varchar	The bank account's number
bank_account_name	varchar	The bank account's name
bank_id	int	The bank's bin number

2.2.2.27 Table fund_book

Table 137: Table fund_book

fund_book		
Attribute	Data Type	Description
fund_book_id	varchar	An unique identifier for the fundbook
time	timestamp	The time the activity was created
type	varchar	Describes the type of the receipt or payment income
paid_method	varchar	It is payment method of the receipt or payment income
value	float	Value of the receipt or payment income
payer_recevier	varchar	The person who receives or pays money
staff	varchar	Staff created fund book
note	varchar	The fund book note
status	varchar	The fund book status
transaction_code	varchar	Transaction code when making transfer payments

2.2.2.28 Table recent_activity

Table 138: Table recent_activity

recent_activity		
Attribute	Data Type	Description
recent_activity_id	int	An unique identifier for the recent activity
staff_name	varchar	Name of the staff
action	varchar	The action of the activity
value	float	The activity's value that relevant to money
create_time	timestamp	The time the activity was created

2.2.2.29 Table report_revenue

Table 139: Table report_revenue

report_revenue		
Attribute	Data Type	Description
report_revenue_id	int	An unique identifier for the report revenue
created_date	timestamp	The time the revenue report was created
revenue_value	float	The value of the revenue report

2.2.2.30 Table report_top_room_class

Table 140: Table report_top_room_class

report_top_room_class		
Attribute	Data Type	Description
report_top_room_class	int	An unique identifier for the report top room class
room_class_id	varchar	The id of the room class
revenue	float	The revenue value of the room class
number_of_rental	int	The number of reservations have rented this room class
status	bit	The report's status
create_date	timestamp	The time the report was created
update_date	timestamp	The time the report was updated

2.2.2.31 Table report_room_capacity

Table 141: Table report_room_capacity

report_room_capacity		
Attribute	Data Type	Description
report_room_capacity_id	int	An unique identifier for the report room capacity
create_date	timestamp	The time the report was created
room_capacity_value	float	The value of the report

2.2.2.32 Table customer_group

Table 142: Table customer_group

customer_group		
Attribute	Data Type	Description
customer_group_id	varchar	An unique identifier for the customer_group
customer_group_name	varchar	The name of the customer group
discount	float	The discount amount for the customer group
status	varchar	The customer's group status

2.2.2.33 Table reservation_detail_customer

Table 143: Table reservation_detail_customer

reservation_detail_customer		
Attribute	Data Type	Description
reservation_detail_customer_id	int	An unique identifier for the reservation detail customer
reservation_detail_id	int	The id of the reservation detail
customer_id	varchar	The id of the customer

3. Detailed Design

3.1 Manage RoomClass

3.1.1 Class Diagram

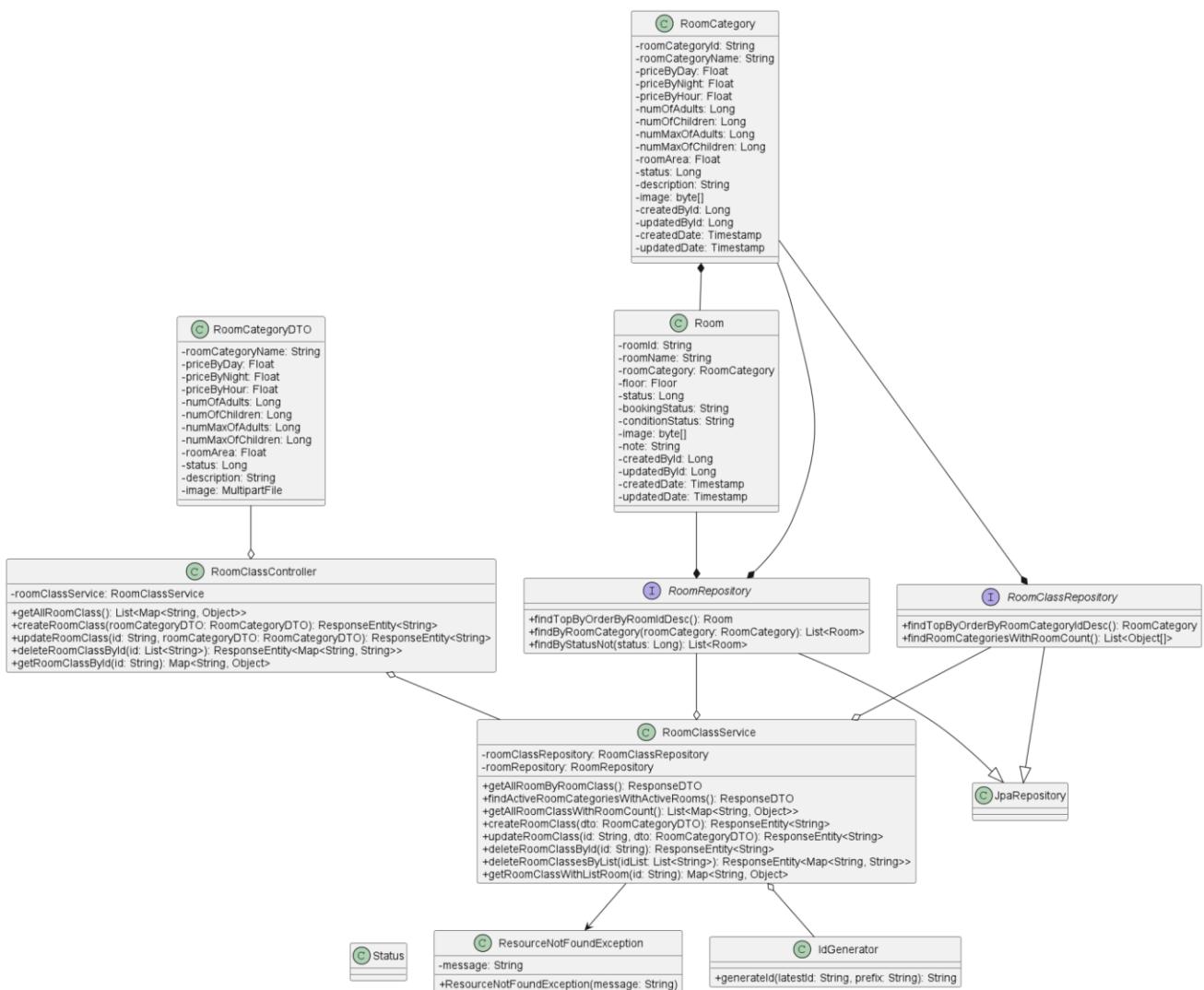


Figure 131: Class Diagram

3.1.2 Sequence Diagram - View List Room Class

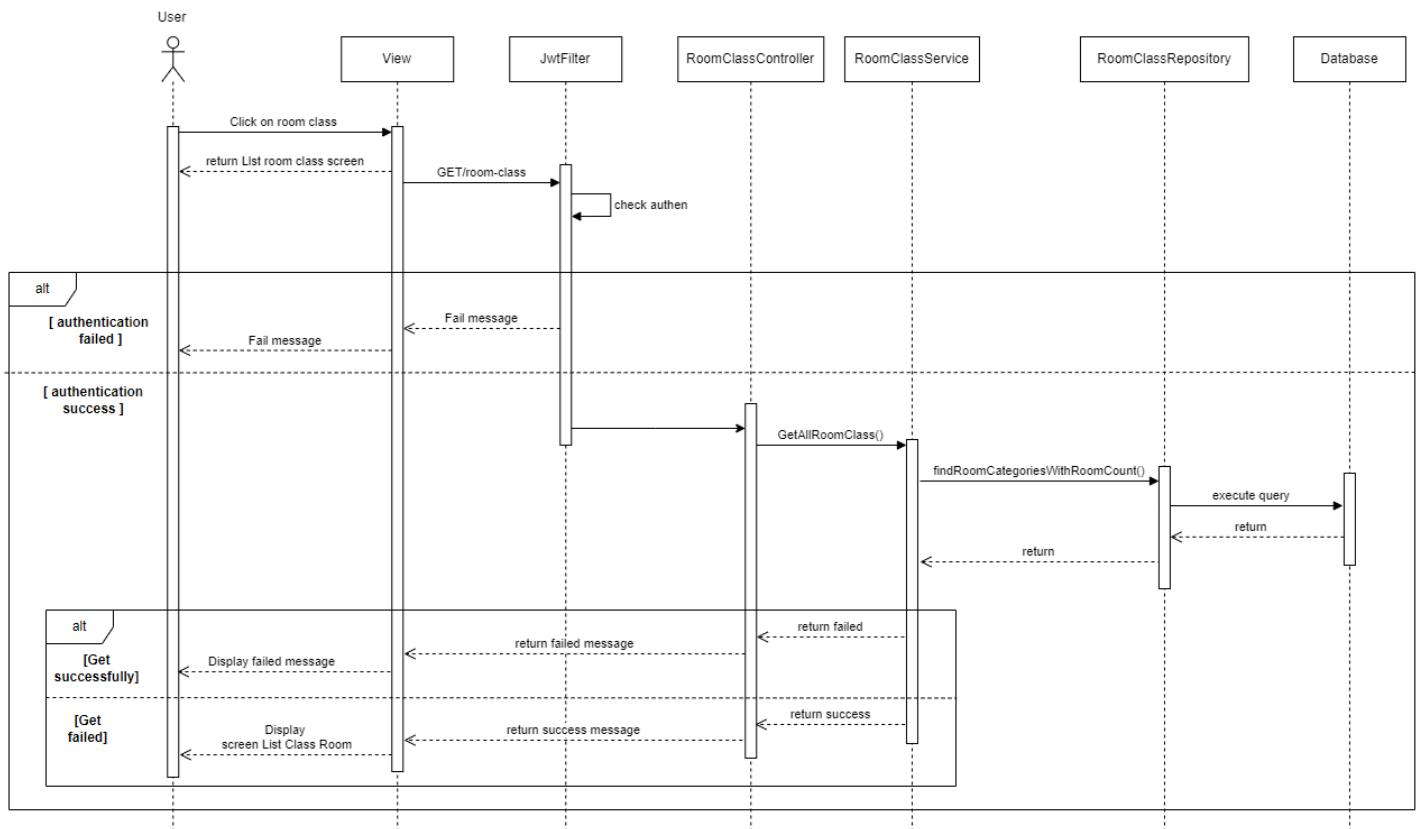


Figure 132: Sequence Diagram - View List Room Class

3.1.3 Sequence Diagram - View Detail Room Class

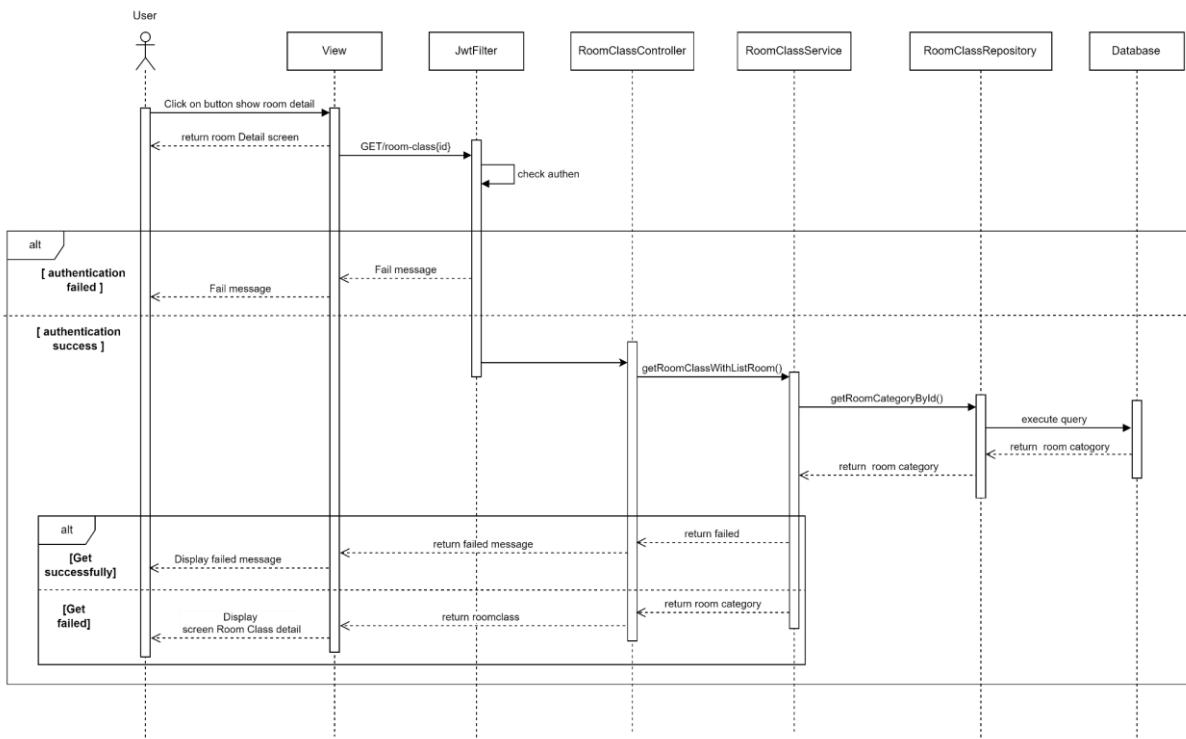


Figure 133: Sequence Diagram - View Detail Room Class

3.1.4 Sequence Diagram - Create Room Class

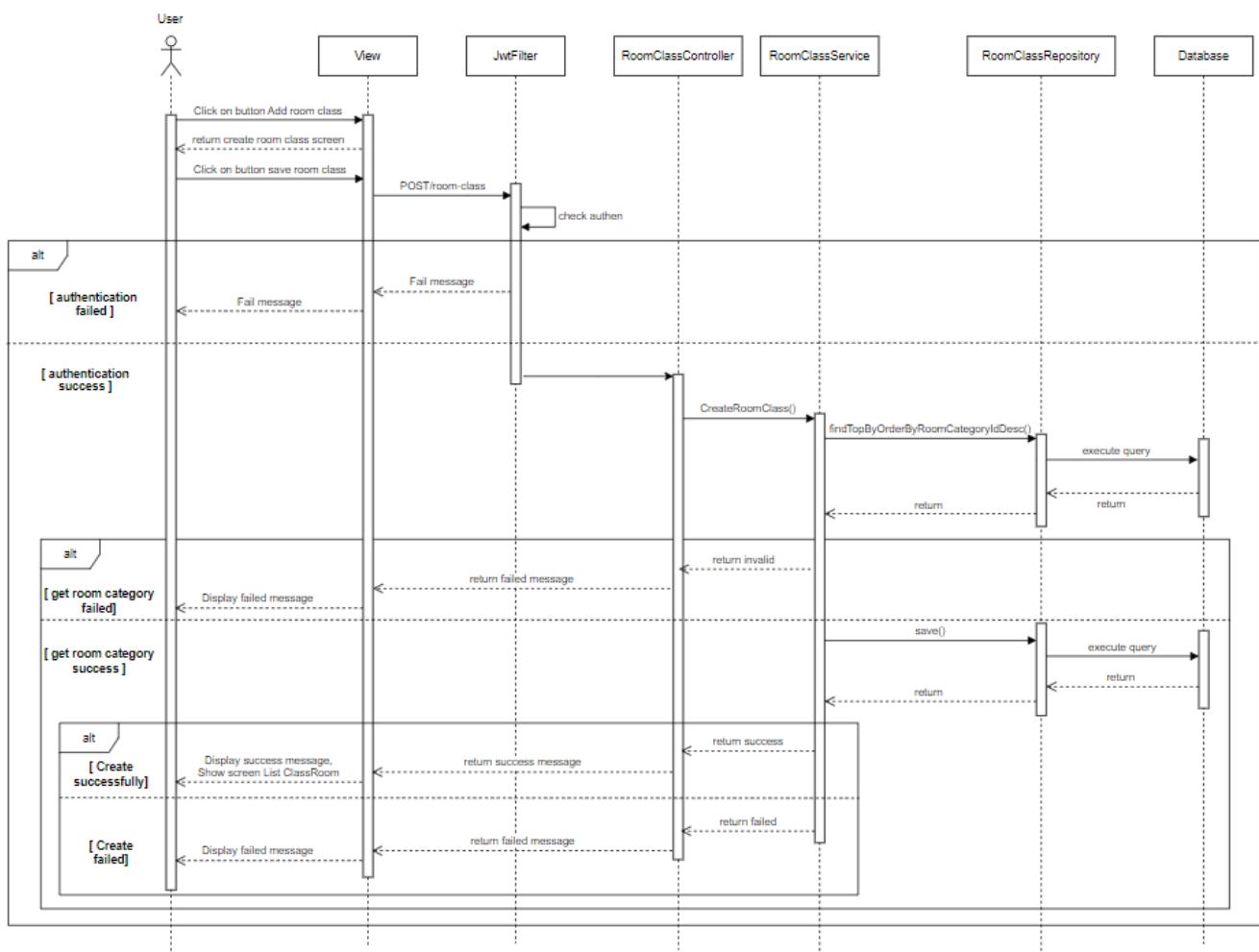


Figure 134: Sequence Diagram - Create Room Class

3.1.5 Sequence Diagram - Update Room Class

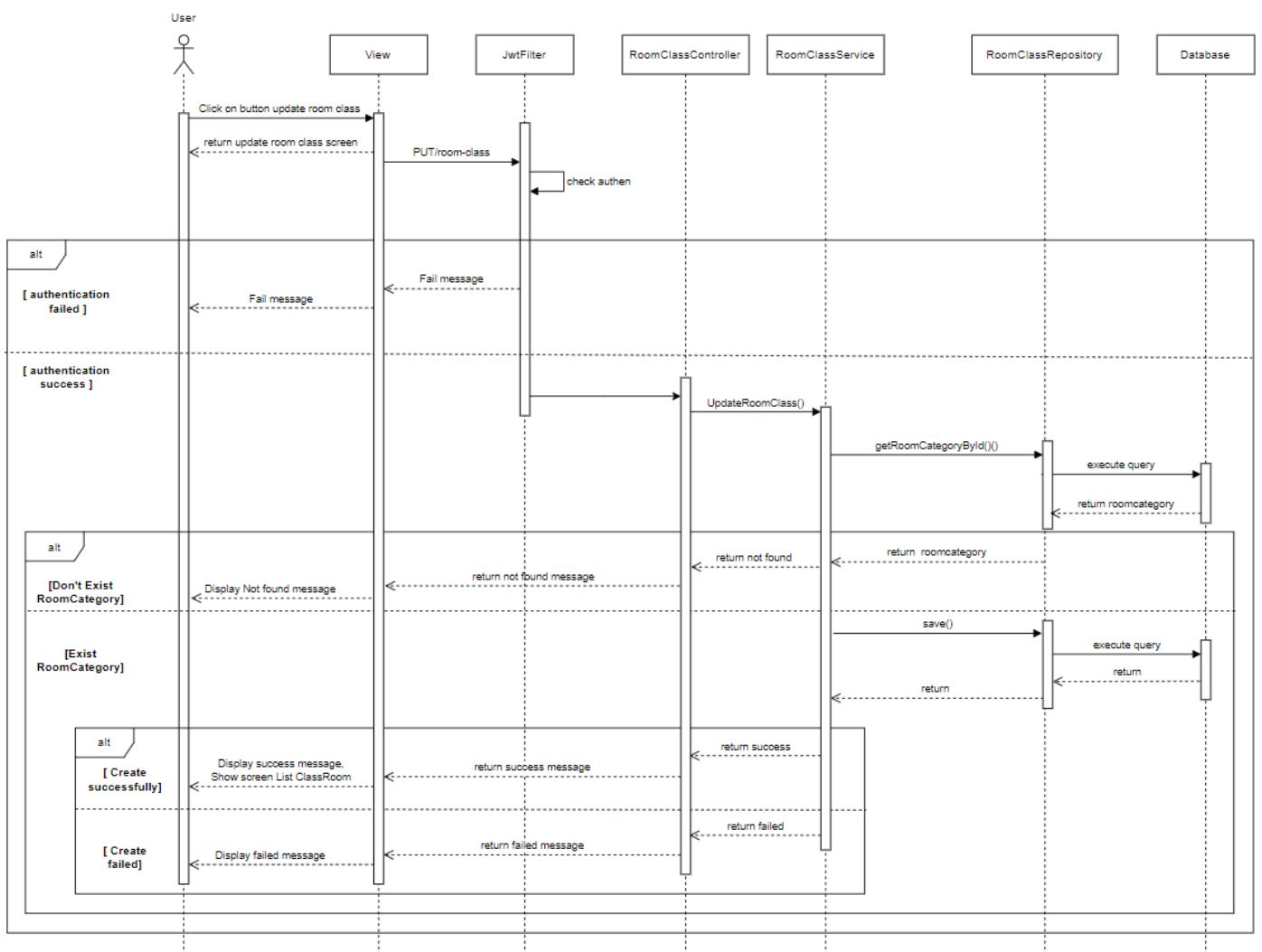


Figure 135: Sequence Diagram - Update Room Class

3.1.6 Sequence Diagram - Delete Room Class

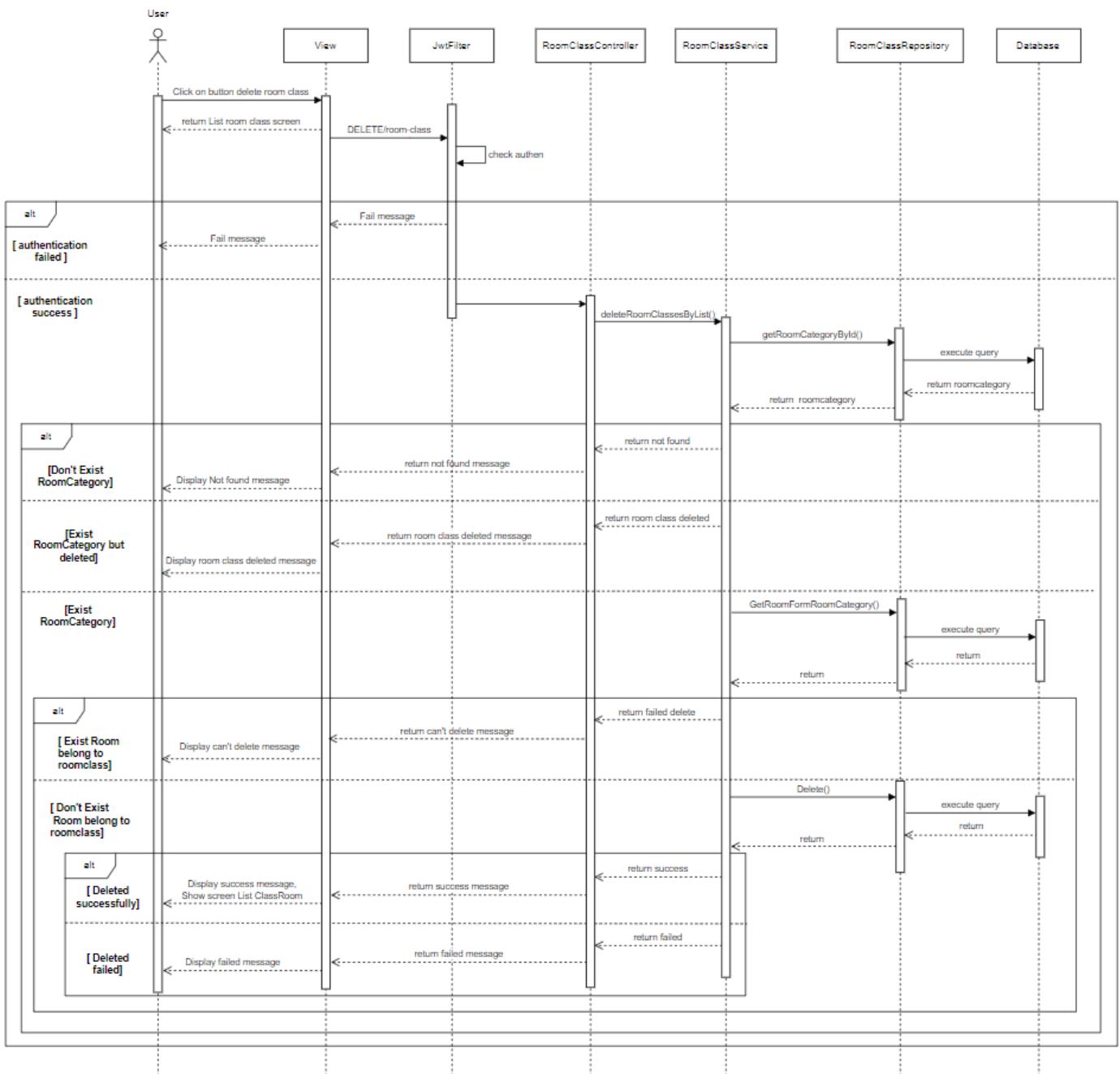


Figure 136: Sequence Diagram - Delete Room Class

3.2 Manage Room

3.2.1 Class Diagram

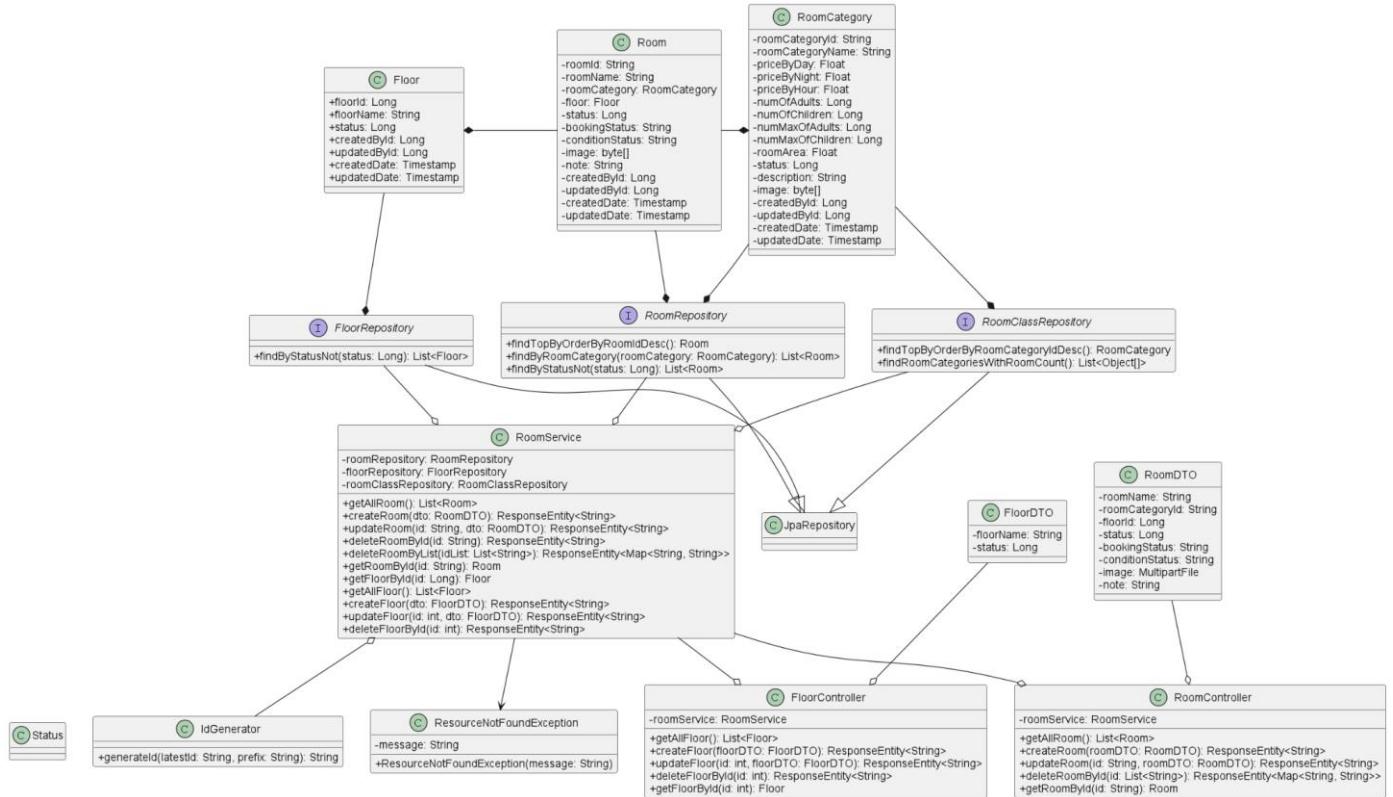


Figure 137:Class Diagram manage room

3.2.2 Sequence Diagram - View List Room

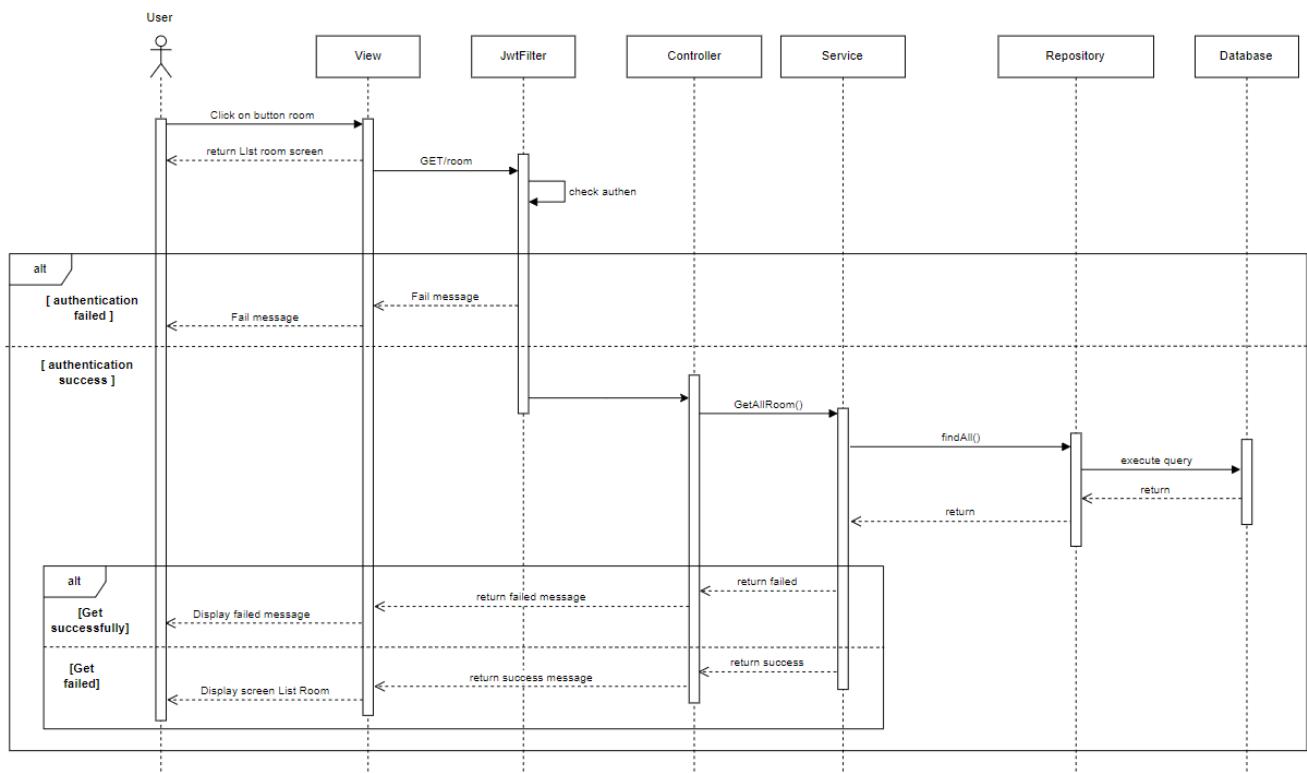


Figure 138: Sequence Diagram - View List Room

3.2.3 Sequence Diagram - View Detail Room

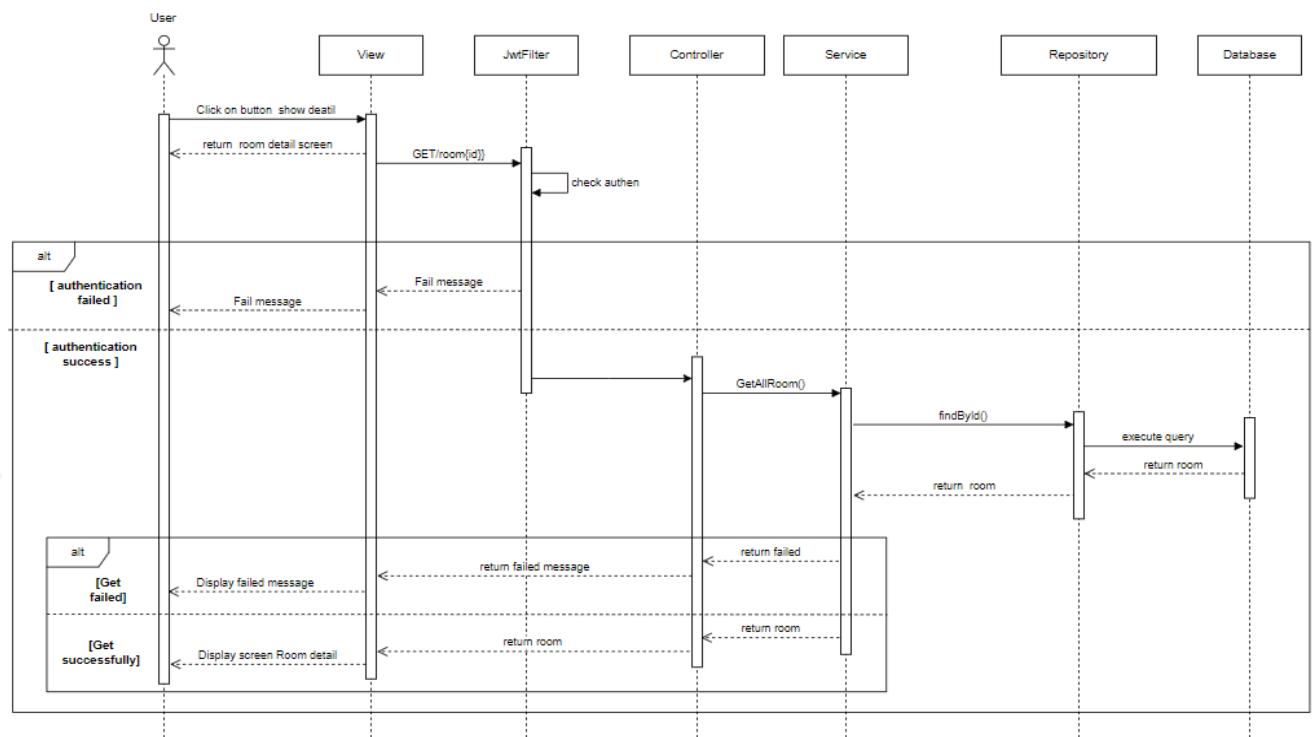


Figure 139: Sequence Diagram - View Detail Room

3.2.3 Sequence Diagram - Create Room

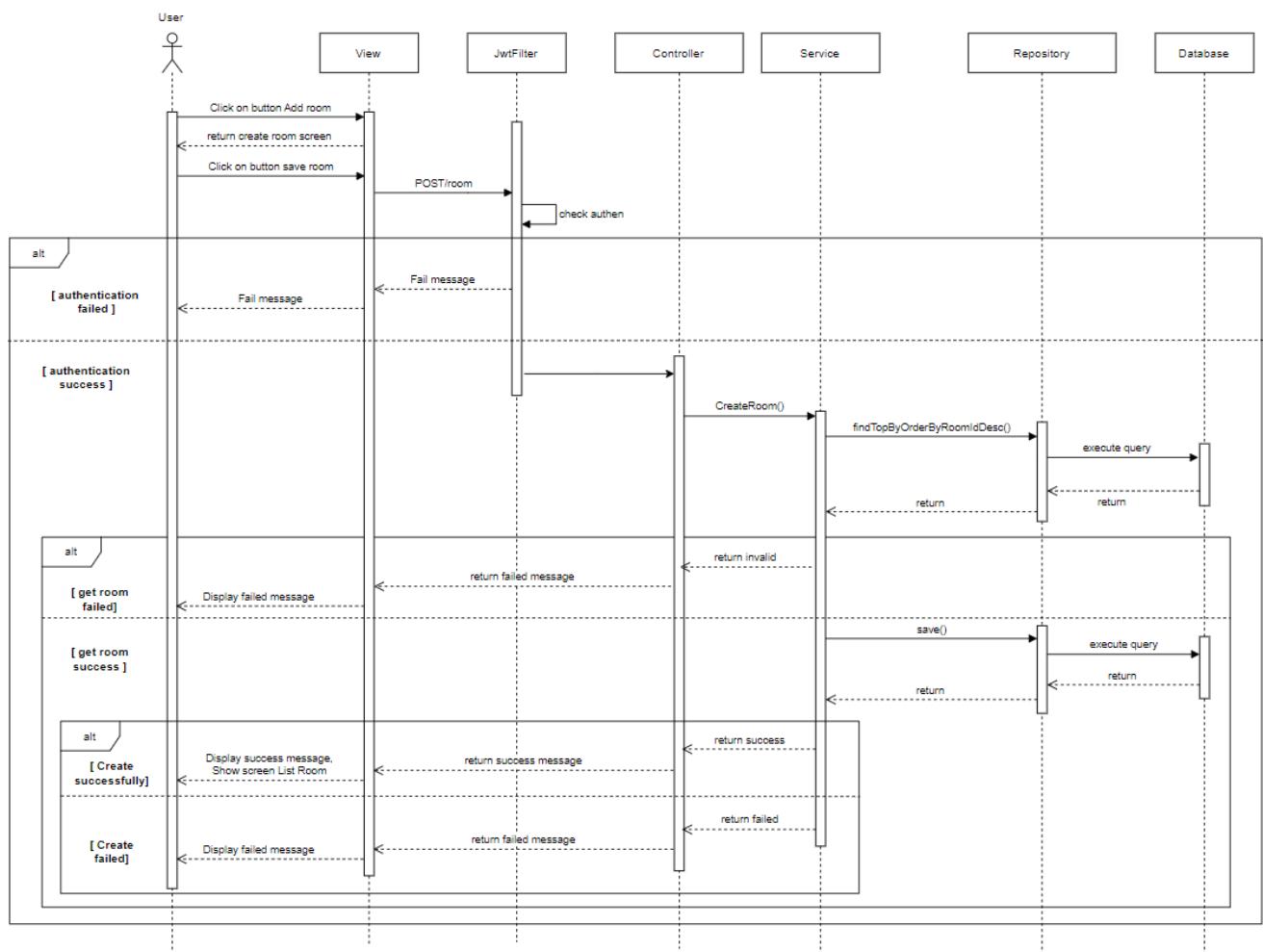


Figure 140: Sequence Diagram - Create Room

3.2.4 Sequence Diagram - Update Room

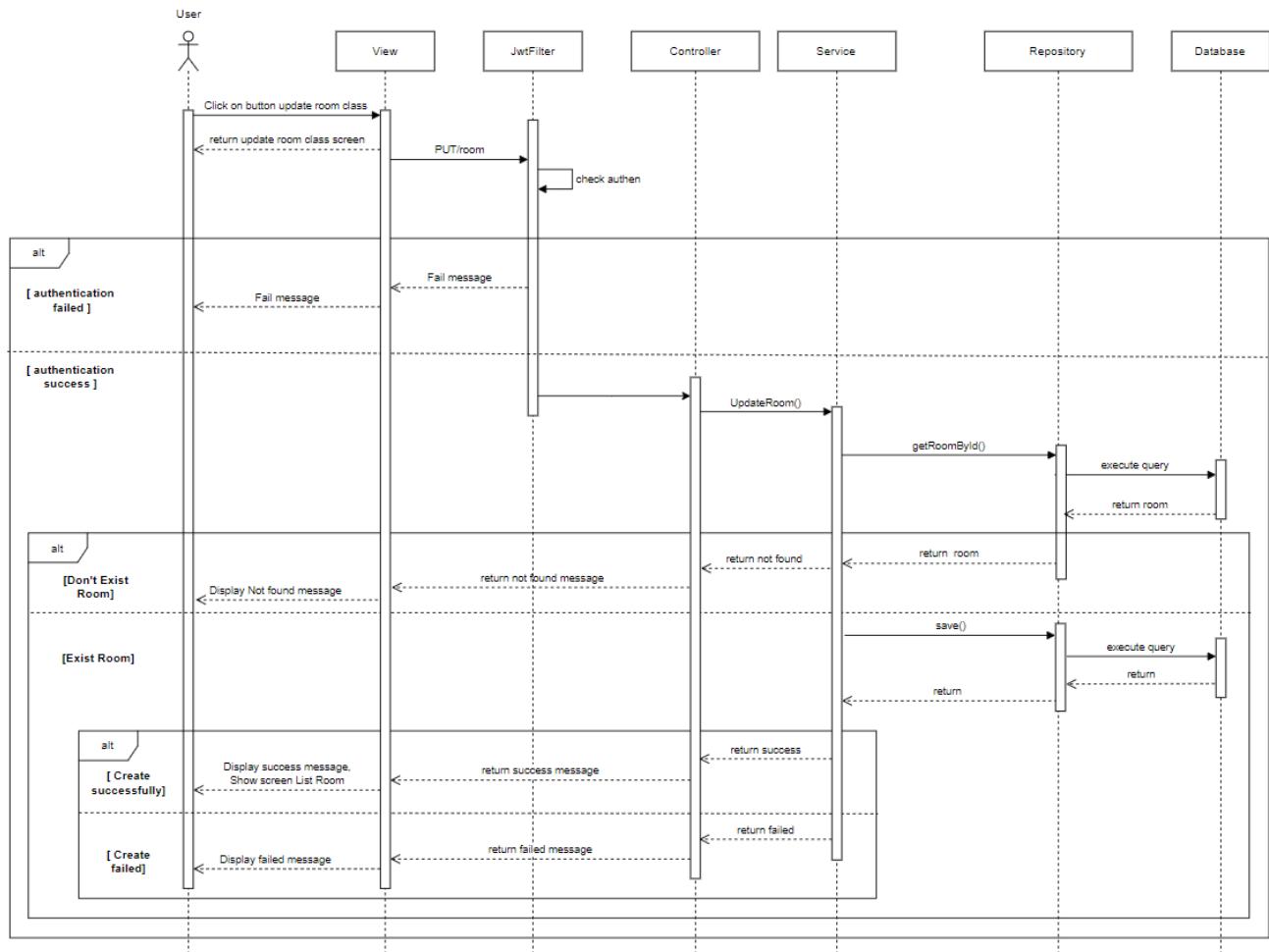


Figure 141: Sequence Diagram - Update Room

3.2.5 Sequence Diagram - Delete Room

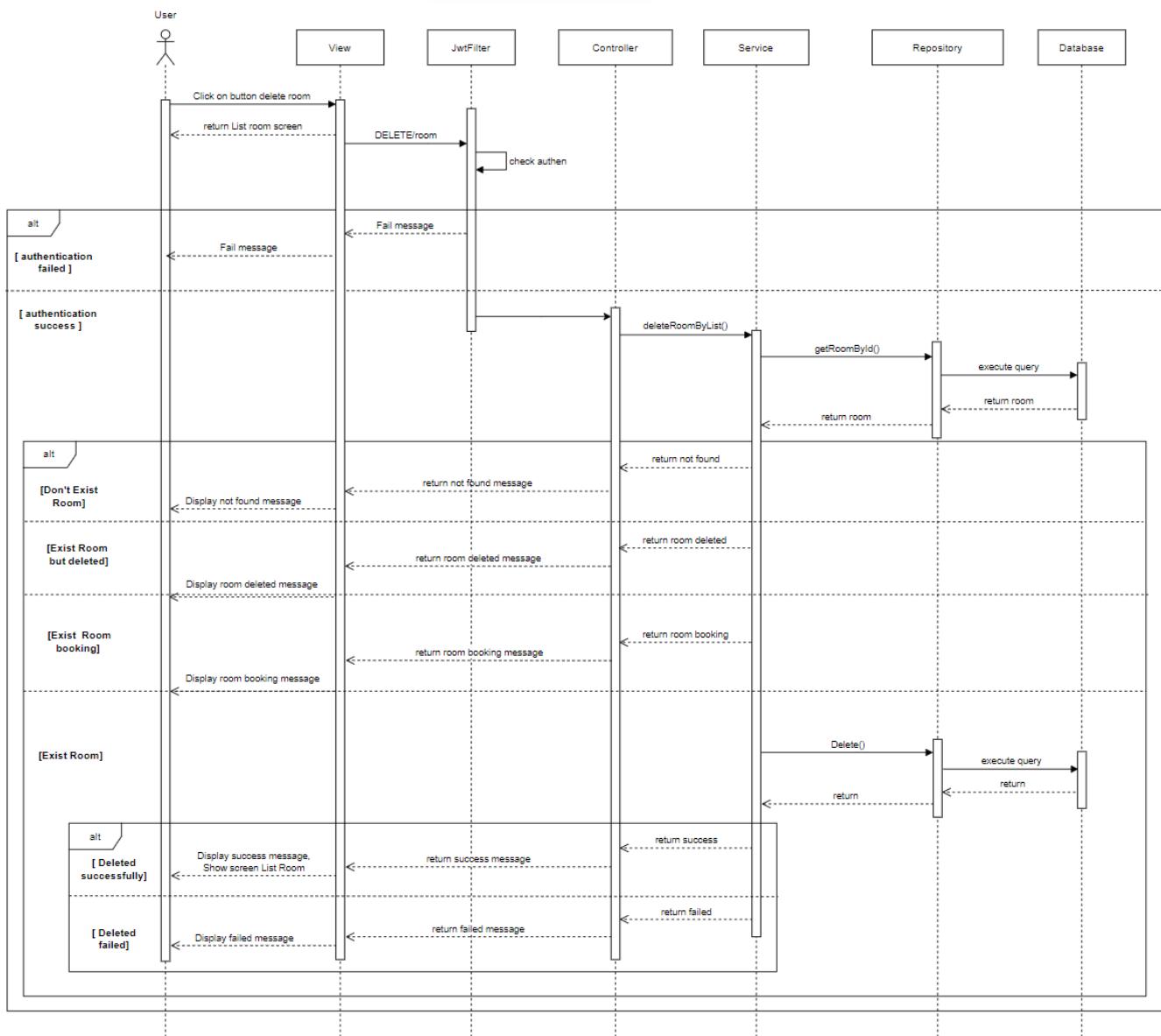


Figure 142: Sequence Diagram - Delete Room

3.2.6 Sequence Diagram - view area

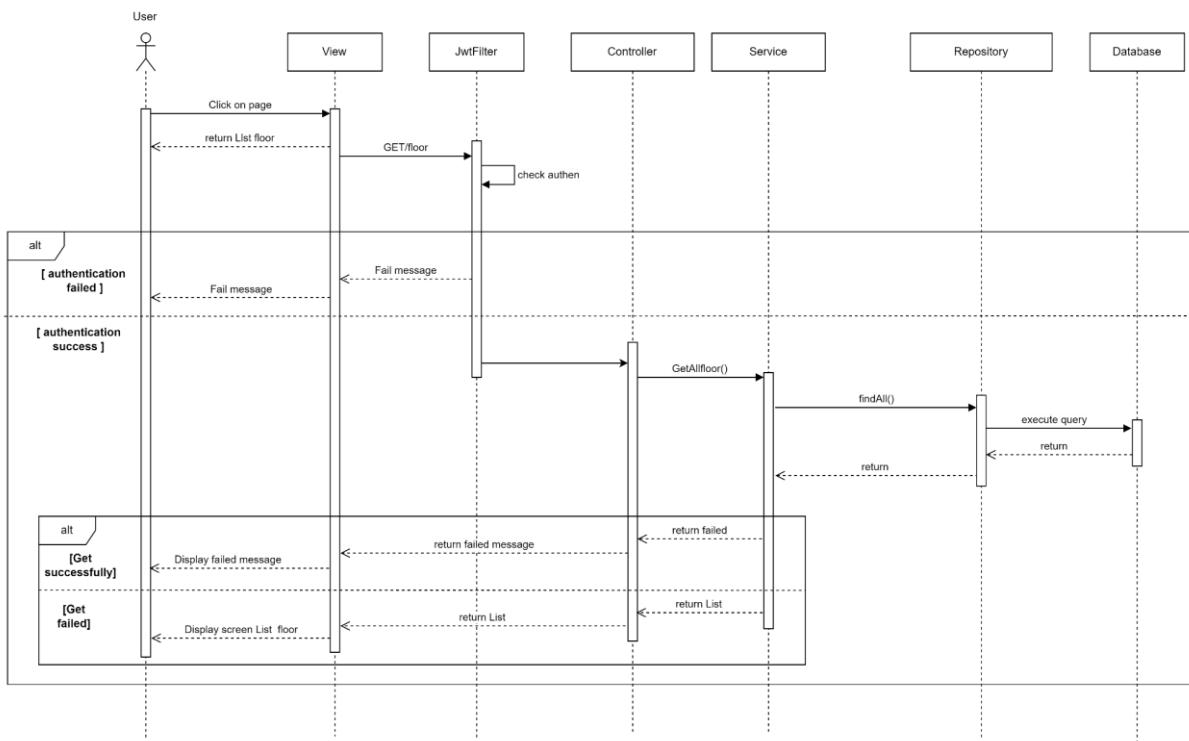


Figure 143: Sequence Diagram - view area

3.2.6 Sequence Diagram - Create area

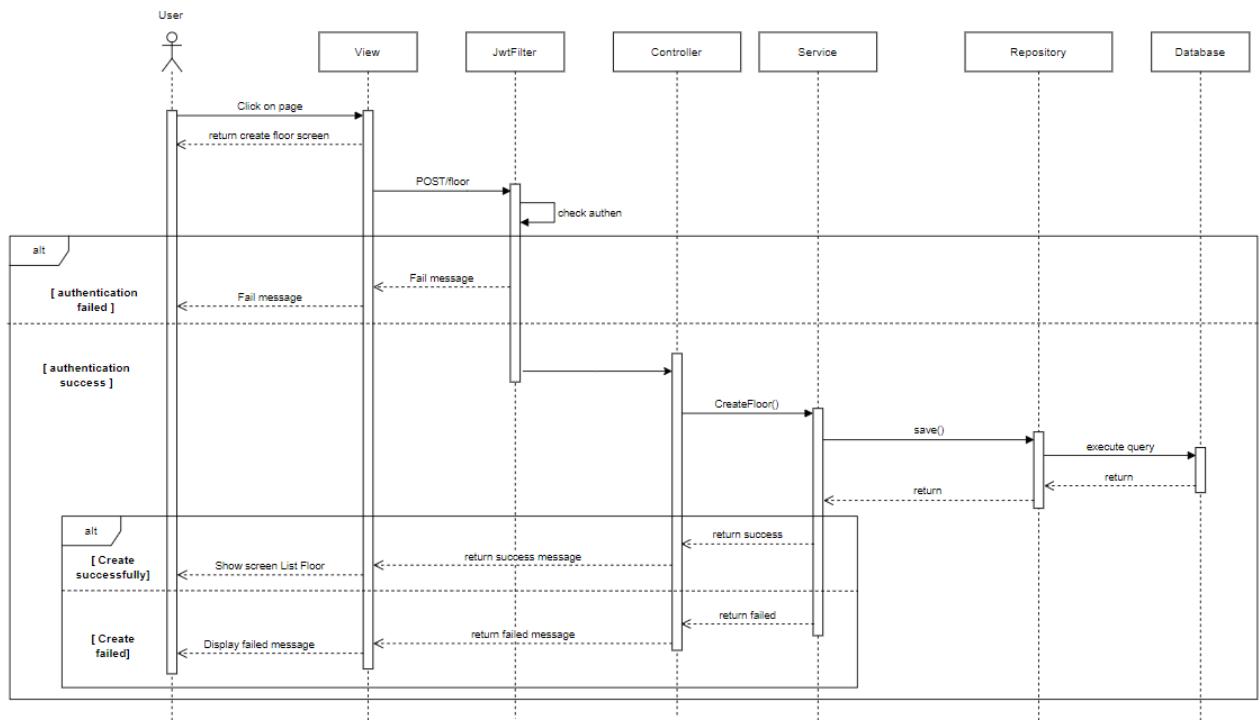


Figure 144: Sequence Diagram - Create area

3.2.7. Sequence Diagram - Update area

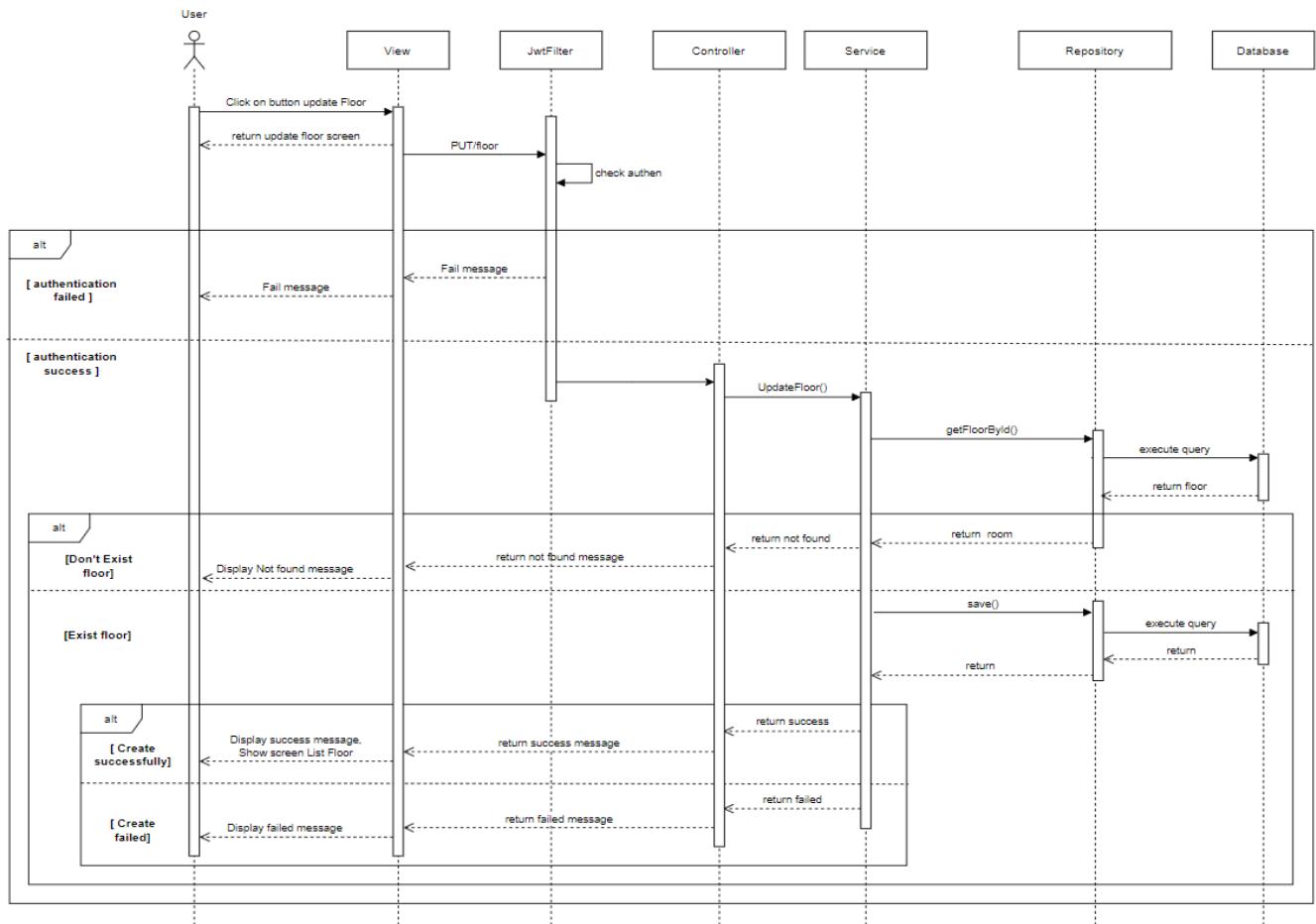


Figure 145: Sequence Diagram - Update area

3.2.8. Sequence Diagram - Delete area

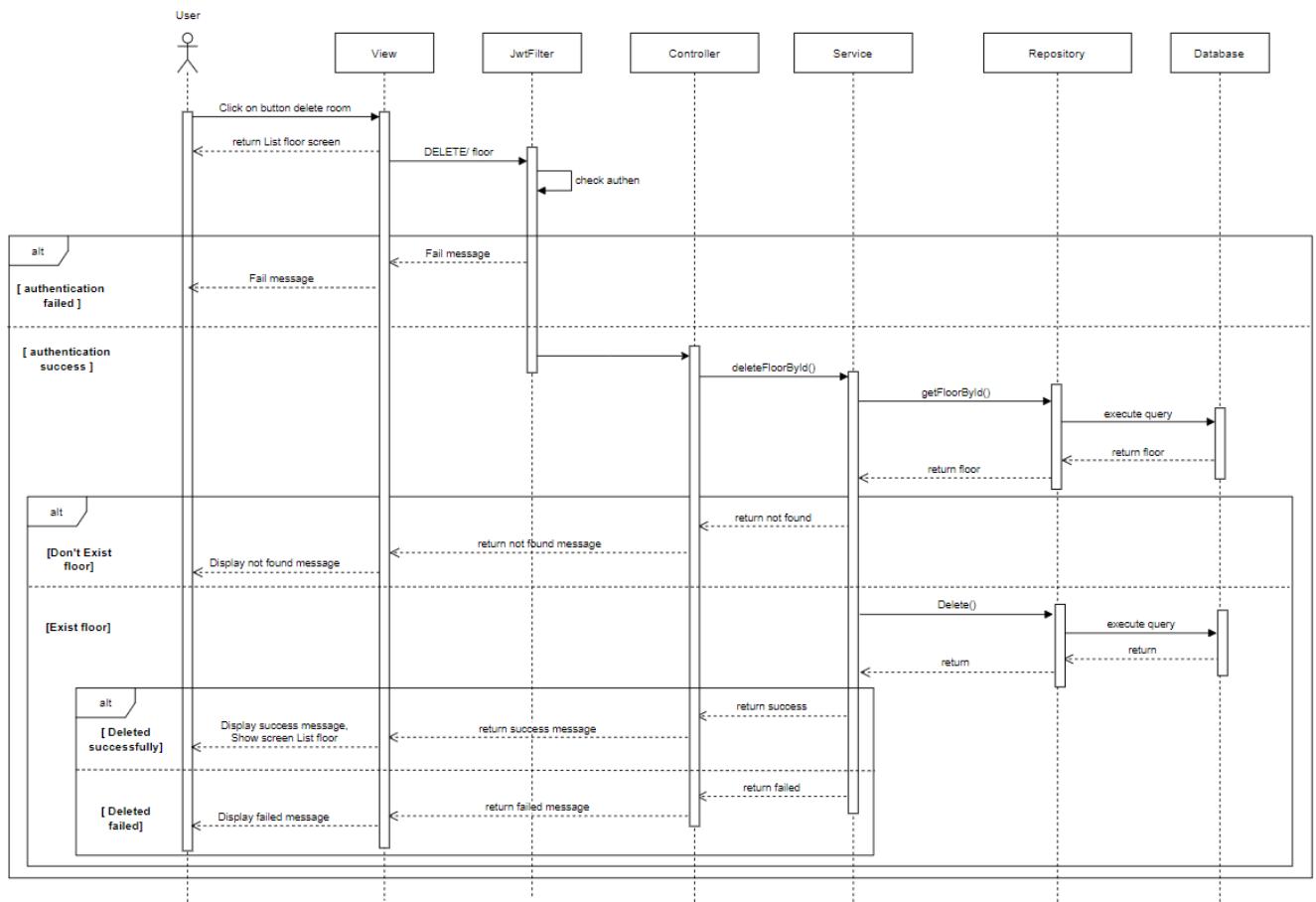


Figure 146: Sequence Diagram - Delete area

3.3 Manage Goods, Services

3.3.1 Class Diagram

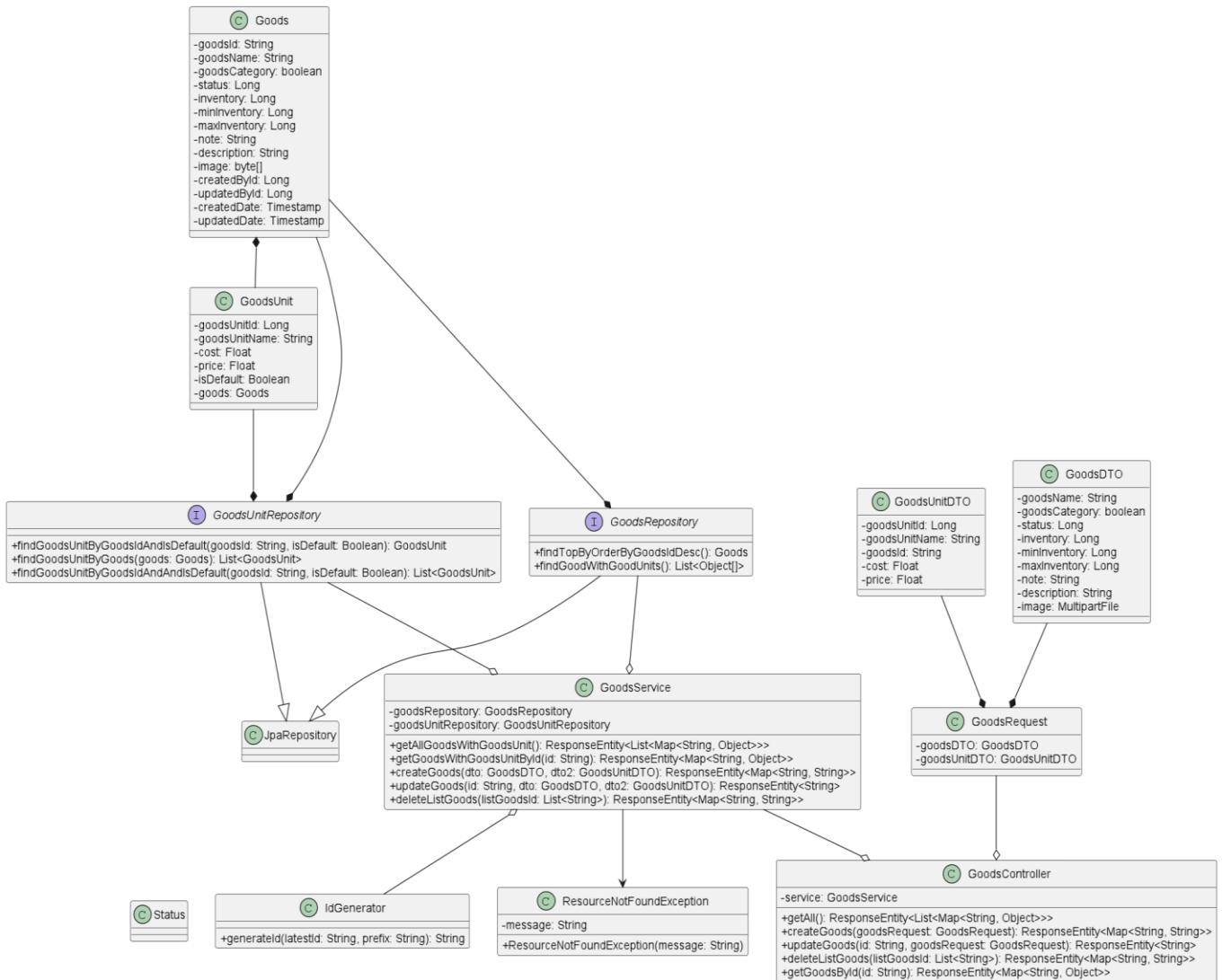


Figure 147: Class Diagram manage goods, service

3.3.2 Sequence Diagram - View List Goods, Service

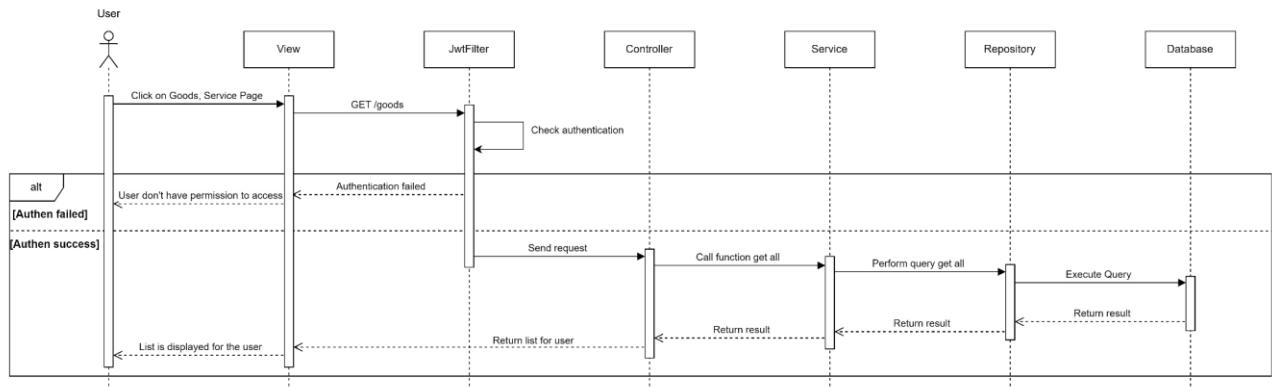


Figure 148: Sequence Diagram - View List Goods, Service

3.3.3 Sequence Diagram - View Detail of Goods, Service

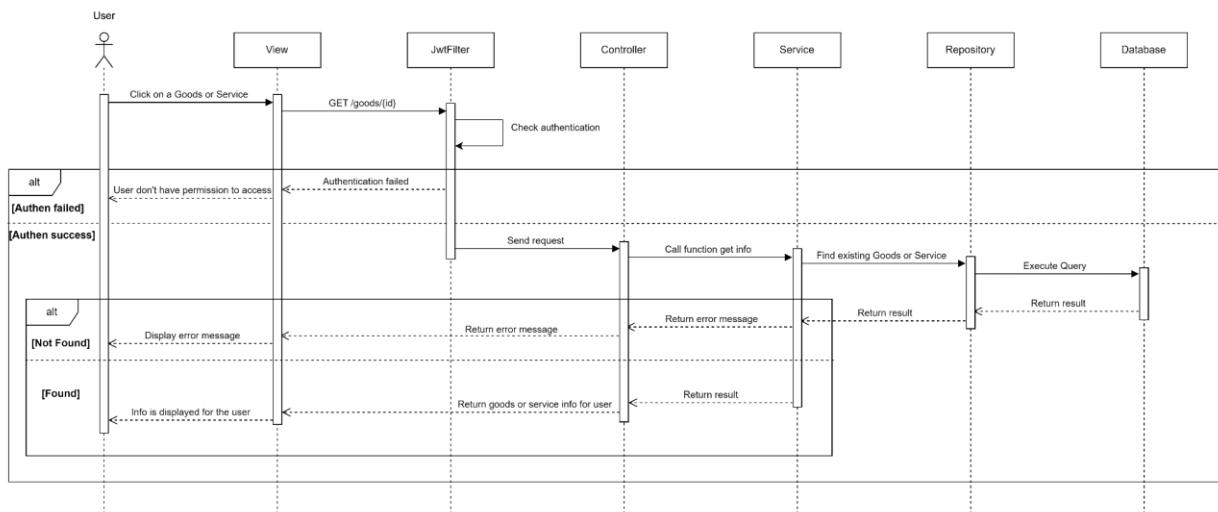


Figure 149: Sequence Diagram - View Detail of Goods, Service

3.3.4 Sequence Diagram - Create Goods, Service

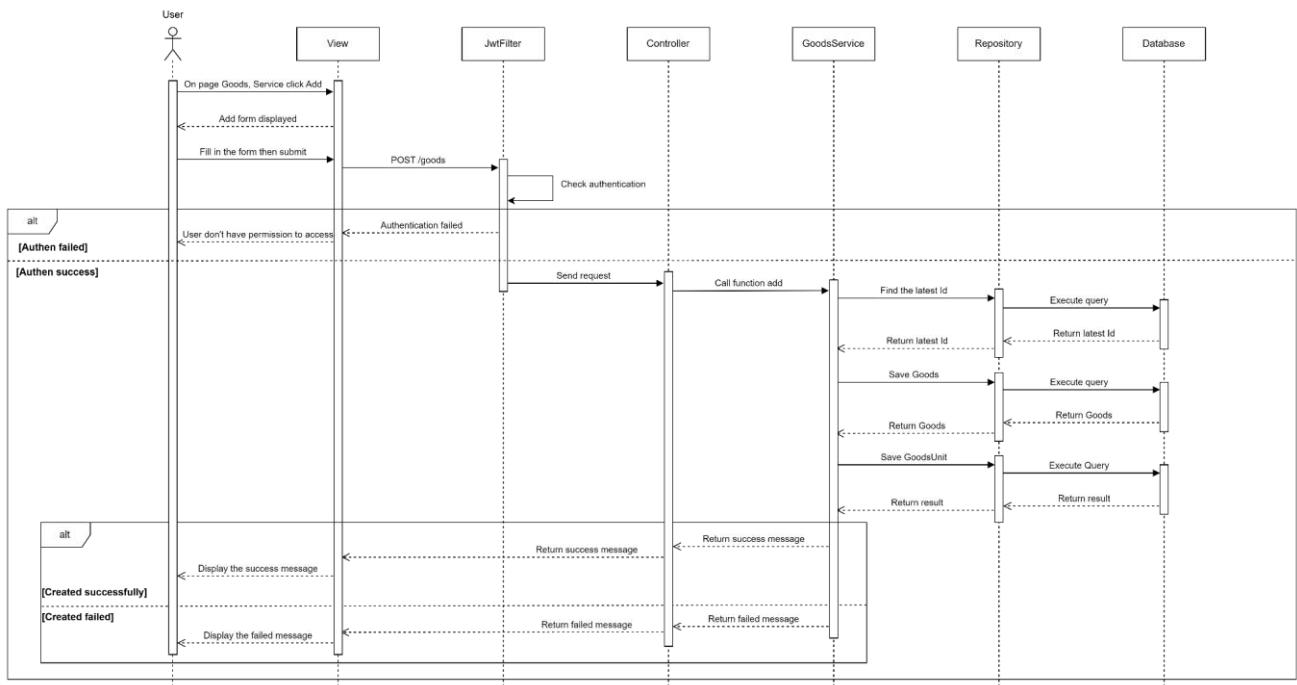


Figure 150: Sequence Diagram - Create Goods, Service

3.3.5 Sequence Diagram - Update Goods, Service

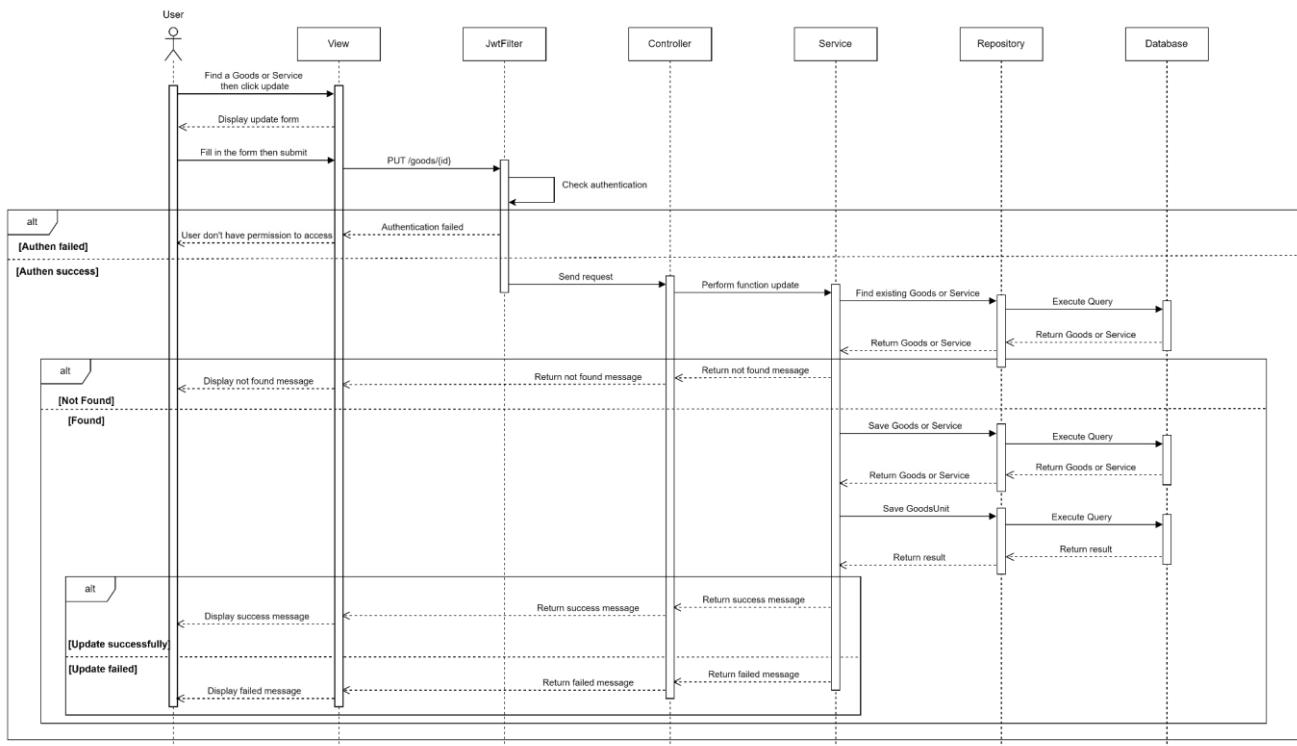


Figure 151: Sequence Diagram - Update Goods, Service

3.3.6 Sequence Diagram - Delete Goods, Service

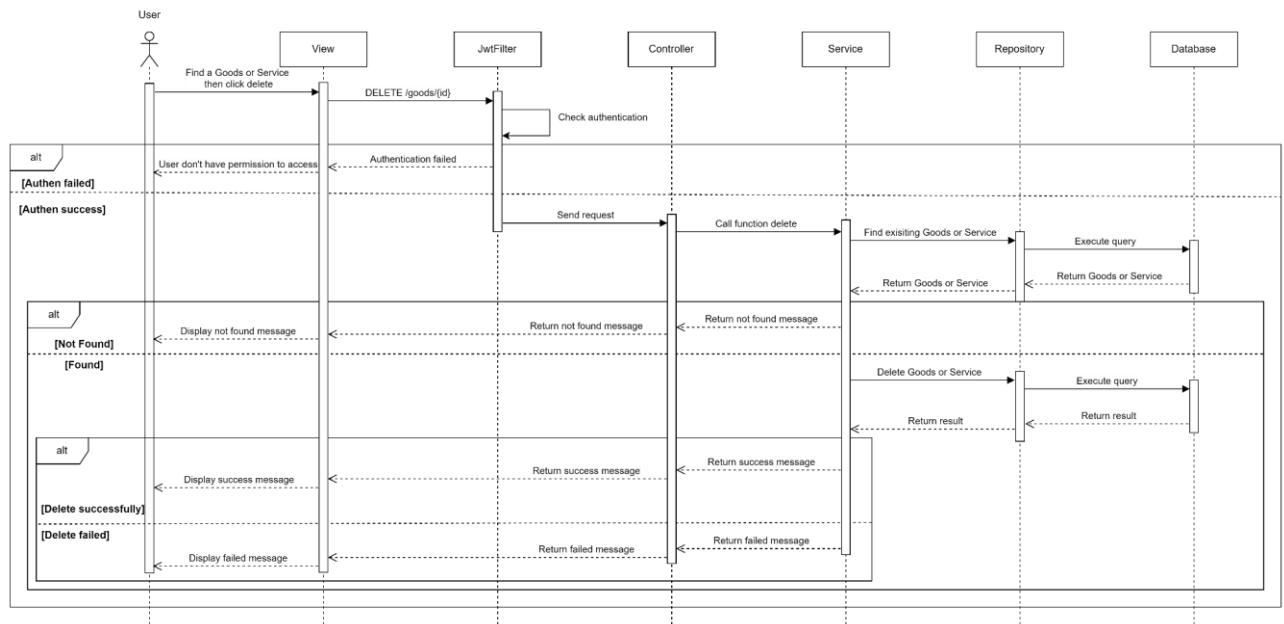


Figure 152: Sequence Diagram - Delete Goods, Service

3.4 Manage Inventory

3.4.1 Class Diagram

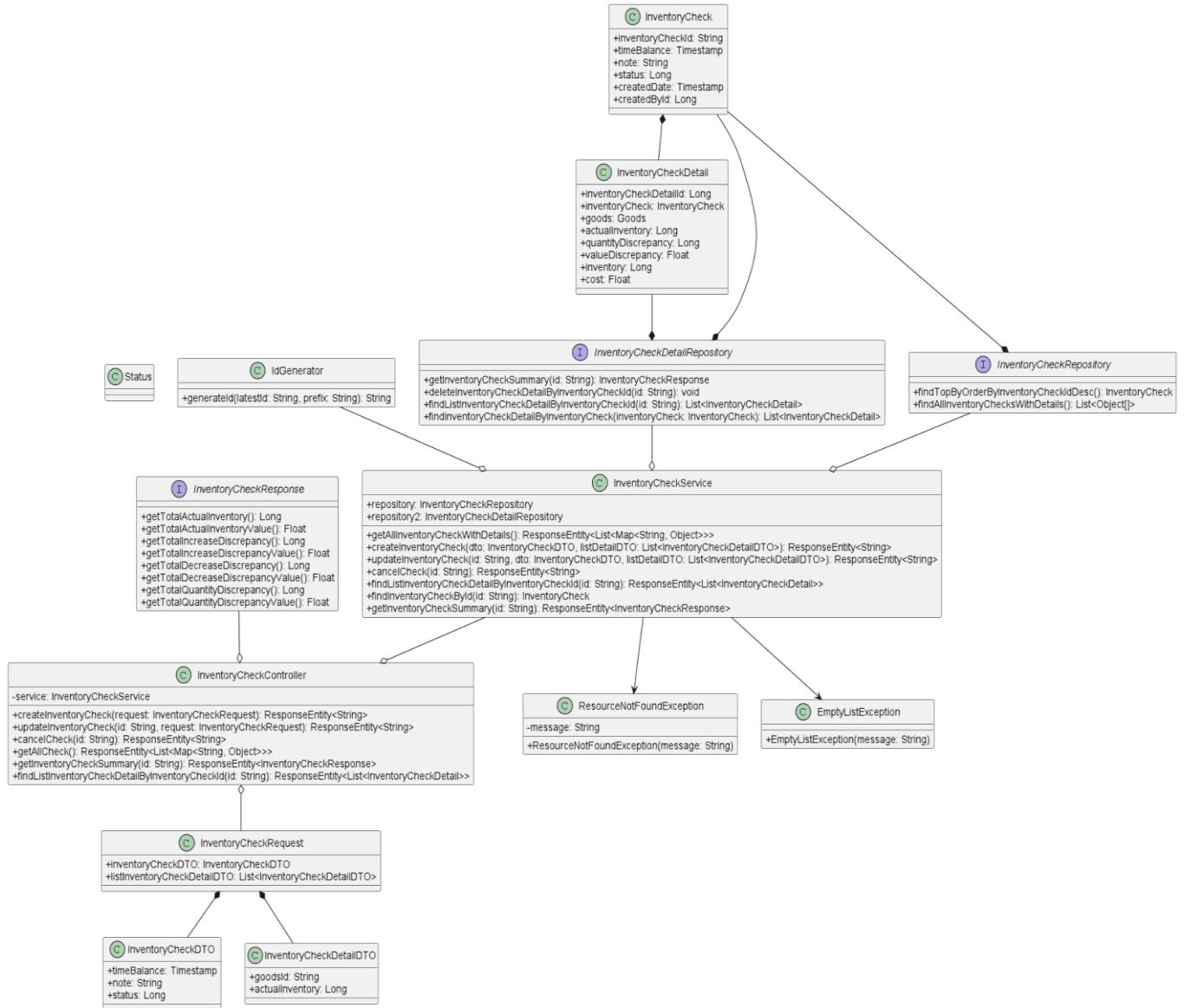


Figure 153: Class Diagram manage inventory

3.4.2 Sequence Diagram - View List Inventory Checklist

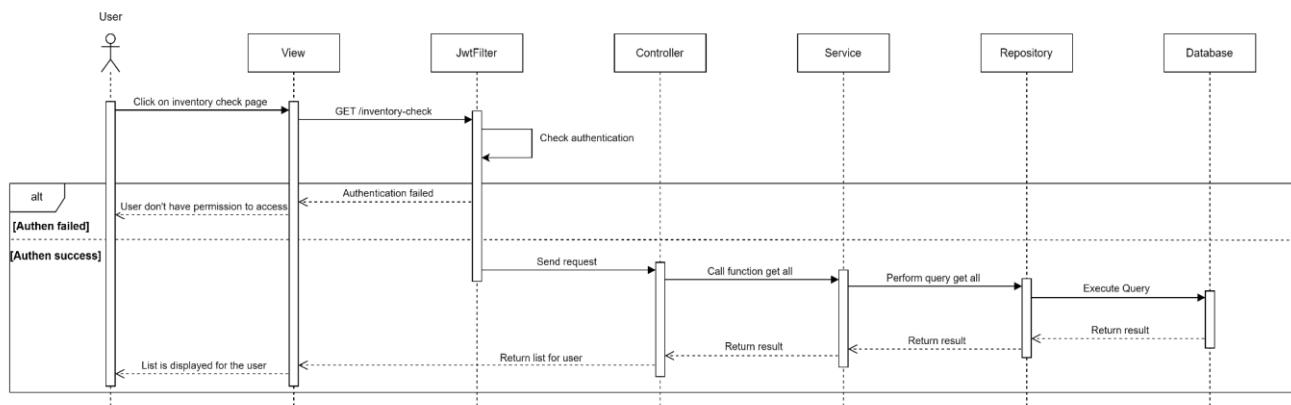


Figure 154: Sequence Diagram - View List Inventory Checklist

3.4.3 Sequence Diagram - View Inventory Check Detail

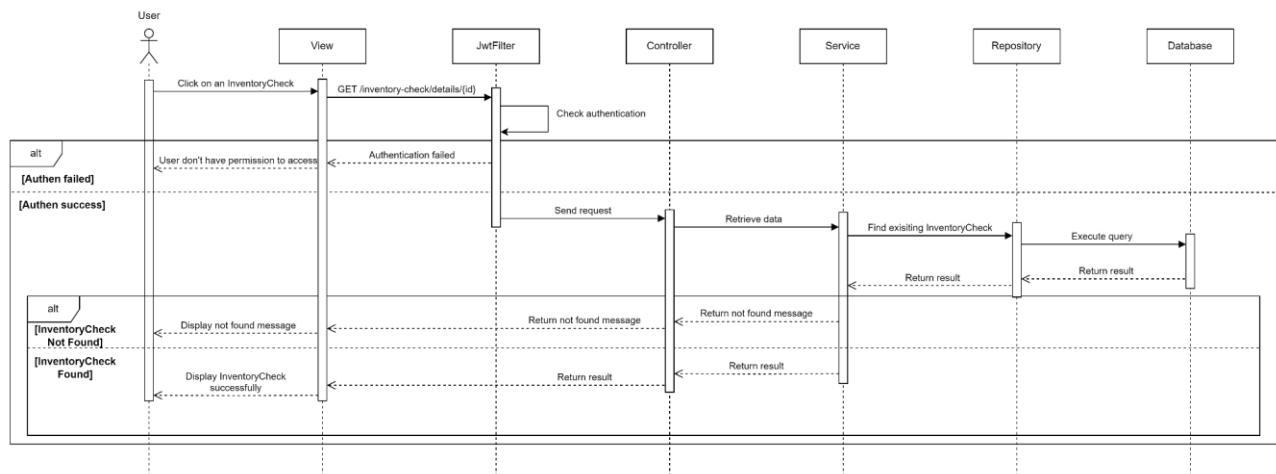


Figure 155: Sequence Diagram - View Inventory Check Detail

3.4.4 Sequence Diagram - Create Inventory Check

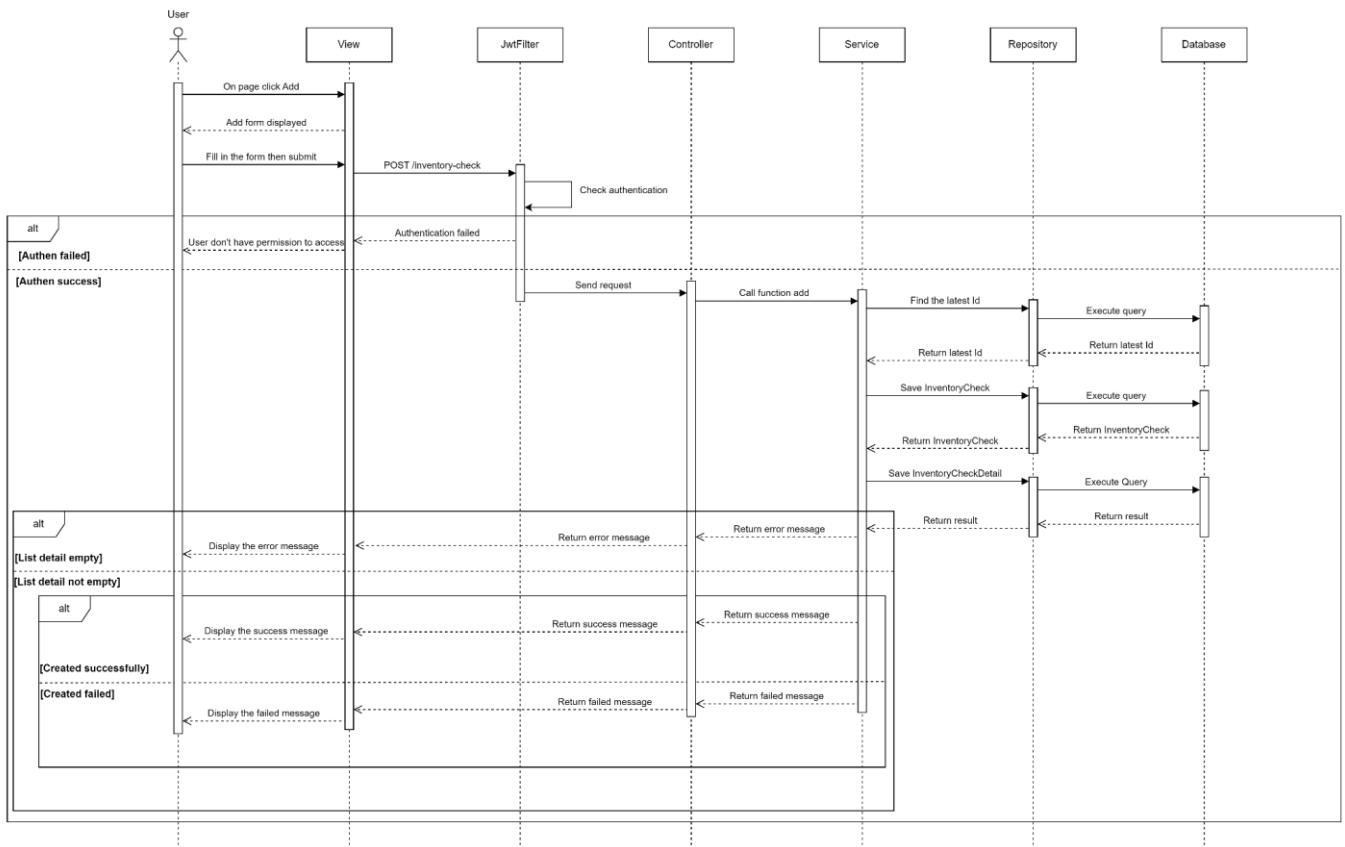


Figure 156: Sequence Diagram - Create Inventory Check

3.4.5 Sequence Diagram - Update Inventory Check

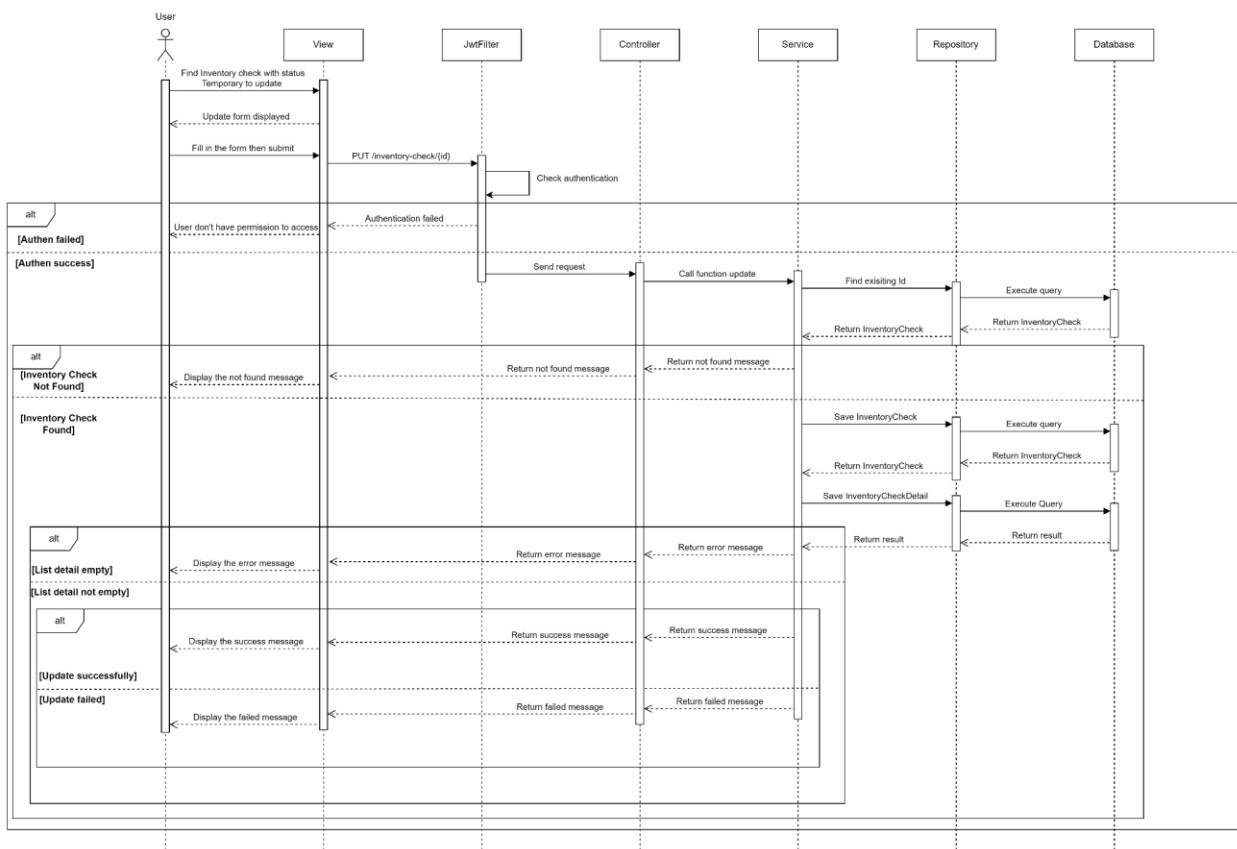


Figure 157: Sequence Diagram - Update Inventory Check

3.4.6 Sequence Diagram - Cancel Inventory Check

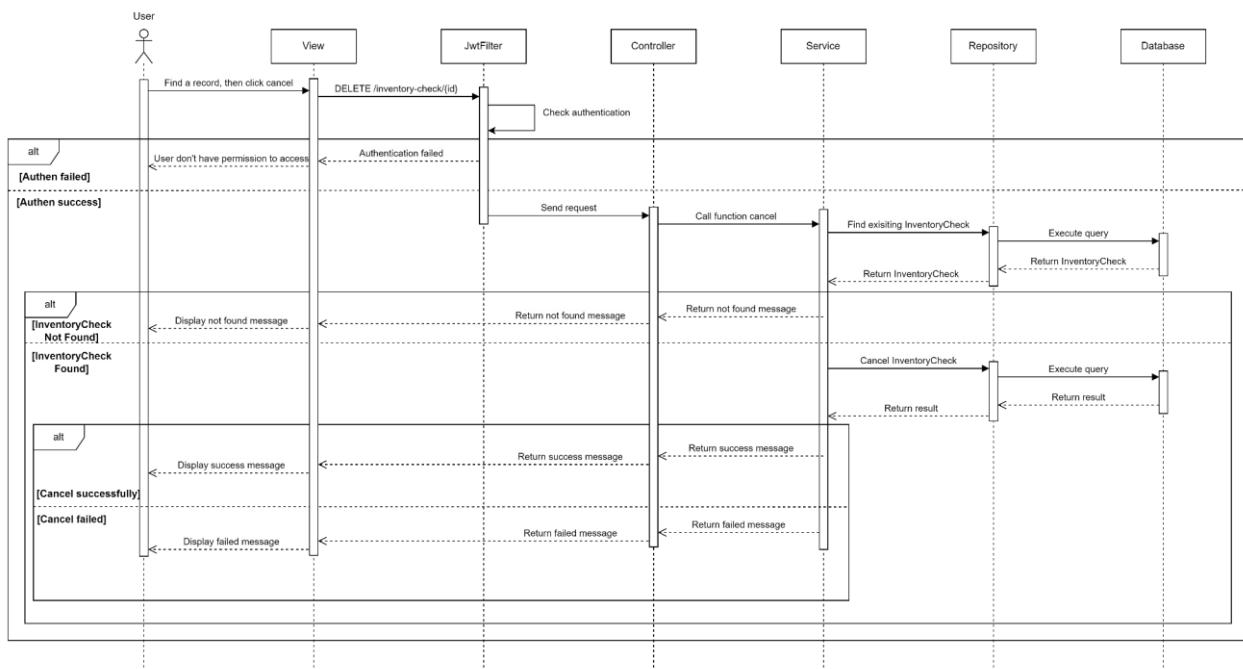


Figure 158: Sequence Diagram - Cancel Inventory Check

3.5 Manage Customer

3.5.1 Class Diagram

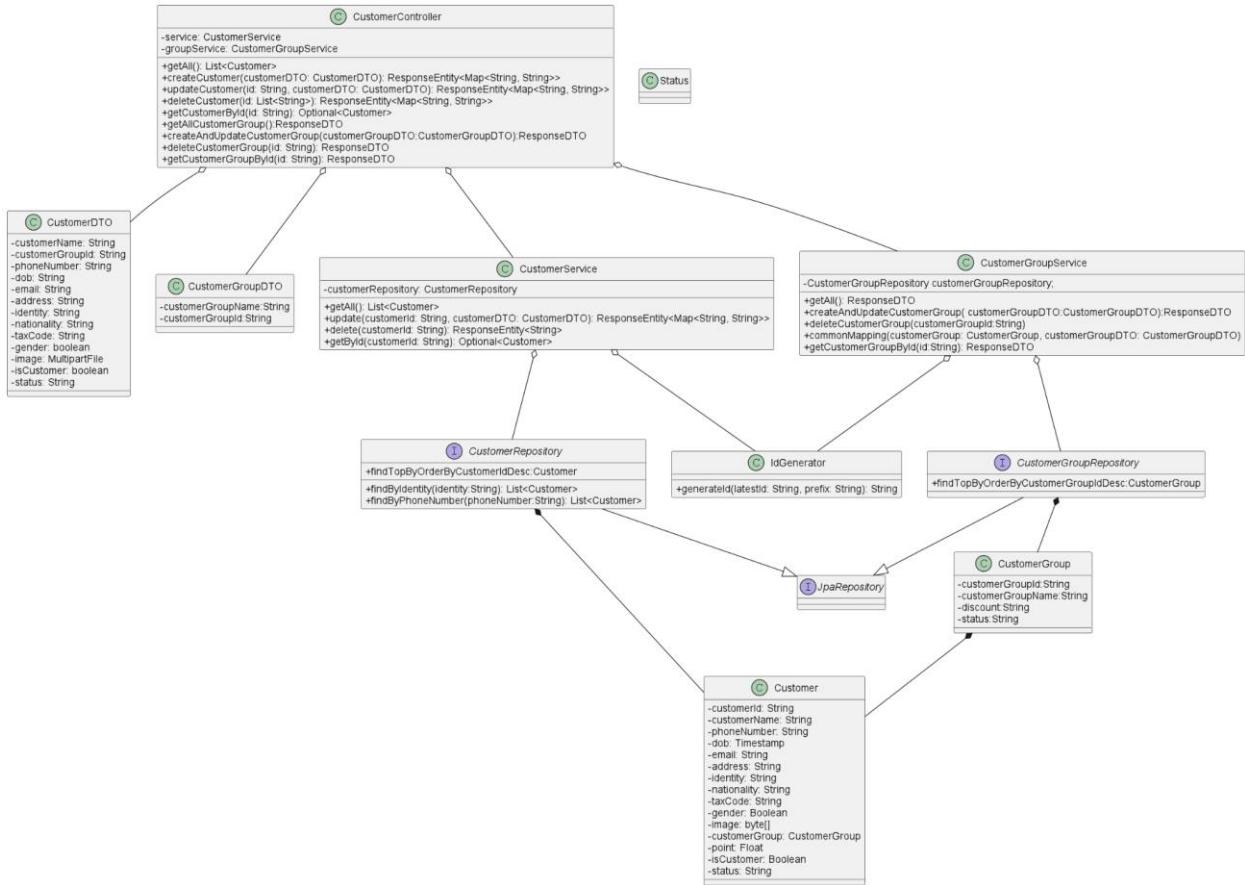


Figure 159: Class Diagram manage customer

3.5.2 Sequence Diagram - View list customer

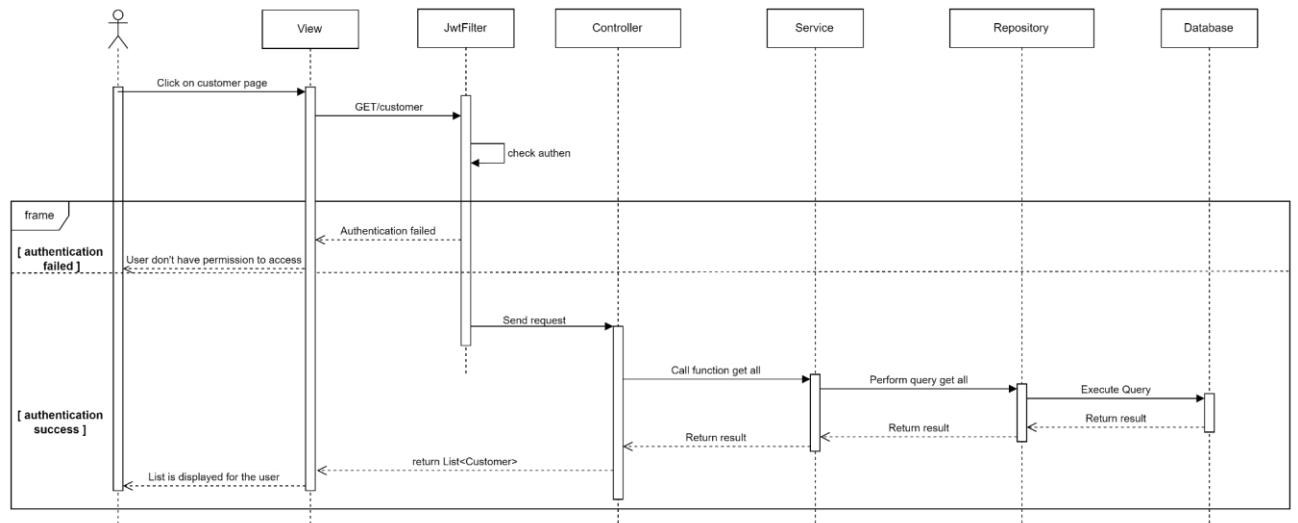


Figure 160: Sequence Diagram - View list customer

3.5.3 Sequence Diagram - Create customer

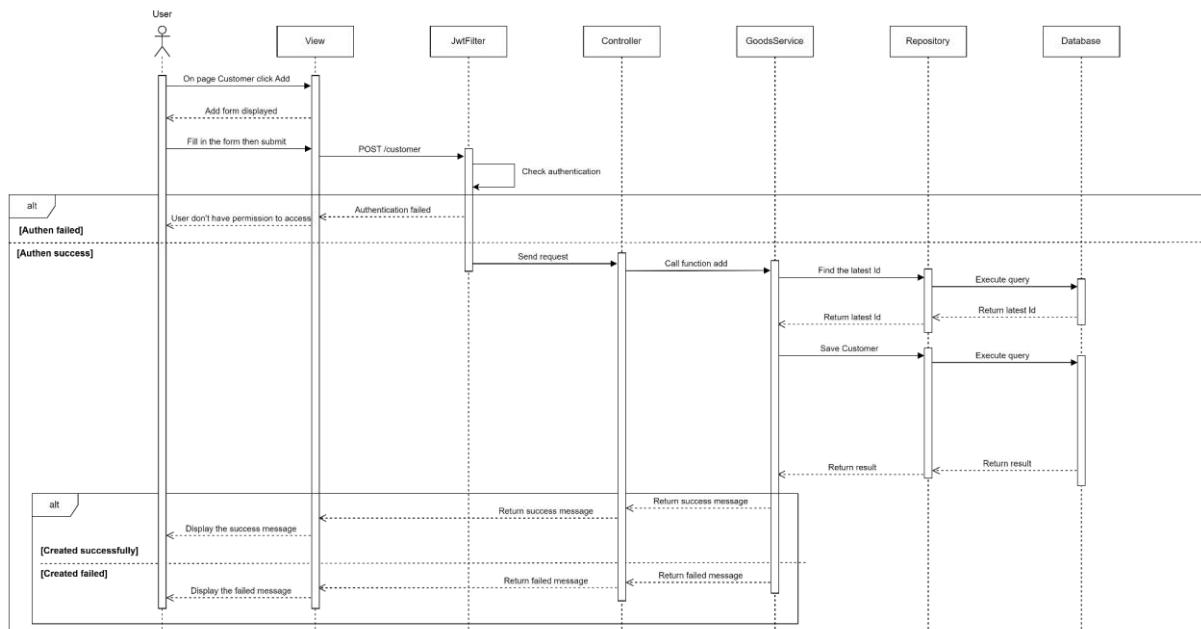


Figure 161: Sequence Diagram - Create customer

3.5.4 Sequence Diagram - Update customer

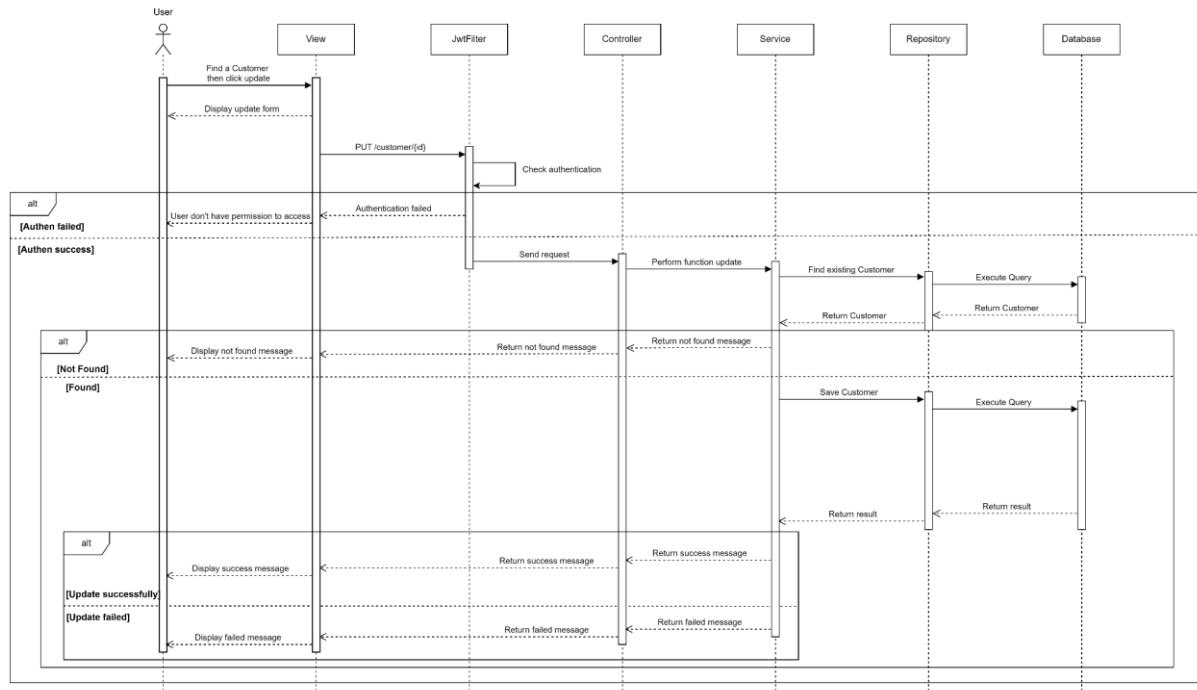


Figure 162: Sequence Diagram - Update customer

3.5.5 Sequence Diagram - Delete customer

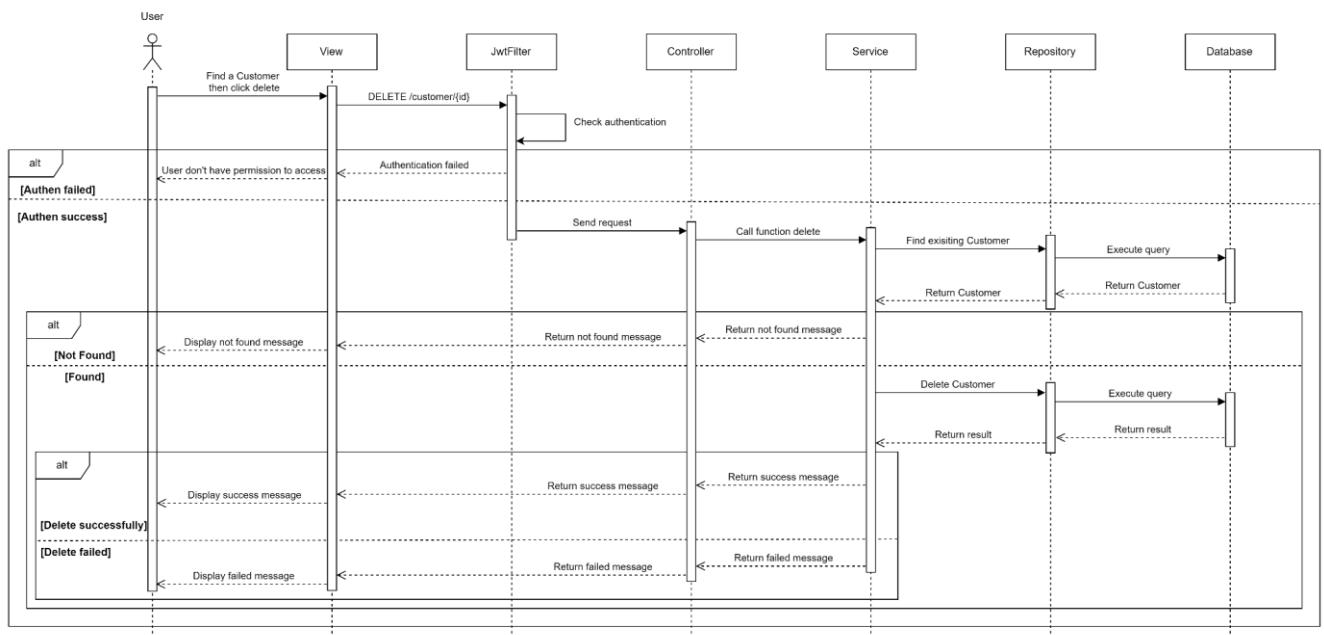


Figure 163: Sequence Diagram - Delete customer

3.5.6 Sequence Diagram - Detail customer

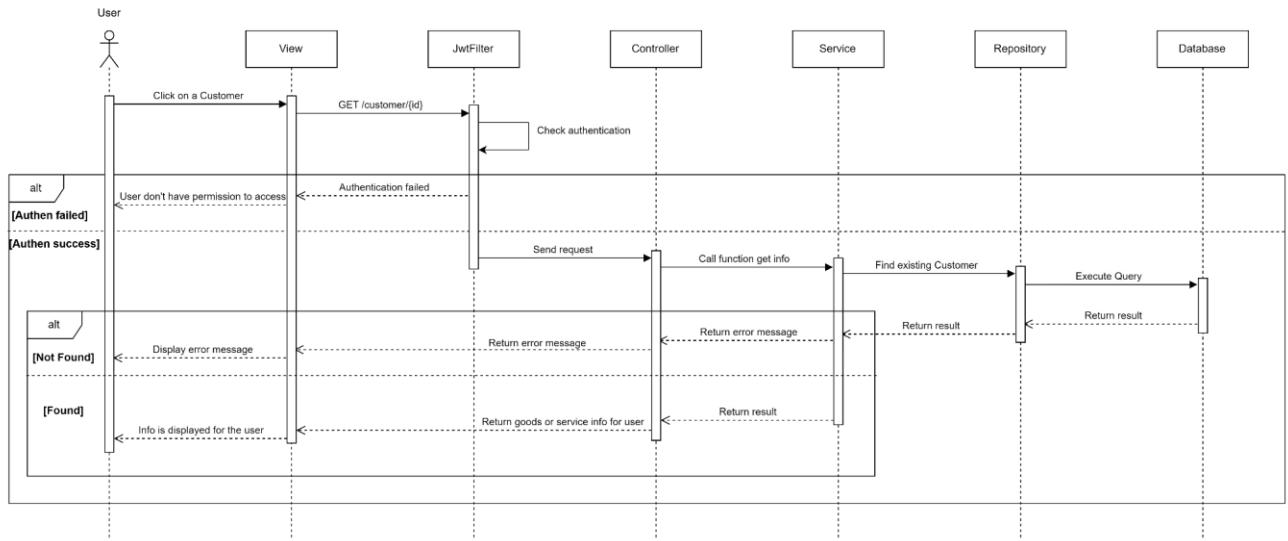


Figure 164: Sequence Diagram - Detail customer

3.5.7 Sequence Diagram - View customer group

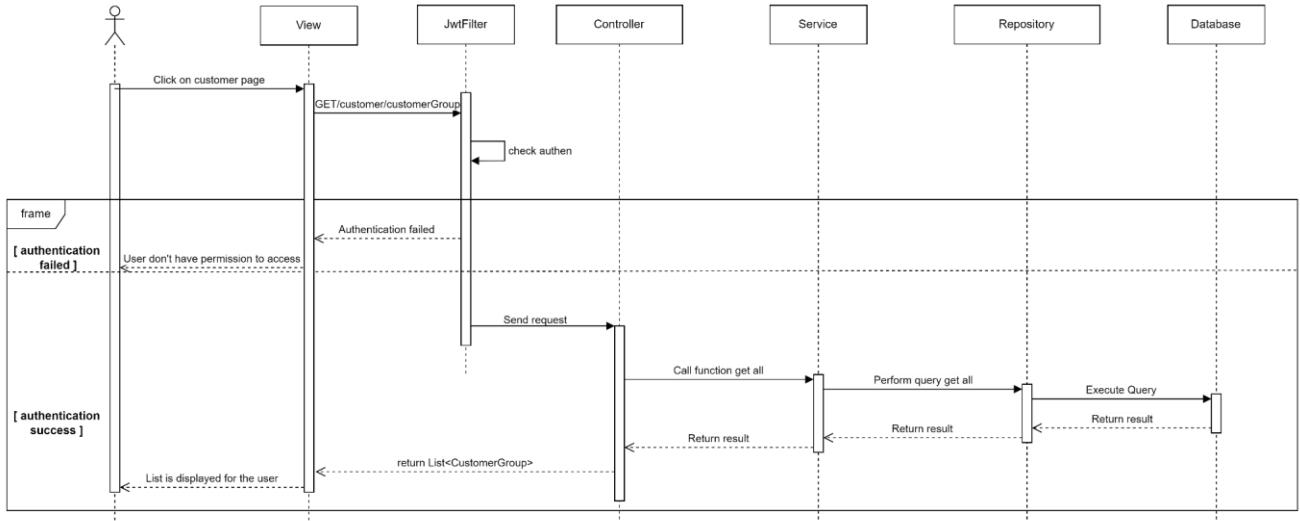


Figure 165: Sequence Diagram - View customer group

3.5.8 Sequence Diagram - Create customer group

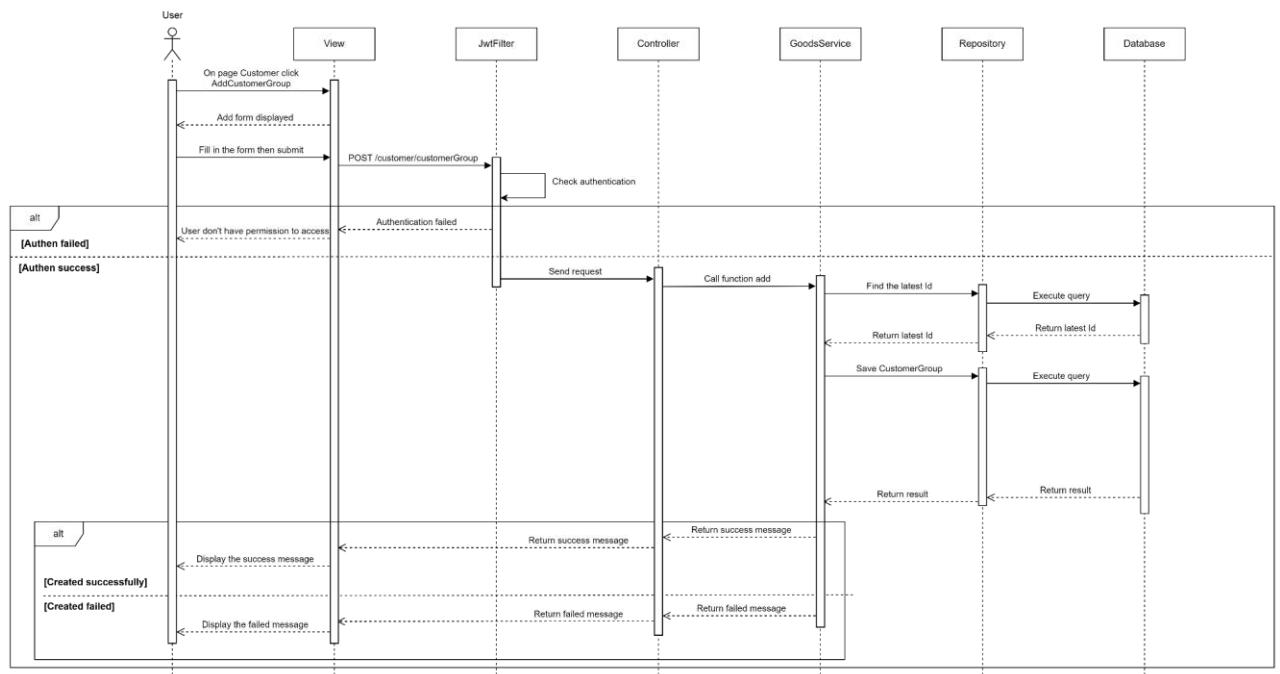


Figure 166: Sequence Diagram - Create customer group

3.5.9 Sequence Diagram - Update customer group

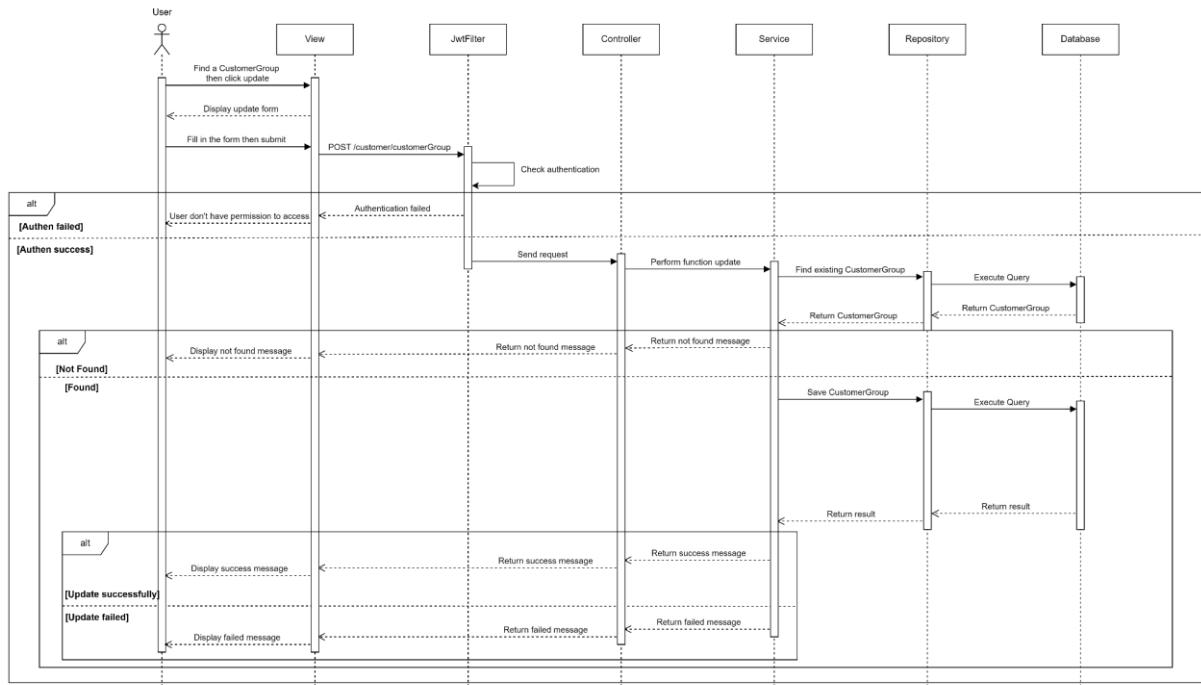


Figure 167: Sequence Diagram - Update customer group

3.5.10 Sequence Diagram - Delete customer group

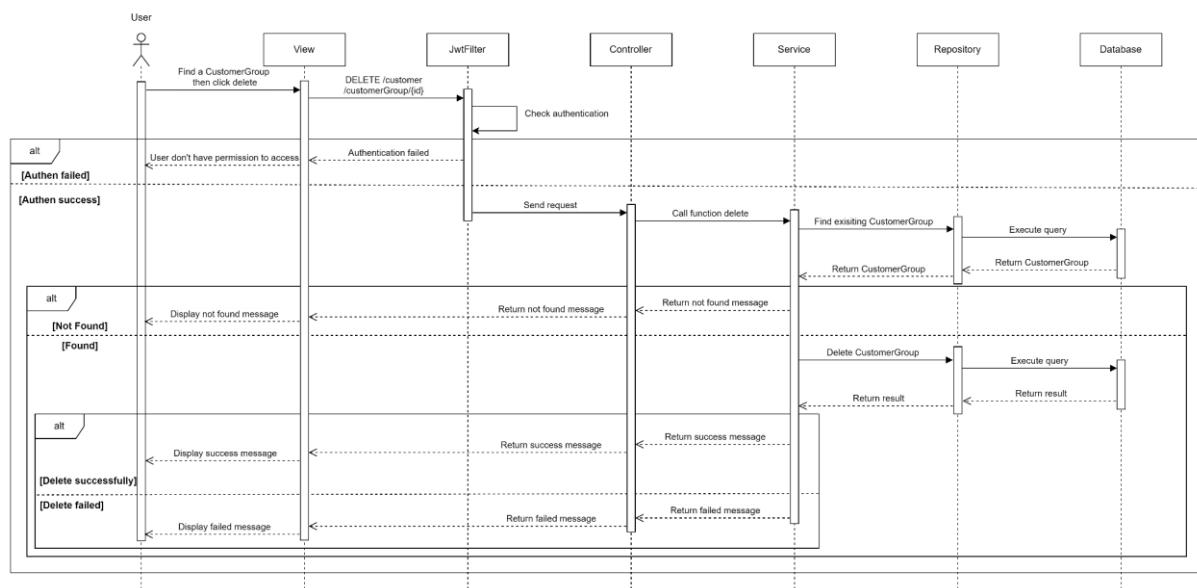


Figure 168: Sequence Diagram - Delete customer group

3.6 Authentication

3.6.1 Class Diagram

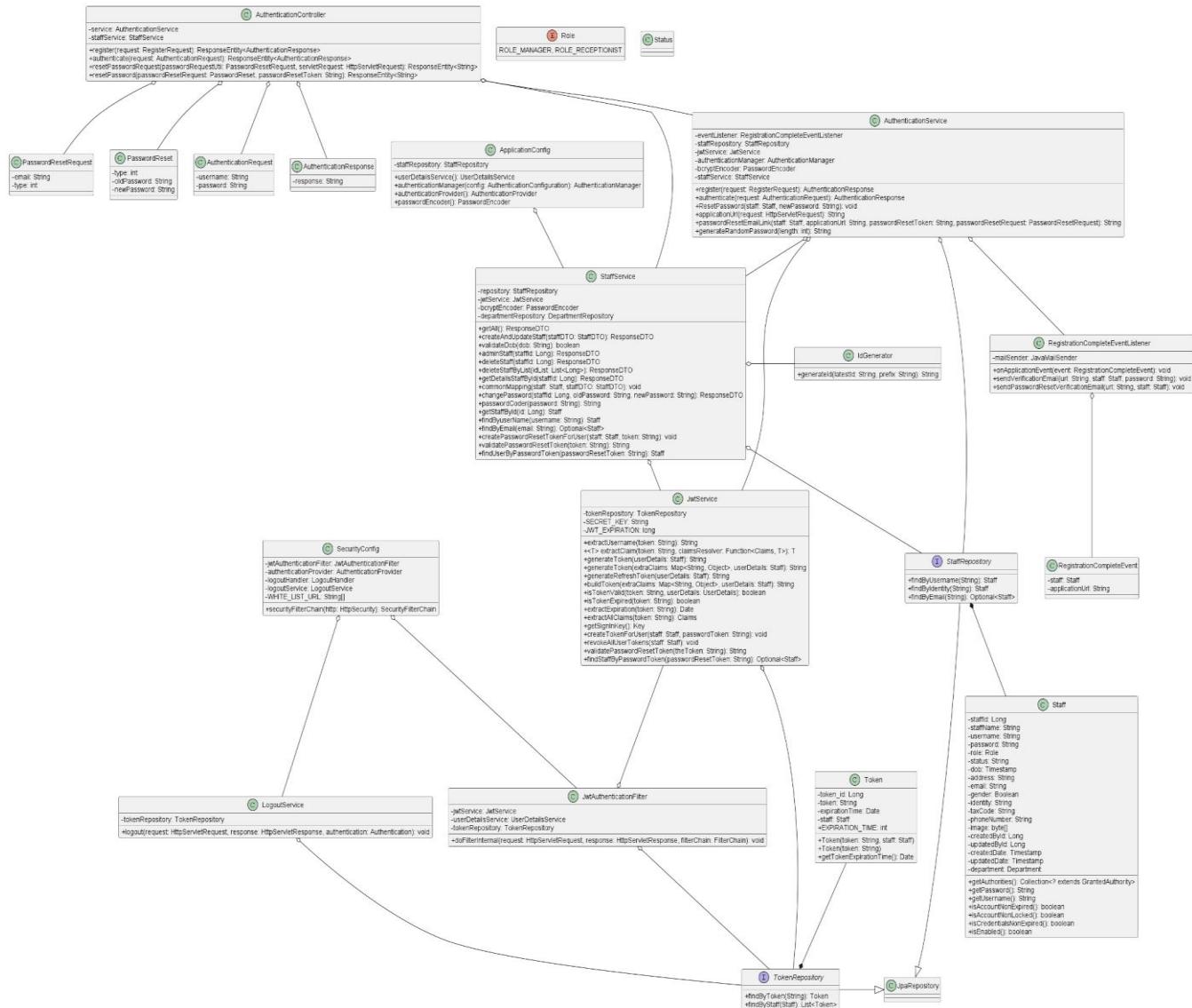


Figure 169: Class Diagram authentication

3.6.2 Sequence Diagram - Login

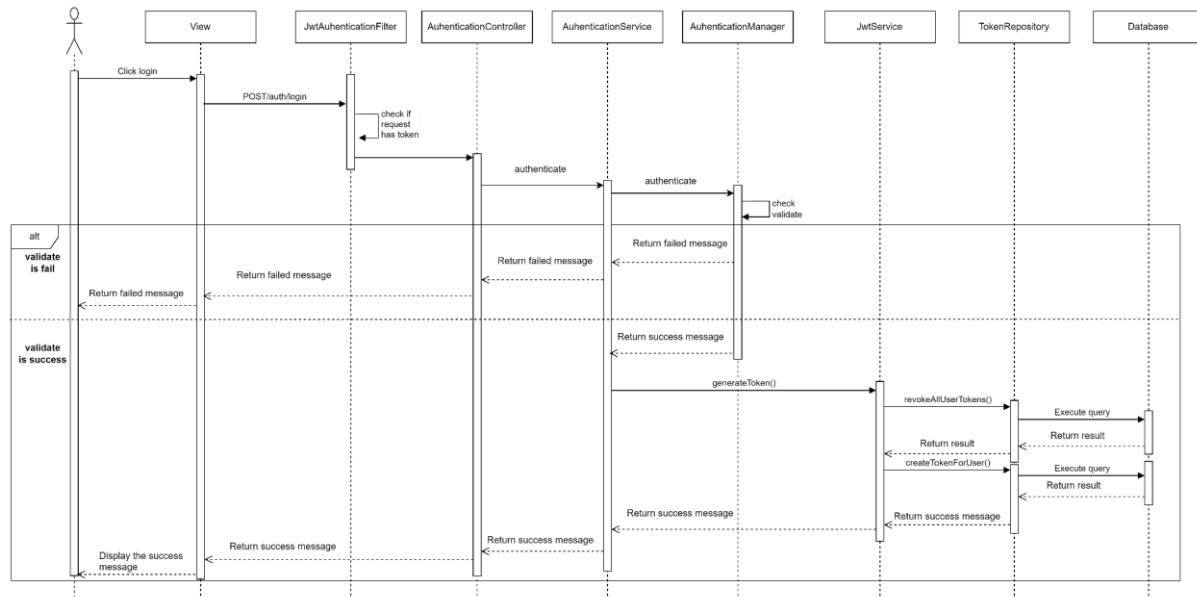


Figure 170: Sequence Diagram - Login

3.6.3 Sequence Diagram - Logout

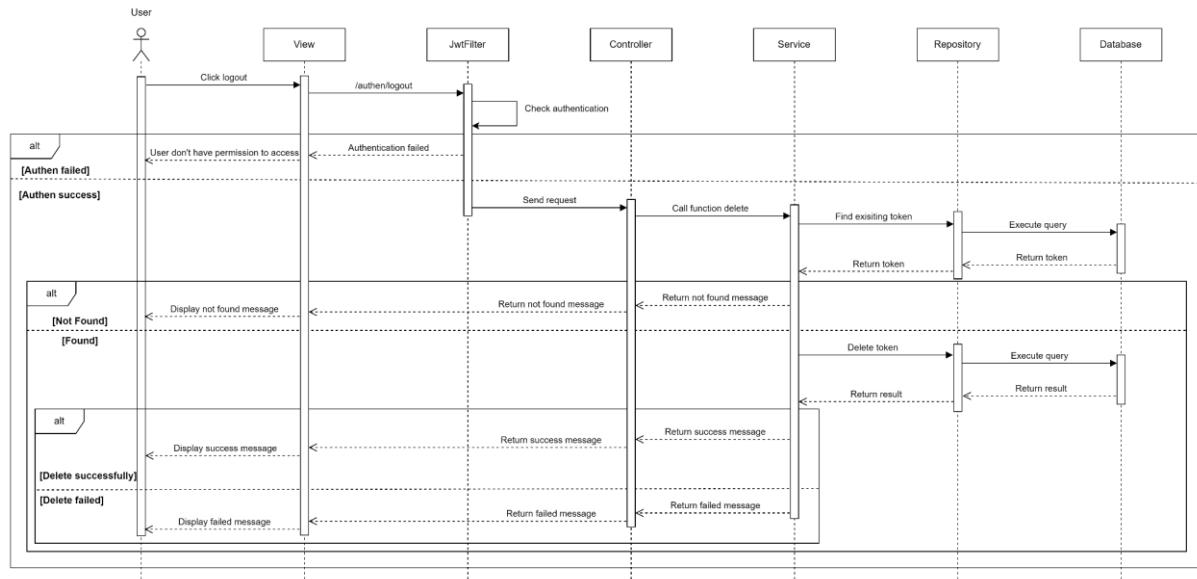


Figure 171: Sequence Diagram - Logout

3.6.4 Sequence Diagram - Forgot Password

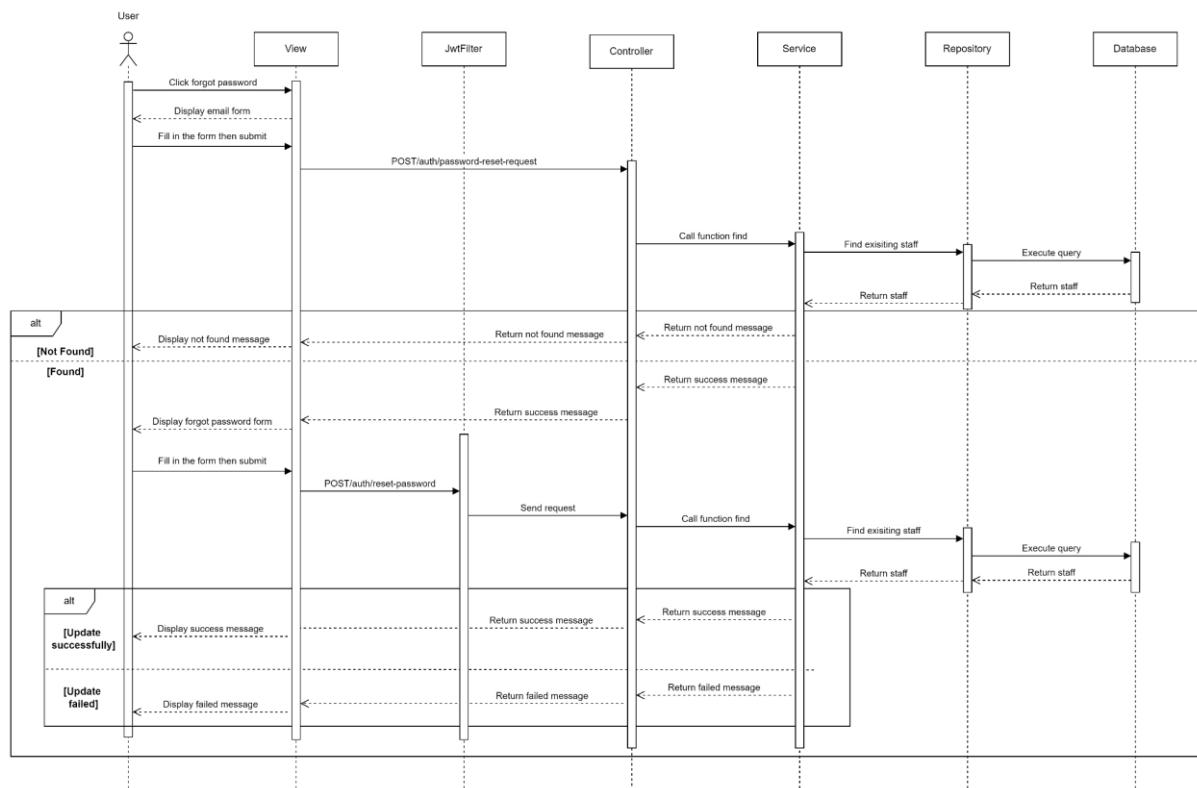


Figure 172: Sequence Diagram - Forgot Password

3.7 Manage Hotel Reservation

3.7.1 Manage Room Reservation

3.7.1.1 Class Diagram - Manage Room Reservation

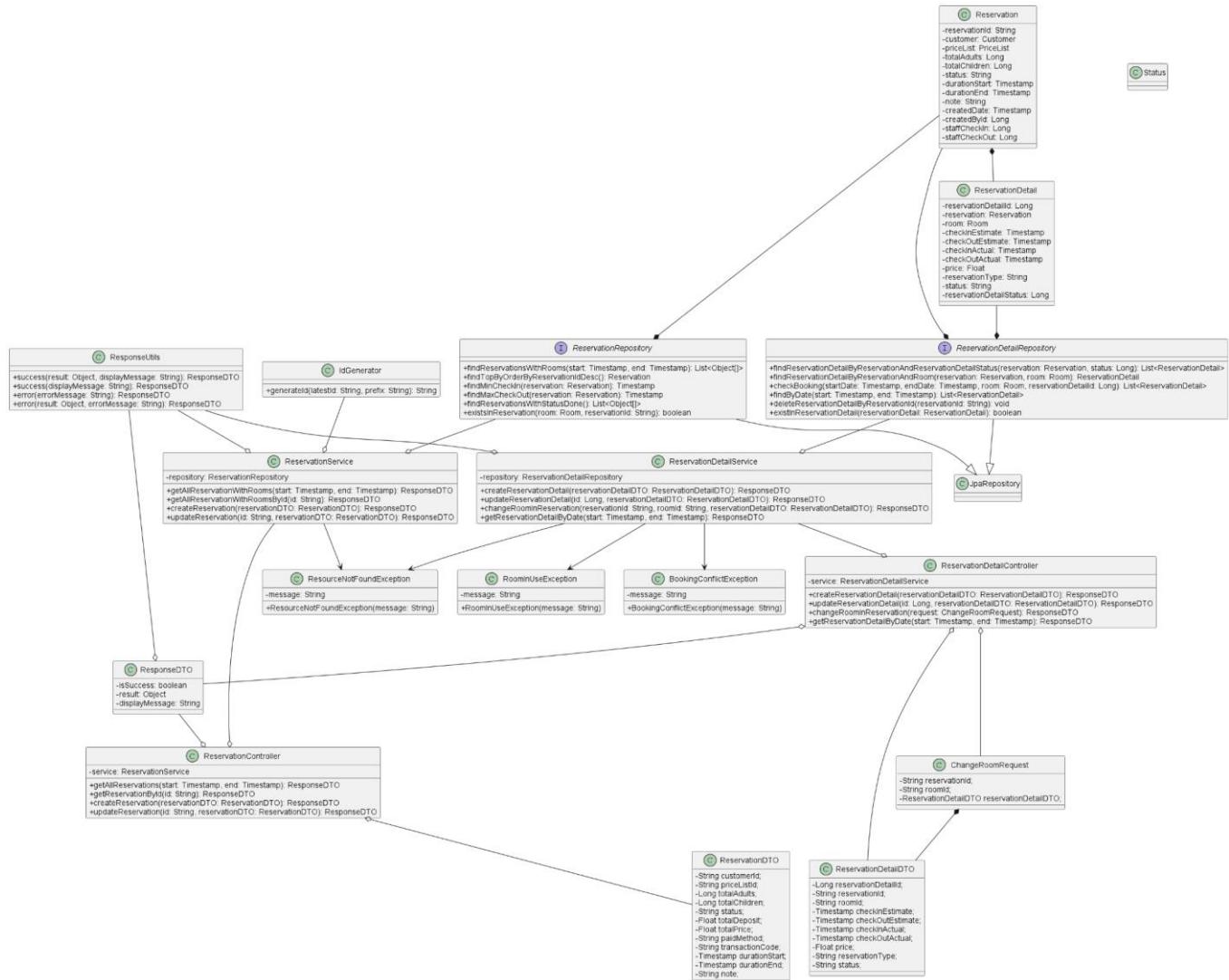


Figure 173: Class Diagram - Manage Room Reservation

3.7.1.2 Sequence Diagram - View List Room

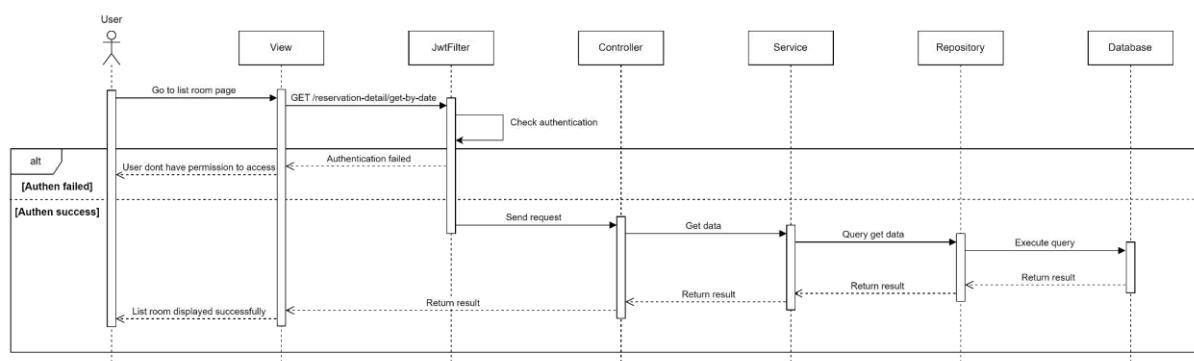


Figure 174: Sequence Diagram - View List Room

3.7.1.3 Sequence Diagram - View List Reservation

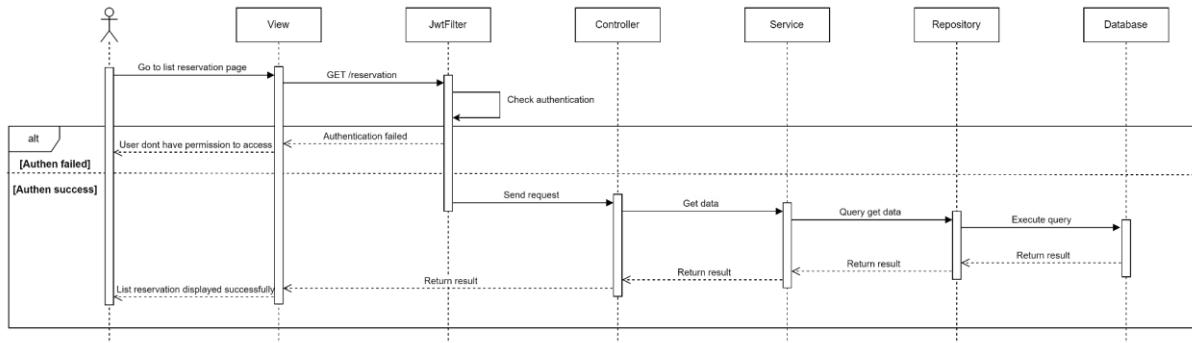


Figure 175: Sequence Diagram - View List Reservation

3.7.1.4 Sequence Diagram - Create Reservation

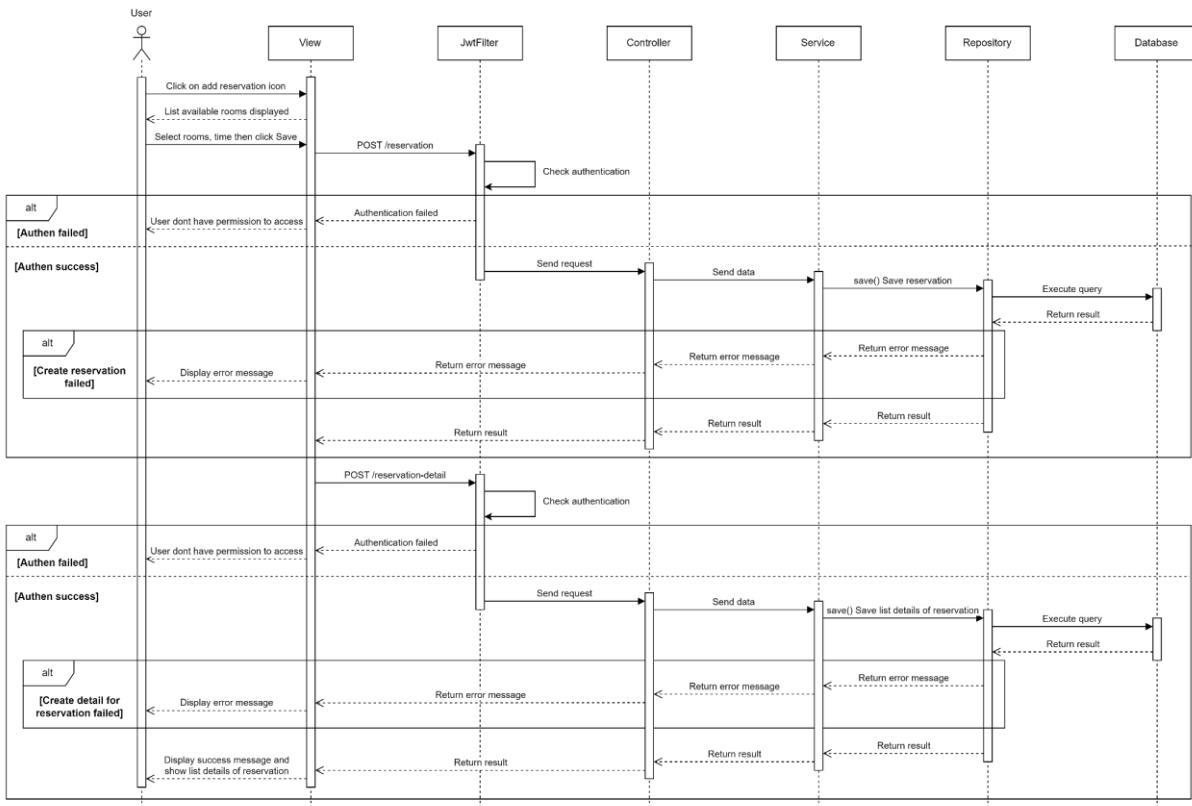


Figure 176: Sequence Diagram - Create Reservation

3.7.1.5 Sequence Diagram - View Detail Of Reservation By Room

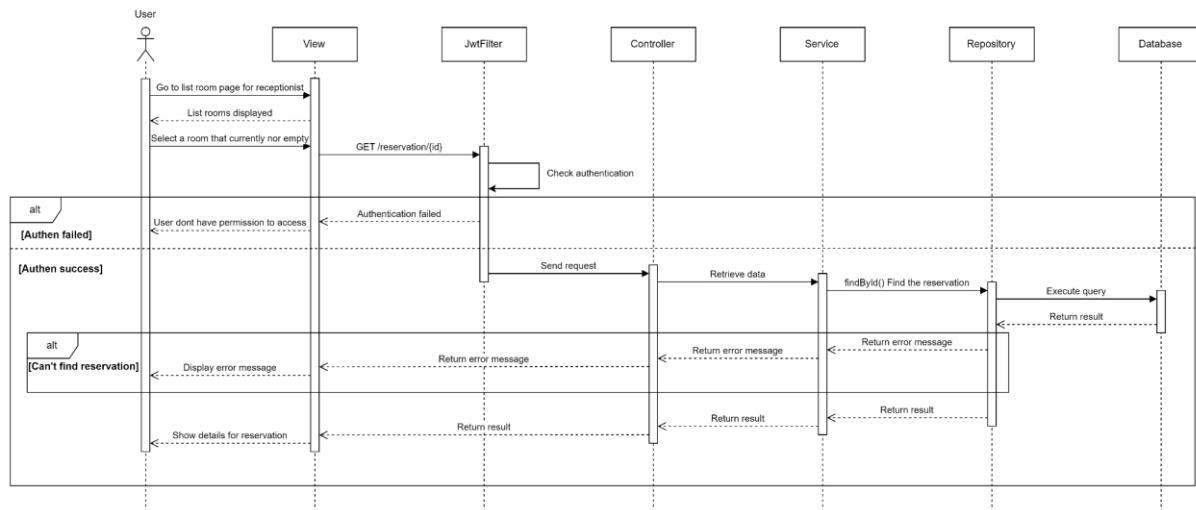


Figure 177: Sequence Diagram - View Detail Of Reservation By Room

3.7.1.6 Sequence Diagram - Check-in

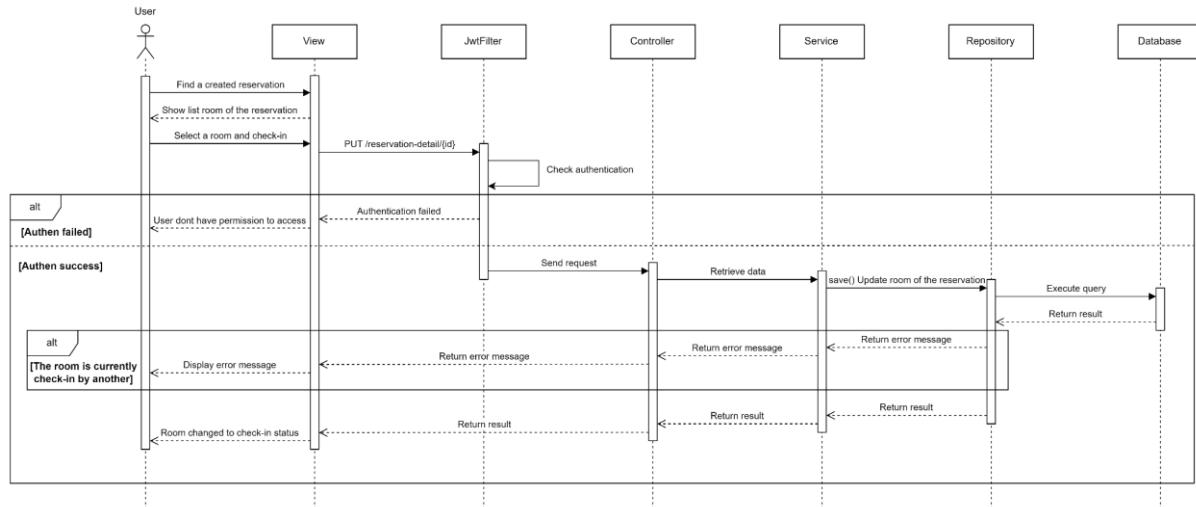


Figure 178: Sequence Diagram - Check-in

3.7.1.7 Sequence Diagram - Update Information Reservation (Customer Information)

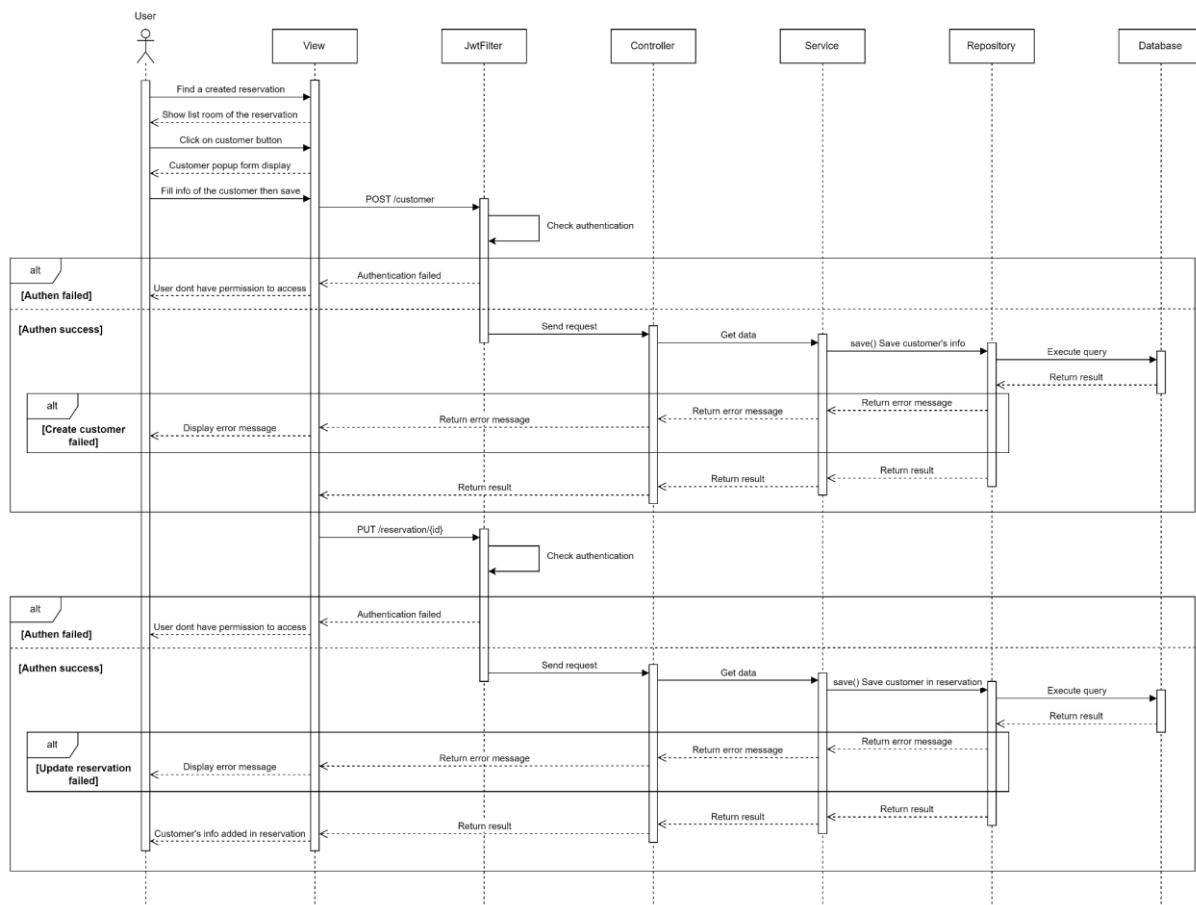


Figure 179: Sequence Diagram - Update Information Reservation (Customer Information)

3.7.1.8 Sequence Diagram - Check-out

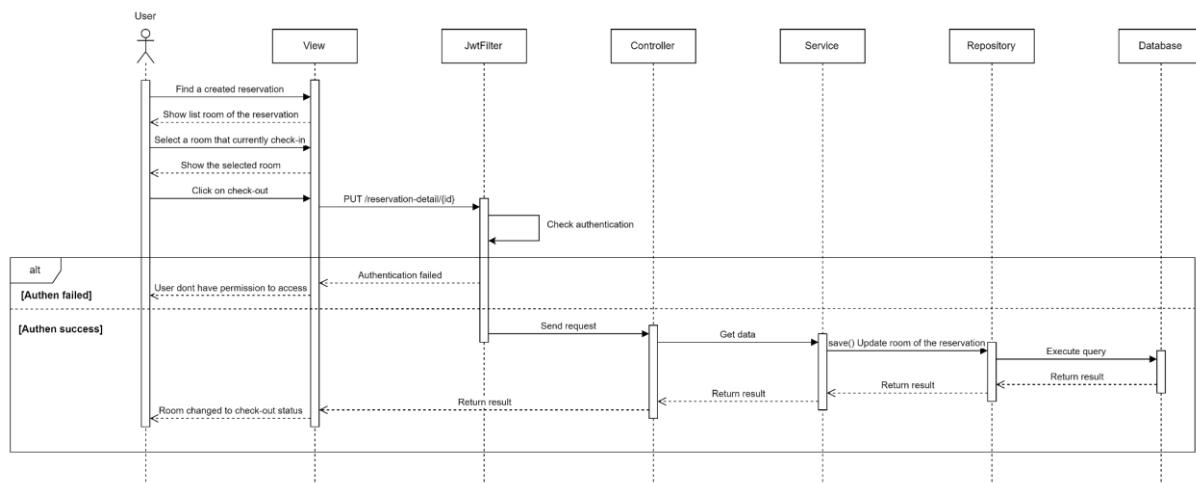


Figure 180: Sequence Diagram - Check-out

3.7.1.9 Sequence Diagram - Cancel Reservation

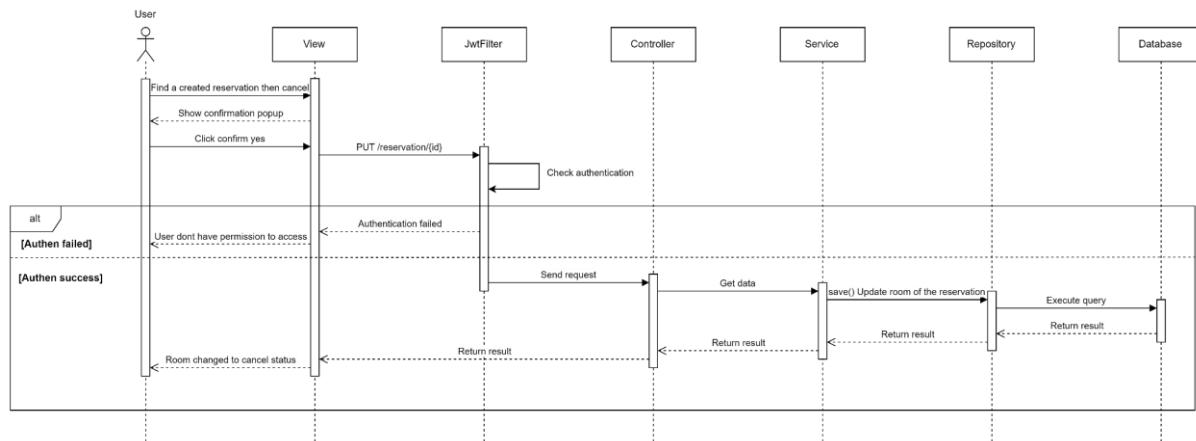


Figure 181: Sequence Diagram - Cancel Reservation

3.7.1.10 Sequence Diagram - Change Reservation

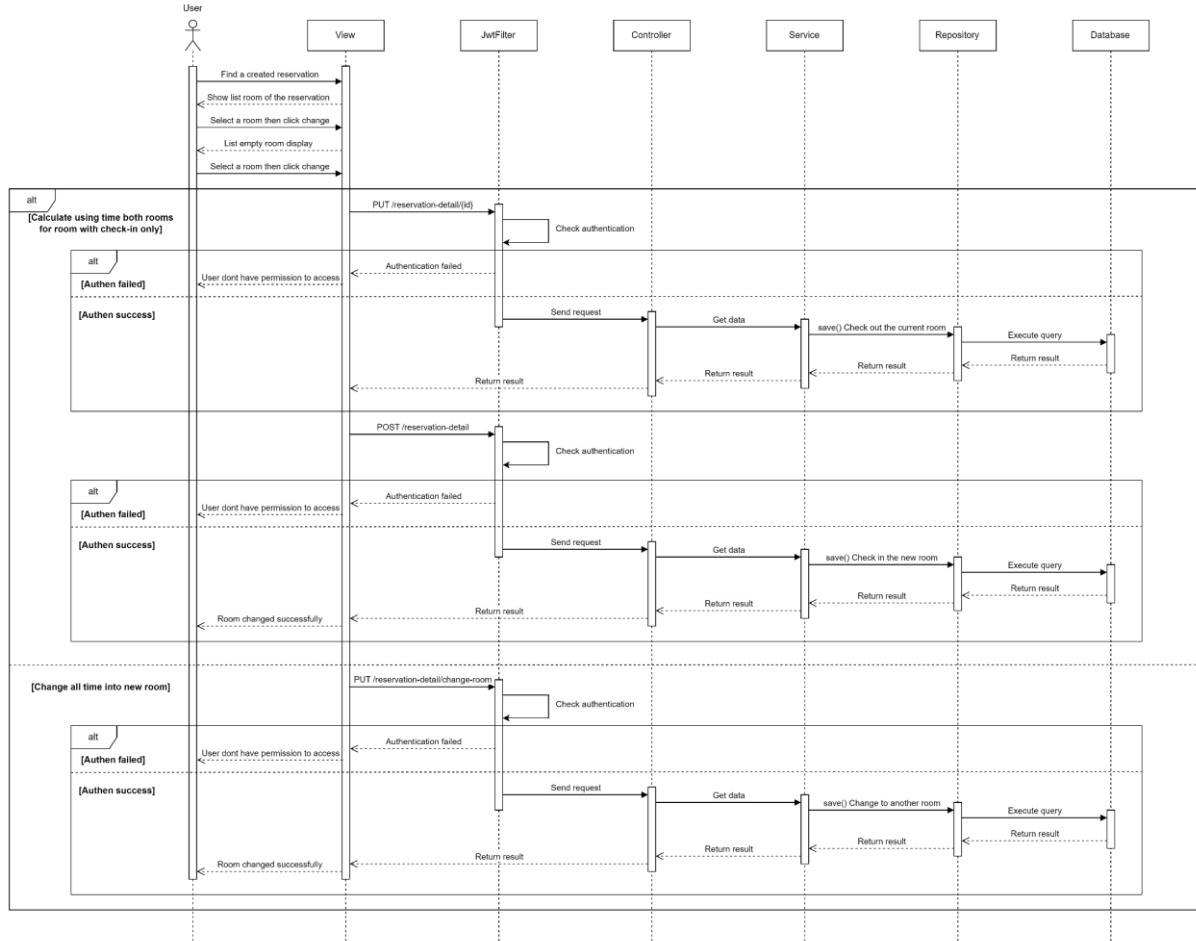


Figure 182: Sequence Diagram - Change Reservation

3.7.1.11 Sequence Diagram - Update Room Status (Housekeeping Status)

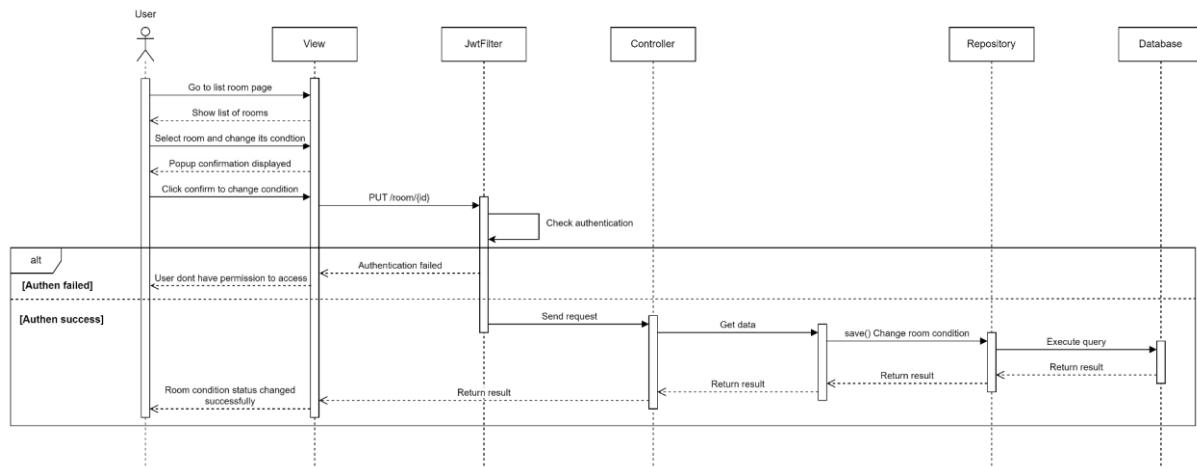


Figure 183: Sequence Diagram - Update Room Status (Housekeeping Status)

3.7.1.12 Sequence Diagram - Update Reservation Status (Add Booking Deposit)

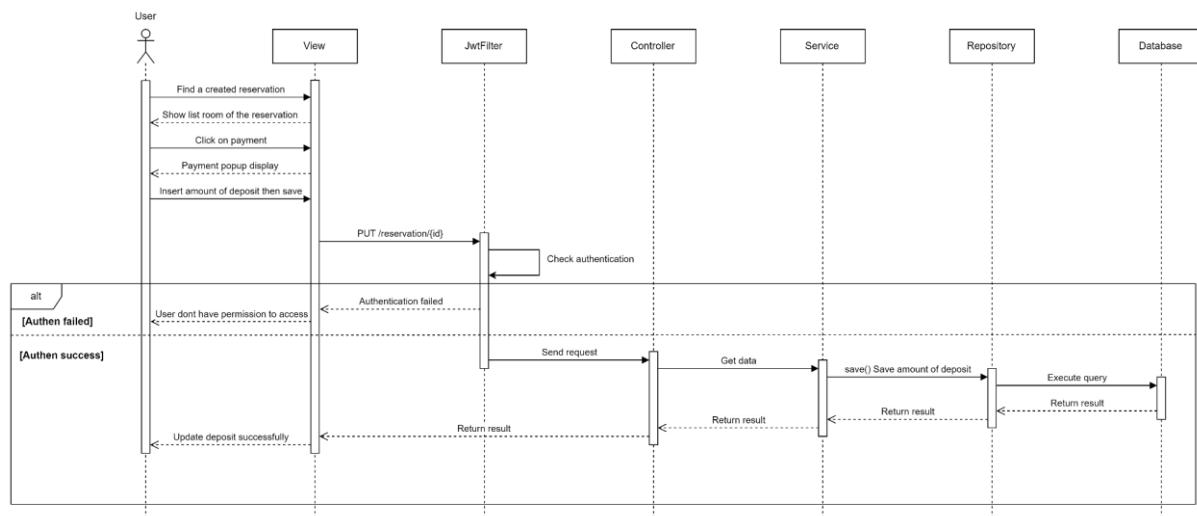


Figure 184: Sequence Diagram - Update Reservation Status (Add Booking Deposit)

3.7.2: Manage retail invoice

3.7.2.1 Class Diagram - Manage Order

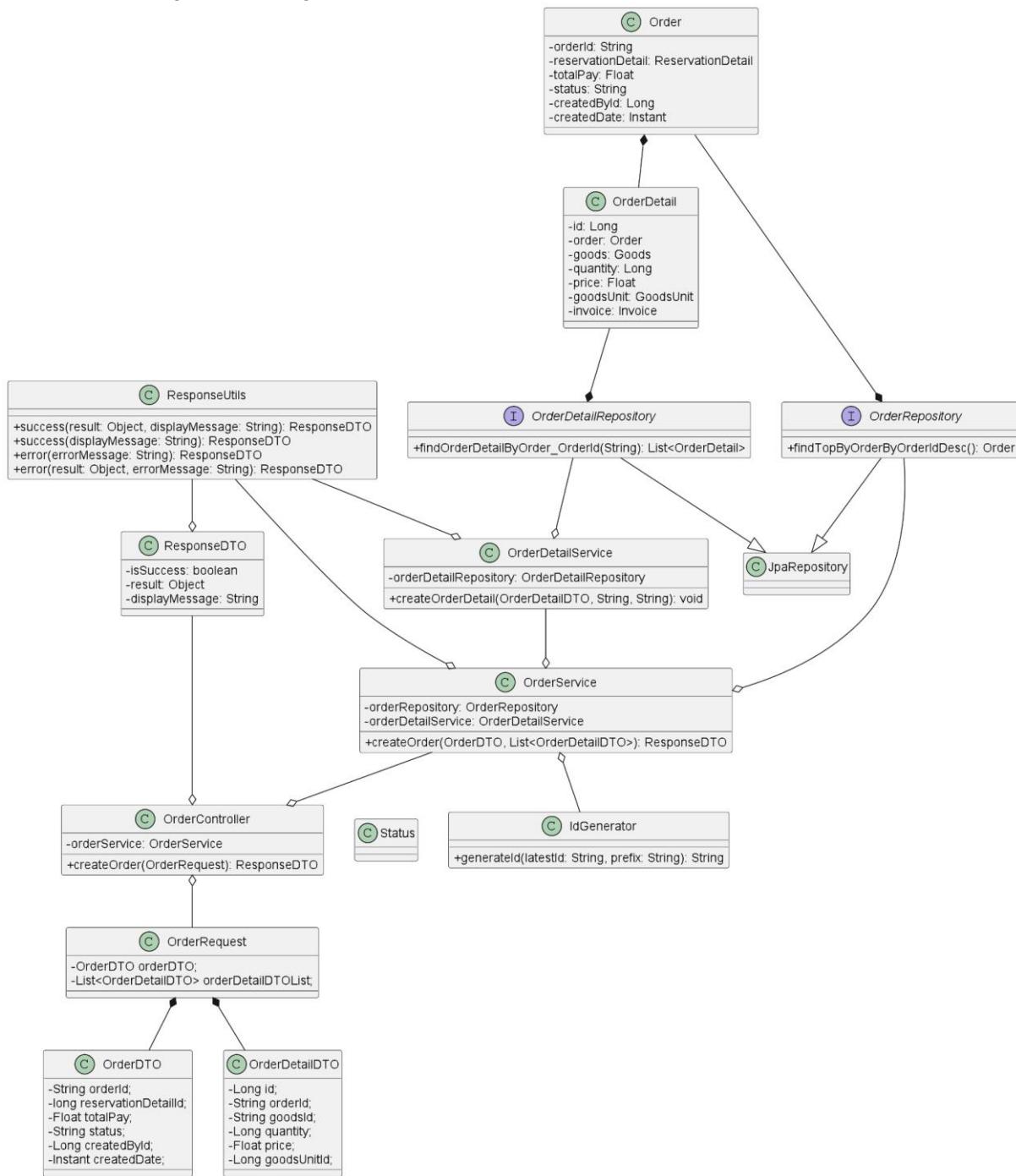


Figure 185: Class Diagram - Manage Order

3.7.2.2 Sequence Diagram - Add order for reservation

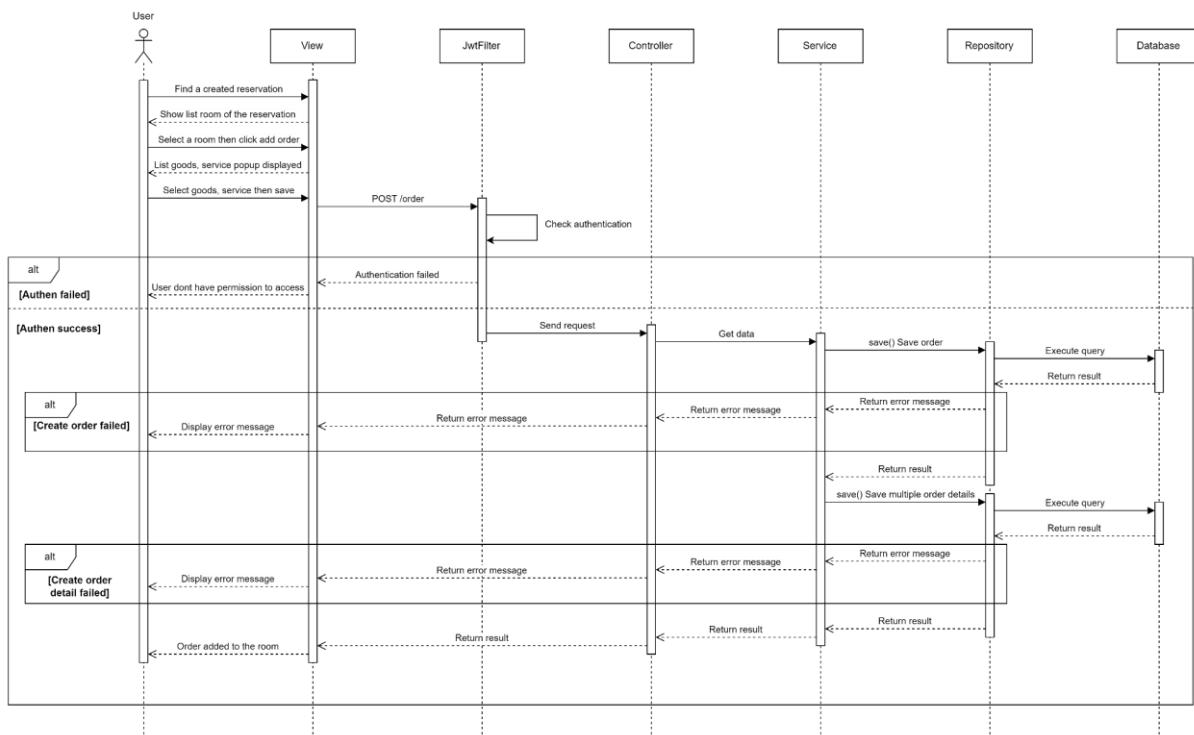


Figure 186: Sequence Diagram - Add order for reservation

3.7.3: Manage invoice

3.7.3.1 Class Diagram - Manage Invoice

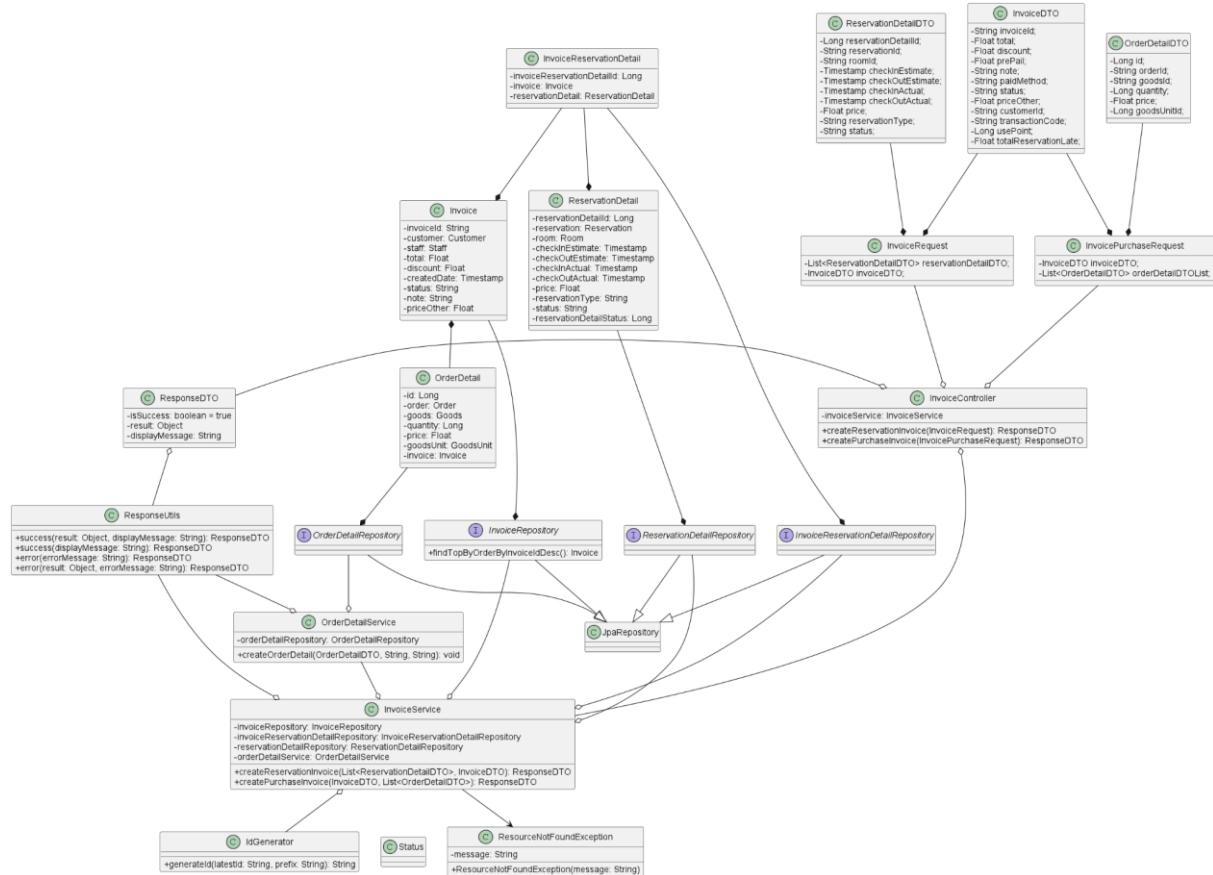


Figure 187: Class Diagram - Manage Invoice

3.7.3.2 Sequence Diagram - Create Retail Invoice

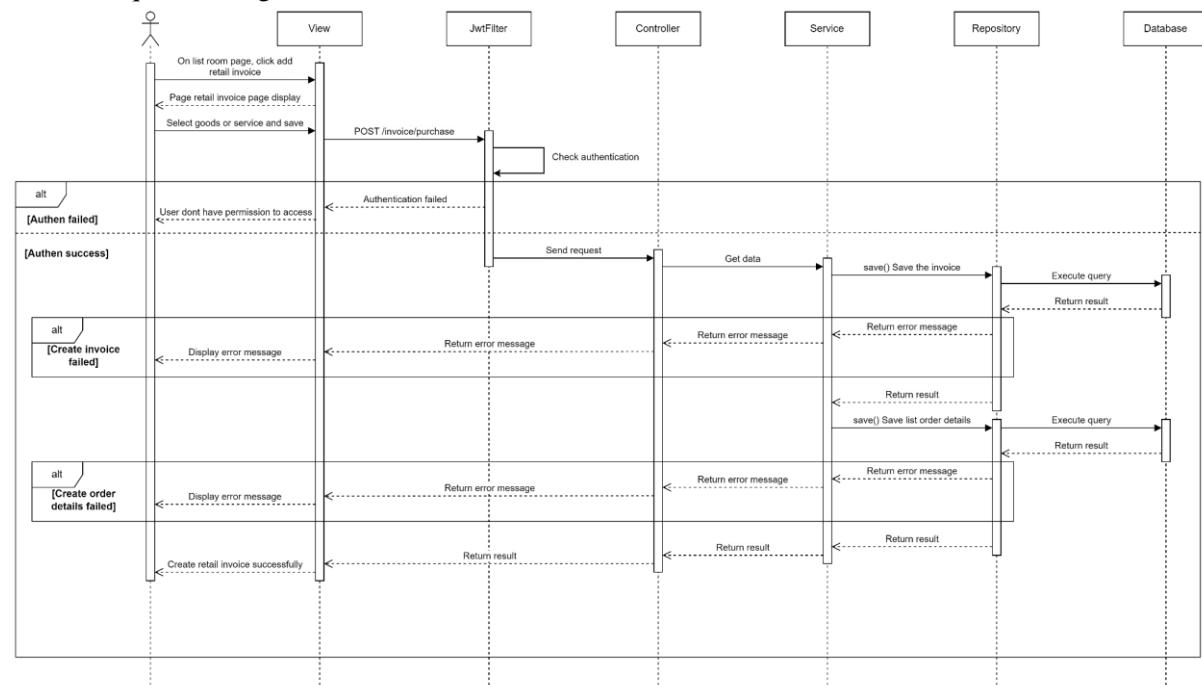


Figure 188: Sequence Diagram - Create Retail Invoice

3.7.3.3 Sequence Diagram - Create Reservation Invoice

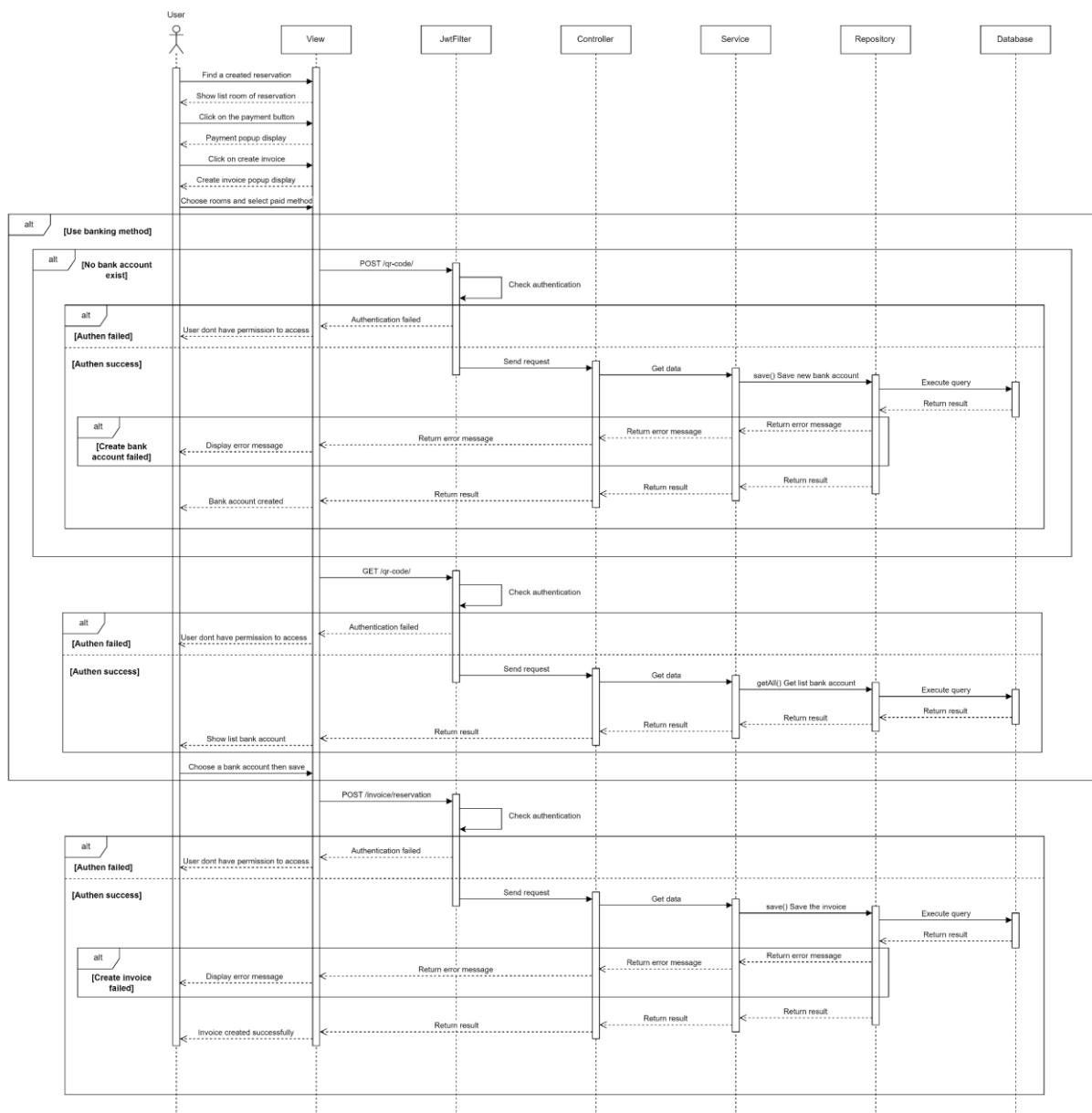


Figure 189: Sequence Diagram - Create Reservation Invoice

3.8 Manage Policy

3.8.1 Manage Price List

3.8.1.1 Class Diagram - Manage Price List

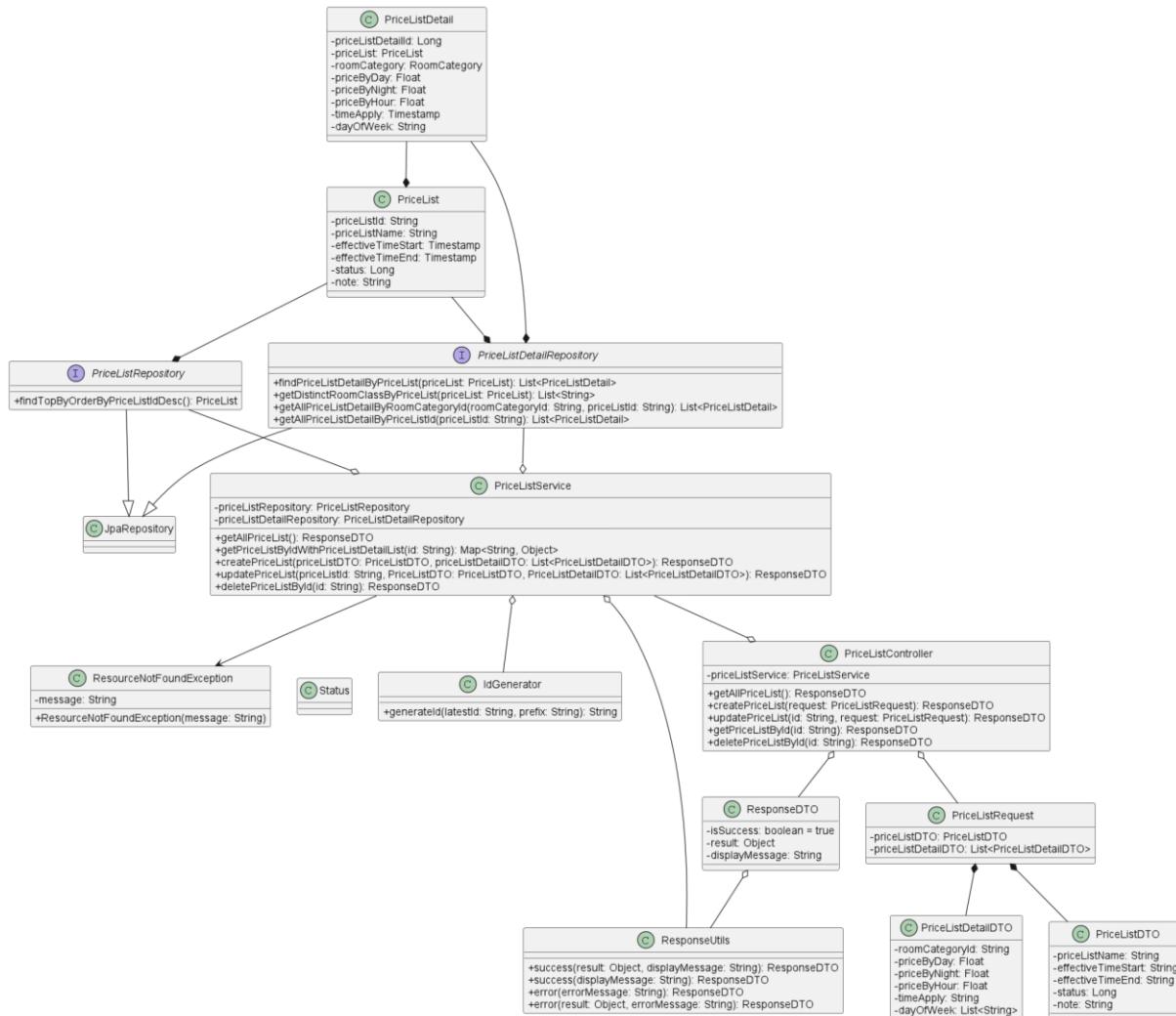


Figure 190: Class Diagram - Manage Price List

3.8.1.2 Sequence Diagram - View List Price List

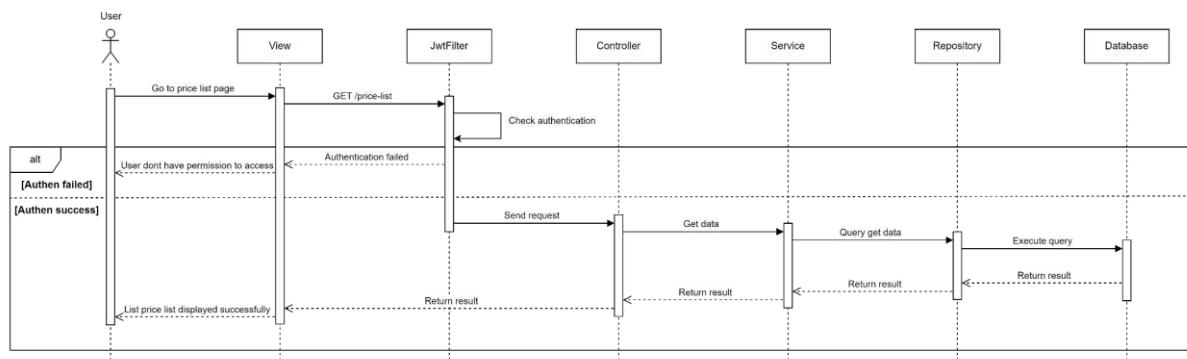


Figure 191 Sequence Diagram - View List Price List

3.8.1.3 Sequence Diagram - View Details Price List

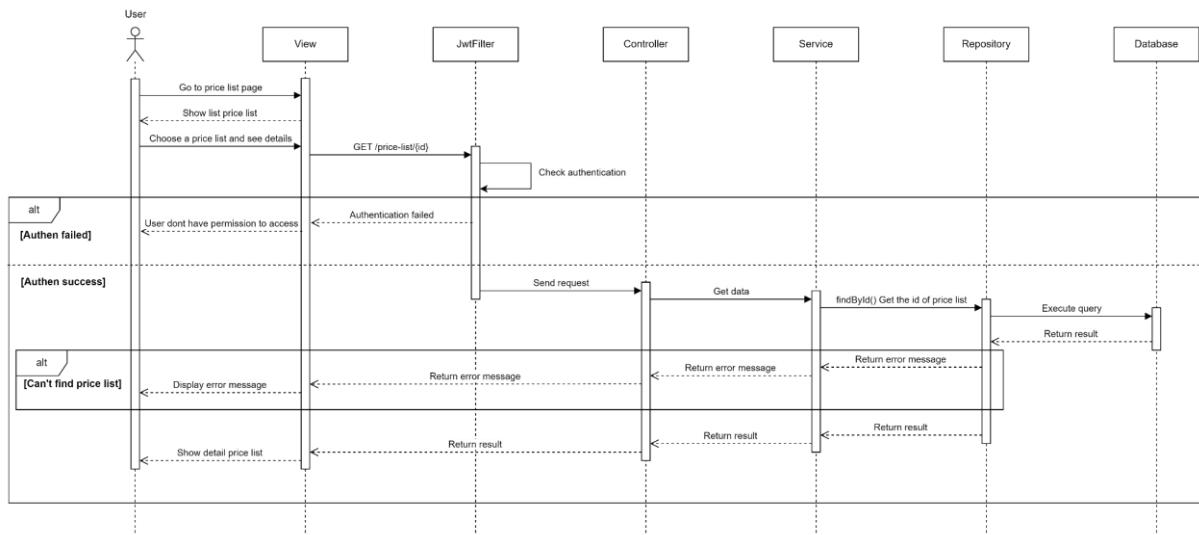


Figure 192: Sequence Diagram - View Details Price List

3.8.1.4 Sequence Diagram - Create Price List

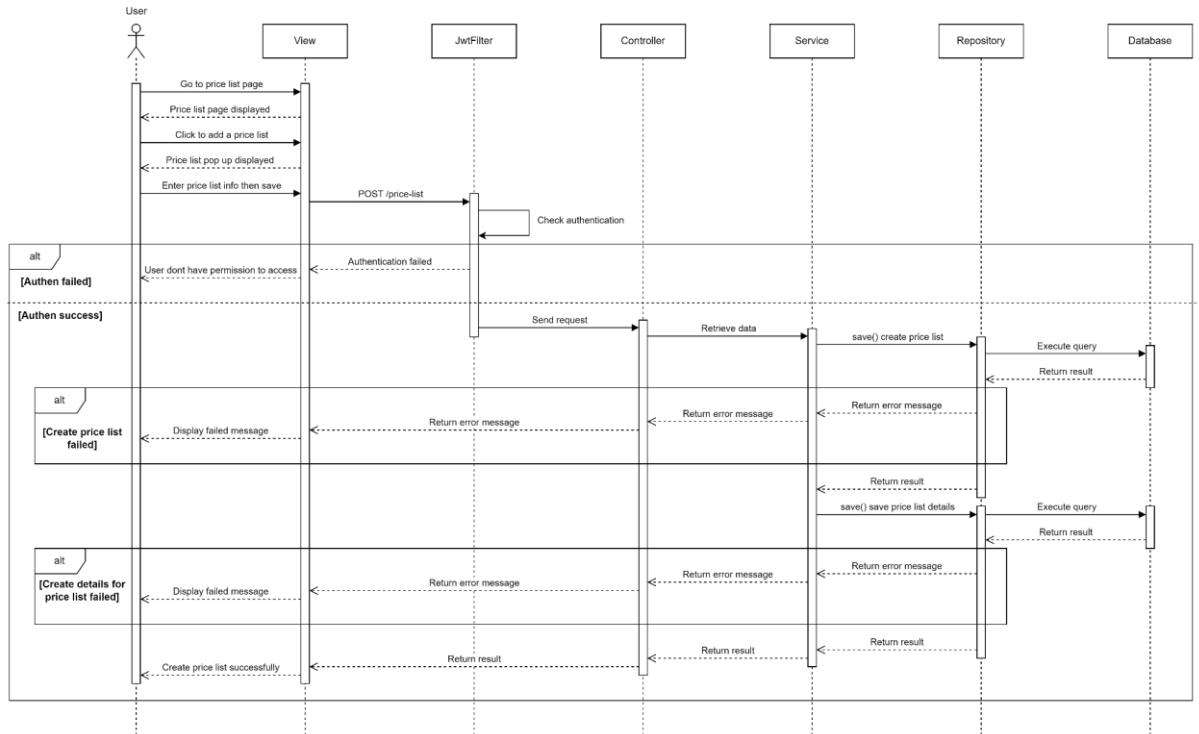


Figure 193: Sequence Diagram - Create Price List

3.8.1.5 Sequence Diagram - Update Price List

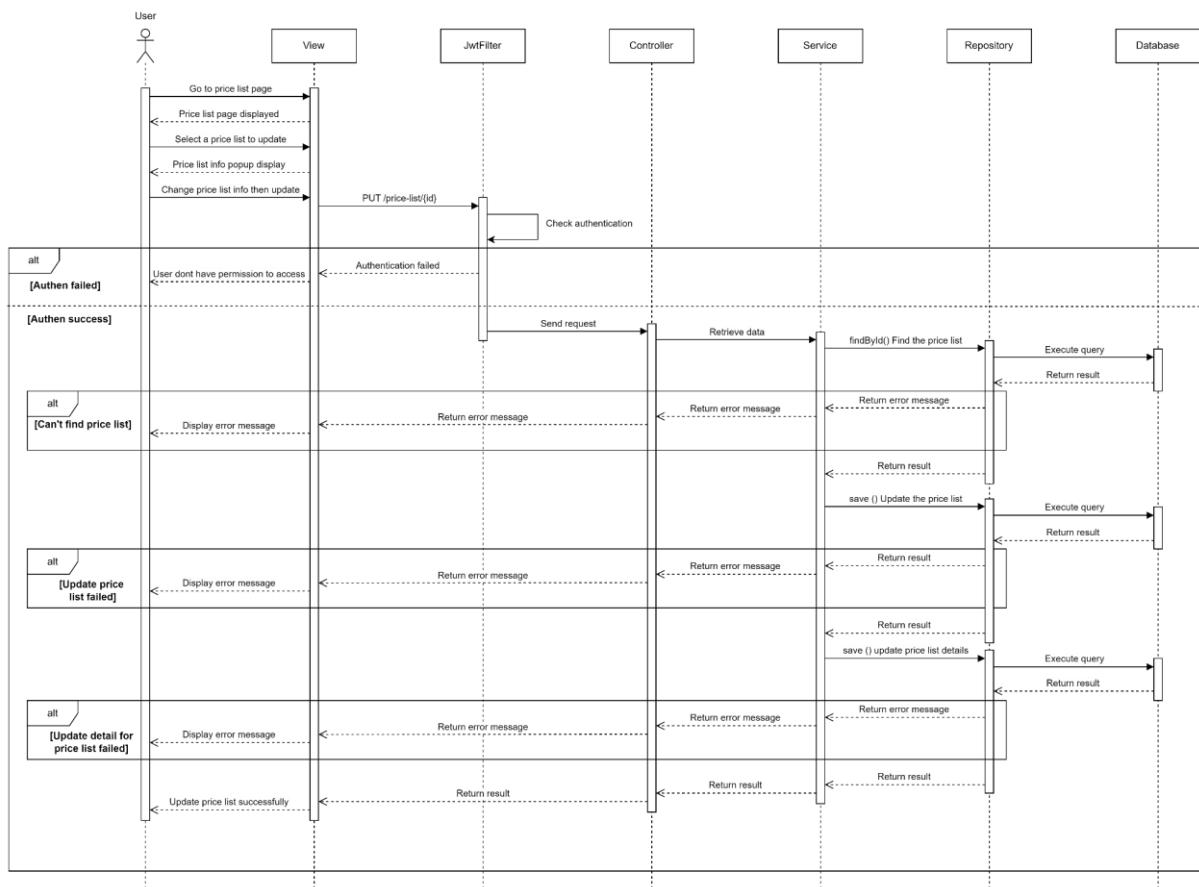


Figure 194: Sequence Diagram - Update Price List

3.8.1.6 Sequence Diagram - Delete Price List

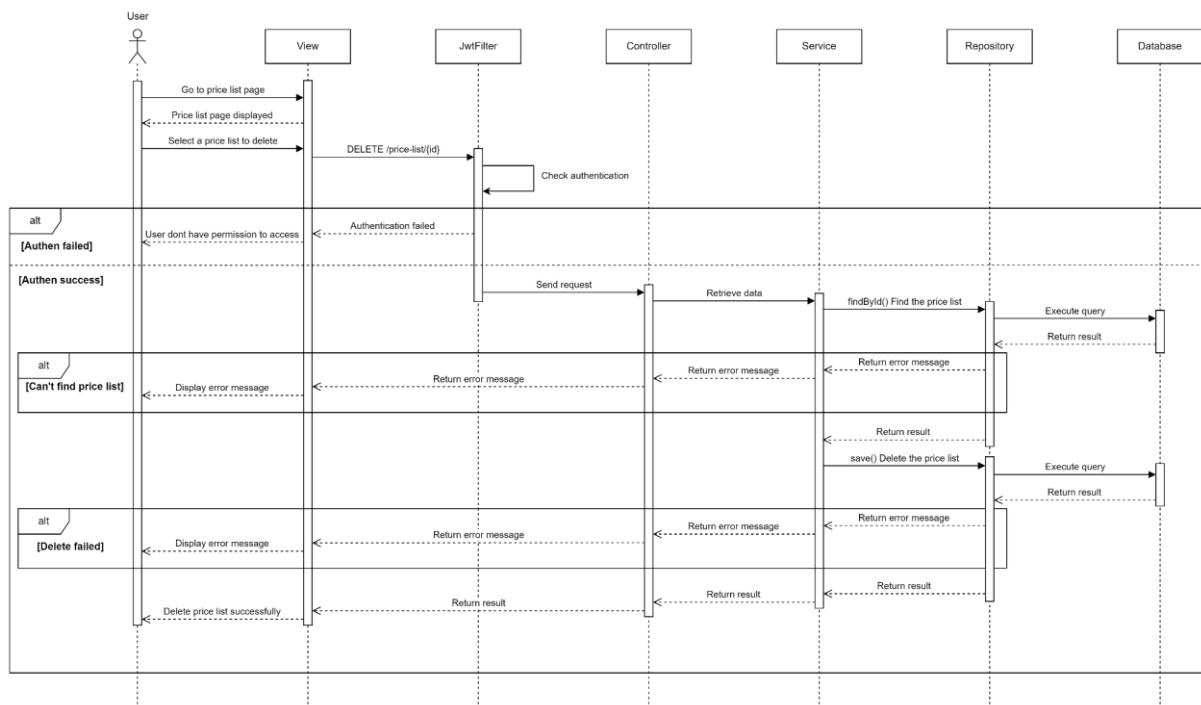


Figure 195: Sequence Diagram - Delete Price List

3.8.2. Manage Policy Other

3.8.2.1 Class Diagram - Manage Surcharge And Other Policies

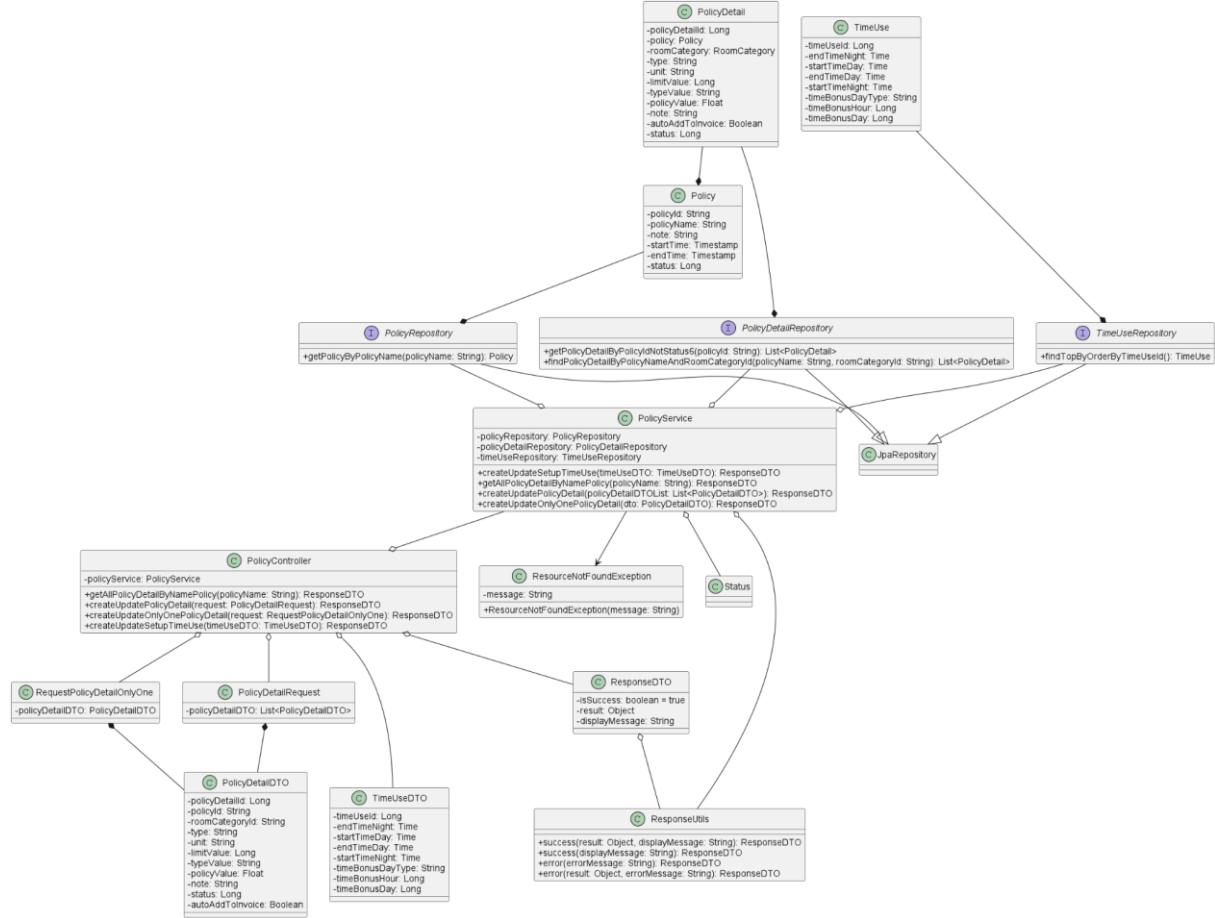


Figure 196: Class Diagram - Manage Surcharge And Other Policies

3.8.2.2 Sequence Diagram - Config Time Using (limit time of reserving by hour, day,...)

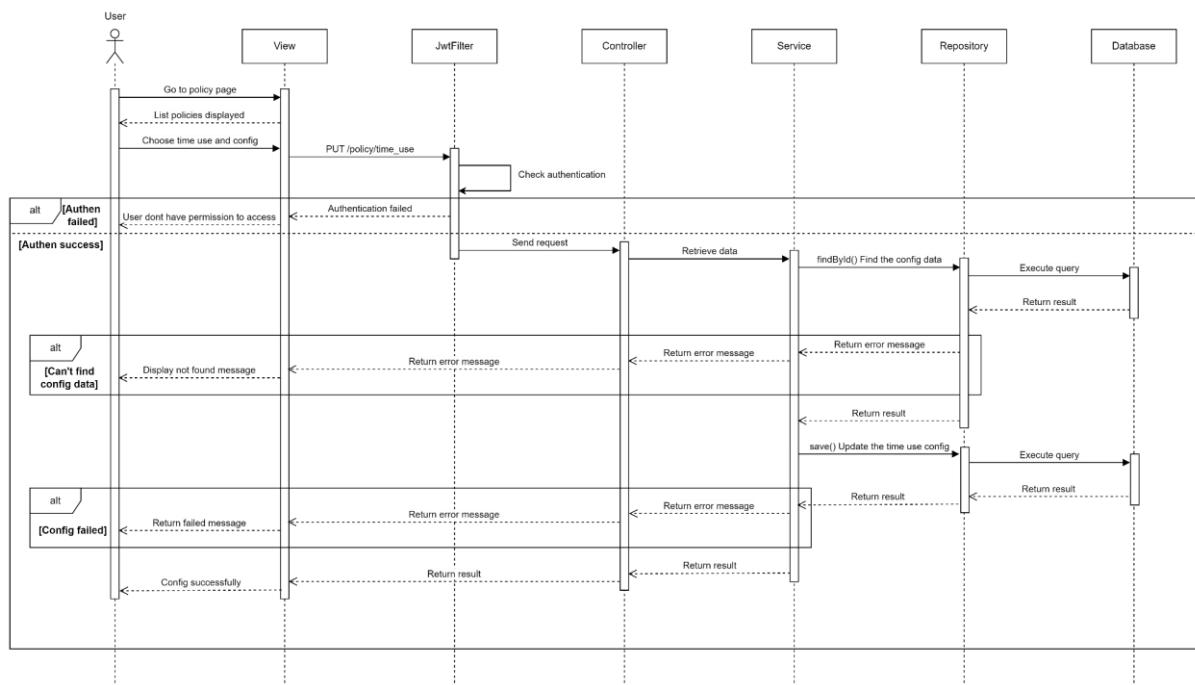


Figure 197 Sequence Diagram - Config Time Using (limit time of reserving by hour, day,...)

3.8.2.3 Sequence Diagram - View List Other Surcharge

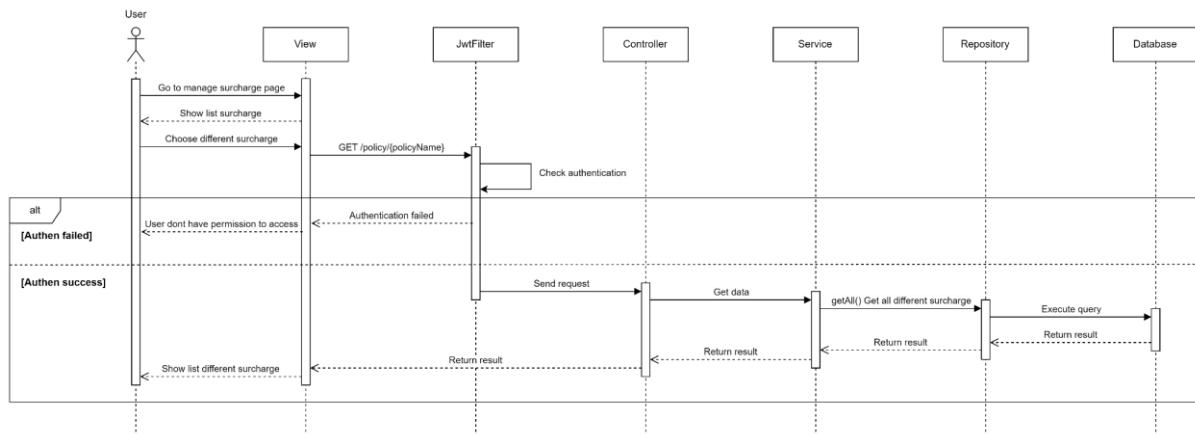


Figure 198: Sequence Diagram - View List Other Surcharge

3.8.2.4 Sequence Diagram - Create A New Other Surcharge

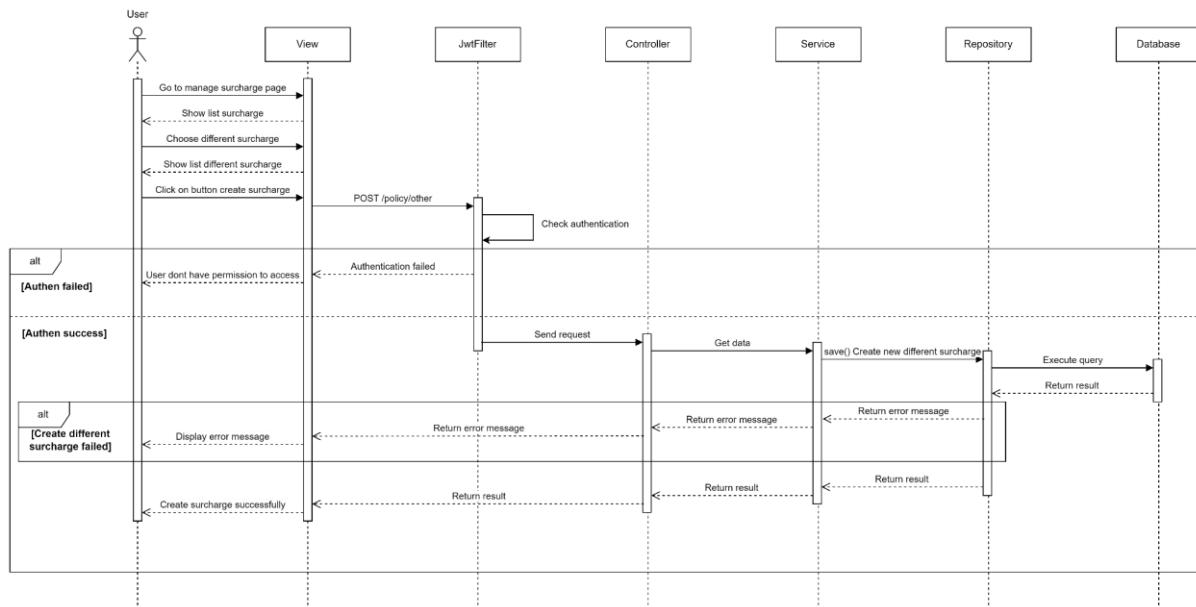


Figure 199: 4 Sequence Diagram - Create A New Other Surcharge

3.8.2.5 Sequence Diagram - Update The Other Surcharge

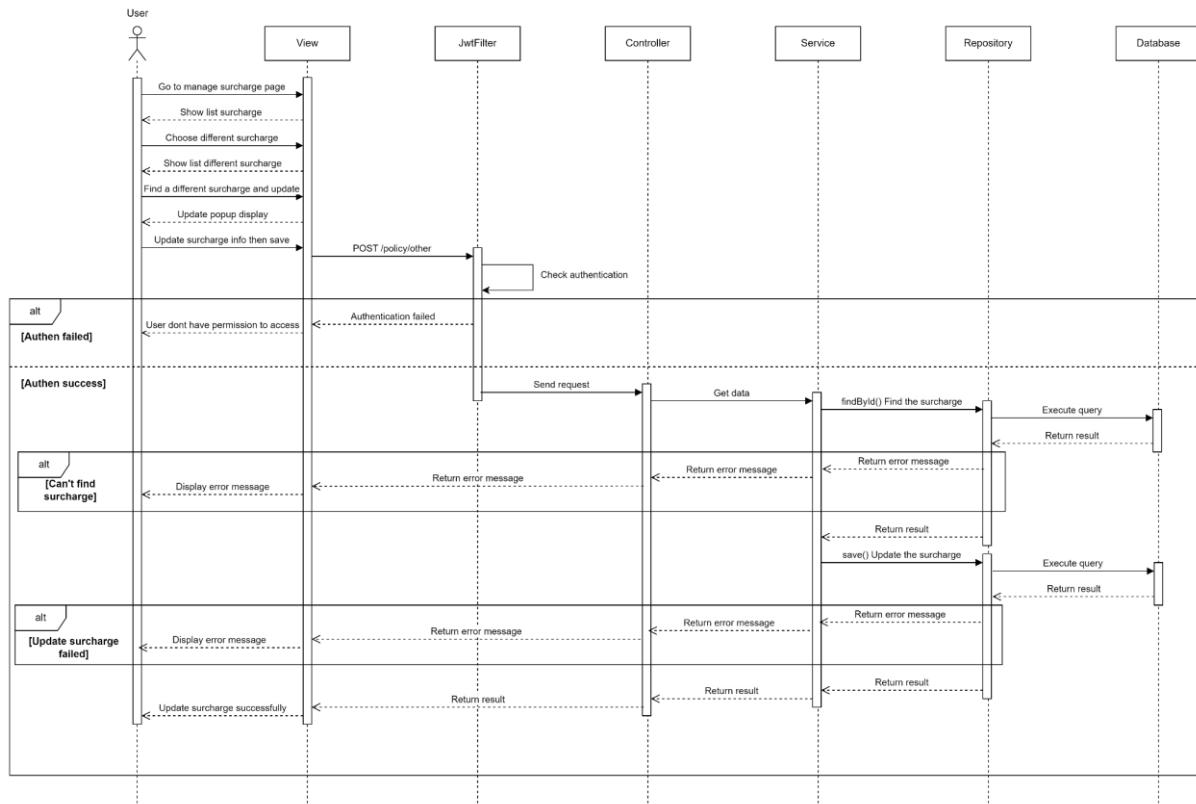


Figure 200: Sequence Diagram - Update The Other Surcharge

3.8.2.6 Sequence Diagram - Delete The Other Surcharge

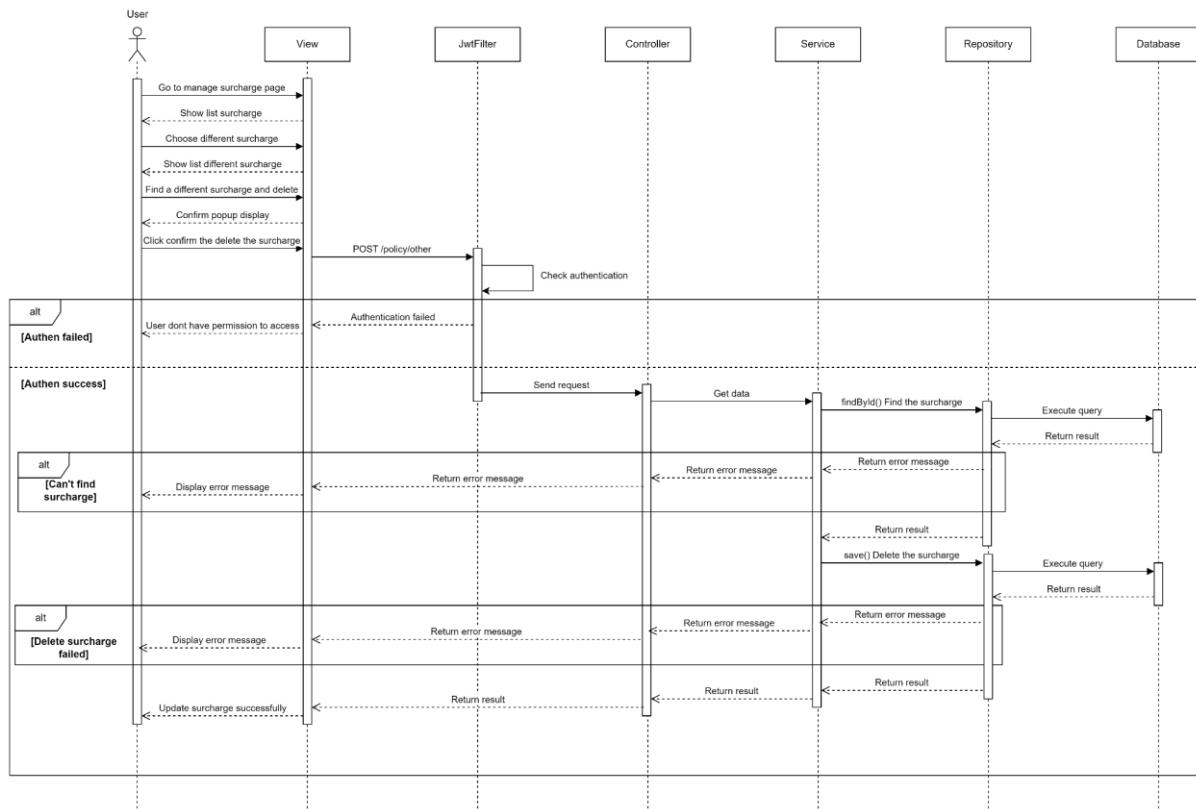


Figure 201: Sequence Diagram - Delete The Other Surcharge

3.8.2.7 Sequence Diagram - Set Surcharge Of Early Check-in, Late Check-out

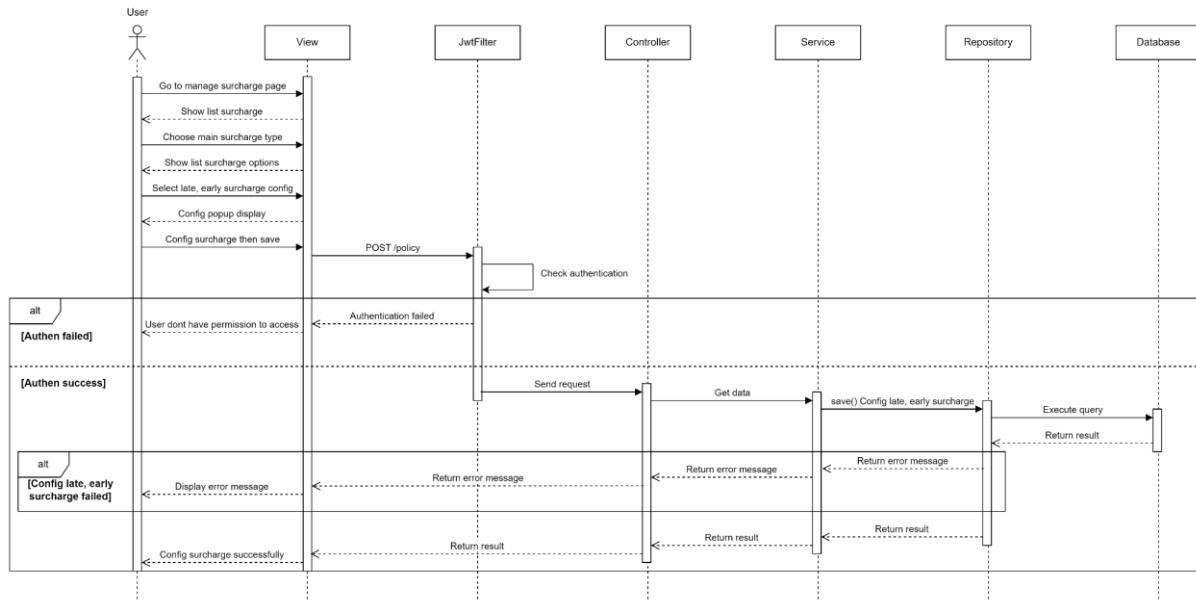


Figure 202: Sequence Diagram - Set Surcharge Of Early Check-in, Late Check-out

3.8.2.8 Sequence Diagram - Set Surcharge Of Over Number Of People

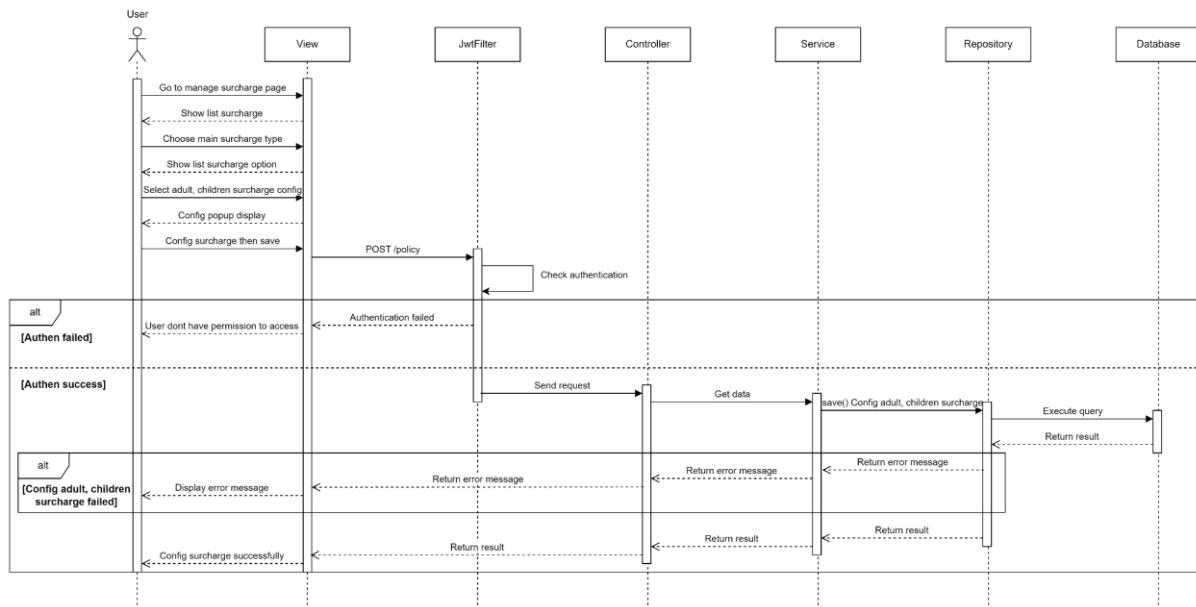


Figure 203: Sequence Diagram - Set Surcharge Of Over Number Of People

3.8.2.9 Sequence Diagram - Set Surcharge Of Cancel Reservation

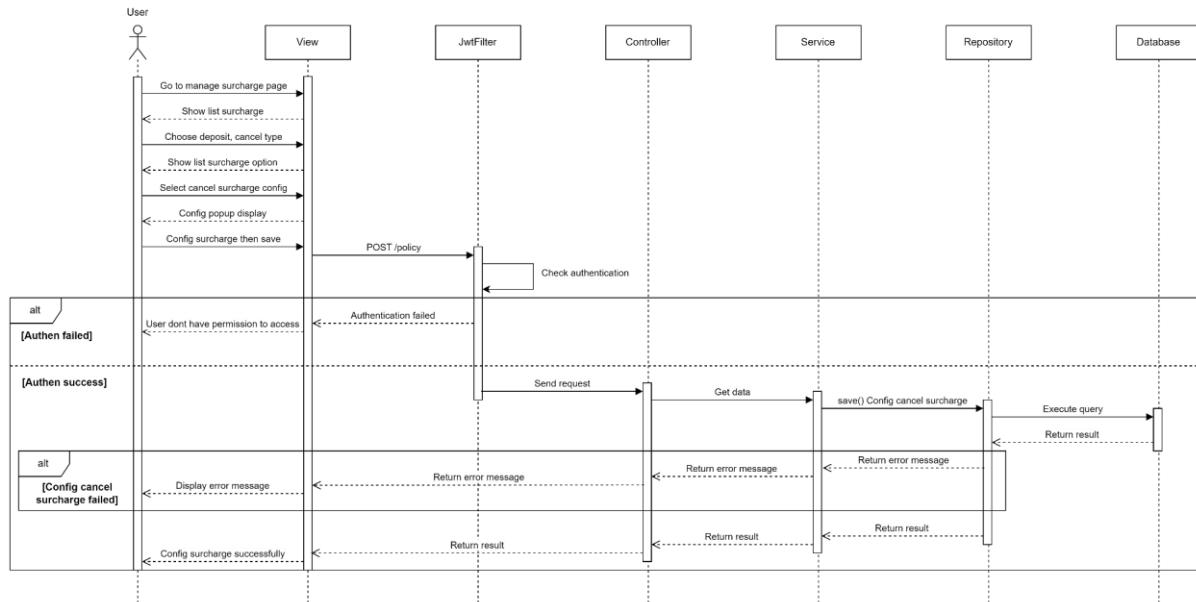


Figure 204: Sequence Diagram - Set Surcharge Of Cancel Reservation

3.8.2.10 Sequence Diagram - Config Deposit

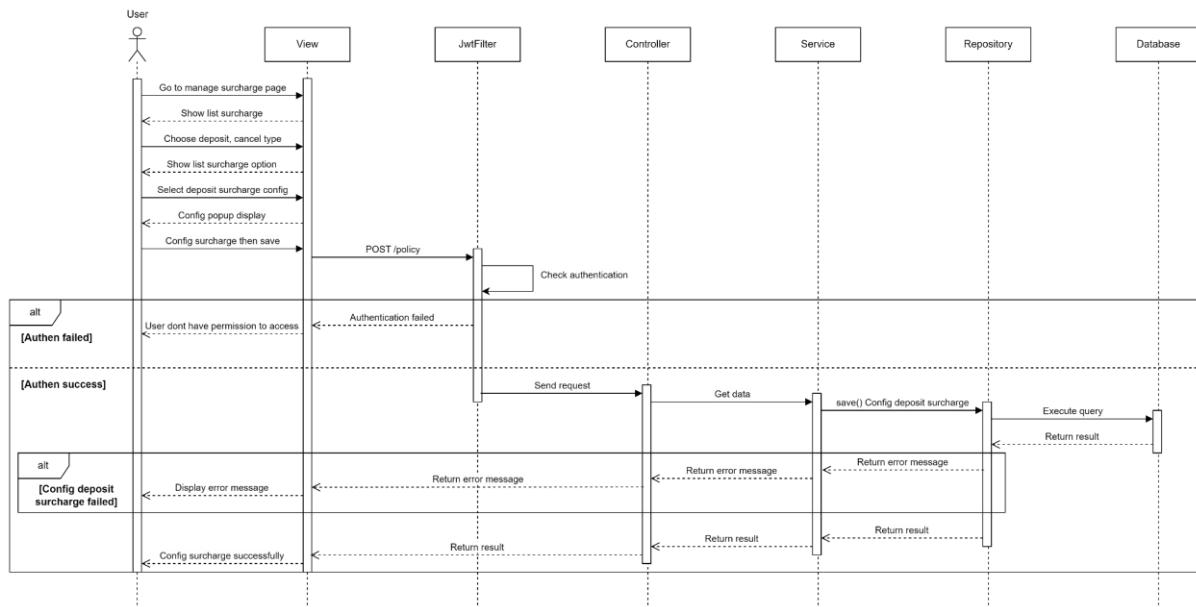


Figure 205: Sequence Diagram - Config Deposit

3.8.2.11 Sequence Diagram - Rule Of Receiving Points In Promotion

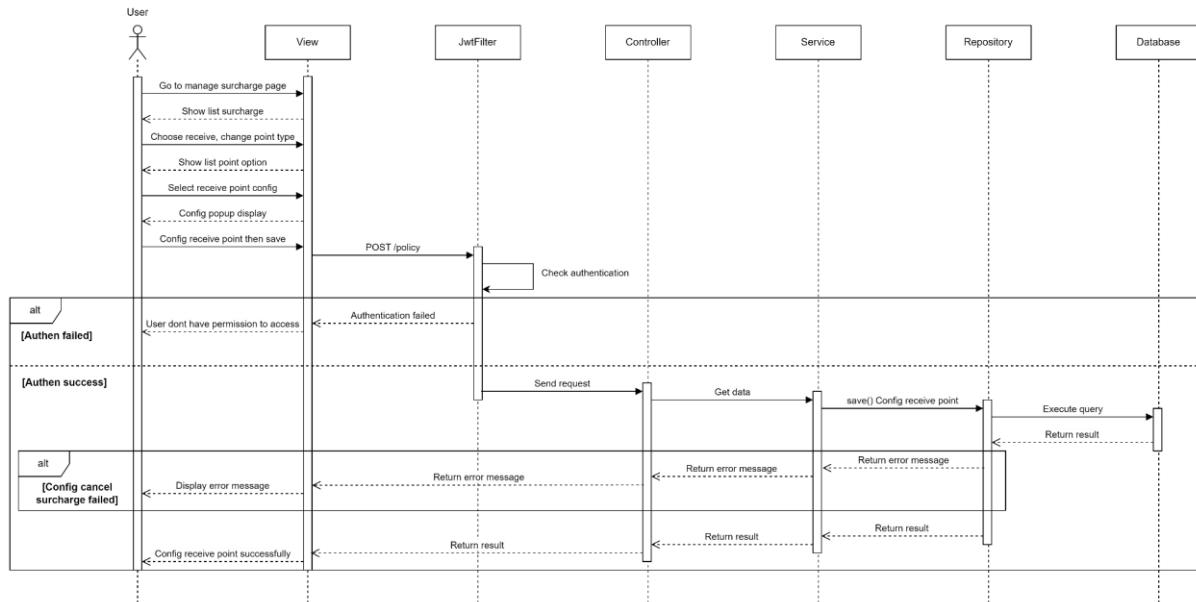


Figure 206: Sequence Diagram - Rule Of Receiving Points In Promotion

3.8.2.12 Sequence Diagram - Rule Of Changing Points In Promotion

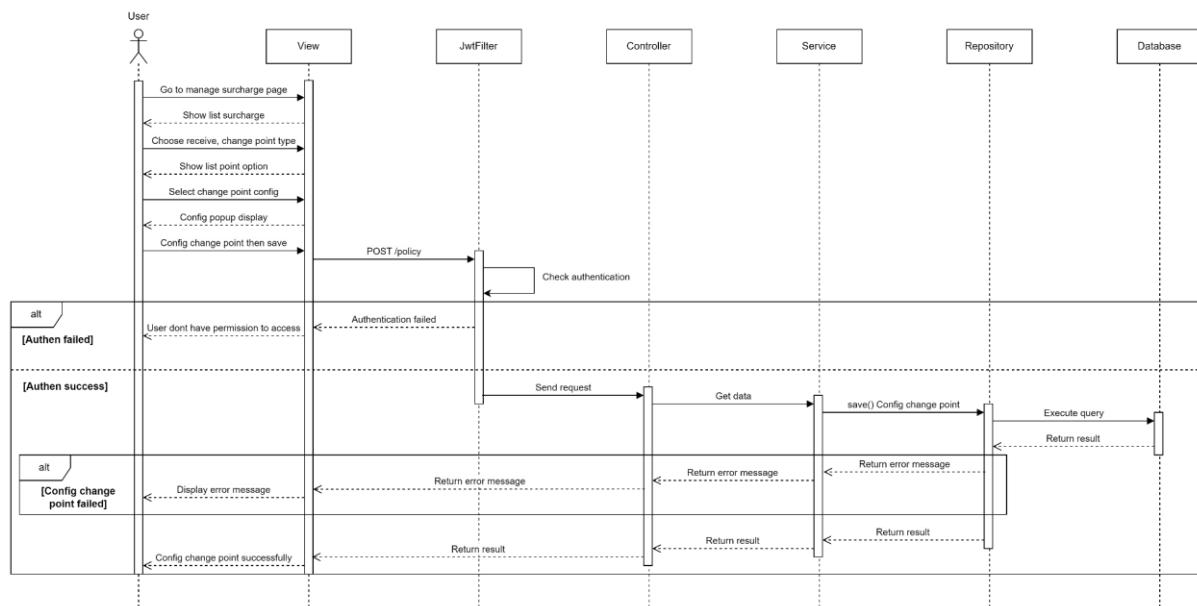


Figure 207: Sequence Diagram - Rule Of Changing Points In Promotion

3.9 Manage Human Resource

3.9.1 Class Diagram

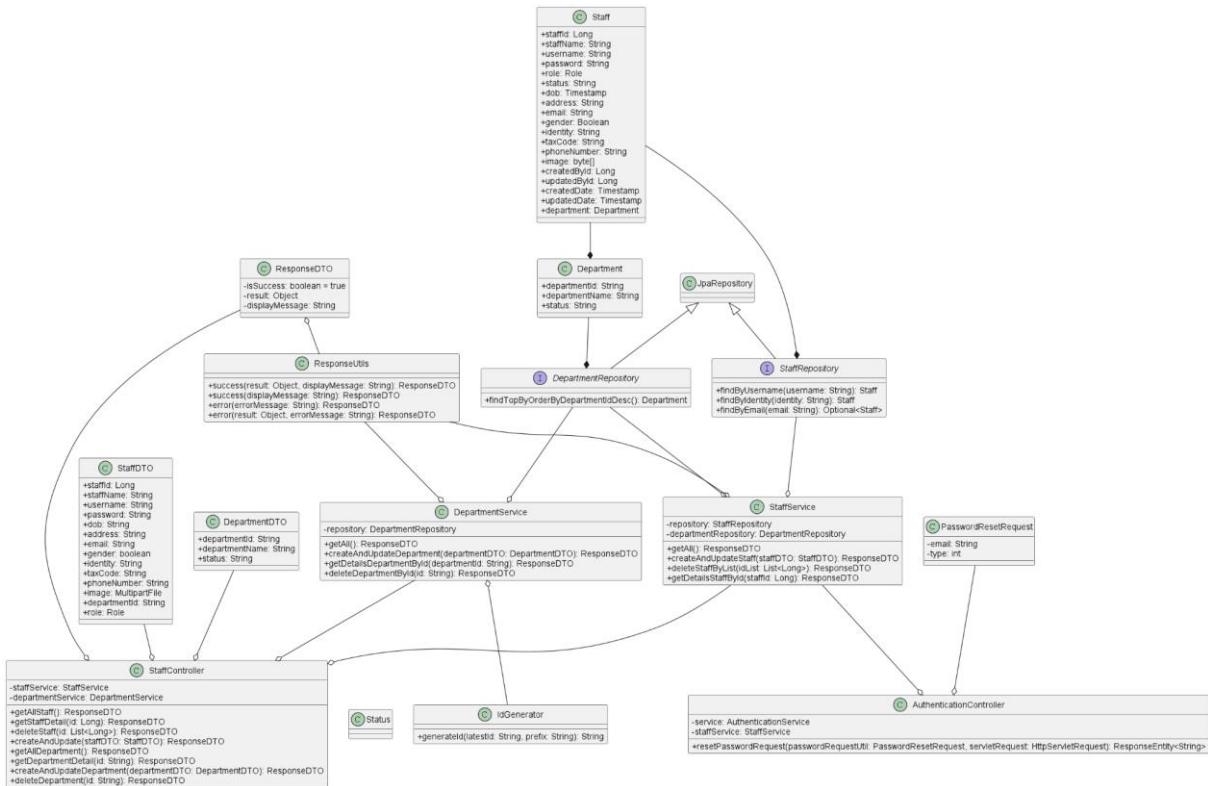


Figure 208: Class Diagram manage human resource

3.9.2 Sequence Diagram - View List Staff

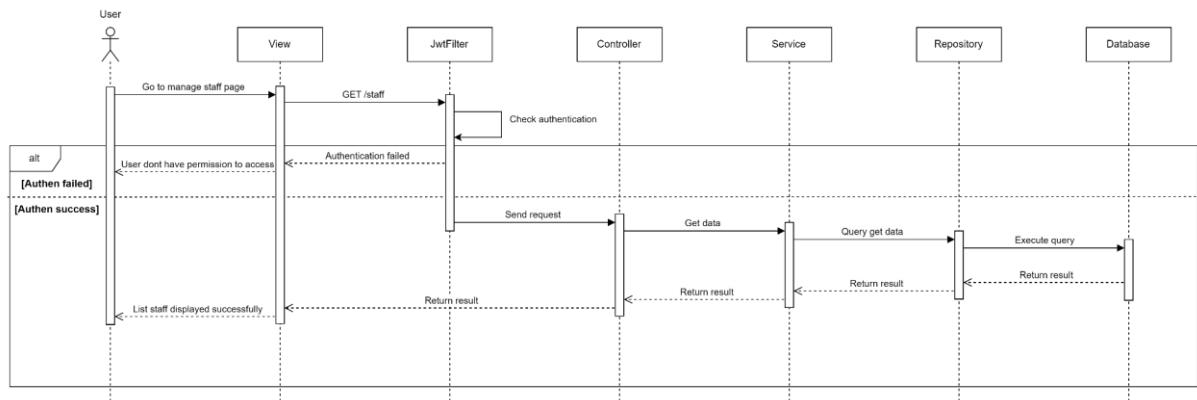


Figure 209: Sequence Diagram - View List Staff

3.9.3 Sequence Diagram - View Staff Details

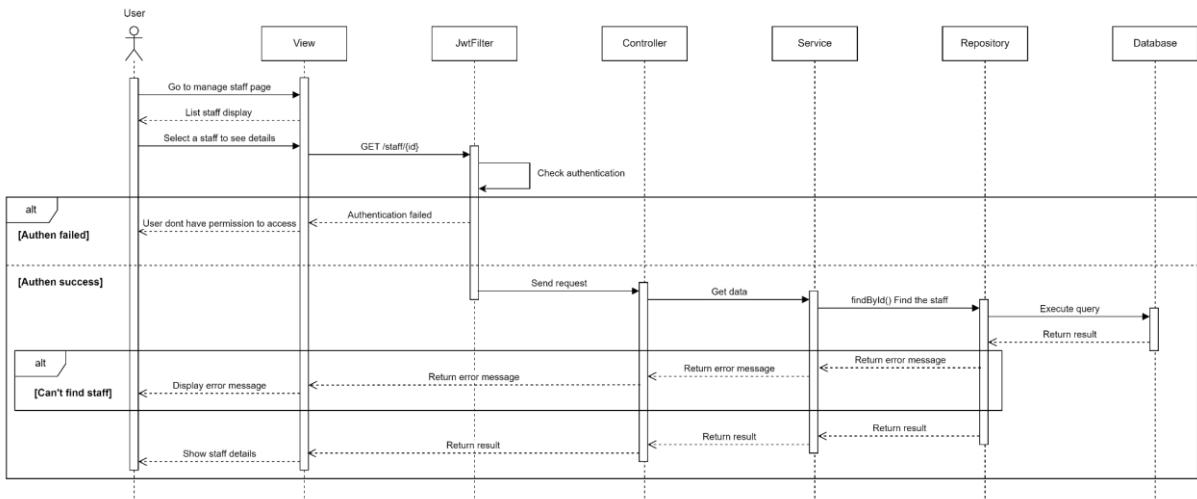


Figure 210: Sequence Diagram - View Staff Details

3.9.4 Sequence Diagram - Create Staff

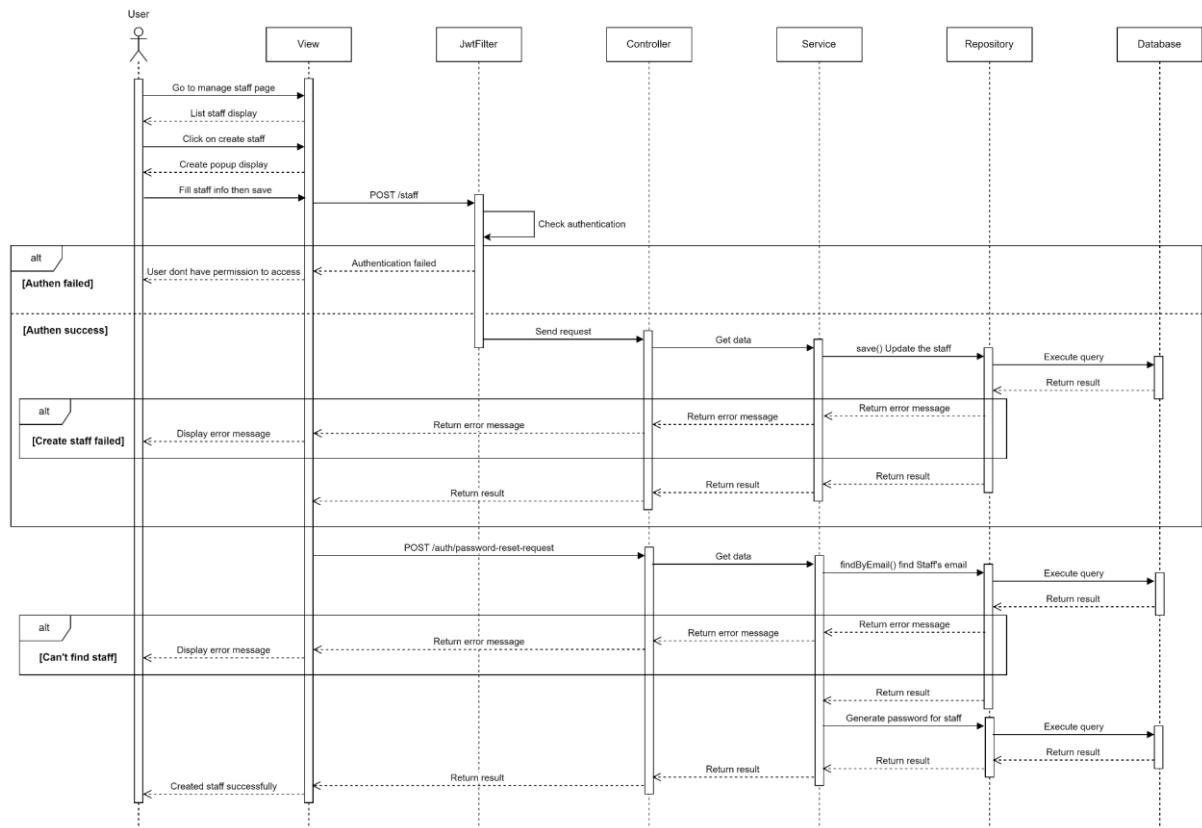


Figure 211: Sequence Diagram - Create Staff

3.9.5 Sequence Diagram - Update Staff

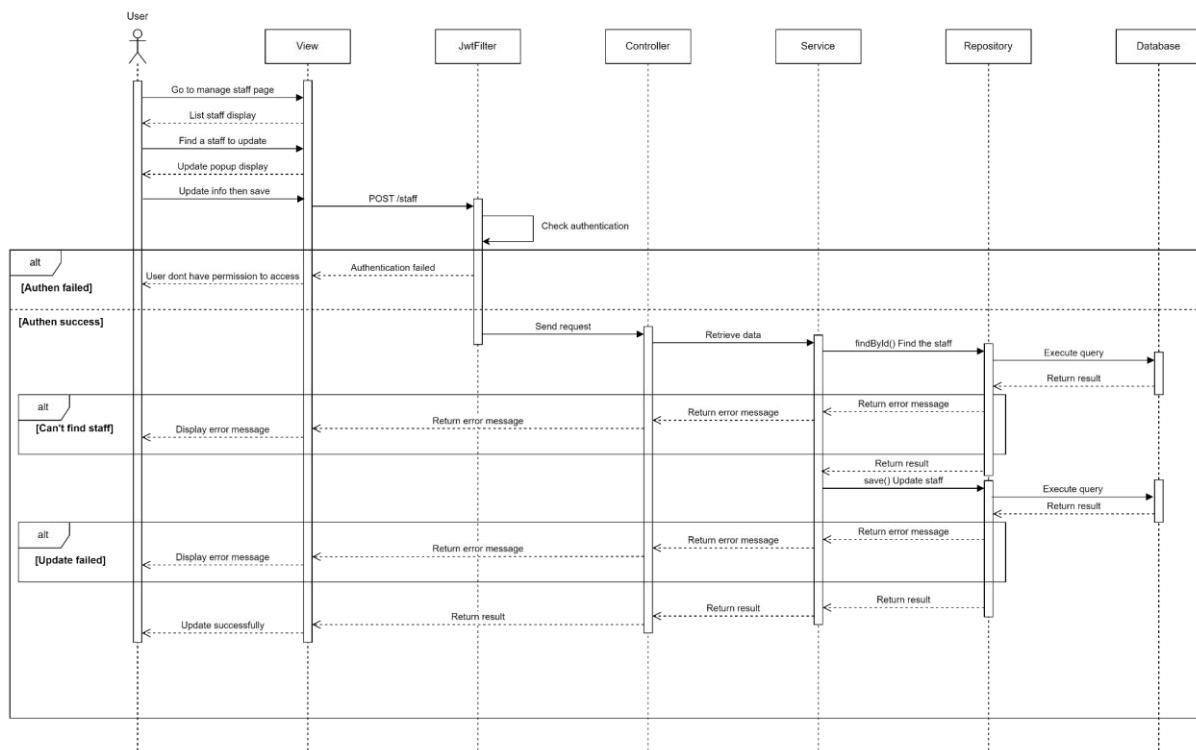


Figure 212: Sequence Diagram - Update Staff

3.9.6 Sequence Diagram - Delete Staff

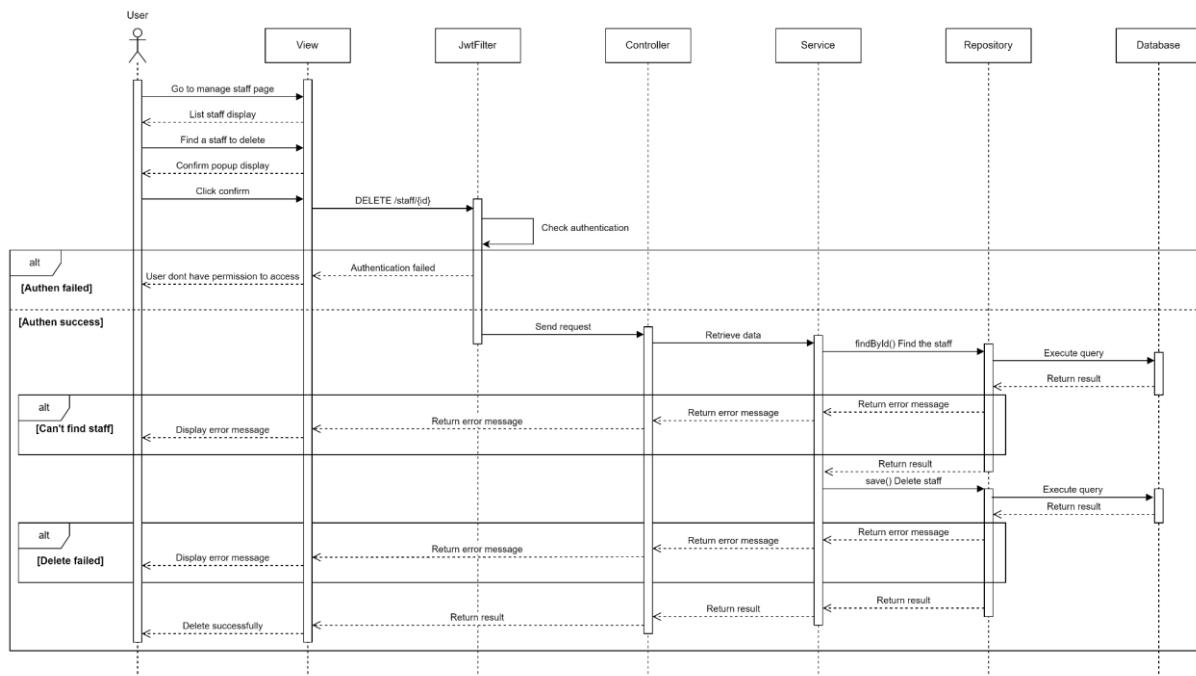


Figure 213: Sequence Diagram - Delete Staff

3.9.7 Sequence Diagram - Create Department

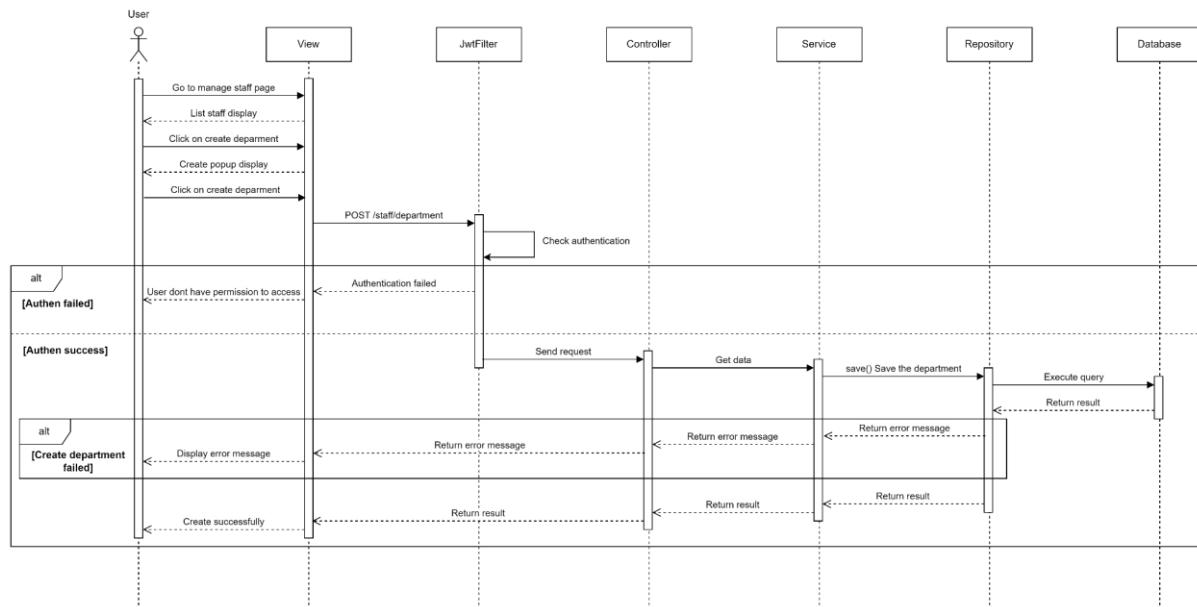


Figure 214: Sequence Diagram - Create Department

3.9.8 Sequence Diagram - Update Department

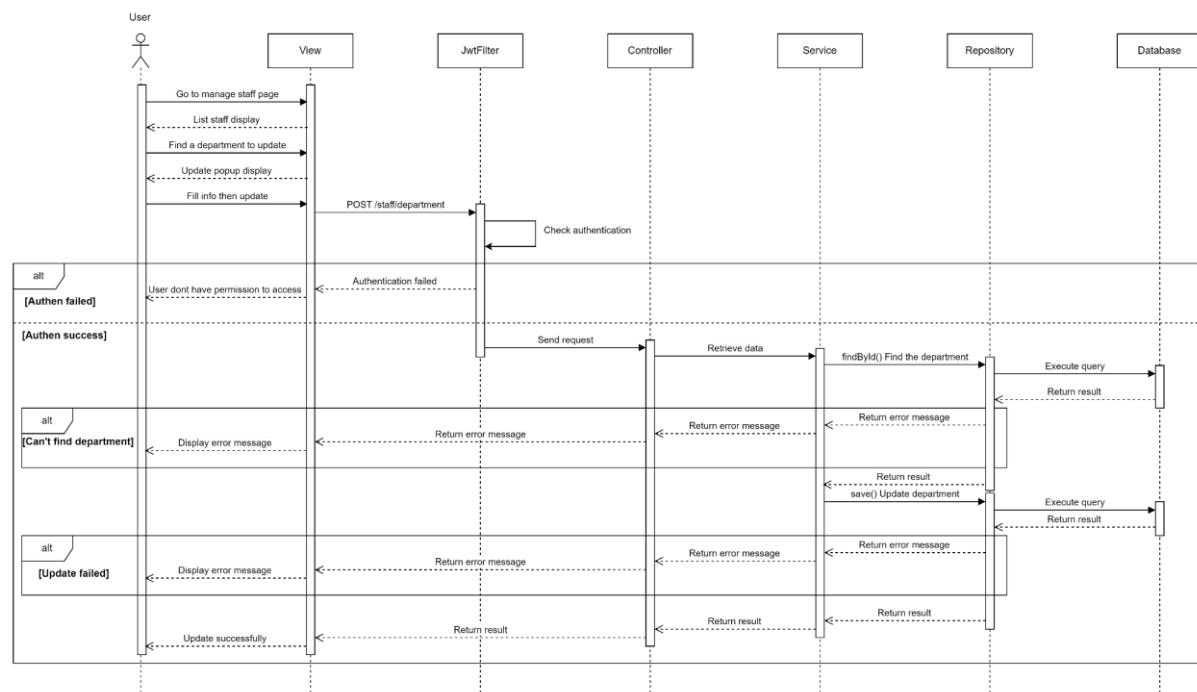


Figure 215: Sequence Diagram - Update Department

3.9.9 Sequence Diagram - Delete Department

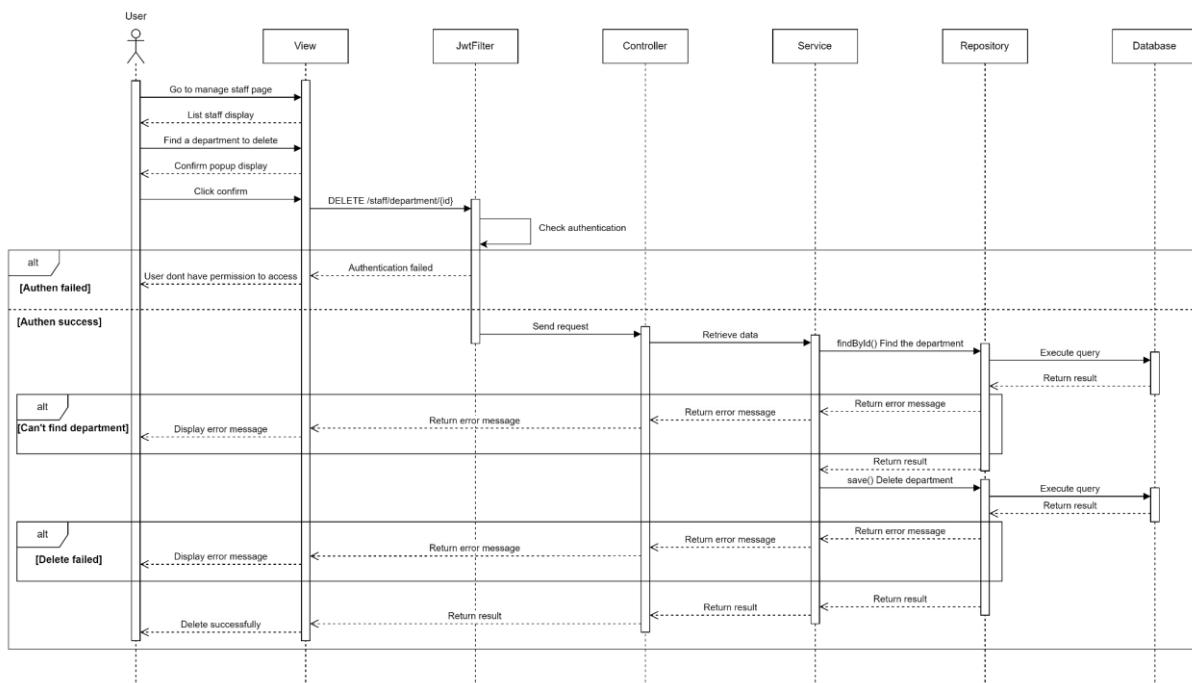


Figure 216: Sequence Diagram - Delete Department

3.10 Manage Import Goods

3.10.1 Class Diagram

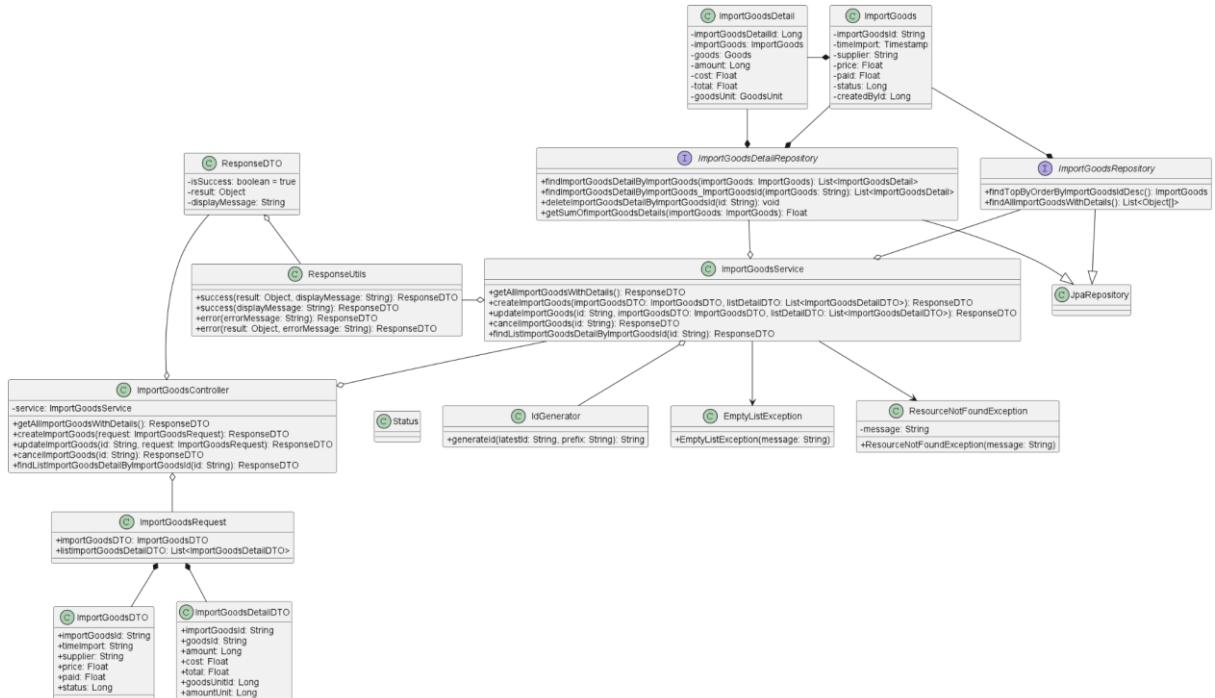


Figure 217: 1 Class Diagram manage import goods

3.10.2 Sequence Diagram - View List Import Goods

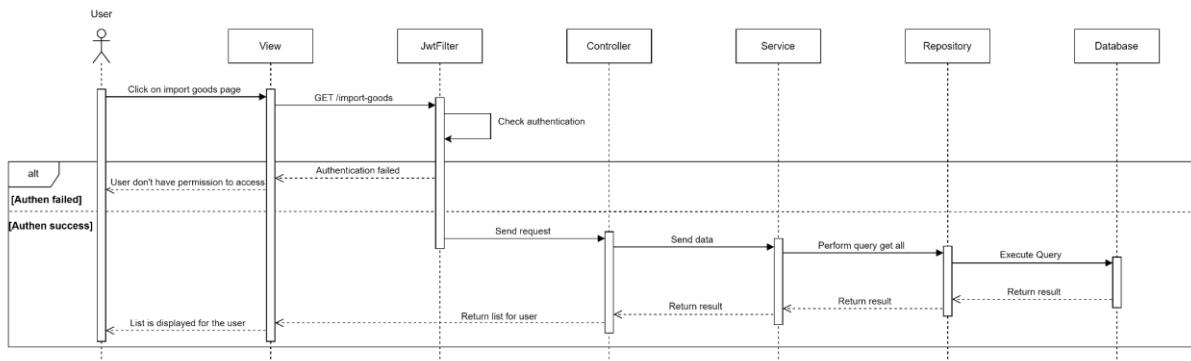


Figure 218: Sequence Diagram - View List Import Goods

3.10.3 Sequence Diagram - View Import Goods Detail

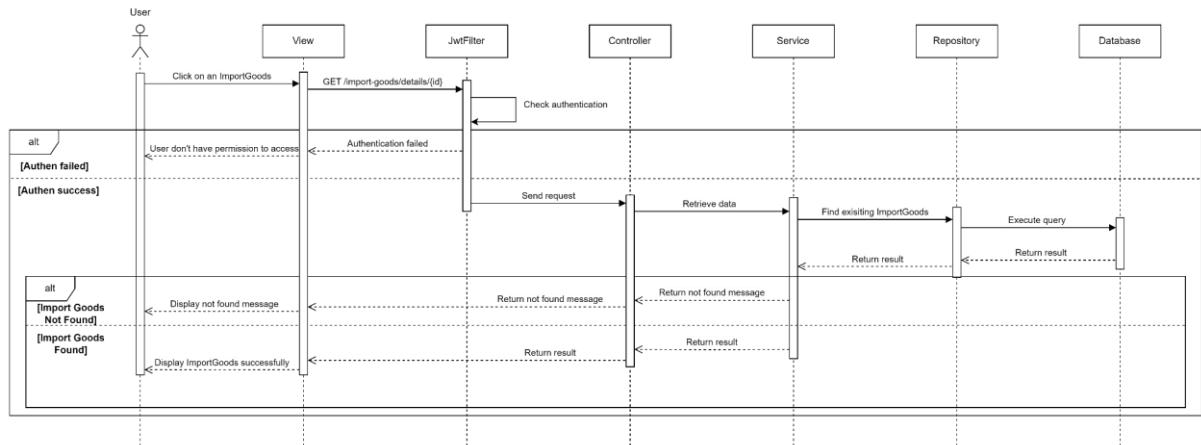


Figure 219: Sequence Diagram - View Import Goods Detail

3.10.4 Sequence Diagram - Create Import Goods

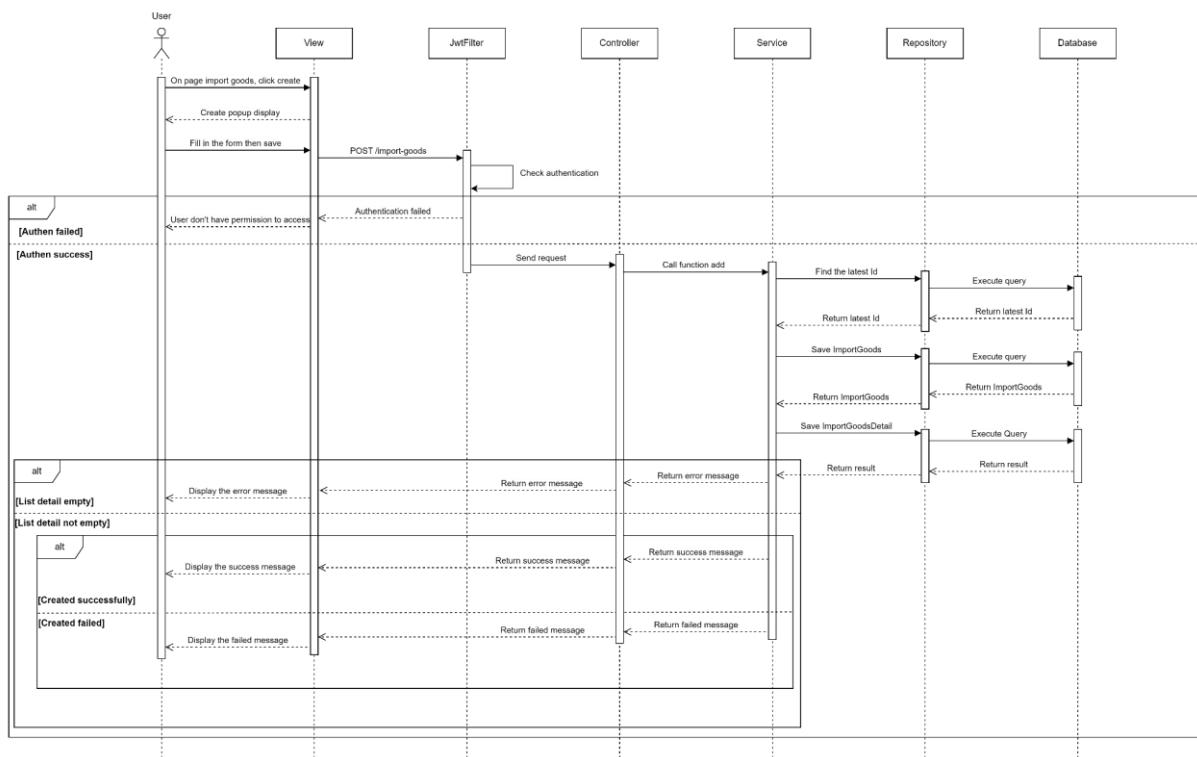


Figure 220: Sequence Diagram - Create Import Goods

3.10.5 Sequence Diagram - Update Import Goods

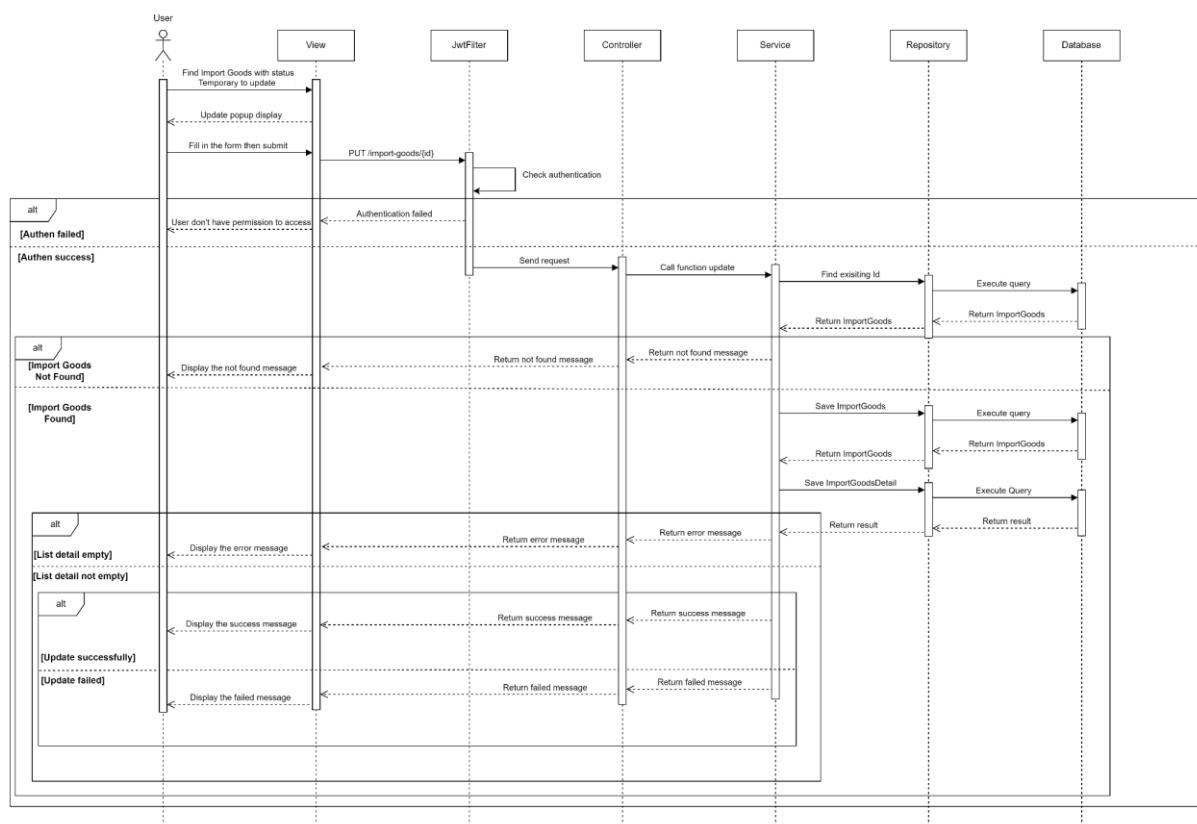


Figure 221: Sequence Diagram - Update Import Goods

3.10.6 Sequence Diagram - Cancel Import Goods

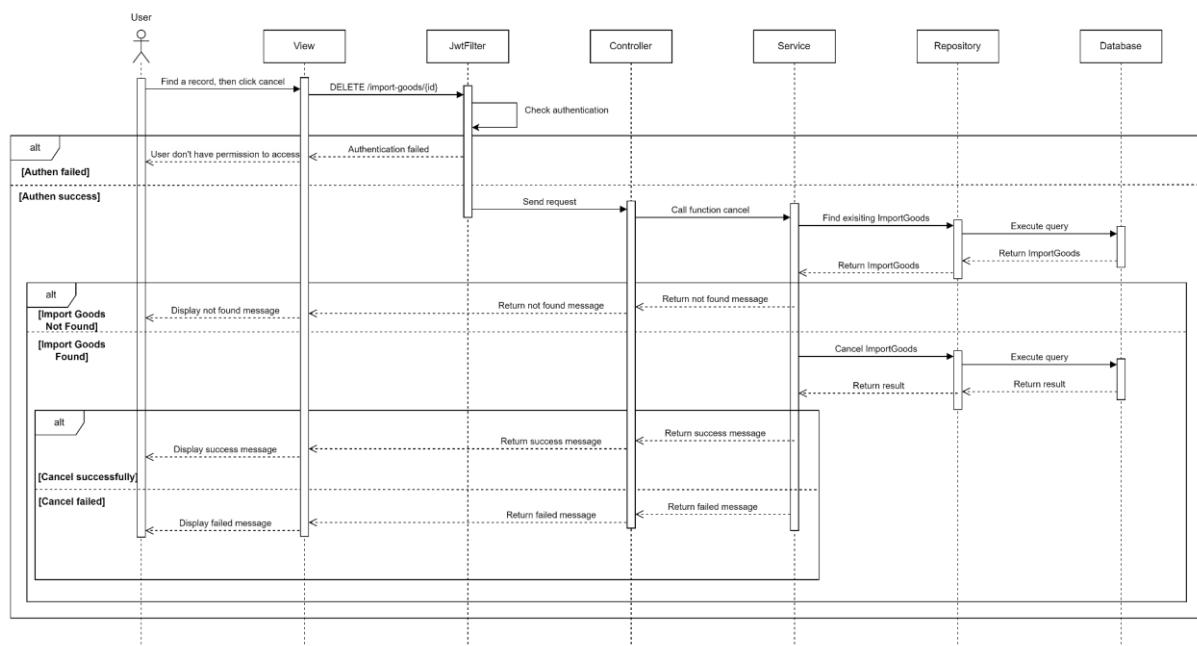


Figure 222: Sequence Diagram - Cancel Import Goods

3.11 Manage Fund Book

3.11.1 Class Diagram

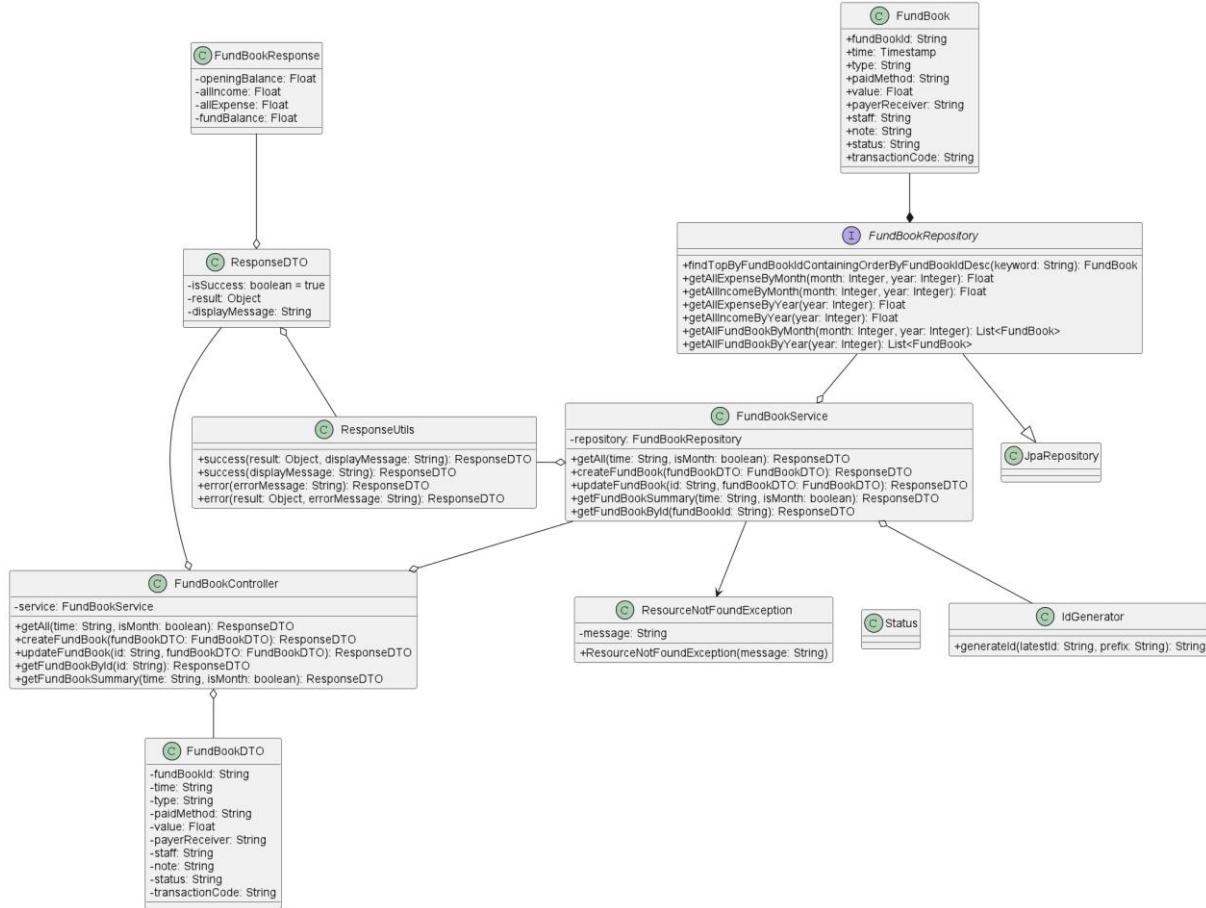


Figure 223: Class Diagram manage fund book

3.11.2 Sequence Diagram - View List Fund Book

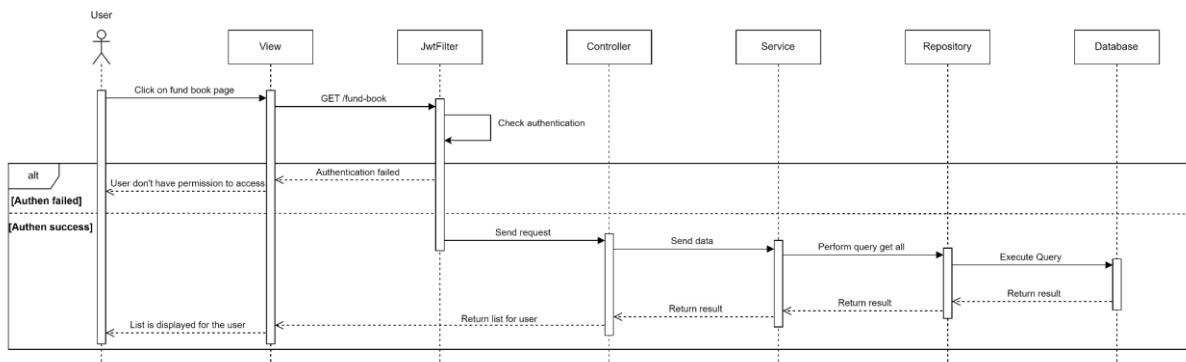


Figure 224: Sequence Diagram - View List Fund Book

3.11.3 Sequence Diagram - View Fund Book Detail

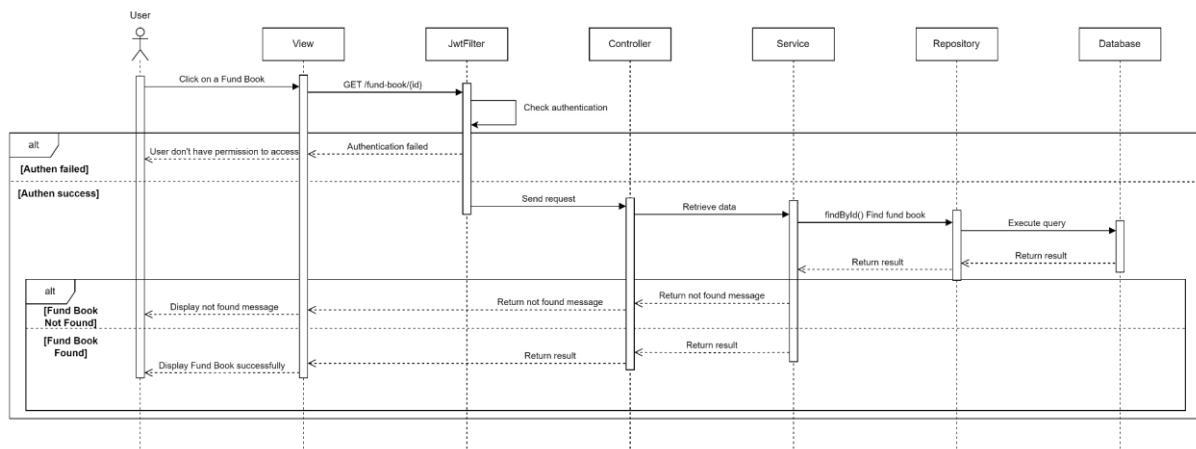


Figure 225: Sequence Diagram - View Fund Book Detail

3.11.4 Sequence Diagram - Create Fund Book

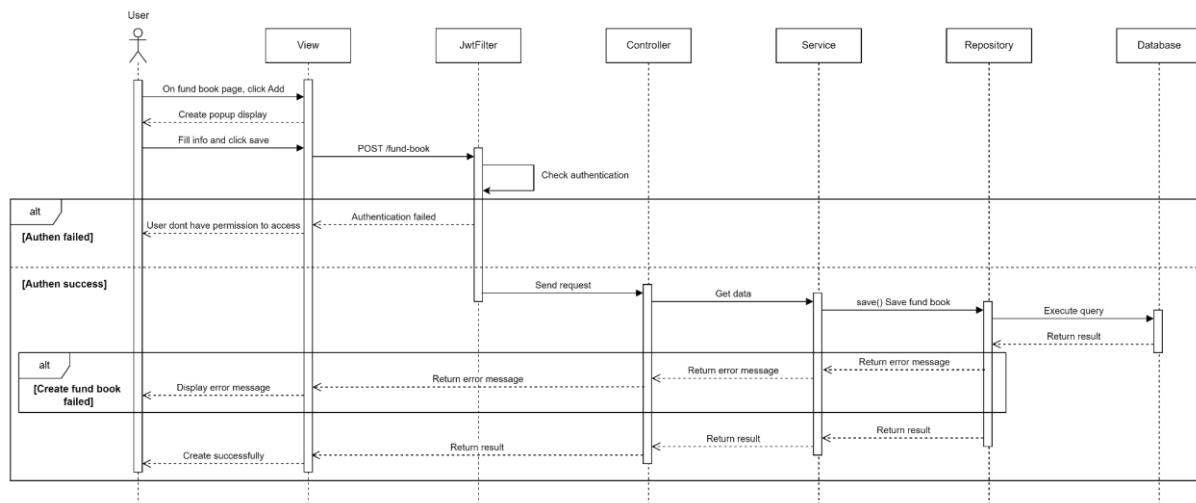


Figure 226: Sequence Diagram - Create Fund Book

3.11.5 Sequence Diagram - Update Fund Book

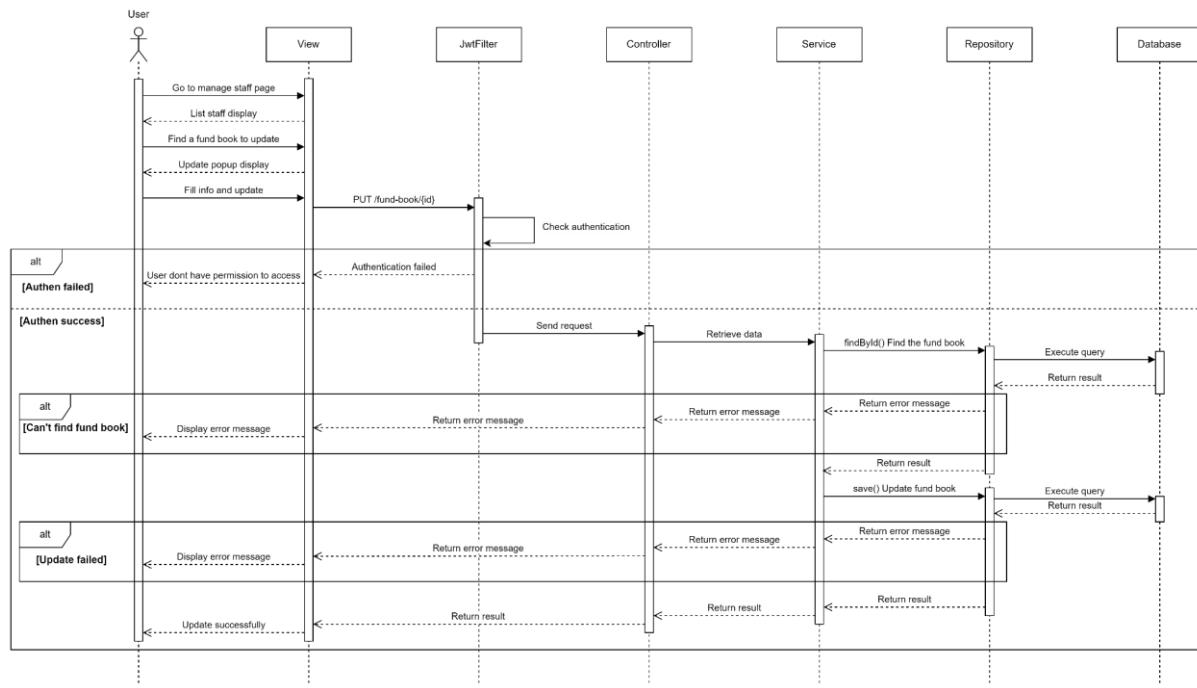


Figure 227: Sequence Diagram - Update Fund Book

3.11.6 Sequence Diagram - Cancel Fund Book

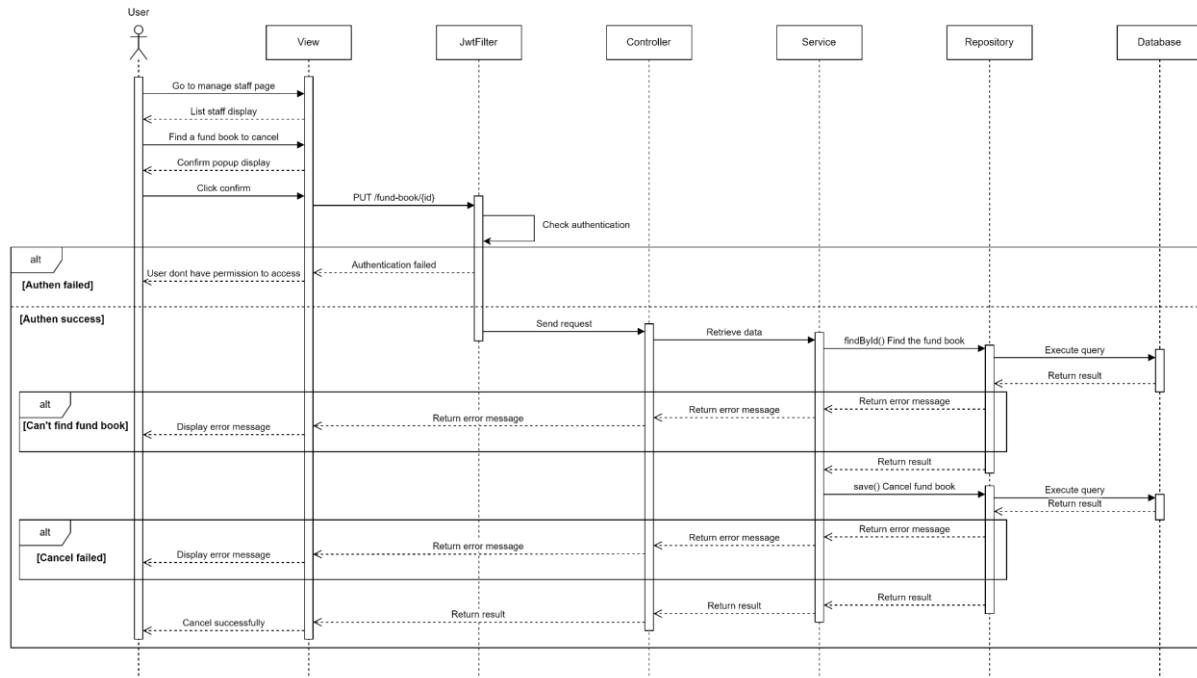


Figure 228: 6 Sequence Diagram - Cancel Fund Book

3.12 Manage Profile

3.12.1 Class Diagram

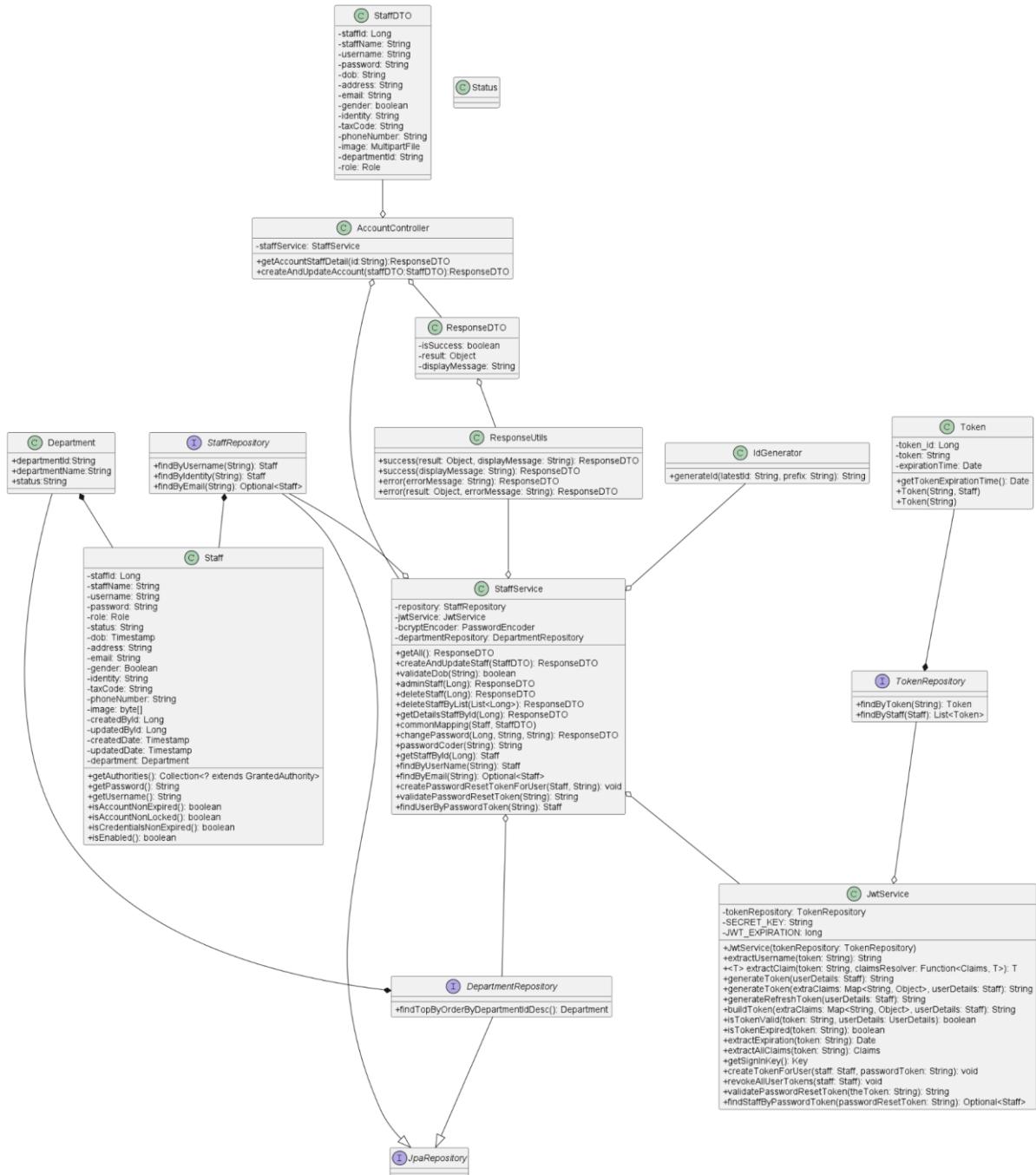


Figure 229: Class Diagram manage profile

3.12.2 Sequence Diagram - View profile

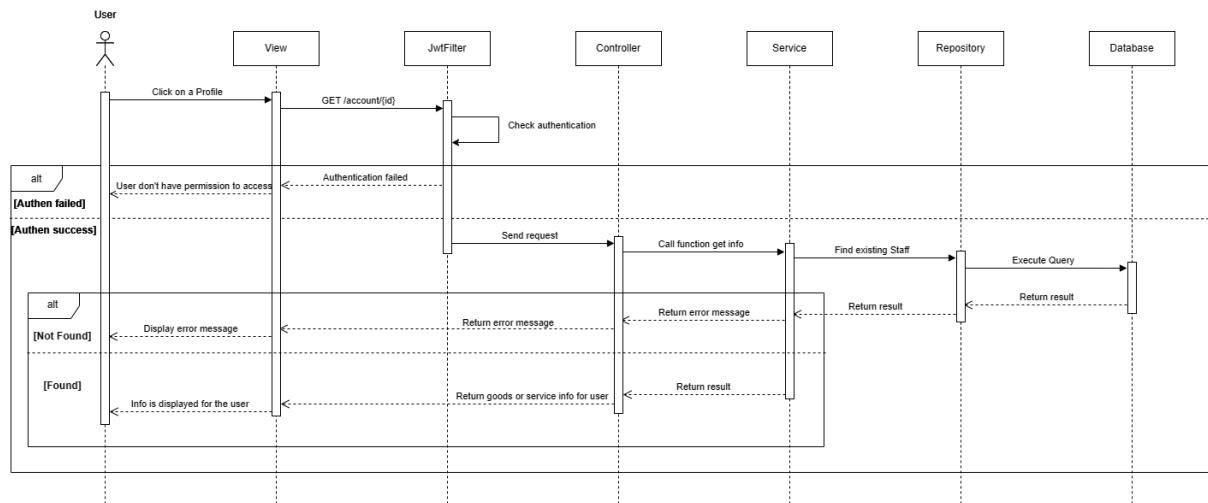


Figure 230: Sequence Diagram - View profile

3.12.3 Sequence Diagram - Update profile

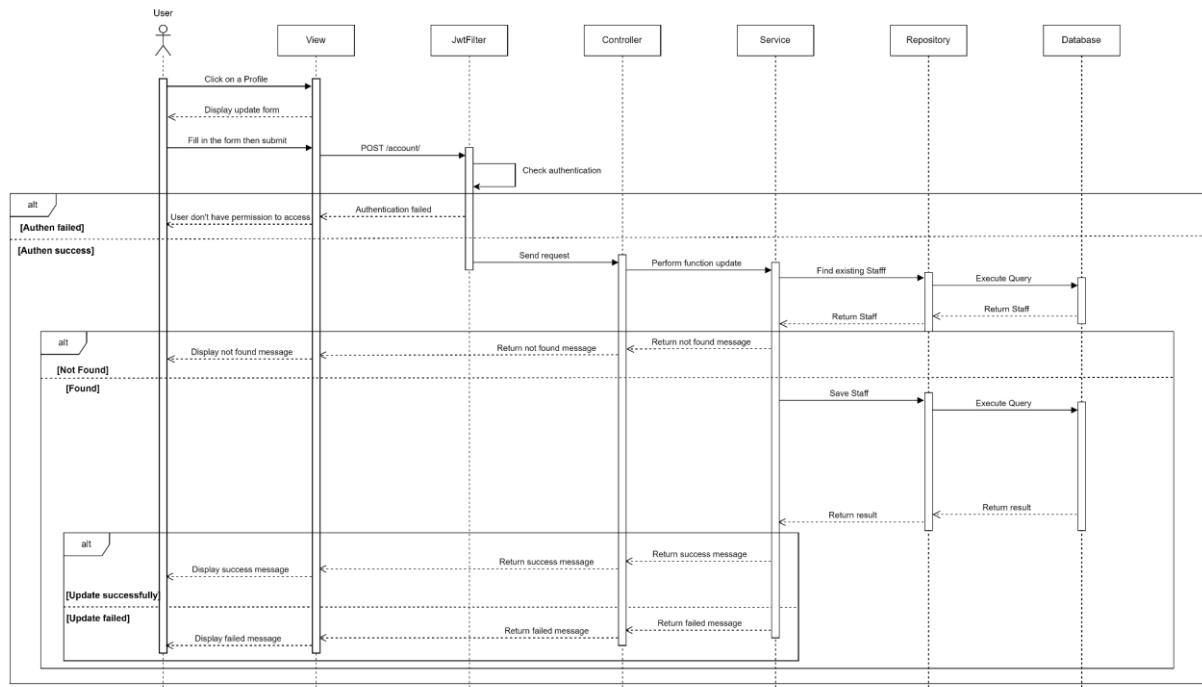


Figure 231: Sequence Diagram - Update profile

3.12.4 Sequence Diagram - Change password

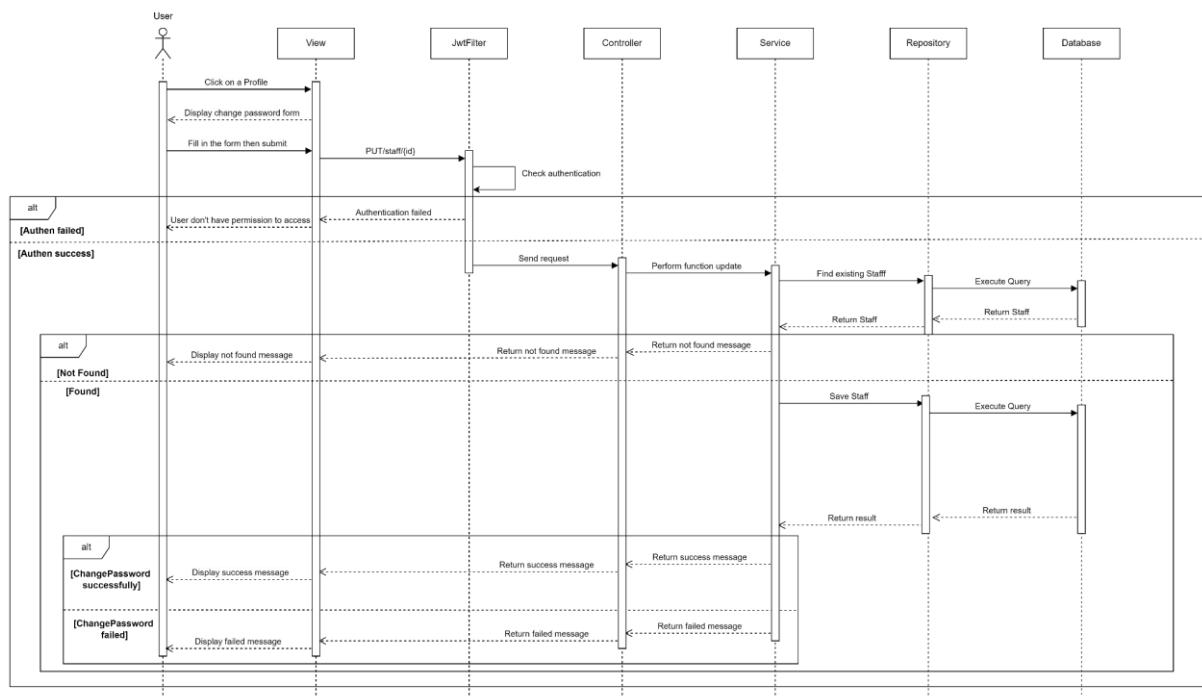


Figure 232: Sequence Diagram - Change password

3.13 Manage Transaction

3.13.1 Class Diagram

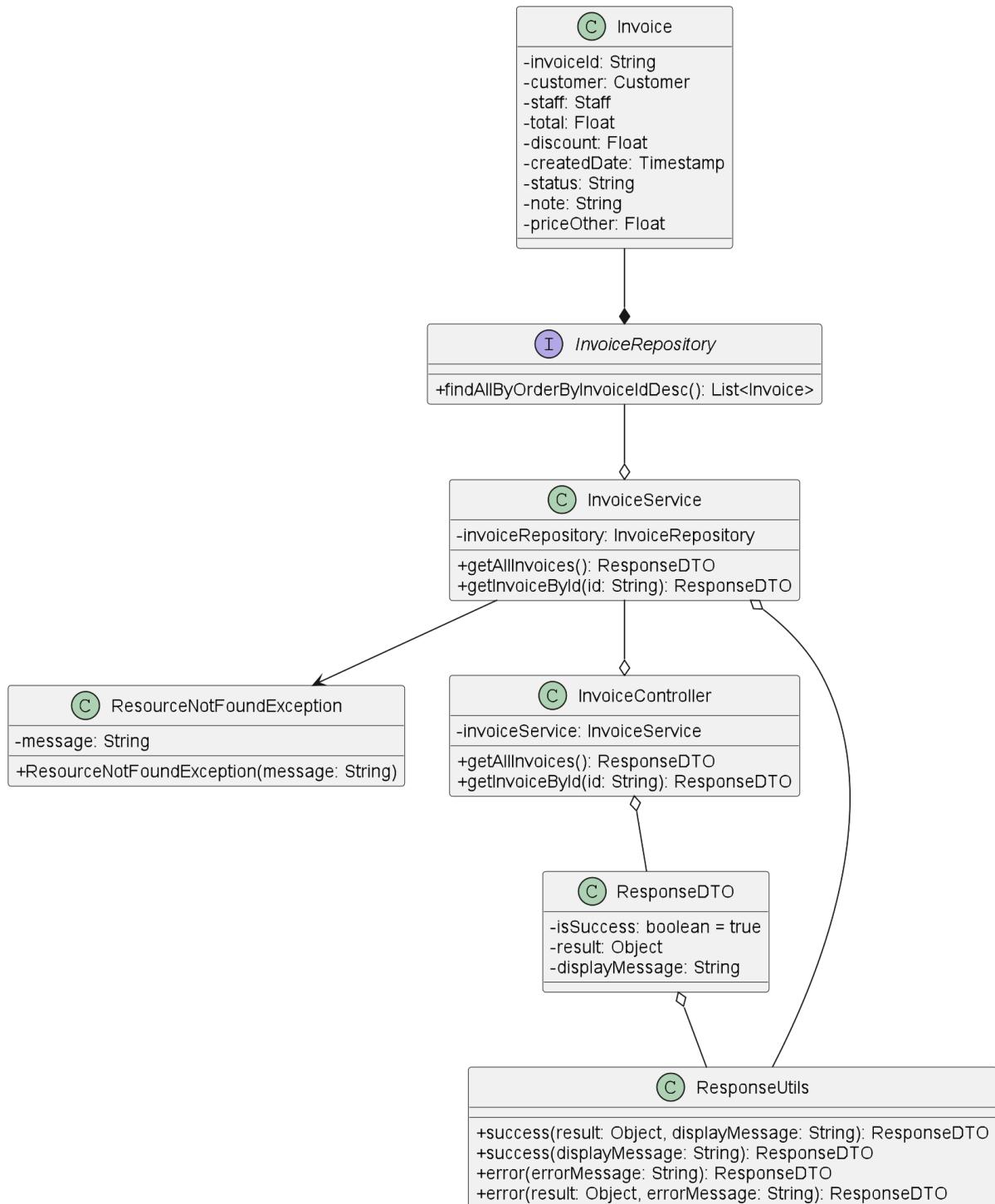


Figure 233: Class Diagram manage transaction

3.13.2 Sequence Diagram - View List Invoice

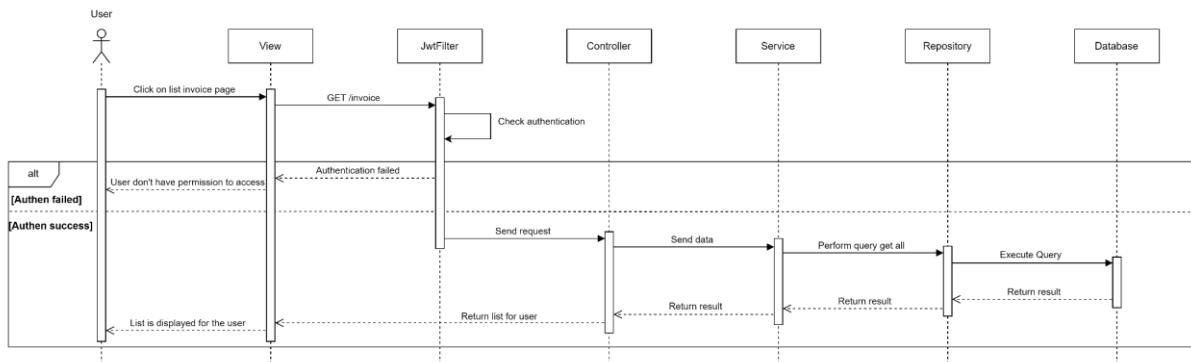


Figure 234: Sequence Diagram - View List Invoice

3.13.3 Sequence Diagram - View Invoice Detail

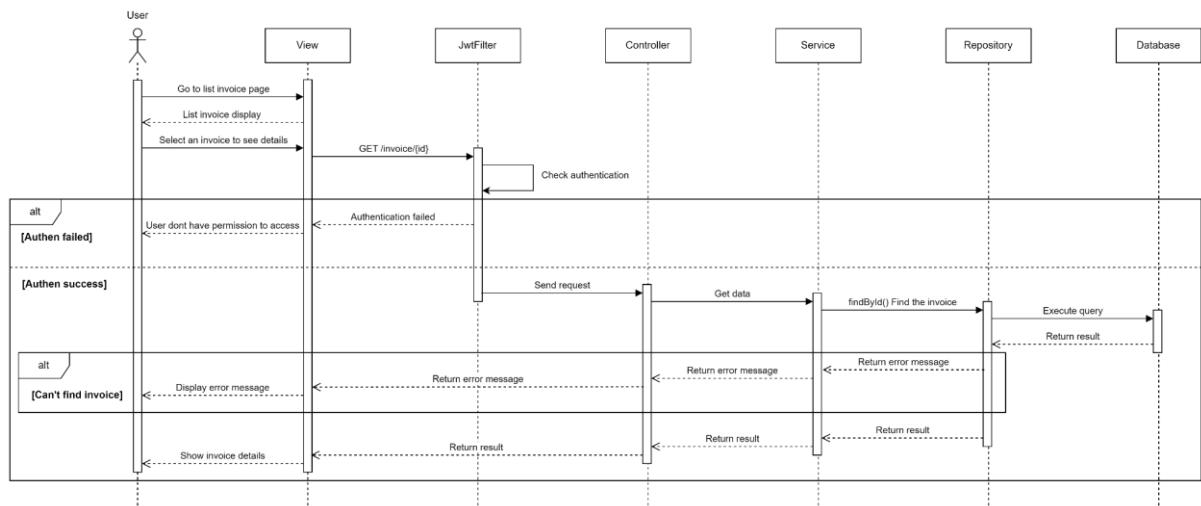


Figure 235: Sequence Diagram - View Invoice Detail

V. Software Testing Documentation

1. Scope of Testing

The scope of the test will be limited to testing one web application.

1.1 Target of Test

❖ Manage Room Category

- Create Room
- Update Room
- Delete Room
- View List Rooms
- View Room Detail
- Create area, Update area, List Area

❖ Manage Room

- Create Room Class
- Update Room Class
- Delete Room Class
- View List Room Class
- View details room class
- Create Room Class

❖ Goods, Service Management

- Create Goods, Service
- Update Goods, Service Information
- Delete Goods, Service
- List Goods, Service
- View Goods, Service Detail

❖ Inventory Management

- View List Inventory Checklist
- Create Inventory Checklist
- View Details Inventory checklist
- Update Inventory Checklist
- Cancel Inventory Checklist

❖ Authentication

- Login
- Logout
- Forgot password.

❖ Customer management

- List All Customer
- View Customer Detail
- View Transaction History
- Create Customer
- Update Customer
- Delete Customer

❖ Policy management

- View List Price List

- Create New Price List
- View Detail Price List
- Update Price List
- Delete Price List
- View List Other Revenue
- Create Other Revenue
- Update Other Revenue
- Delete Other Revenue
- Config Time Use
- Set surcharge of early check-in, late check-out
- Set surcharge of over number of people
- Set of surcharges cancel reservation
- Config deposit
- Rule of receiving point in promotion
- Rule of changing points in promotion

❖ **Reservation management**

- View List Reservation
- View List room in full calendar
- Create Reservation
- View Detail Reservation by Room
- Check-in
- Update Reservation
- Check-out
- Cancel Reservation
- Change Room In Reservation
- Create Order By Reservation Detail
- Create Invoice Reservation
- Create Retail invoice
- Support creating VN QR code or payment directly

❖ **Human resource management**

- View List Staff
- Create Staff
- Update Staff
- Delete Staff
- View Detail Staff
- Add Account for staff
- View List Department
- Create Department
- Update Department
- Delete Department

❖ **Transaction management**

- View List Invoice History
- View detail Invoice History
- Create Invoice
- Import goods management

- View List Import Goods
- Create Import Goods
- Update Import Goods
- Cancel Import Goods
- View Detail Import Goods
- Print Import Goods Sheet
- ❖ **Fund book management**
 - View List Fund Book
 - Create Fund Book
 - View Detail Fund Book
 - Cancel Fund Book
- ❖ **Report statistic**
 - Report current room occupancy
 - Recent receipt and invoice creation activities
 - Statistical revenue
 - Statistical Top Room Class
- ❖ **Profile management**
 - View Profile
 - Update profile
 - Change password

1.2 Levels of testing

Table 144: Levels of testing

Levels of testing	Description	Acceptance Criteria

Unit Test	Unit Test will be performed by the development team.	To pass this stage, all unit test cases must be tested and passed 100%. All defects should be fixed and re-tested. Average of 11 bugs/KLOC.
Integration Test	Integration testing allows individuals the opportunity to combine all of the units within a program and test them as a group. This test stage focuses on specific areas of use cases when all requirements are completed, integration tests should be performed to ensure all components incorporate well. Integration Test will be performed by Test Team	To pass this stage, all test cases must be tested and passed 100%. All defects should be fixed and re-tested. Average of 4 bugs/KLOC.
System Test	Testers will perform complete, end-to-end system testing stages in the pre-production environment to validate that functions and system interfaces perform properly in the production environment. System Test will be executed by the HORO Test Team.	To pass this stage, all test cases must be tested and passed 100%. All defects should be fixed and re-tested. Average of 0.5 bugs/KLOC.
Acceptance Test	Acceptance testing (or User Acceptance Testing) is conducted to determine whether the system is ready for release. ManaHotel's Responsibilities during Acceptance Test phase are: <ul style="list-style-type: none"> ● Facilitate completion on the application deployment ● Support fixing bugs ● Support Final User Acceptance Test 	Acceptance Test will be conducted and approved by the BA.

1.3 Constraint and assumption

- ❖ Time constraint: Time for testing is limited, and testing must be completed within the specified time frame.
- ❖ Resource constraints: Sample servers and databases will be available for testing.
- ❖ Assumption: The input data for testing is valid and has been prepared in advance.

2. Test Strategy

2.1 Testing Types

Function Testing

Table 145: Function Testing

Objective	The primary objective of functional testing is to validate that the software application or system behaves in accordance with the defined functional requirements
Technique	<ul style="list-style-type: none"> - Testers will create test scenarios against the requirements provided by the customer. Test scenarios will be created based on black box test technique. - Testers execute tests based on test scenarios and create reports. Common defects will be collected for an improved checklist. - Execute each case, using valid and invalid data, to verify the following: <ul style="list-style-type: none"> Get the expected results when valid and invalid data is used Valid input data is updated correctly into database The appropriate errors or warning messages are displayed when invalid data is used - Execute each case, using boundary data, to verify the following: <ul style="list-style-type: none"> + Get the expected results when boundary data is used + Data is updated correctly to database
Completion criteria	<ul style="list-style-type: none"> - All test cases related to functional requirements have been executed. - Any deviations from expected behaviour is documented, reported, and tracked as defects for resolution.

UI Testing*Table 146: UI Testing*

Objective	Ensure that the application's user interface functions properly and provides a good user experience.
Technique	<ul style="list-style-type: none"> - Testers will create specific test scenarios against UI prototypes approved by customer. - Testers execute tests based on test scenarios and create report. Common defects will be collected for improved checklists. - Execute each case, using valid, invalid and boundary data, to verify the expected results display when valid, invalid and boundary data is used
Completion criteria	All the main functions of the application are tested and working properly on the user interface.

API Testing*Table 147: API Testing*

Objective	Ensure that the APIs in the software application work as expected and fulfil their intended functionality.
Technique	<ul style="list-style-type: none"> - Plan and define input parameters to the API appropriately - Set up API test environment on postman tool - Full list of parameters for each Test case - In each TC write step by step method, URL, Request. - Get expected results after each test execution
Completion criteria	Ensure that API endpoints perform their intended functions accurately without unexpected behaviour.

2.2 Test Levels*Table 148: Test Levels*

Type of Tests	Test Level			
	Unit	Integration	System	Acceptance
Functional testing	X	X	X	X
User interface testing		X	X	X
API testing	X	X	X	X

2.3 Supporting Tools

Table 149: Supporting Tools

Purpose	Tool	Vendor/In-house	Version
Testers to send HTTP requests to APIs, validate API endpoints, parameters, headers, and responses.	Postman, Swagger	Postman	10.16, 2.0
Documenting	MS Word, Excel	Microsoft	2019

3. Test Plan

3.1 Human Resources

Table 150: Human Resources

Worker/Doer	Role	Specific Responsibilities/Comments
Trịnh Bảo Khánh	Project Manager	Responsible for Project Schedules and overall success of the project. Review Test Cases (UT, IT, ST), Test Plan, Test Results, Test Reports, Create UT test case
Nguyễn Quang Huy	Test Leader	Planning, Create Test Plan. Create Test Cases. Execute Test. Manage test resource and assign test tasks. Log test report
Nguyễn Quang Huân	Member	Create UT test case Execute test and report.
Cù Thị Hà Thu	Member	Execute test and report.

3.2 Test Environment

Table 151: Test Environment

Software	Provider	Version
MySQL 8.0	MySQL AB	8.0
Chrome	Google	117.0.5938
IntelliJ IDEA	JetBrains	2023
Postman or (Swagger)	Postman	9.27.0

3.3 Test Milestones

Table 152: Test Milestones

Milestone Task	Start Date	End Date
Create Test Plan Iteration 1	5/10/2023	5/10/2023
Review & Update Test Plan Iteration 1	6/10/2023	9/10/2023
Create Test Cases Iteration 1	10/10/2023	11/10/2023
Review & Update Test Cases Iteration 1	11/10/2023	12/10/2023
Execute & Report UT for Software Package Iteration 1	13/10/2023	14/10/2023
Execute & Report IT for Software Package Iteration 1	15/10/2023	17/10/2023
Execute & Report ST for Software Package Iteration 1	18/10/2023	19/10/2023
Create test plan Iteration 2	31/10/2023	2/11/2023
Review & Update Test Plan Iteration 2	3/11/2023	4/11/2023
Create Test Cases Iteration 2	4/11/2023	6/11/2023
Review & Update Test Cases Iteration 2	7/11/2023	10/11/2023
Execute & Report UT for Software Package Iteration 2	11/11/2023	13/11/2023
Execute & Report IT for Software Package Iteration 2	14/11/2023	16/11/2023
Execute & Report ST for Software Package Iteration 2	17/11/2023	19/11/2023
Create test plan Iteration 3	23/11/2023	23/11/2023
Review & Update Test Plan Iteration 3	24/11/2023	24/11/2023

Create Test Cases Iteration 3	25/11/2023	26/11/2023
Review & Update Test Cases Iteration 3	27/11/2023	29/11/2023
Execute & Report UT for Software Package Iteration 3	30/11/2023	2/12/2023
Execute & Report IT for Software Package Iteration 3	3/12/2023	6/12/2023
Execute & Report ST for Software Package Iteration 3	7/12/2023	10/12/2023
Create Test Report for Software Package final version	17/12/2023	18/12/2023

4. Test Cases

4.1 Unit Test

Detailed test cases will be described in the Report5.1_Unit Test.xlsx file.

4.2 Integration Test

Detailed test cases will be described in the Report5.2_Integration Test.xlsx file.

4.3 System Test

Detailed test cases will be described in the Report5.3_System Test.xlsx file.

4.4 Acceptance Test

Table 153: Acceptance Test

No	Question	Answer	Date	Created by
1	Are all mandatory fields validated?	Yes	10/12/2023	ThuCTH
2	Does the system display notification messages when there is trouble, error?	Yes	10/12/2023	ThuCTH
3	Is the interface suitable for display on the computer?	Yes	10/12/2023	ThuCTH
4	Does the system use icons to provide information to the user?	Yes	10/12/2023	ThuCTH
5	The most important fields are located where they are easy to be noticed?	Yes	10/12/2023	ThuCTH

6	Is it easy to distinguish where the title is, where is the content?	Yes	10/12/2023	ThuCTH
7	Is the text font easy to read?	Yes	10/12/2023	ThuCTH
8	Check the app's logout functionality?	Yes	10/12/2023	ThuCTH
9	Can system validate the reservation have same time and same room with another reservation?	Yes	10/12/2023	ThuCTH

5. Test Reports

5.1 Unit Test

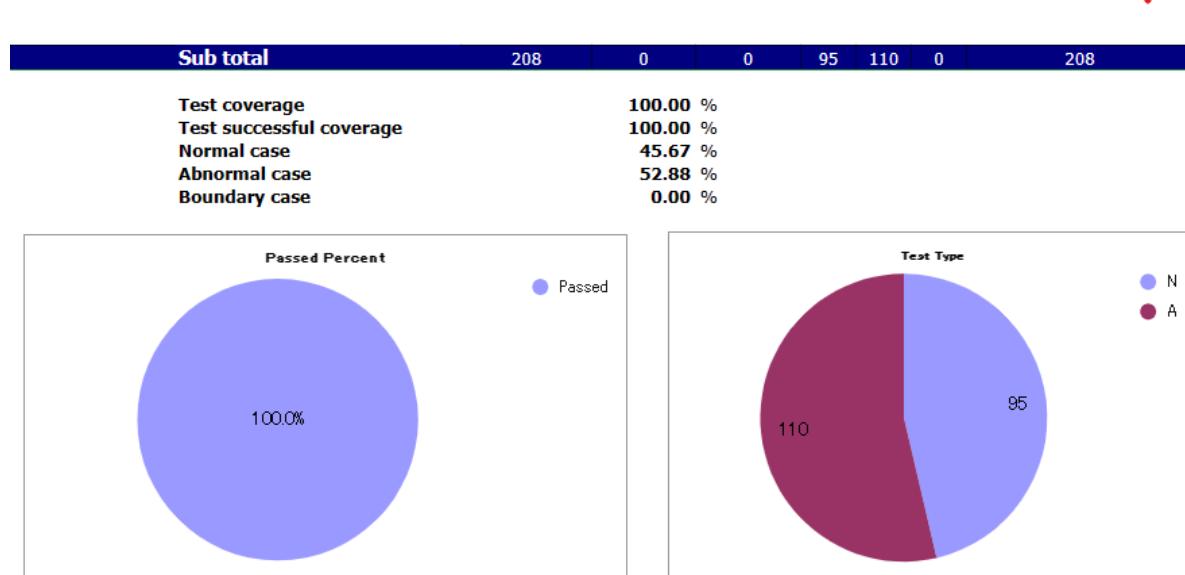


Figure 236: Unit Test

5.2 Integration Test

TEST STATISTICS

Project Name	<i>Hotel Manager System</i>	Creator	HuyNQ
Project Code	<i>ManaHotel</i>	Reviewer/Approver	
Document Code	<i>ManaHotel_Test_Report_v3</i>	Issue Date	<i>1/11/2023</i>
Notes			

No	Module code	Passed	Failed	Pending	N/A	Number of test cases
1	Manager Policy	40	0	0	0	40
2	Manager Room Class	14	0	0	0	14
3	Manager Room	13	0	0	0	13
4	Manager Customer	25	0	0	0	25
5	Manager Staff	27	0	0	0	27
6	Manager Goods	15	0	0	0	15
7	Manager FundBook	15	0	0	0	15
8	Manager Profile	4	0	0	0	4
9	Manager Hotel Reservation	25	0	0	0	25
10	Authentication	12	0	0	0	12
11	Manager Inventory	6	0	0	0	6
12	Manage Overview	18	0	0	0	18
13	Manager Transaction	11	0	0	0	11
Sub total		225	0	0	0	225

Test coverage
Test successful coverage

100.00 %
100.00 %

Figure 237: Integration Test

5.2 System Test

TEST STATISTICS

Project Name	<i>Hotel Manager System</i>	Creator	HuyNQ
Project Code	<i>ManaHotel</i>	Reviewer/Approver	
Document Code	<i>ManaHotel_Test_Report_v2</i>	Issue Date	<i>2/11/2023</i>
Notes			

No	Module code	Passed	Failed	Pending	N/A	Number of test cases
1	Manager Room	12	0	0	0	12
2	Manager Room Class	12	0	0	0	12
3	Manager Goods	14	0	0	0	14
4	Manager Staff	6	0	0	0	6
5	Manager Policy	8	0	0	0	8
6	Manager Reservation	6	0	0	0	6
Sub total		58	0	0	0	58

Test coverage
Test successful coverage

100.00 %
100.00 %

Figure 238: System Test

VI. Release Package & User Guides

1. Deliverable Package

Table 154: Deliverable Package

No.	Deliverable Item	Description	Type	Version
Code Package				
1	Backend	core_mana_hotel_be	ZIP	1.0
2	Frontend	Core_mana_hotel_fe	ZIP	1.0
Database				
3	Database File	Manahotel_db	Sql	1.0
Document				
4	Final Report	ManaHotel_Final_Project_Report	PDF	
Testing				
5	Testing Document		PDF	
6	Unit Test	Report5.1_Unit Test	XLS X	
	Integration Test	Report5.2_Integration Test	XLS X	
	System Test	Report5.3_System Test	XLS X	
Materials				
7	Slides	HOTEL MANAGER SYSTEM SLIDES	PDF	

2. Installation Guides

2.1 System Requirements

Hardware Requirement

Table 155: Hardware Requirement

PC or Laptop	Requirements
Internet connection	Cable, Wi-fi (4Mbps - 8Mbps)
Memory	2 GB - 4GB Ram up
Storage	2Gb - 4GB up
Processor	Intel Core i3 1.4Ghz - Core i7 2.5Ghz up
Web Browser	Chromes or Firefox

Software Requirement

Table 156: Software Requirement

DBMS	MySQL workbench 8.0 up	Used to manage database
Java	17 up	Used to hosting API server
Server	CPU: Intel (R) Xeon (R) E5-2650 v2 @ 2.60GHz up RAM : 4G UP HDD : 50G up	Used to hosting API server

2.2 Installation Instruction

Clone both source code:

Clone both source code Back-end, Front-end from GitLab URL in **Deliverable Package**

Build source code before deploy:

Build Backend:

Step 1: Setup connect database in file application-master.yml (Database USE RDS AWS)

```

  datasource:
    type: com.zaxxer.hikari.HikariDataSource
    driver-class-name: com.mysql.cj.jdbc.Driver
    url: jdbc:mysql://manahoteldb.chcfkpxl2uk.ap-southeast-1.rds.amazonaws.com:3306/MANAHOTEL_DB
    username: manahoteldb
    password: manahoteldb_123
  
```

Step 2:

Step 2: Build file jar. Open terminal run the command

NVM CLEAN PACKAGE

Build successfully.

```

[INFO] Replacing main artifact D:\FPTU\2023\Capstone Project - 641\core_mana_hotel.jar
[INFO] The original artifact has been renamed to D:\FPTU\2023\Capstone Project - 641\core_mana_hotel.jar.old
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  20.467 s
[INFO] Finished at: 2023-12-17T23:19:14+07:00
[INFO] -----
[INFO] 

Process finished with exit code 0
  
```

Build Frontend:

Step 1: Setup URL server backend in file axiosConfig.js

```
const BASE_URL : string = "http://52.77.213.37:8080/";
```

Step 2: build project front end. Open terminal run the command

Install npm	npm i
Run build project	npm run build

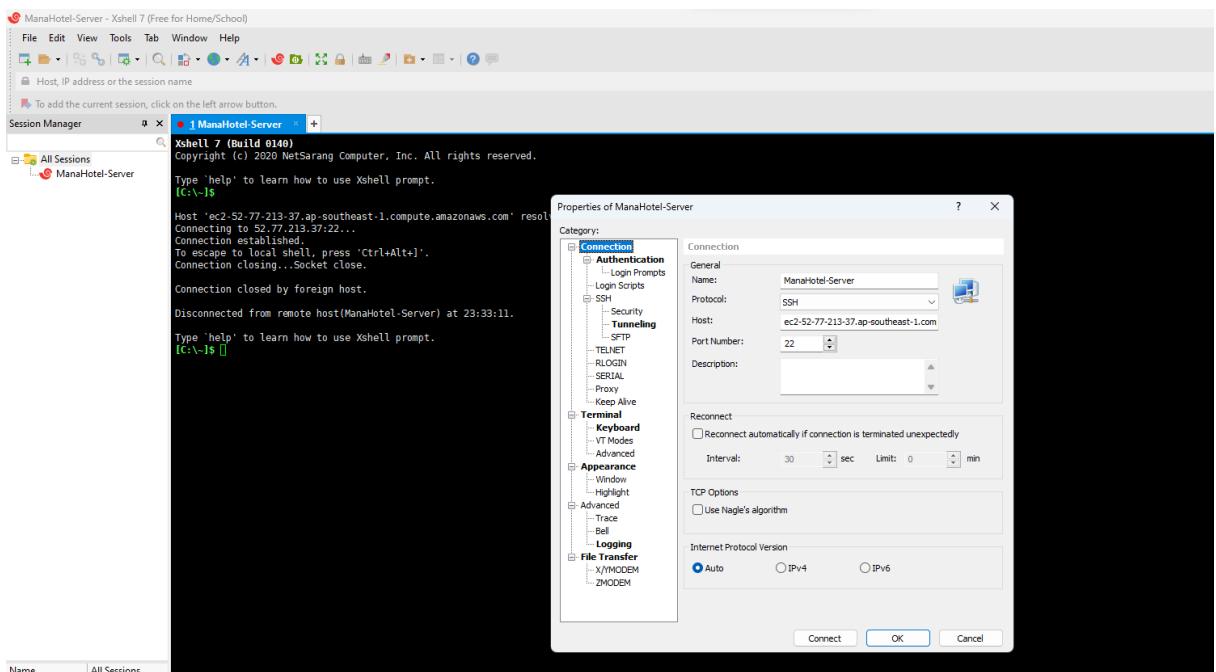
Deploy project to the server:

Deploy BackEnd: (USE EC2 AWS)(Setup port public 8080 into server)

Use 2 software: Xshell 7, Xfpt 7

Step 1: Connect to the server backend. Enter information same image. Login to server

(Host: IP public server, Protocol SSH, Port 22(administration))



```

Host 'ec2-52-77-213-37.ap-southeast-1.compute.amazonaws.com' resolved to 52.77.213.37.
Connecting to 52.77.213.37:22...
Connection established.
To escape to local shell, press 'Ctrl+Alt+]'.

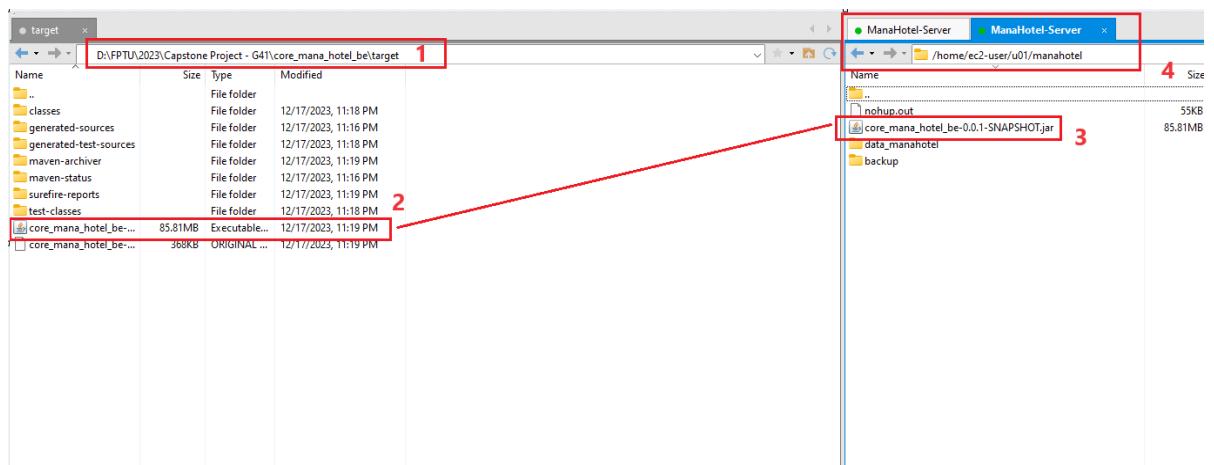
WARNING! The remote SSH server rejected X11 forwarding request.

A newer release of "Amazon Linux" is available.
Version 2023.2.20231016;
Version 2023.2.20231018;
Version 2023.2.20231026;
Version 2023.2.20231030;
Version 2023.2.20231113;
Version 2023.3.20231211;
Run "/usr/bin/dnf check-release-update" for full release and version update info
      # Amazon Linux 2023
      \### https://aws.amazon.com/linux/amazon-linux-2023
      \# V-->
      ~~~
      /m/
Last login: Sun Dec 17 15:18:01 2023 from 3.0.5.36
[ec2-user@ip-172-31-41-177 ~]$ 

```

Step 2: Push file jar to the server using Xftp.

Access the path (1), (4) copy file jar 2 to replace file jar on server



Step 3: Run process. Run the command

Access the path.	cd /u01/manahotel/
Up to admin	sudo su
Run process	Nohup java -jar core_mana_hotel_be-0.0.1-SNAPSHOT.jar

process backend is running

```

[ec2-user@ip-172-31-41-177 ~]$ ps aux | grep "core_mana_hotel_be"
root      183257  0.3 28.9 2561572 281148 pts/0   Tl  15:18 0:20 java -jar core_mana_hotel_be-0.0.1-SNAPSHOT.jar
ec2-user  187372  0.0  0.2 222316  2052 pts/1   S+  17:01 0:00 grep --color=auto core_mana_hotel_be

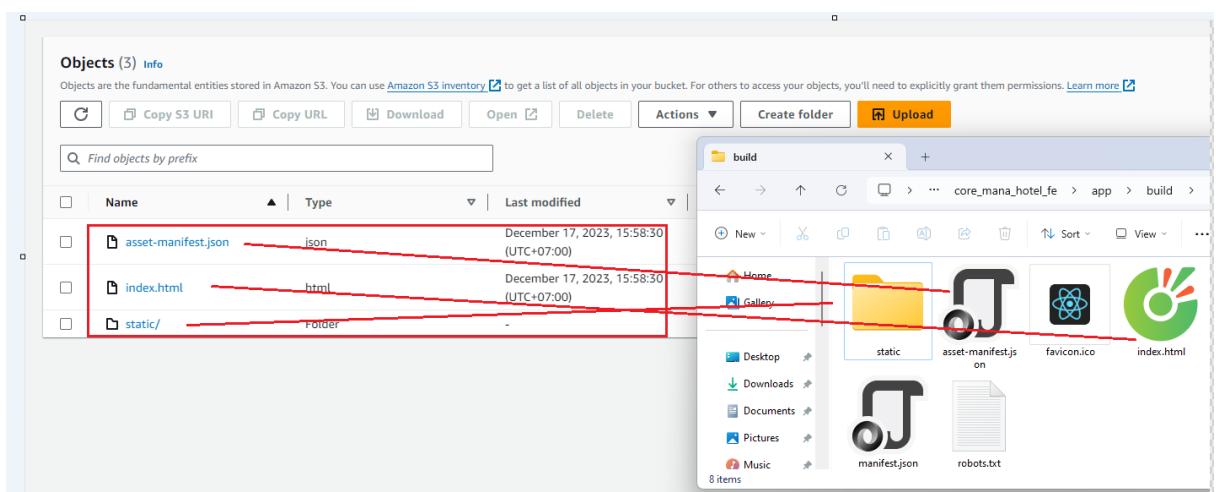
```

Deploy fontEnd: (USE S3 AWS)

Step 1: Setup policy

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadGetObject",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::manahotel/*"
    }
  ]
}
```

Step 2: Update load file, folder build into folder build project front end to the server



Some commands still operate on the system

Table 157: Some commands still operate on the system

Check run	ps aux grep “core_mana_hotel_be-0.0.1-SNAPSHOT”
Check log system	cd / u01/manahotel/data_manahotel/data_manahotel_log tail -200f manahotel.log
Stop process	Kill “ID process” Ex: Kill 183257
Check port	sudo netstat -plten
Check server load	ps aux/ df -h

3. User Manual

3.1 Overview

The goal of the ManaHotel hotel management application is to initially support Van Lam hotel in obtaining the most comprehensive, reliable and optimal solution to help manage and operate the hotel effectively. From managing room, room class, areas, managing goods and services, managing funds, managing invoices, managing inventory, transactions, managing staff, managing customers, to managing room reservations., check-in, check-out, retail goods, payment, thereby bringing benefits to hotels.

3.2: Manage authentication

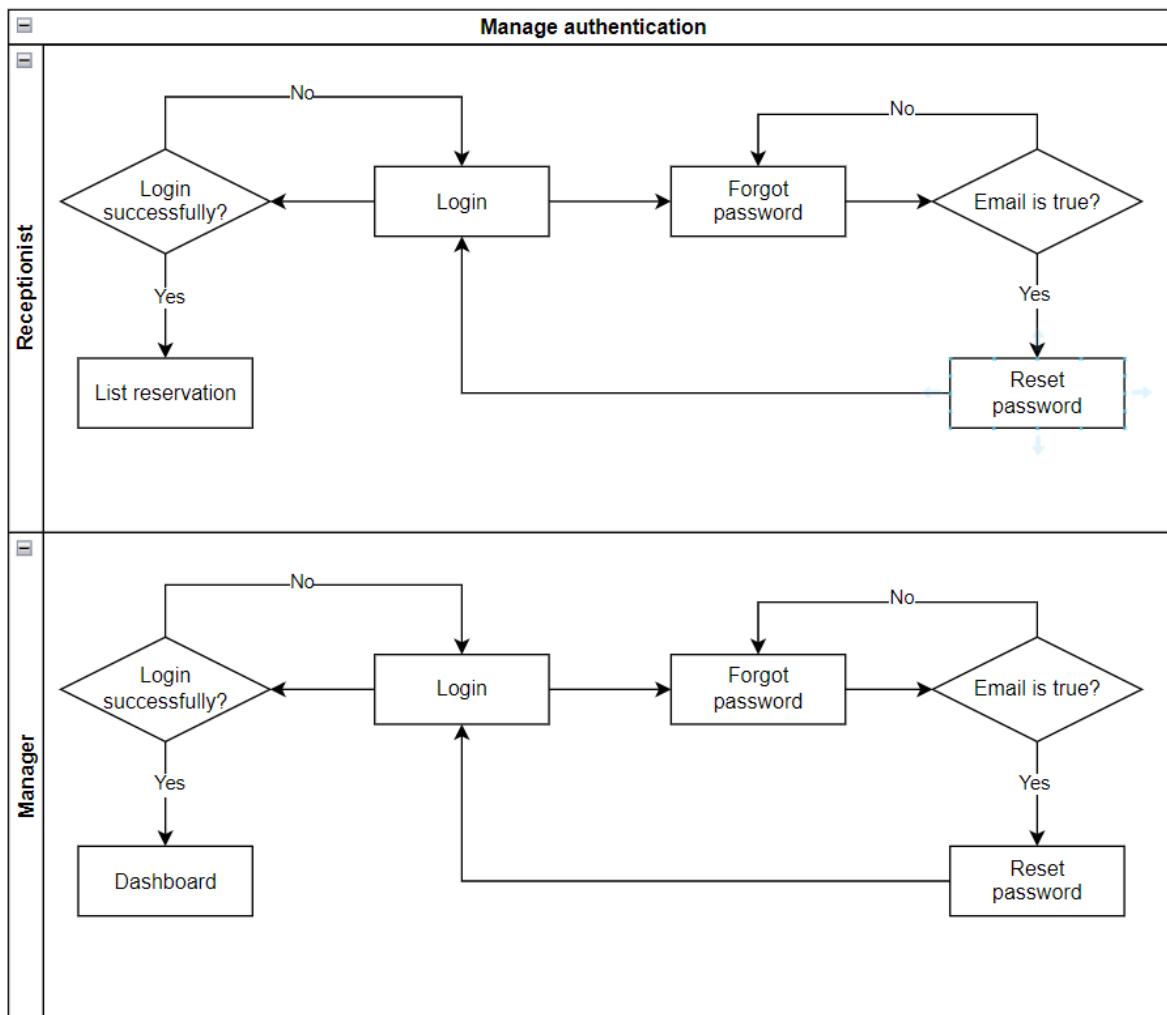
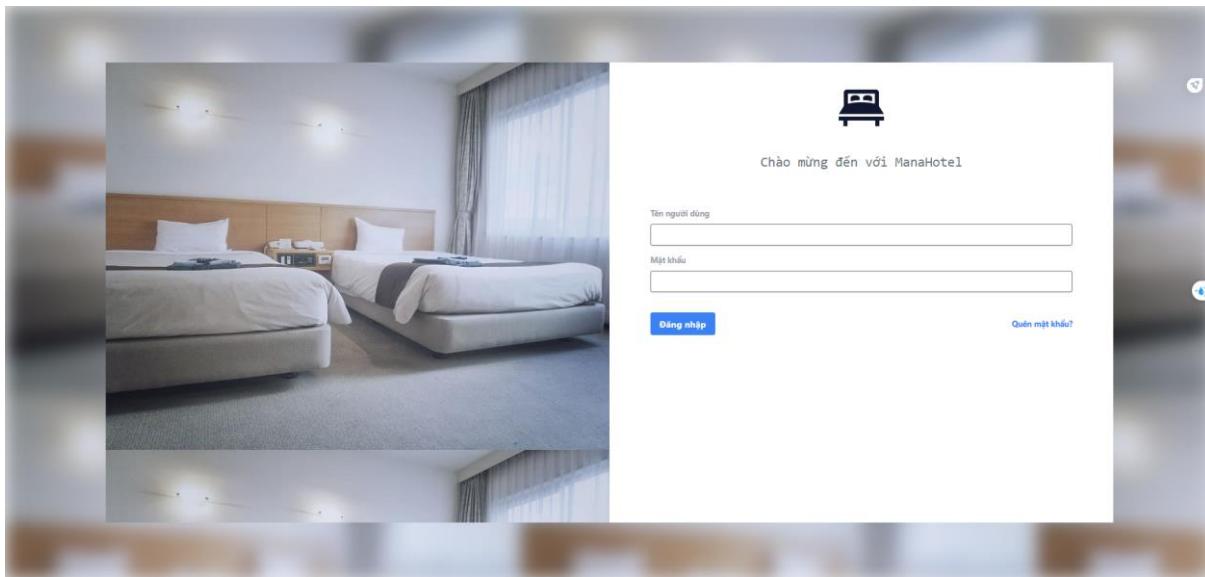


Figure 239: Workflow of manage authentication.

3.2.1: Login and logout:

Step 1: User access to the system.



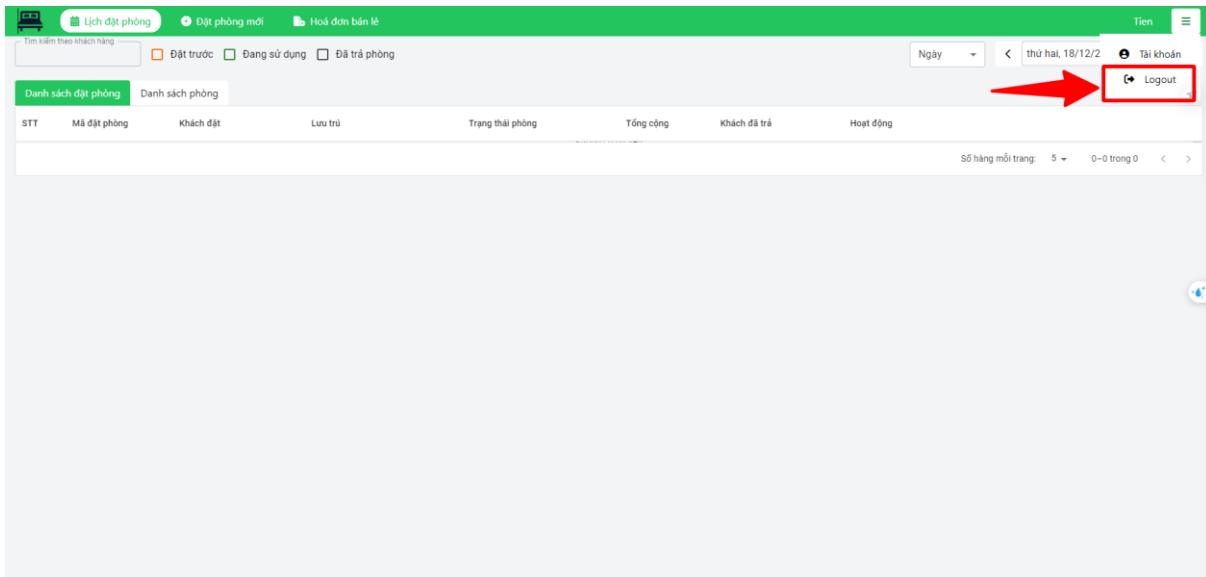
Step 2: User inputs username and password, clicks login button to submit.

Step 3: User logout by hover more action in page and clicks button logout:

With role manager:

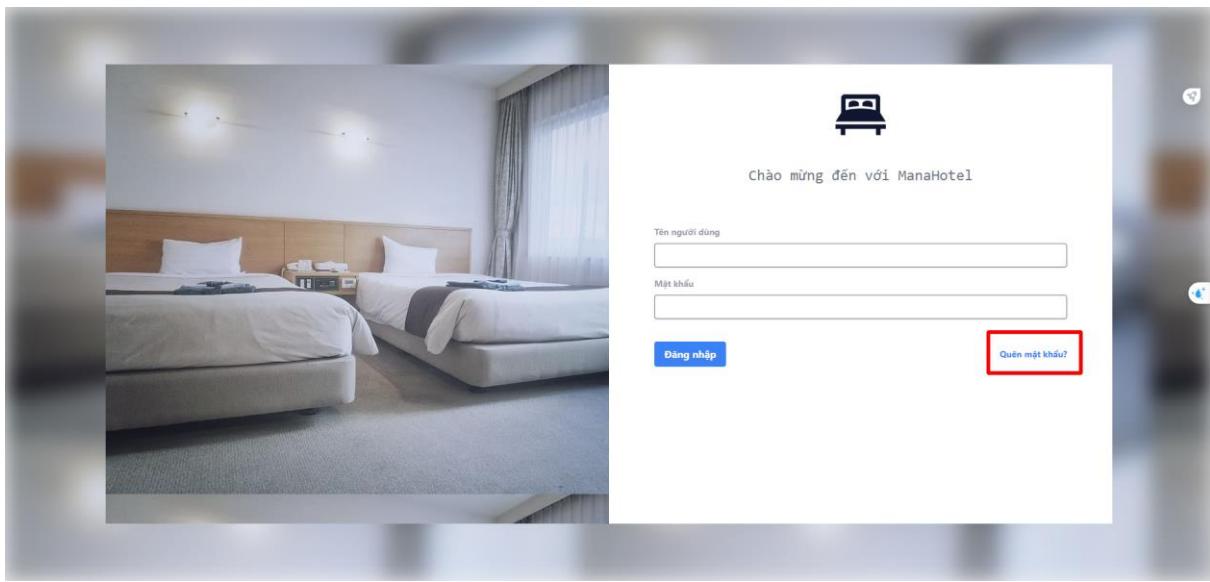
A screenshot of the ManaHotel software interface. At the top is a blue navigation bar with various menu items like 'Tổng quan', 'Phòng', 'Danh mục', etc. On the far right of the bar, there is a user profile icon labeled 'admin' with a dropdown arrow. A red box labeled '1' with an arrow points to this profile icon. To the right of the dropdown, there are links for 'Logout' and 'Tài khoản'. Another red box labeled '2' with an arrow points to the 'Logout' link. Below the navigation bar is a dashboard section with two circular progress indicators: one showing '4/8 Phòng Đang có khách' (Occupied rooms) and another showing '4/8 Phòng Đang trống' (Empty rooms). Both are at 50.00%. Below these are two line graphs. The first graph, 'CÔNG SUẤT PHÒNG HIỆN TẠI', shows room availability over time from 01 to 13, starting at 20% and dropping to near 0% by day 02. The second graph, 'DOANH THU THEO THÁNG 0 VND', shows revenue over the same period, starting at approximately 20% and fluctuating slightly. At the bottom of the screen is a Windows taskbar with icons for search, file explorer, and various applications. The date and time 'Th12 2023 5:34 PM 12/13/2023' are visible in the bottom right corner.

With role receptionist:

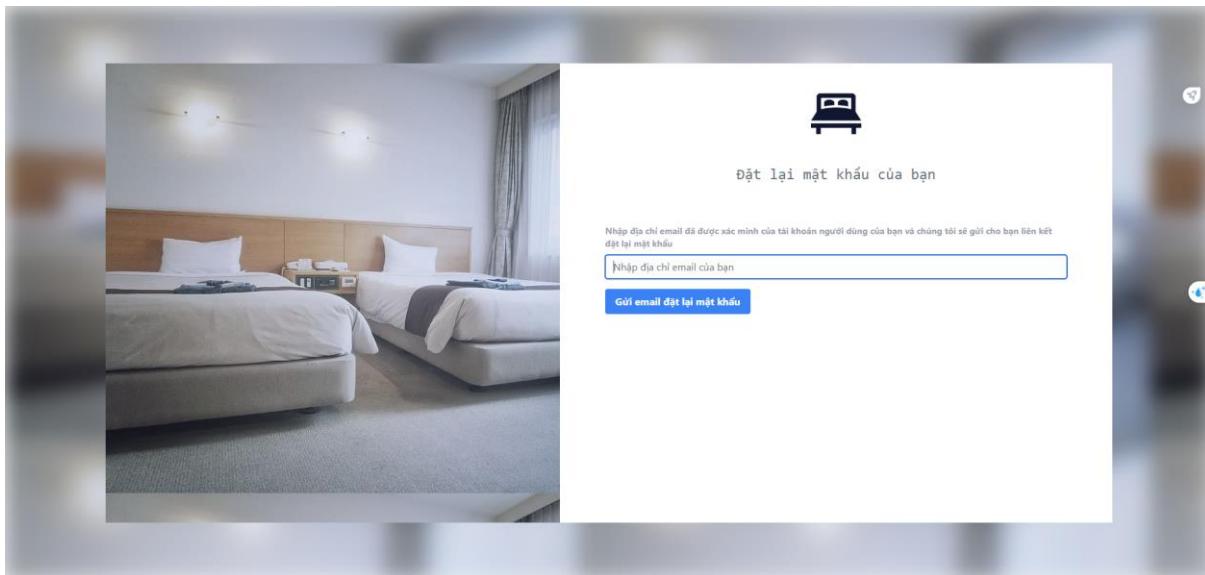


3.2.2: Forgot password:

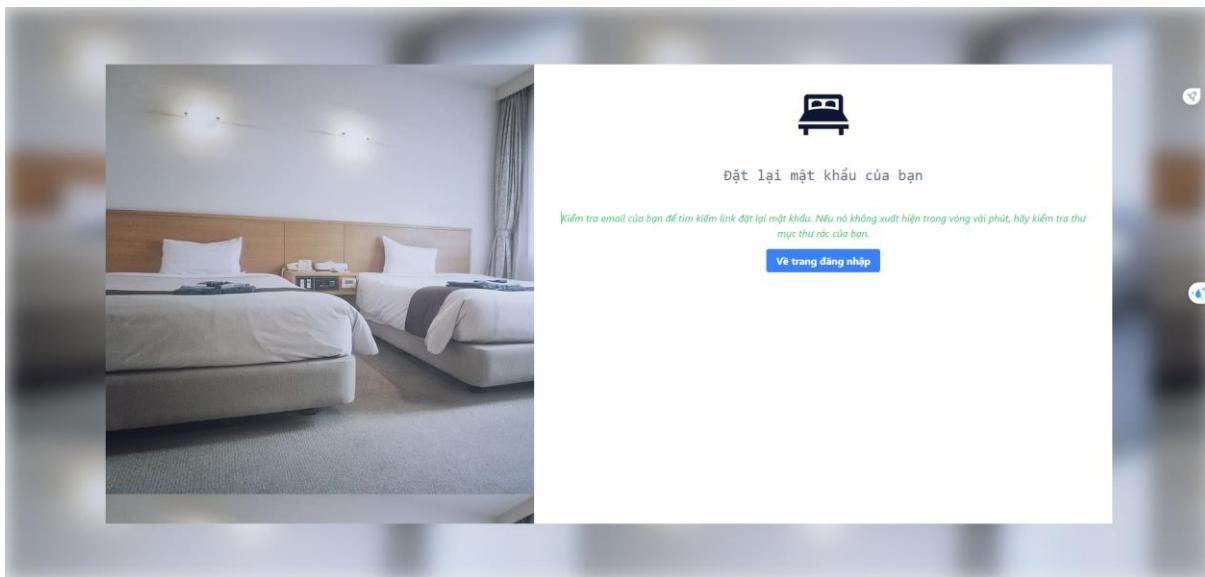
Step 1: User clicks link for forgot password in login page.



Step 2: User inputs email and submit.



If the system shows this page, your email is correct.



Step 3: User checks mail, accesses reset password link in email.

The email content is as follows:

Xác minh yêu cầu đặt lại mật khẩu

Chào [REDACTED]

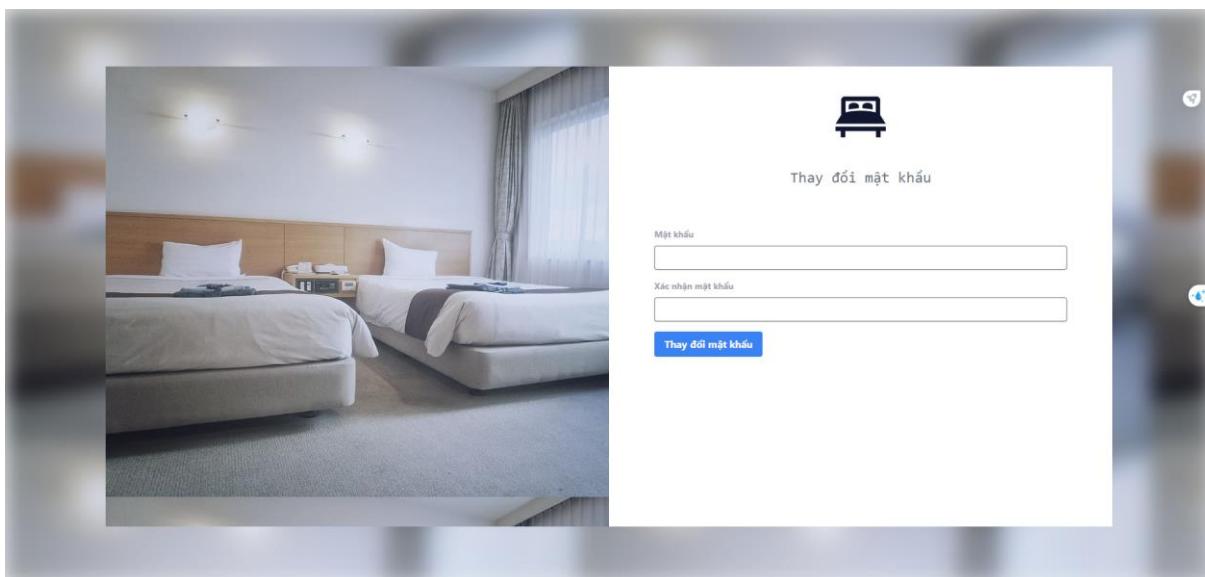
Gửi đây bạn đã yêu cầu đặt lại mật khẩu của mình

Vui lòng nhấp vào liên kết bên dưới để hoàn thành hành động.

[Đặt lại mật khẩu](#)

Dịch vụ công đăng ký người dùng

Step 4: User inputs new password and submit.



Step 5: User login with new password in login page.

3.3: Manage room class:

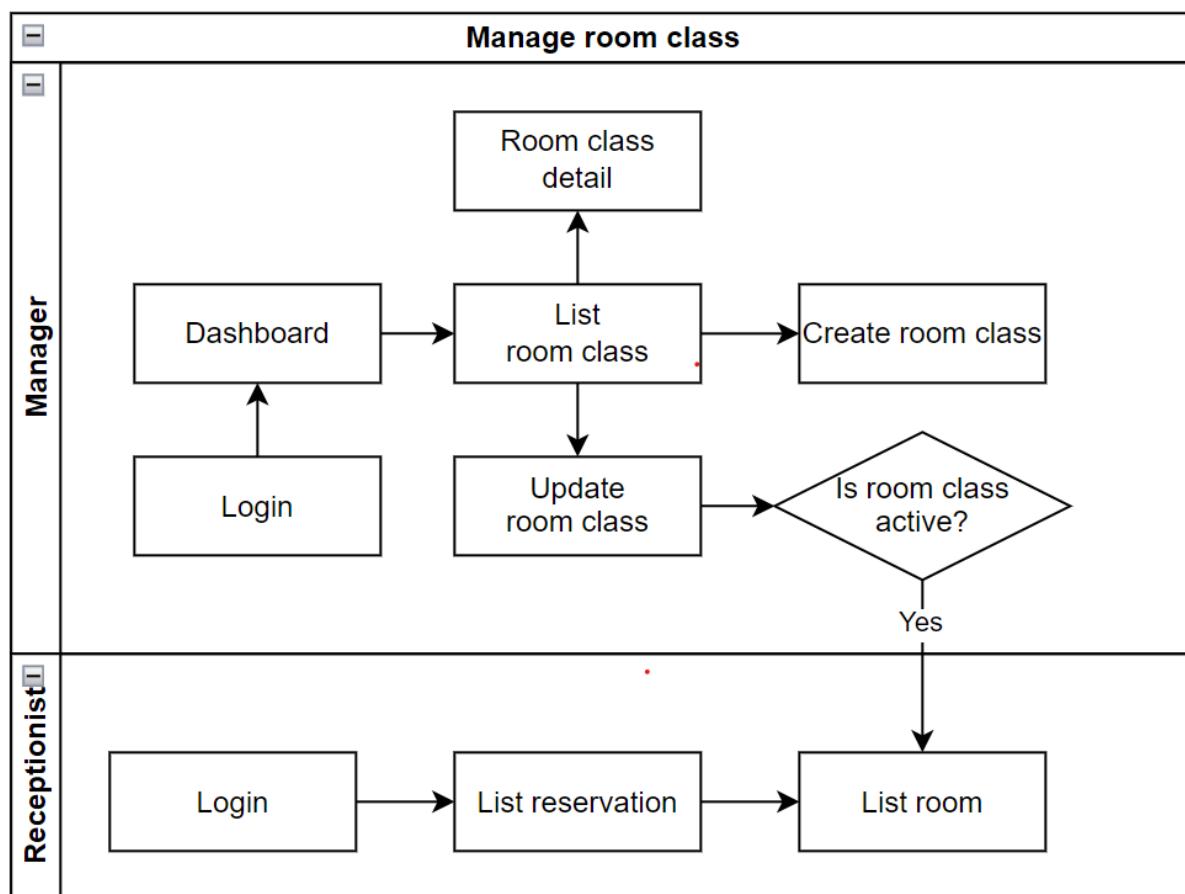


Figure 240: Workflow of manage room class

3.3.1: View list room class, search room class, view detail room class:

Step 1: With role receptionist: Receptionist login (guide 3.2.1) and accesses list room page to view room class:

The screenshot shows a software interface for managing hotel rooms. At the top, there are tabs for 'Lịch đặt phòng' (Booking Schedule), 'Đặt phòng mới' (New Booking), and 'Hoa đơn bán lẻ' (Sales Receipt). Below these are several filter checkboxes: 'Đã trả phòng', 'Đặt trước', 'Đang sử dụng', and 'Chờ tạo hóa đơn'. A date range selector shows 'Ngày' (Day) and 'thứ tư, 13/12/2023'. The main area is titled 'Danh sách đặt phòng' (List of Bookings) and contains a grid of room details. The first row shows 'Phòng hạng trung' (Medium Room Type) with room numbers P.201 and P.202. Other rows show 'Phòng đơn' (Single Room) with P.301 and P.302, 'Phòng gia đình' (Family Room) with P.401 and P.402, and 'Phòng VIP' (VIP Room) with P.501 and P.502. A red arrow points to the 'Danh sách phòng' (Room List) button at the top left of the booking grid.

Step 2: With role manager: manager login system (Guides 3.2.1) and accesses manage room class page by clicking on room class button in the header (1 in image).

The screenshot shows a software interface for managing room types and rooms. At the top, there are tabs for 'Tổng quan' (Overview), 'Phòng' (Room), 'Danh mục' (Category), 'Giao dịch' (Transaction), 'Số quý' (Inventory), 'Khách hàng' (Customer), 'Nhân viên' (Employee), and 'Chính sách' (Policy). The 'Phòng' tab is highlighted with a red arrow labeled '1'. Below the tabs, the title 'Hạng phòng & Phòng' (Room Type & Room) is displayed. There are two buttons: 'Hang phòng' (Room Type) and 'Danh sách phòng' (Room List). The 'Hang phòng' button is highlighted with a red arrow labeled '2'. Underneath, there is a 'Bộ lọc' (Filter) button with a magnifying glass icon, also highlighted with a red arrow labeled '2'. The main area shows a table of room details. The columns include: Mã phòng (Room ID), Tên phòng (Room Name), SL phòng (Number of rooms), Phòng còn t... (Available rooms), Giá theo giờ (Hourly price), Giá theo ngày (Daily price), Giá theo đêm (Nightly price), Trạng thái (Status), and Hoạt động (Actions). The 'Hoạt động' column for room HP000001 (Phòng cơ bản) has a red box around it, with a red arrow labeled '3' pointing to it. The table also includes a 'ĐỘ GIẢN' (Simplification) button and an 'XUẤT' (Export) button. At the bottom right, there is a pagination indicator 'Số hàng mỗi trang: 5' (5 items per page) and '1-5 trong 10' (1-5 of 10).

Step 3: Manager search room class by clicking on “Bộ lọc” (2 in image of step 2) and input text to search.

The screenshot shows a software interface for managing room types and rooms. At the top, there's a navigation bar with links like 'Tổng quan', 'Phòng', 'Danh mục', 'Giao dịch', 'Số quý', 'Khách hàng', 'Nhân viên', and 'Chính sách'. Below the navigation is a title 'Hạng phòng & Phòng'. There are two tabs: 'Hạng phòng' (selected) and 'Danh sách phòng'. A search bar at the top left has a dropdown menu set to 'Tên hạng phòng' with the value 'Chưa'. A red box highlights this search bar. To the right of the search bar are buttons for '+ Thêm hạng phòng' and '+ Thêm phòng'. The main area is a table with columns: Mã hạng phòng, Tên hạng phòng, SL phòng, Phòng còn..., Giá theo giờ, Giá theo ngày, Giá theo đêm, Trạng thái, and Hoạt động. The table contains several rows of room type data.

Step 4: Manager views detail each room class by clicking view detail icon of each item room class (3 in image of step 2)

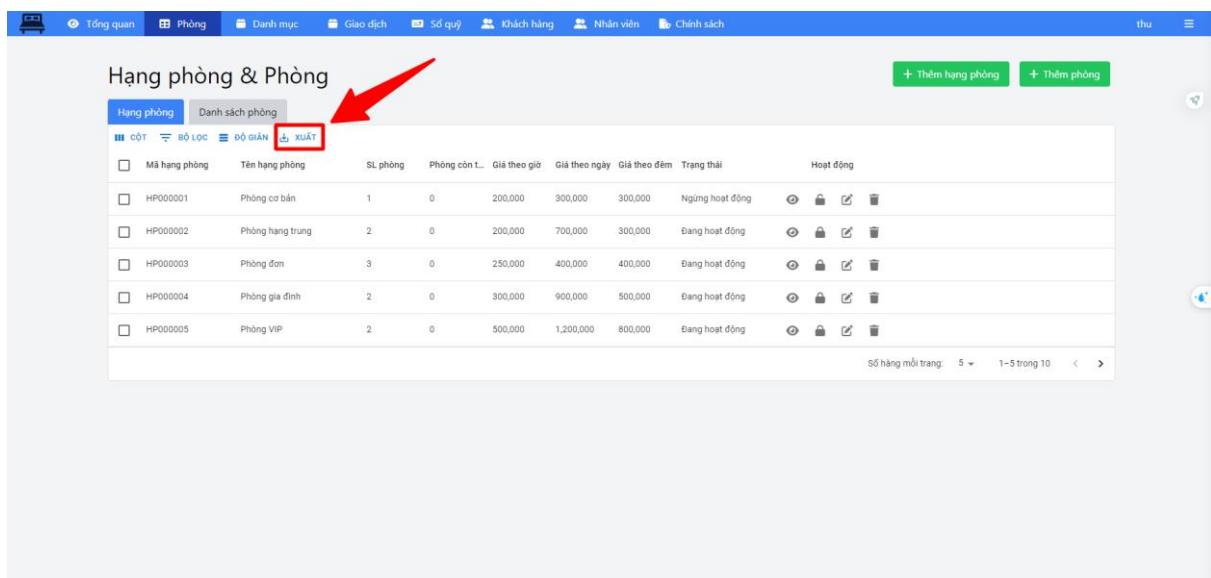
This screenshot shows a detailed view of a room class ('Phòng cơ bản') in a modal window. The window title is 'Thông tin hạng phòng'. It has tabs for 'Thông tin' (selected) and 'Danh sách phòng'. The 'Thông tin' tab displays various details about the room type, such as code (HP000001), name (Phòng cơ bản), quantity (1), occupancy (Người lớn: 2, Người lớn tối đa: 3, Trẻ em: 1, Trẻ em tối đa: 2), dimensions (20(m²)), and price information (Giá theo giờ: 200,000, Giá theo ngày: 300,000, Giá theo đêm: 300,000). The 'Danh sách phòng' tab is visible below. The background shows the same room list as the previous screenshot, with a red box highlighting the close button (X) in the top right corner of the modal window.

Step 5: Close popup detail room class by clicking close button.

3.3.2: Export room class:

Step 1: Login with manager role (guide in 3.2.1) and access manage room class page.

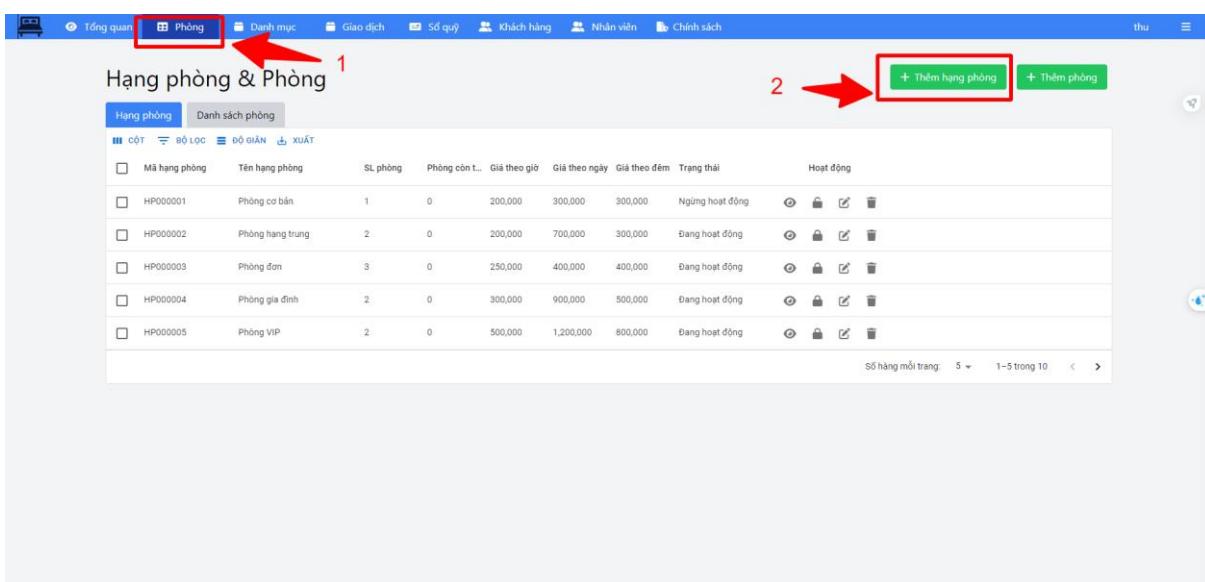
Step 2: Export by clicking export icon in table list room class.



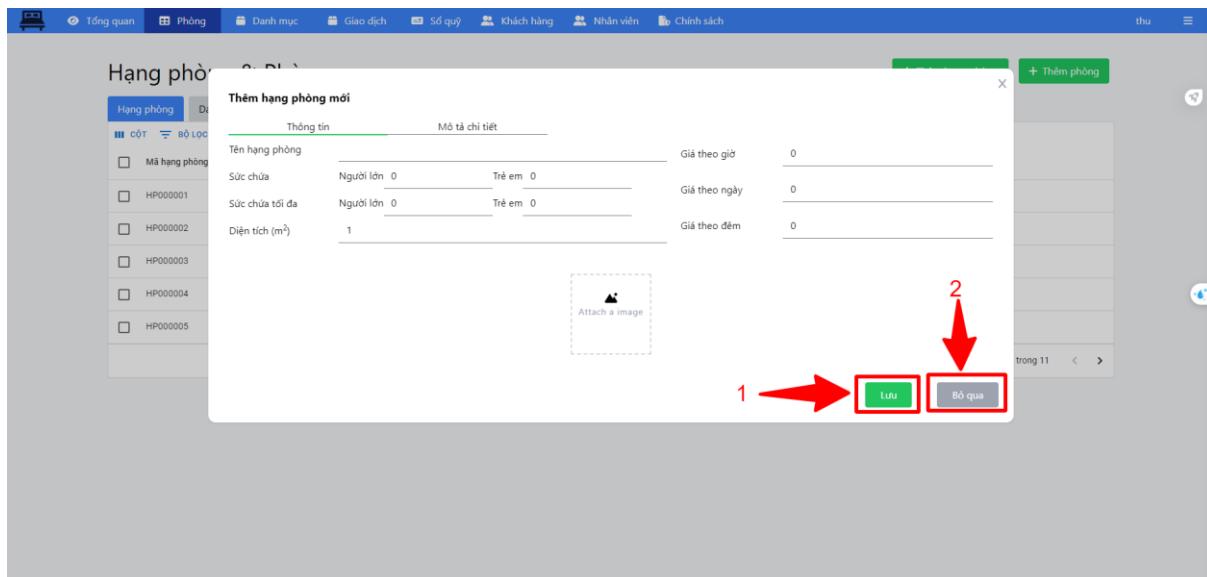
3.3.3: Create new room class:

Step 1: User login with manager role (guide in 3.2.1).

Step 2: User clicks button create new room class in manage room class page:



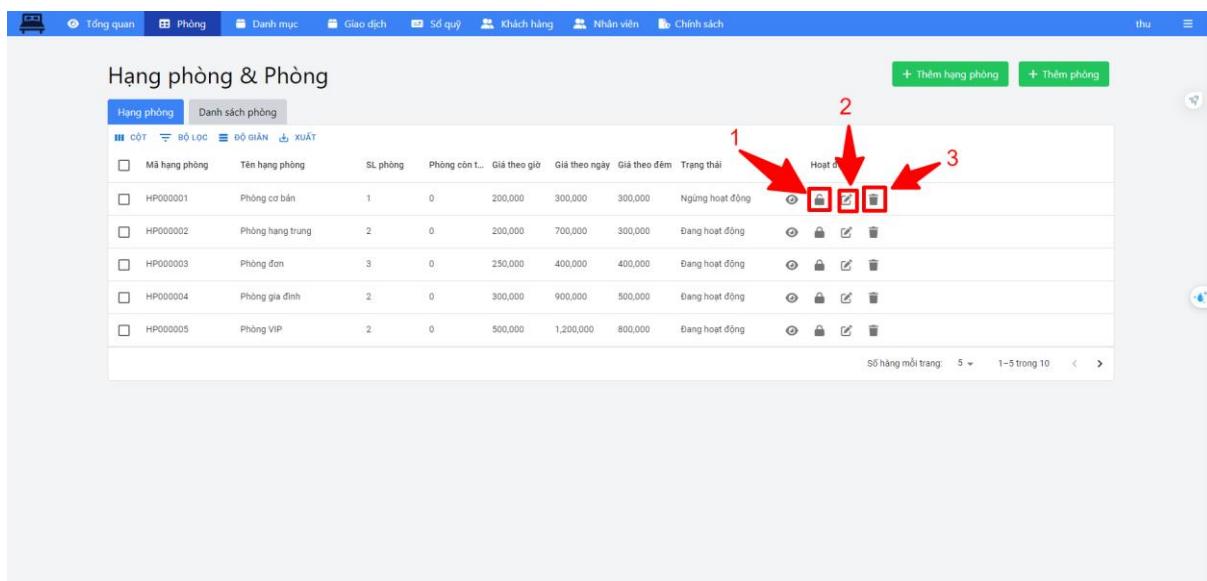
Step 3: User fills room class information and clicks the save button to save (1 in image) or clicks cancel button (2 in image) to cancel.



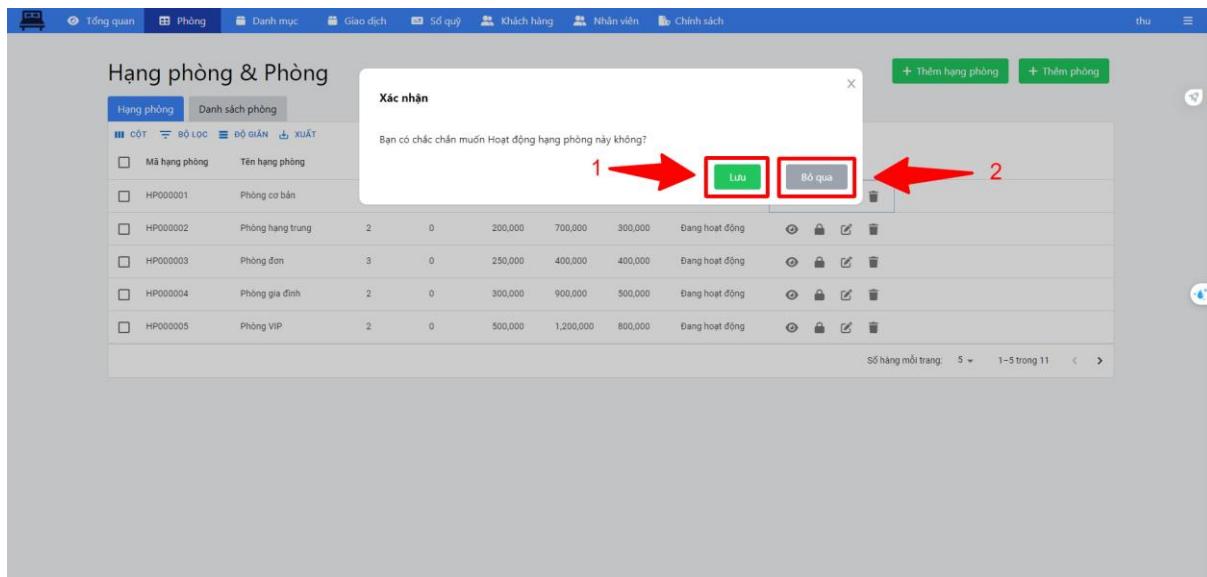
Step 4: Receptionist views list room with room class in list room page. (guide 3.3.1 step 2)

3.3.4: Update, delete room class:

Step 1: Manager login (guide 3.2.1) and access room class page.

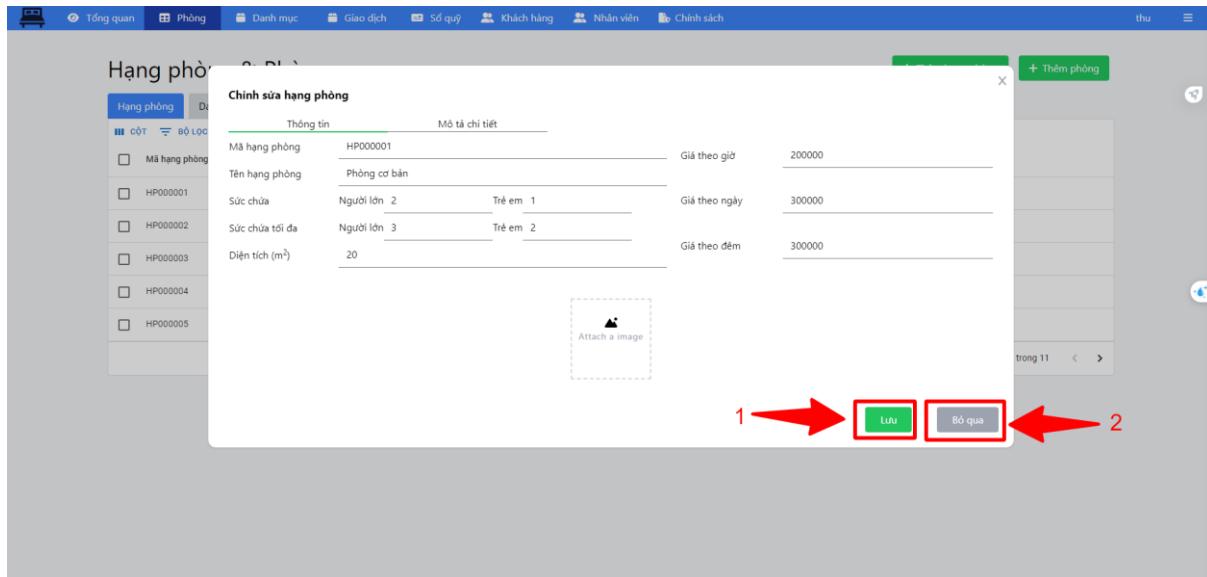


Step 2: Manager updates status for room class by clicking on icon change status (1 in image of step 1). System shows confirm popup.

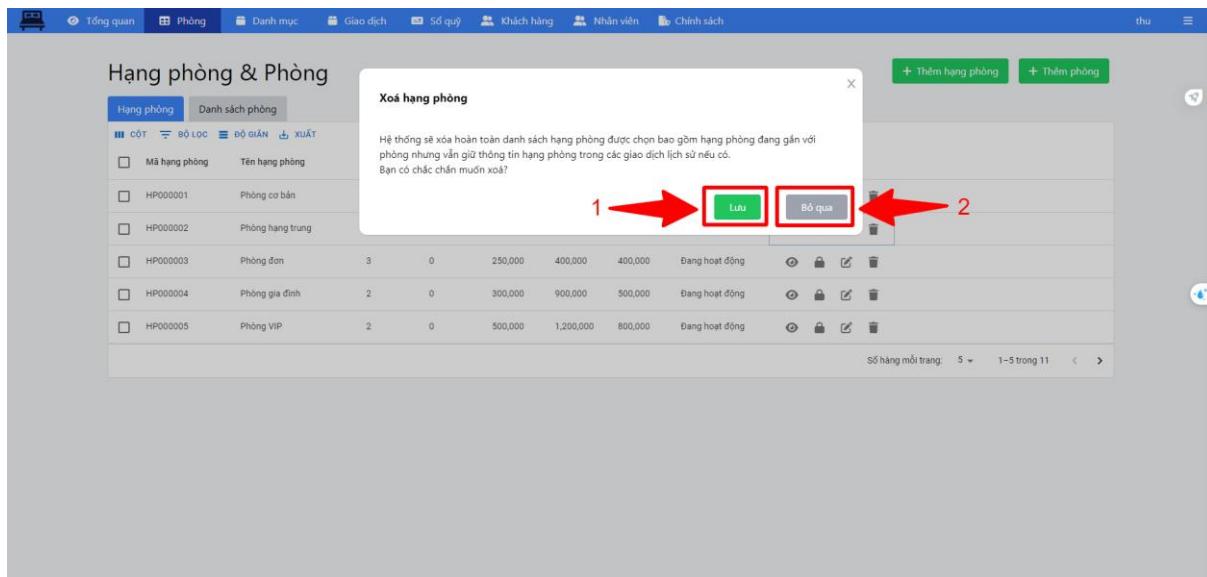


Clicks save button (1 in image) to save changes or clicks cancel button (2 in image) to cancel.

Step 3: Manager updates room class information by clicking update icon (2 in image of step 1) to open popup update. Manage updates information and submit by clicking save button or cancel by clicking cancel button.



Step 4: Manager deletes room class by clicking on delete icon (3 in image in step 1). System shows confirm popup. Clicking button save (1 in image) to delete room class or clicking cancel button to cancel.



3.4: Manage room:

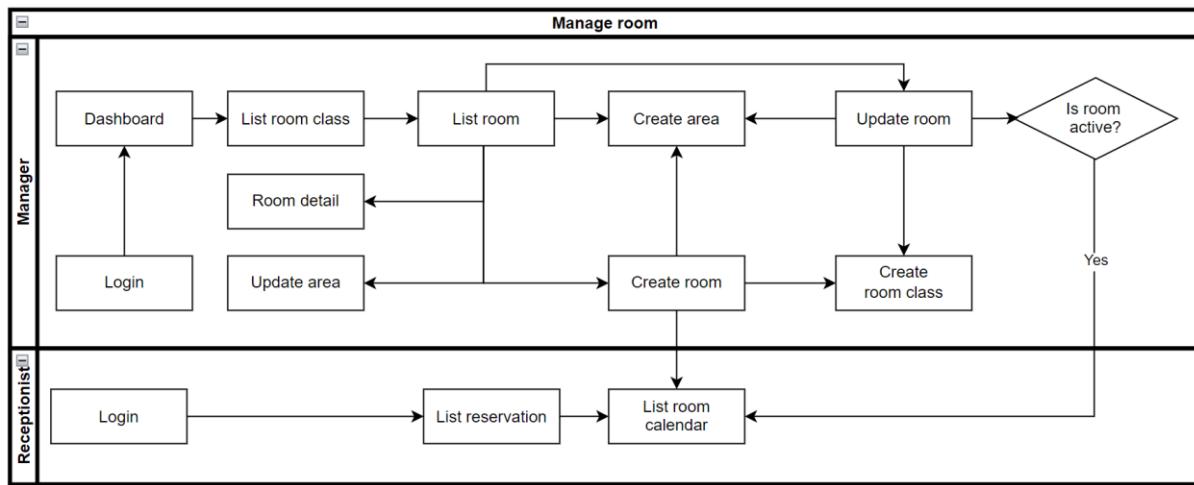
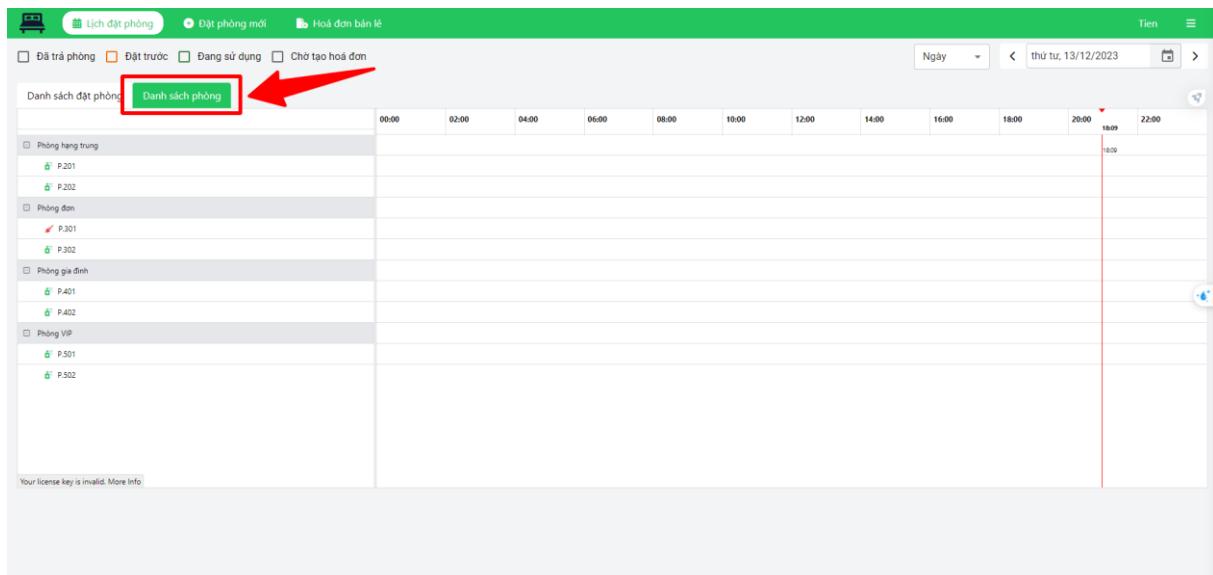


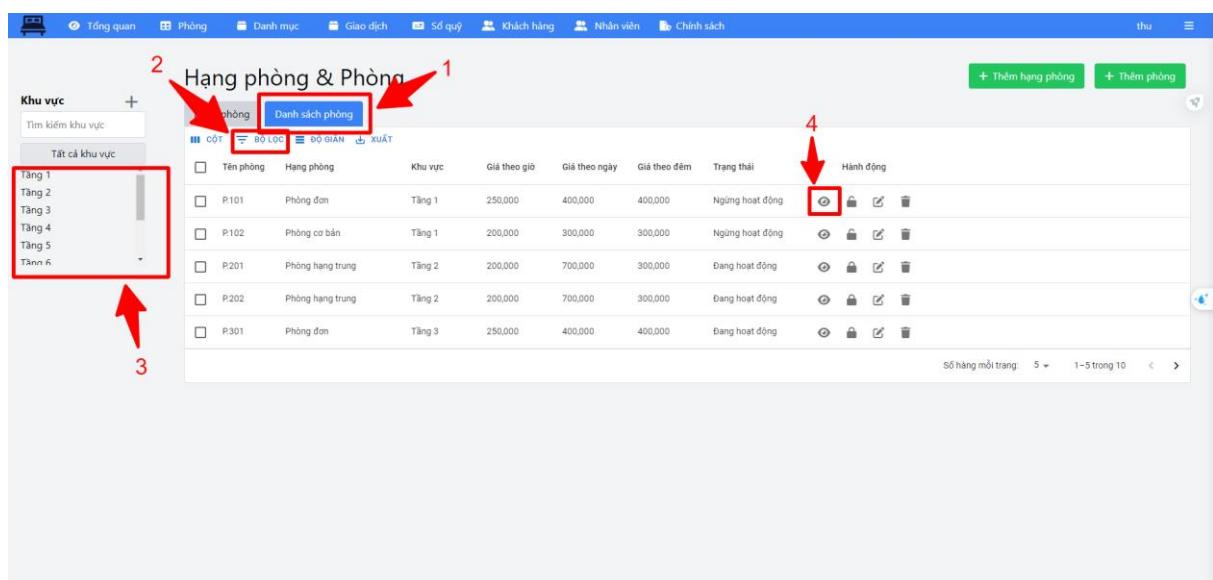
Figure 241: Workflow of manage room

3.4.1: View list room, search room, view detail room:

Step 1: With role receptionist: Receptionist login (guide 3.2.1) and accesses list room page to view room class:



Step 2: With role manager: manager login system (Guides 3.2.1) and access manage room class page (guide 3.3.1 step 2), access manage room page by clicking on room button(1 in image).



Step 3: Manager search room by clicking on “Bộ lọc” (2 in image of step 2) and input text to search (1 in image). Besides, Manager filters the room by clicking on area (2 in image).

The screenshot shows a list of rooms with columns for room name, room type, area, price per night, price per day, status, and actions. One room, P.101, is highlighted.

Tên phòng	Hạng phòng	Khu vực	Giá theo giờ	Giá theo đêm	Trạng thái
P.101	Phòng cơ bản	Tầng 1	250,000	300,000	Ngừng hoạt động
P201	Phòng hạng trung	Tầng 2	200,000	300,000	Đang hoạt động
P202	Phòng hạng trung	Tầng 2	200,000	300,000	Đang hoạt động
P301	Phòng đơn	Tầng 3	250,000	400,000	Đang hoạt động

Step 4: Manager views detail each room by clicking the view detail icon of each item room (4 in image of step 1).

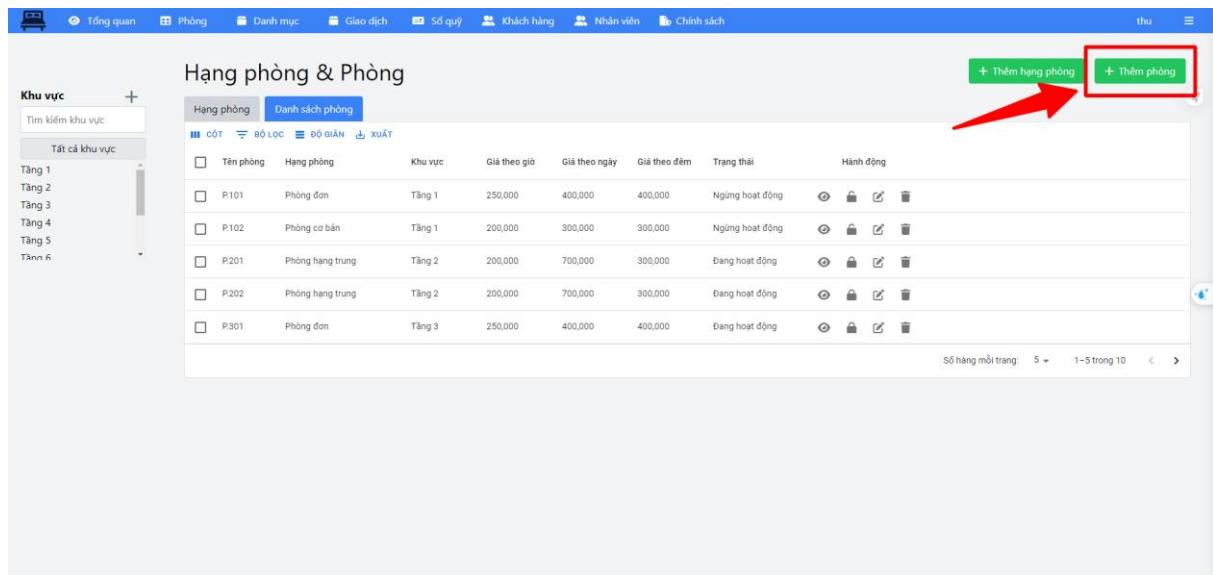
The detail view shows the following information for room P.101:

Tên phòng:	P.101
Hạng phòng:	Phòng đơn
Khu vực:	Tầng 1
Giá theo giờ:	250,000
Giá theo ngày:	400,000
Giá theo đêm:	400,000
Chú ý:	Phòng cơ bản

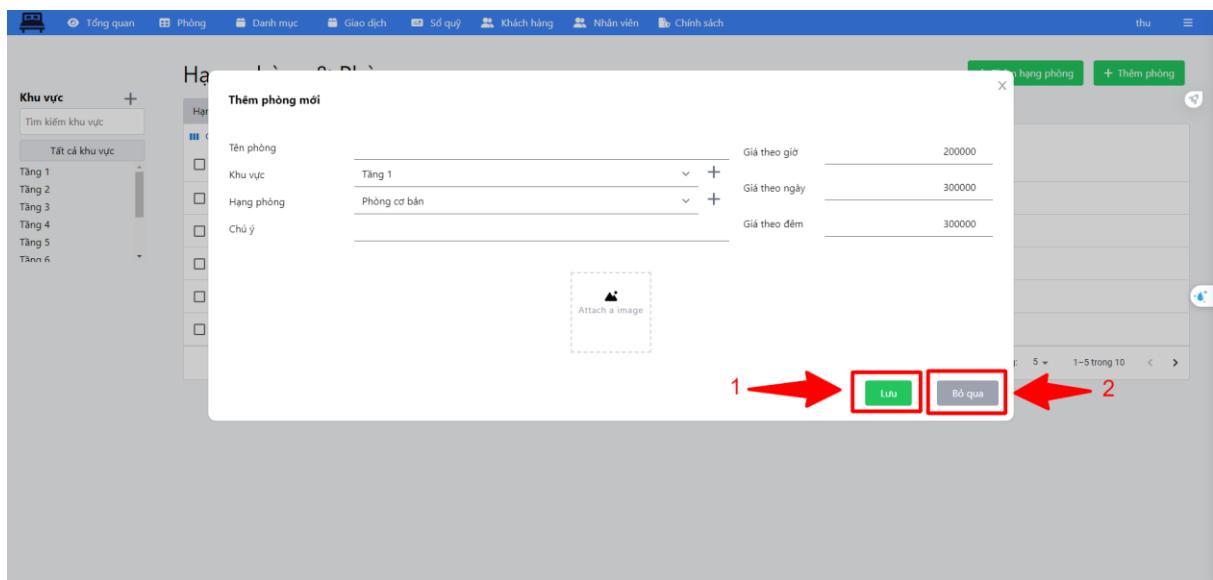
Clicking close button to close view detail popup.

3.4.2: Create new room:

Step 1: Manager login (guide 3.2.1) and accesses manage room page (guide 3.4.1)



Step 2: User clicks button create new room in manage room page:

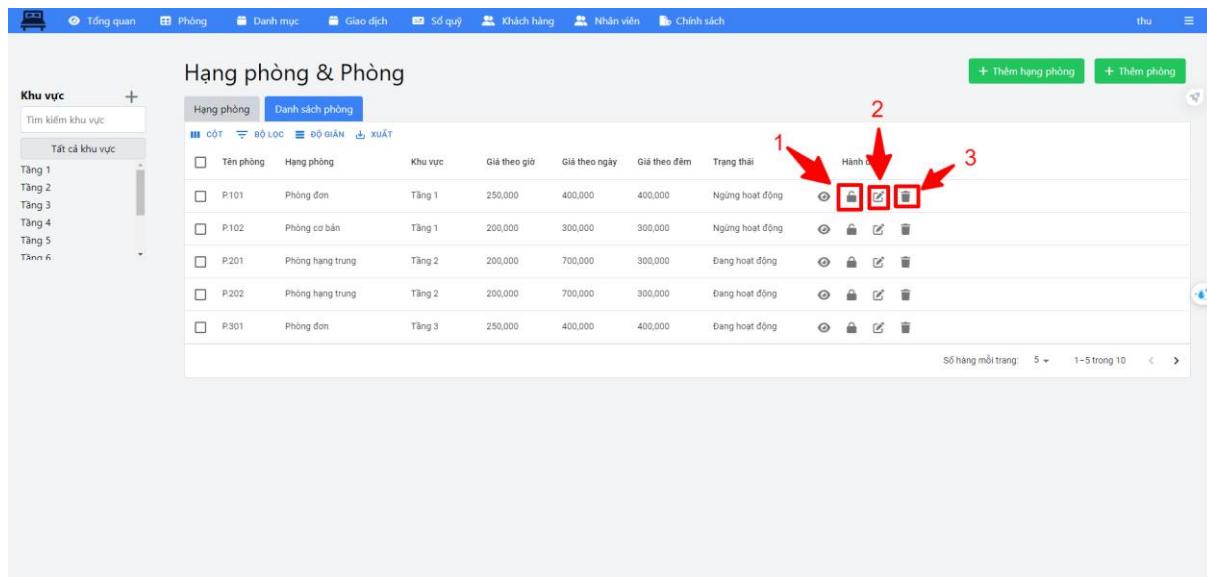


Step 3: User fills in the room information and clicks the save button. (1 in image) Clicking cancel button (2 in image) to cancel and close popup.

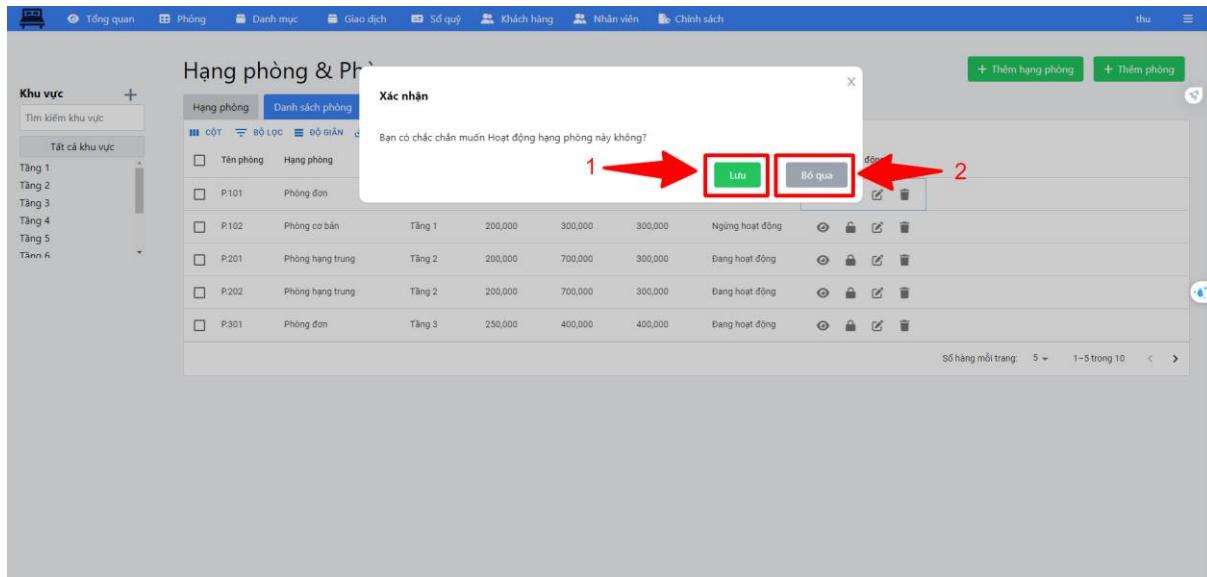
Step 4: Receptionist views list room in list room page. (guide 3.3.1 step 2)

3.4.3: Update, delete new room class:

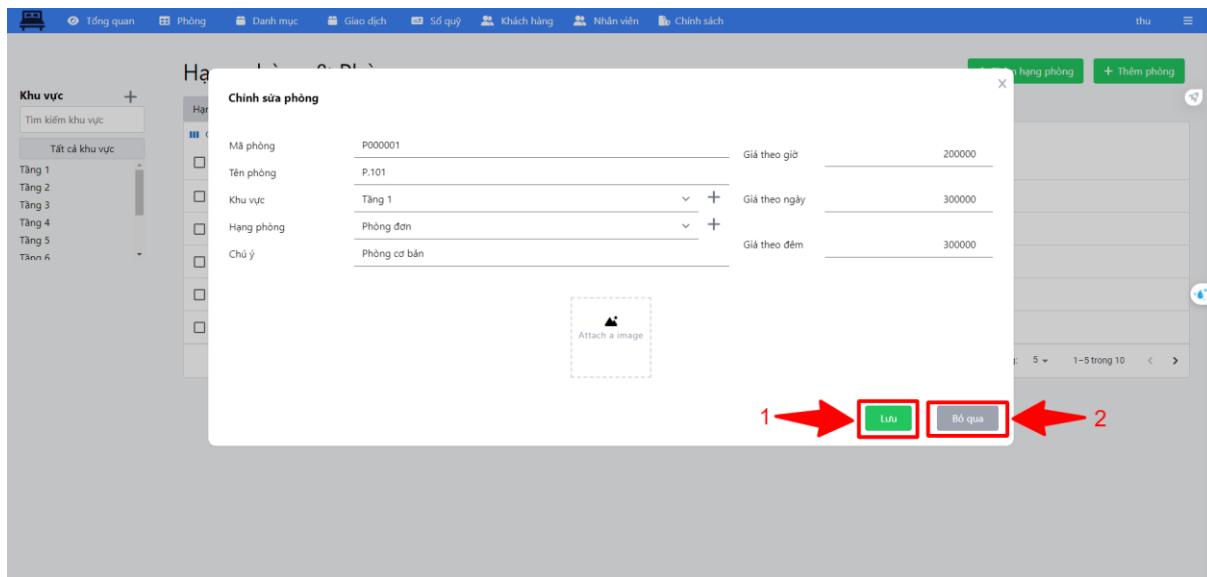
Step 1: Login (guide 3.2.1) and access manage room page (guide 3.4.1).



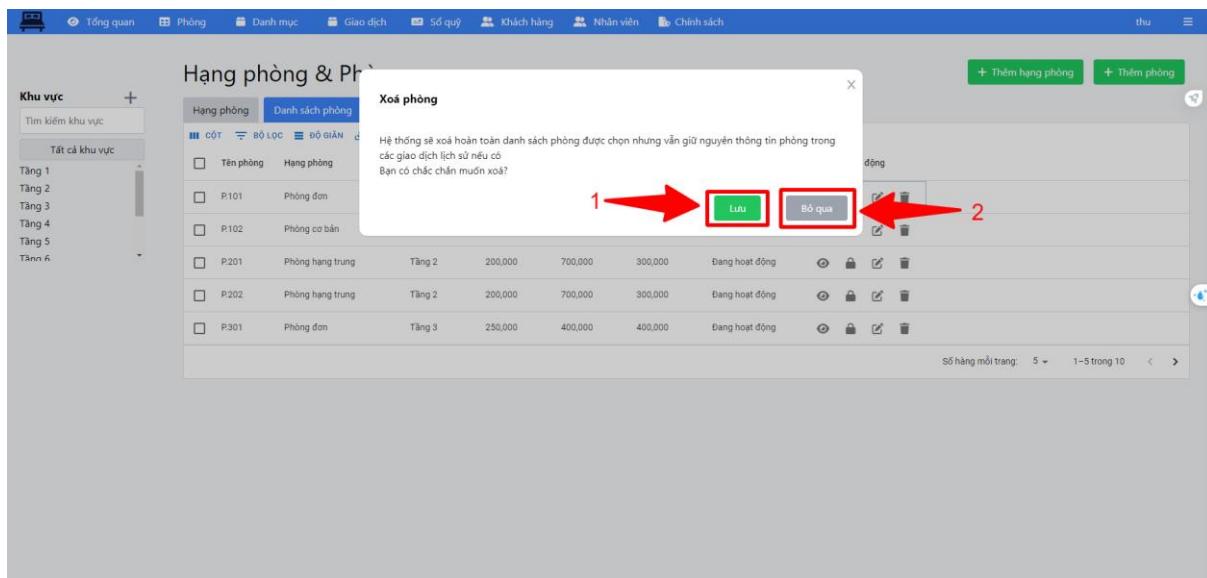
Step 2: Updates status for room by clicking on icon change status (1 in image of step 1). System shows confirm popup, clicking save button (1 in image) to save changes or clicking cancel button (2 in image) to cancel.



Step 3: Updates room information by clicking update icon (2 in image of step 1) to open popup update. Manage updates information and submit by save button (1 in image). If manager wants to cancel, clicks cancel button (2 in image).



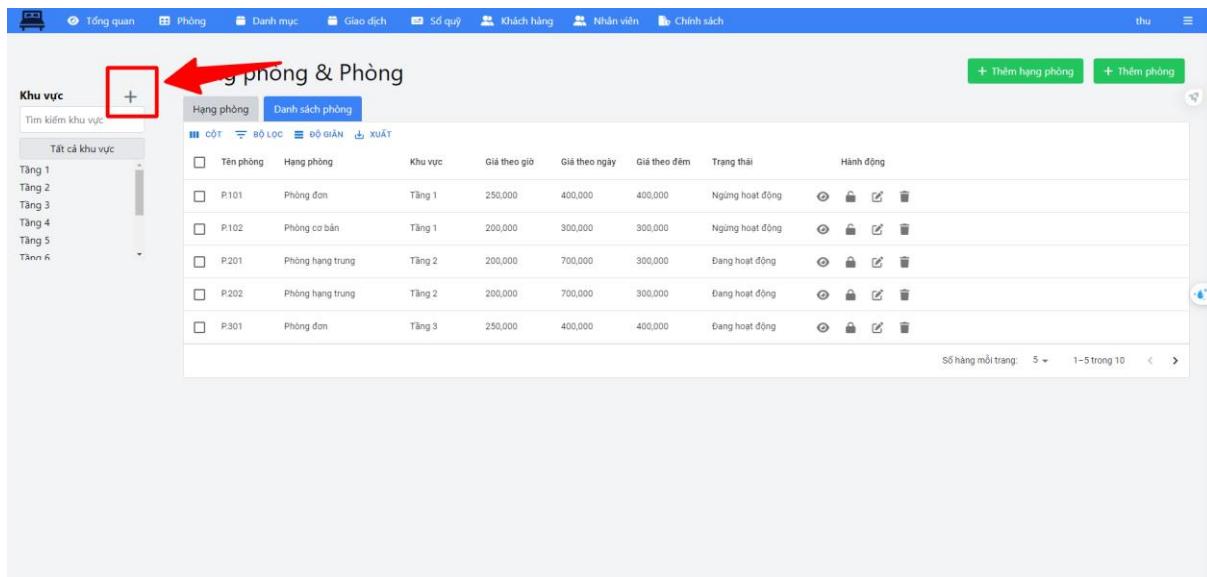
Step 4: Manager deletes the room by clicking on the delete icon (3 in image of step 1). System shows confirm popup. Manager clicks save button (1 in image) to delete or clicks cancel button (2 in image) to cancel delete.



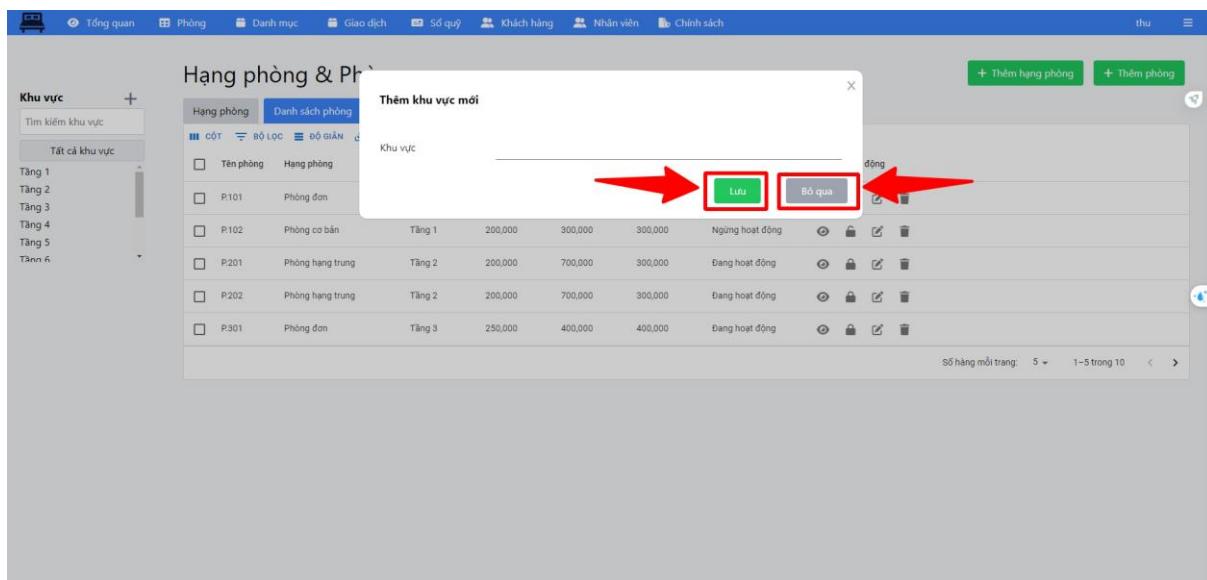
3.4.4: Create new area:

Step 1: Login with role manager (guide 3.2.1) and access manage room page (guide 3.4.1).

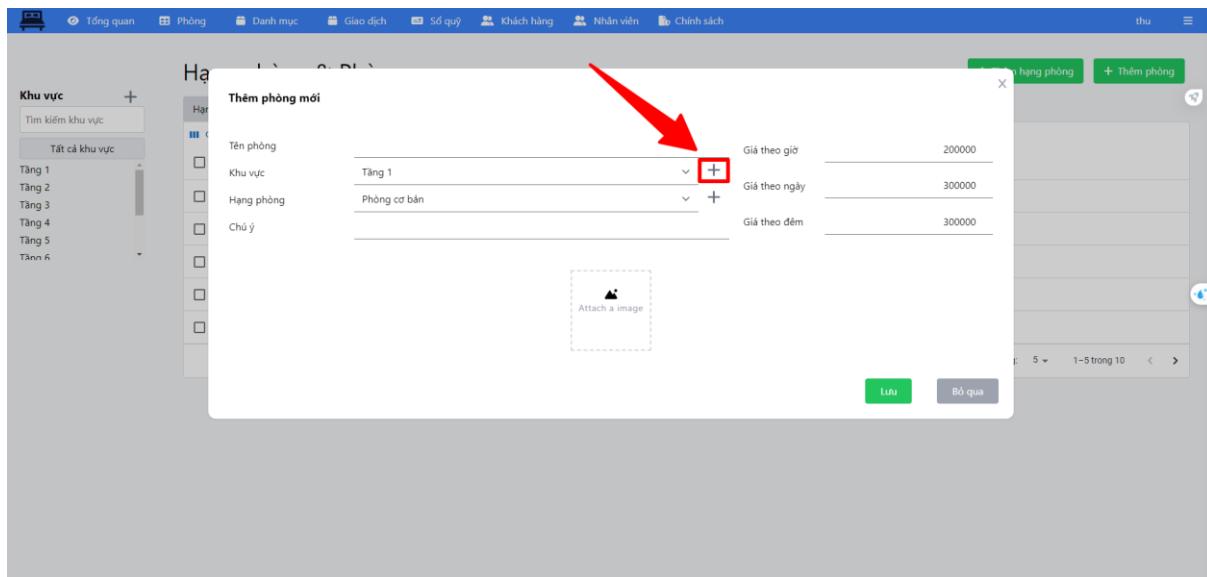
Step 2: Clicks add icon in area to open create area popup.



Fill in the area name and save by clicking the save button or cancel by clicking cancel button.

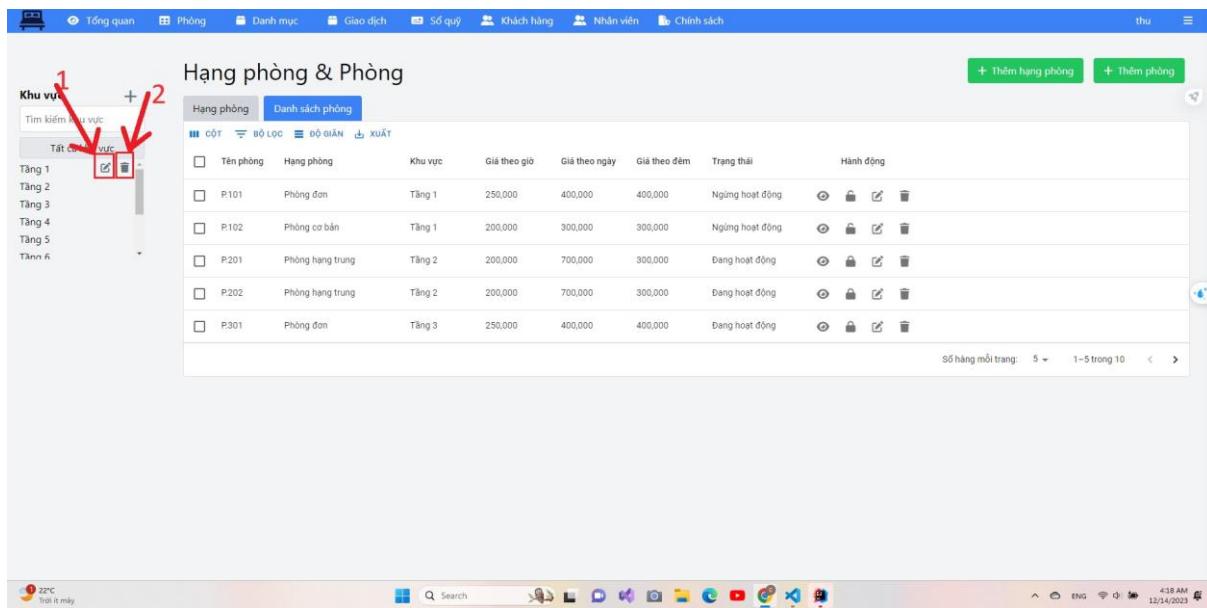


Step 3: In the other way, open popup create area in create new room popup (open popup create new room in guide 3.4.2)

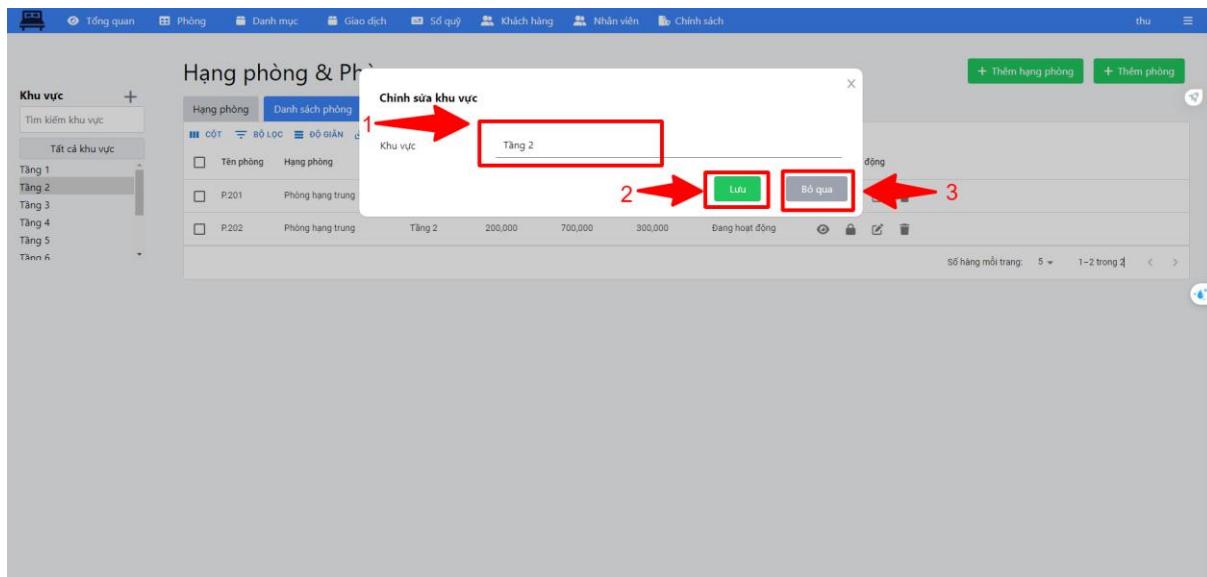


3.4.5: Update, delete area:

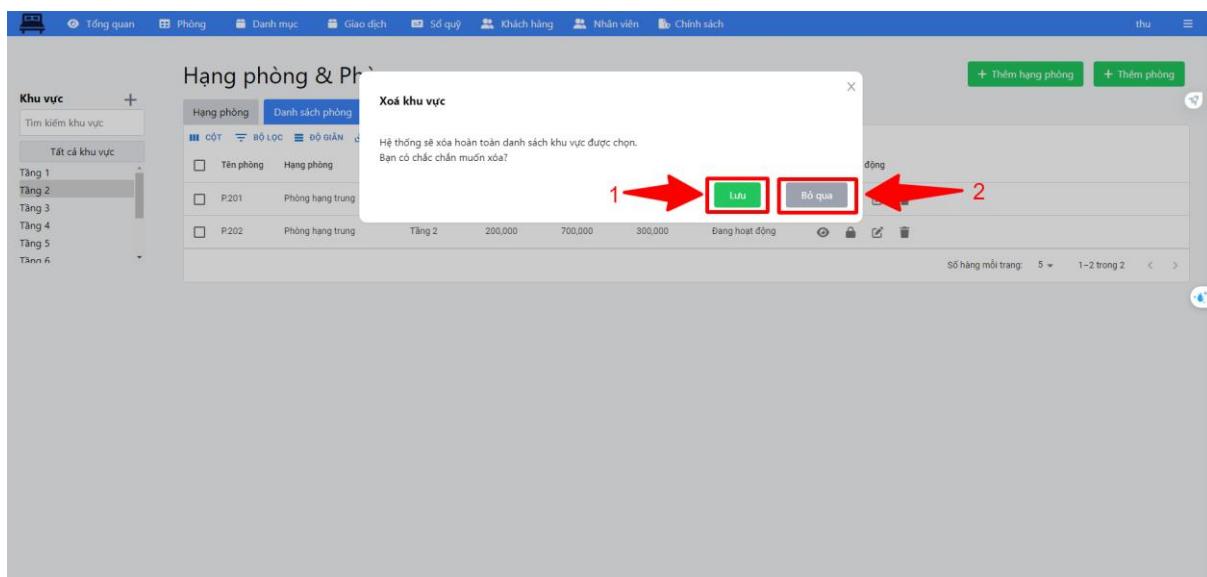
Step 1: Login (guide 3.2.1) and access manage room page (guide 3.4.1).



Step 2: In the field area in the room page, update the area by clicking the icon update in the right of the item area (1 in image of step 1). Update area (1 in image) and save by clicking save button (2 in image) or cancel by clicking cancel button (3 in image).



Step 3: In the field area in the room page, delete area by clicking icon delete in the right of item area (2 in image of step 1). Confirm in the confirm popup (1 in image) to delete area or cancel by cancel button (2 in image).



3.4.6: Export room:

Step 1: Login with manager role (guide in 3.2.1) and access manage room page.

Step 2: Export by clicking export icon in table list room.

Hàng phòng & Phòng						
Khu vực		Hàng phòng		Danh sách phòng		
Tìm kiếm khu vực		Hàng phòng		BỘ LỌC	ĐỘ GIÁ	XUẤT
Tầng 1		Tên phòng	Hàng phòng	Khu vực	Giá theo giờ	Giá theo ngày
Tầng 2		P101	Phòng đơn	Tầng 1	250,000	400,000
Tầng 3		P102	Phòng cơ bản	Tầng 1	200,000	300,000
Tầng 4		P201	Phòng hạng trung	Tầng 2	200,000	700,000
Tầng 5		P202	Phòng hạng trung	Tầng 2	200,000	300,000
Tầng 6		P301	Phòng đơn	Tầng 3	250,000	400,000

3.5: Manage goods, service:

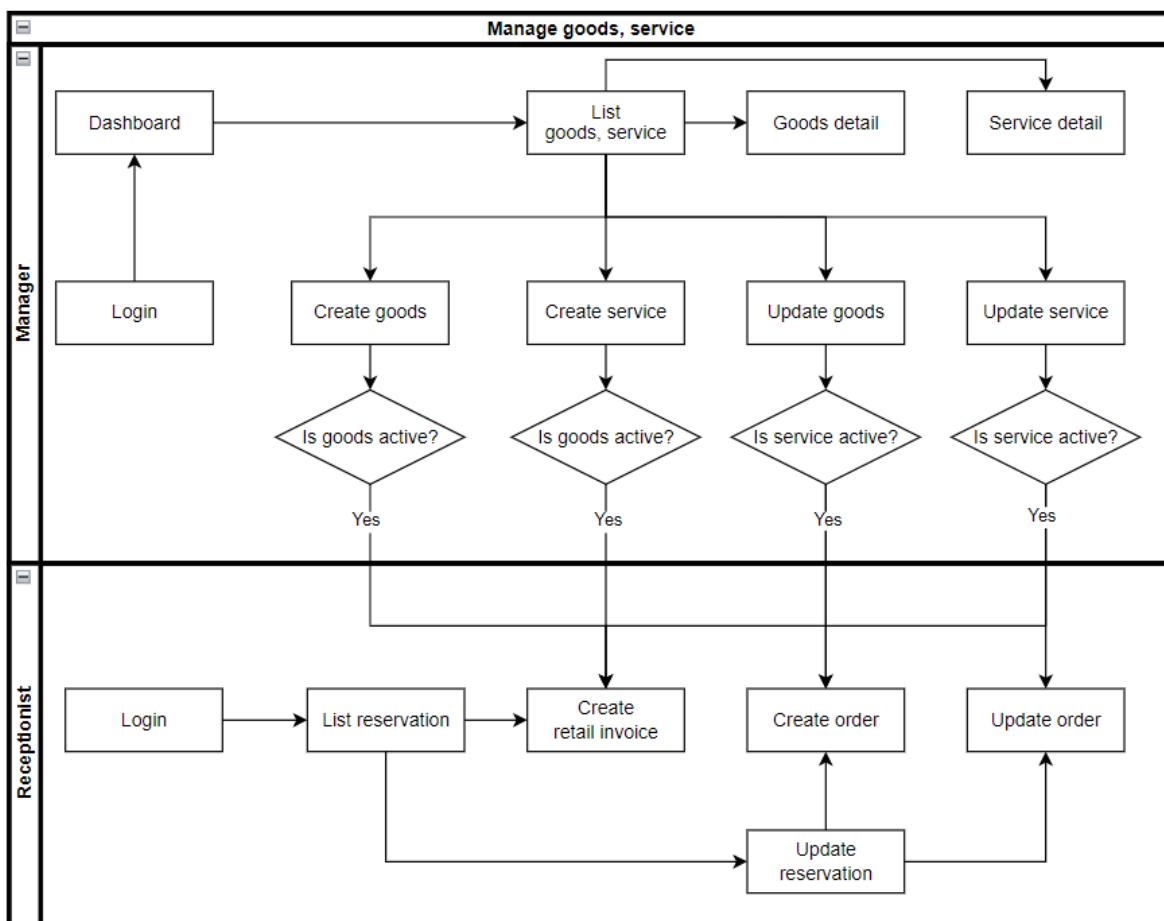
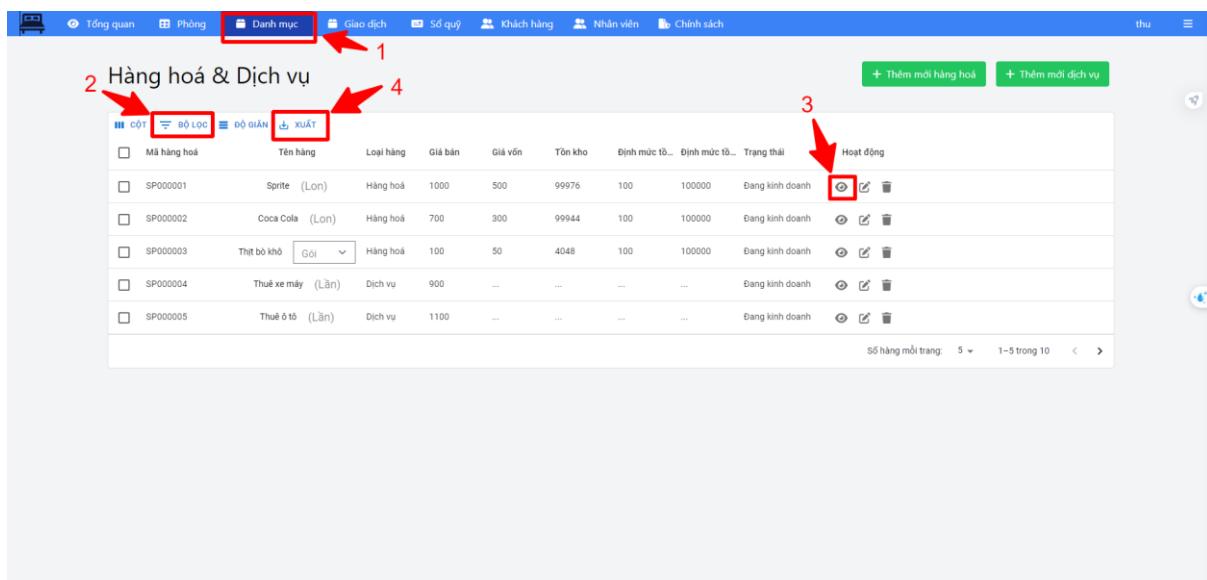


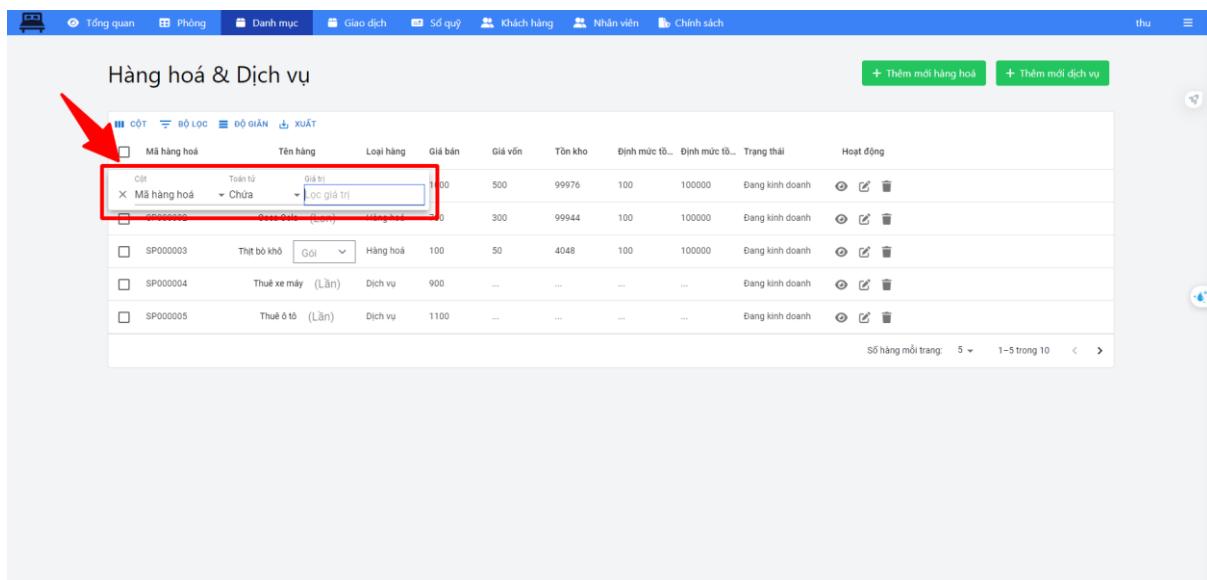
Figure 242: Workflow of manage goods, service

3.5.1: View list, search, view detail, export goods, service:

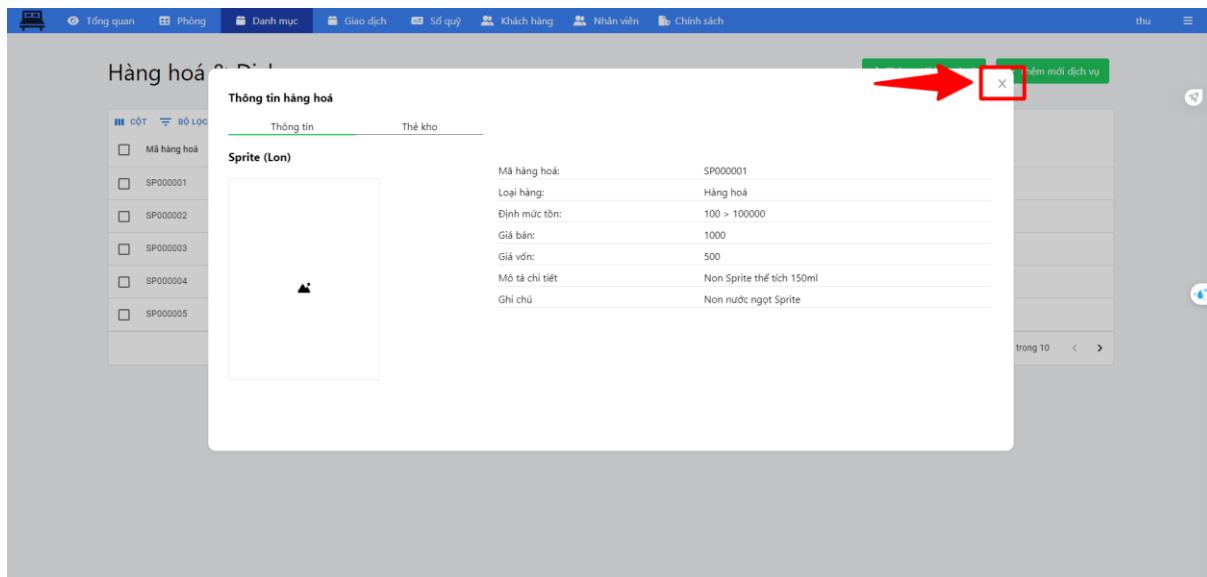
Step 1: With role manager: manager login system (Guides 3.2.1) and accesses manage goods and service page clicking on goods button(1 in image).



Step 2: Manager search goods, service by clicking on “Bộ lọc” (2 in image of step 1) and input text to search.



Step 3: Manager views detail each goods, service by clicking the view detail icon of each item (3 in image of step 1). Close detail popup by close button.



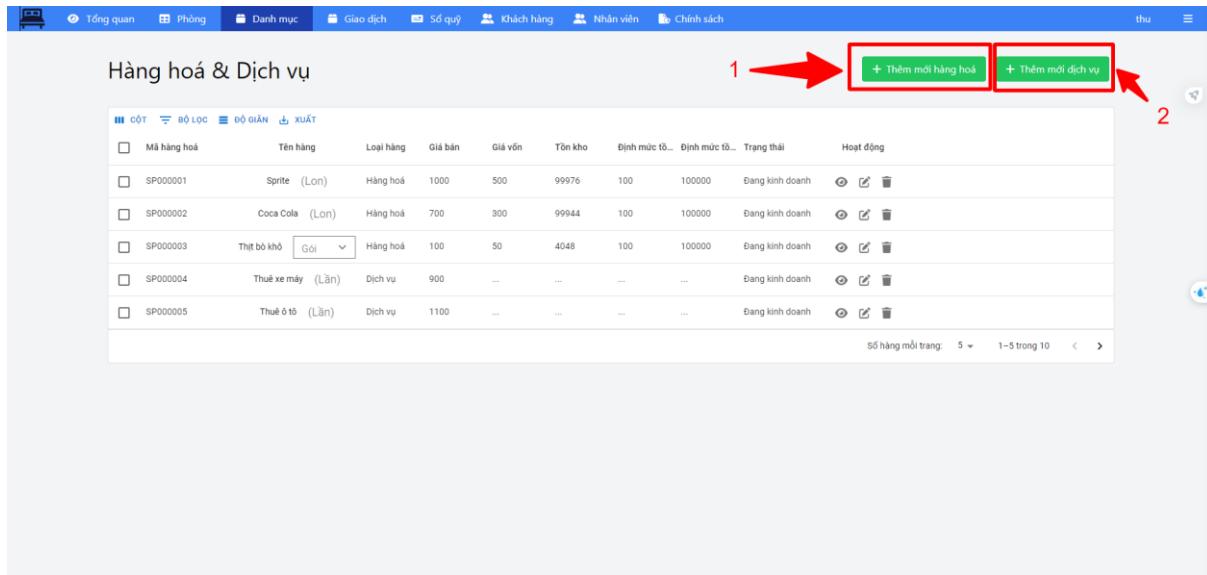
Step 4: Export by clicking export icon in table list goods and service. (4 in image of step 1)

Step 5: With role receptionist: view list goods and services in create retail invoice or add order for reservation. (guide 3.14.3 and 3.14.8)

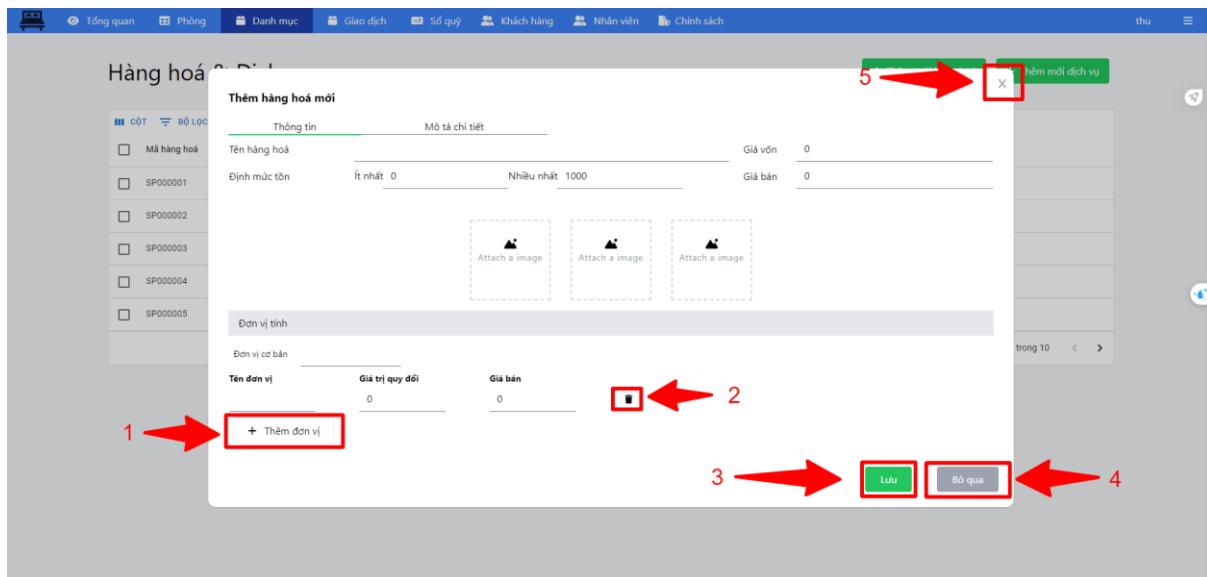
3.5.2: Create goods, service:

Step 1: Manager login system (Guides 3.2.1) and accesses manage goods and service page. (guide 3.5.1)

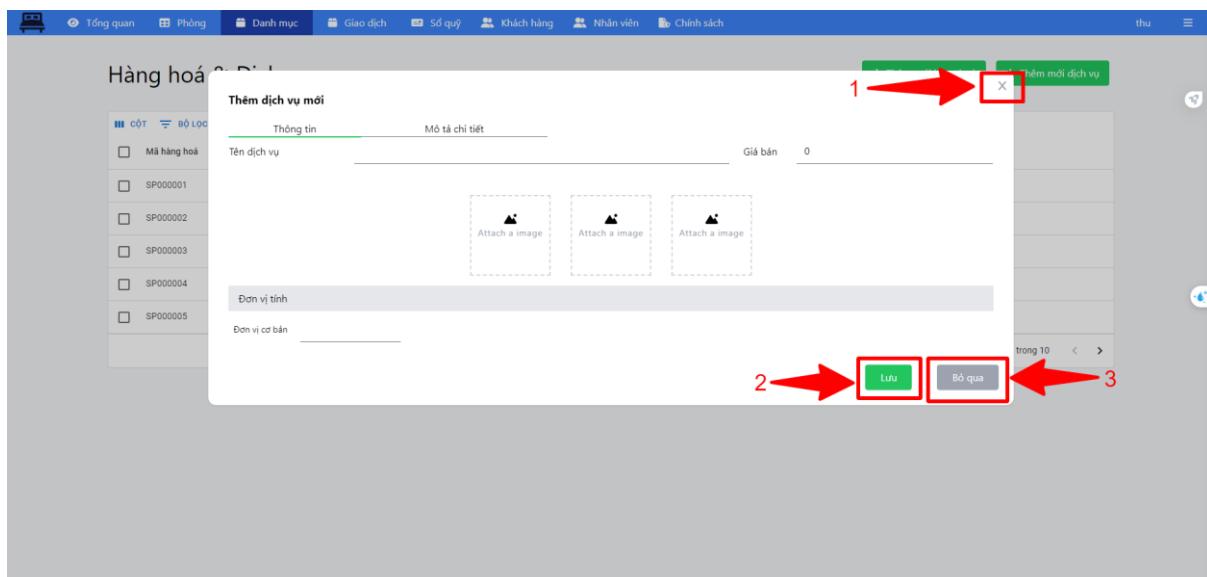
Step 2: Manager clicks button add goods (1 in image) and services (2 in image) to open popup create.



Step 3.1: Manager fills in the necessary information, clicks add unit (1 in image) to add a new unit or remove unit by delete button (2 in image). Click the save button (3 in image) to create new goods and cancel by clicking the cancel button (4 in image) or close button (5 in image).

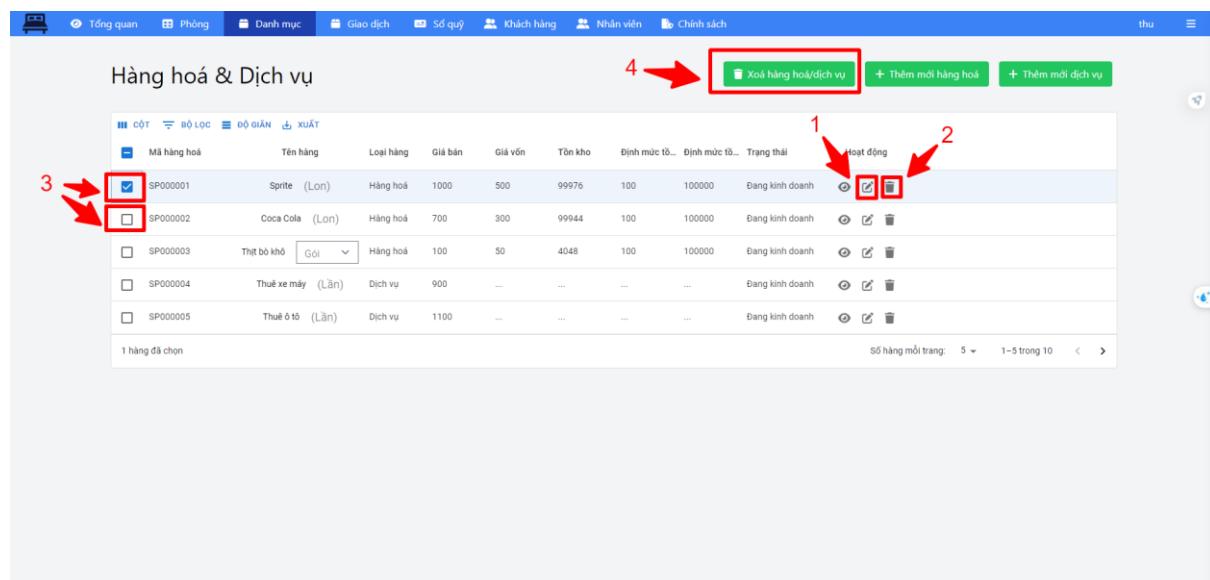


Step 3.1: Manager fills in the necessary information. Click the save button (2 in image) to create new service and cancel by clicking the cancel button (3 in image) or close button (1 in image).



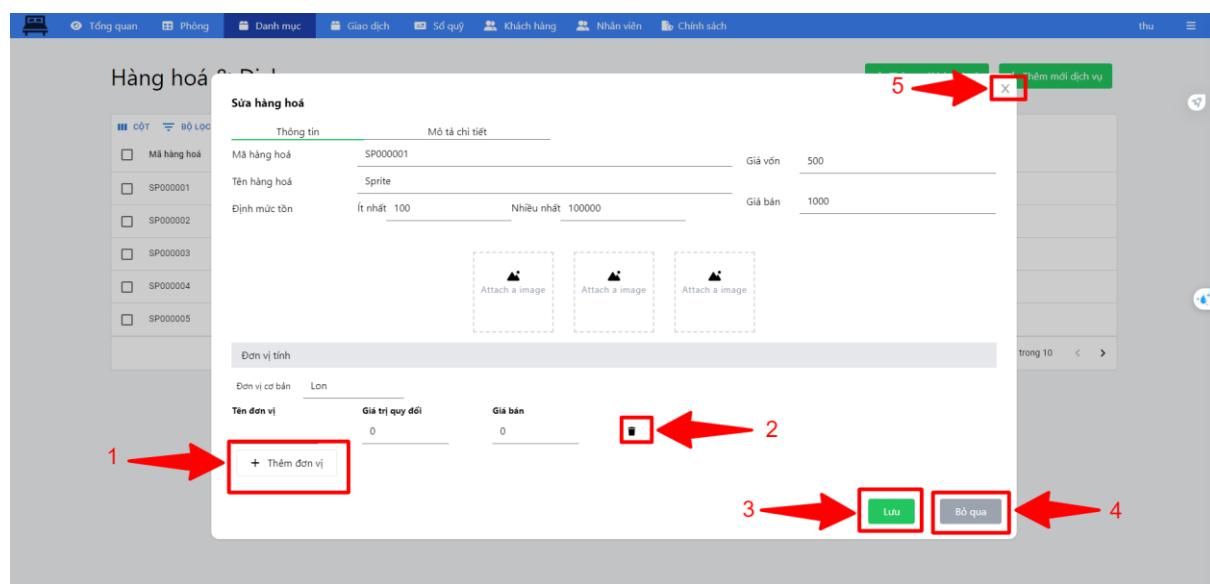
3.5.3: Update, delete goods, service:

Step 1: Manager login system (Guides 3.2.1) and accesses manage goods and service page. (guide 3.5.1)

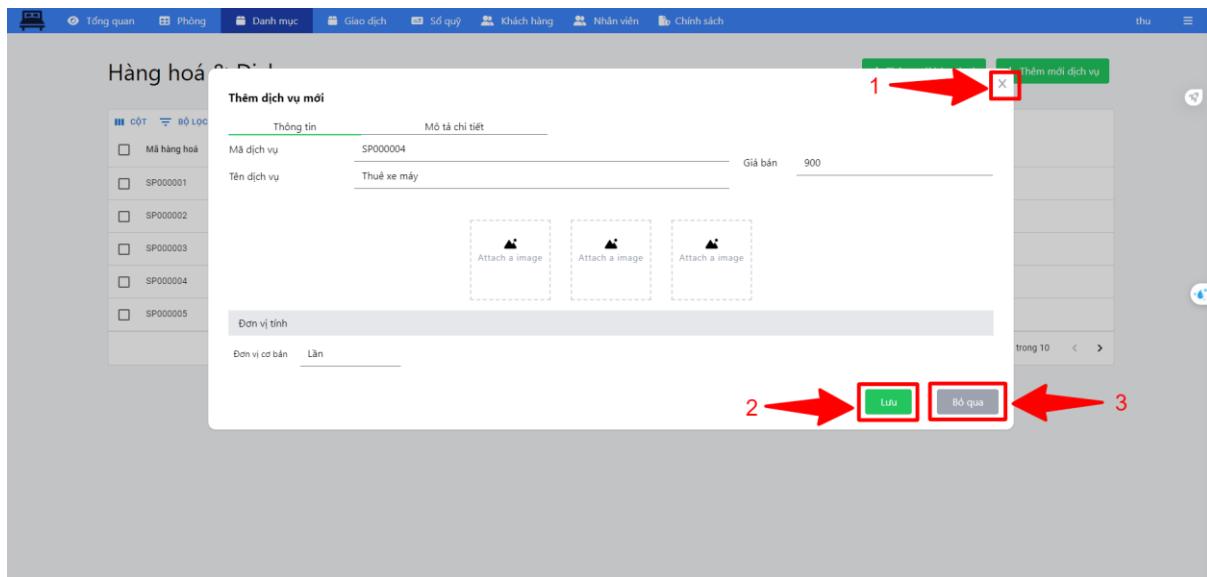


Step 2: Updates goods and services by clicking the update icon of each item (1 in image in step 1) to open the update popup.

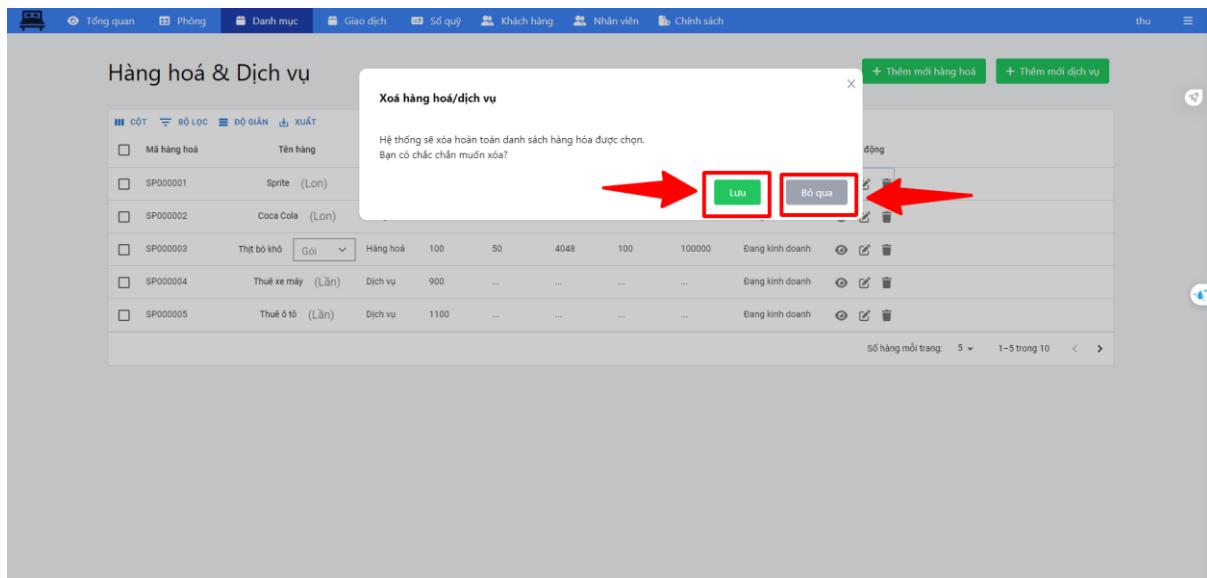
Step 2.1: Manager fills in the necessary information, clicks add unit (1 in image) to add a new unit or remove unit by delete button (2 in image). Click the save button (3 in image) to create new goods and cancel by clicking the cancel button (4 in image) or close button (5 in image).



Step 2.2: Manager fills in the necessary information. Click the save button (2 in image) to create new service and cancel by clicking the cancel button (3 in image) or close button (1 in image).



Step 3: Deletes goods and services by clicking the delete icon of each item (2 in image) to open the confirm delete popup. Clicking save button to delete or clicking cancel button to cancel.



Step 4: In the other way, manager chooses checkbox in the left of each item (3 in image in step 1) and chooses delete (4 in image in step 1) to delete multiple items.

3.6: Manage inventory:

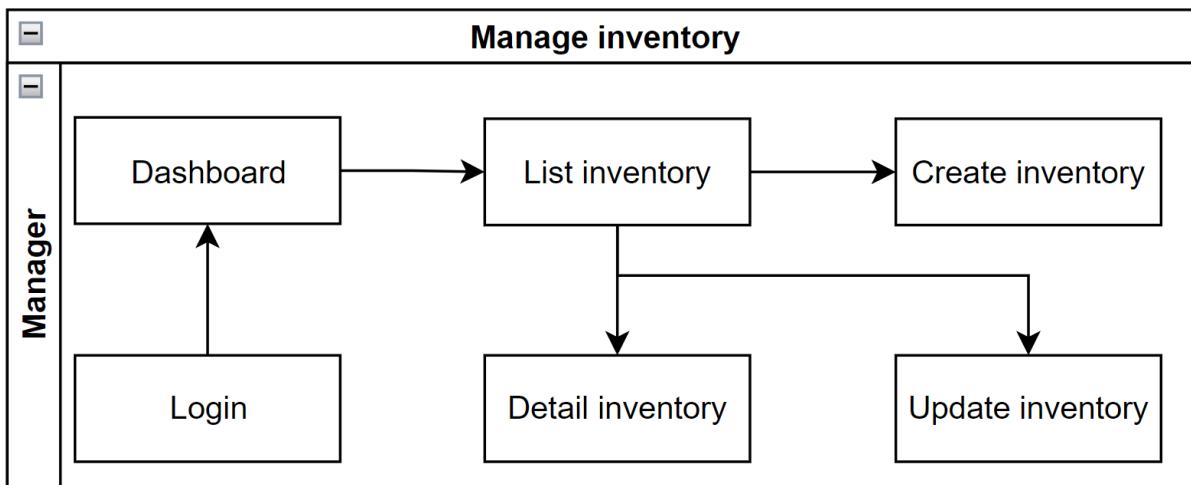
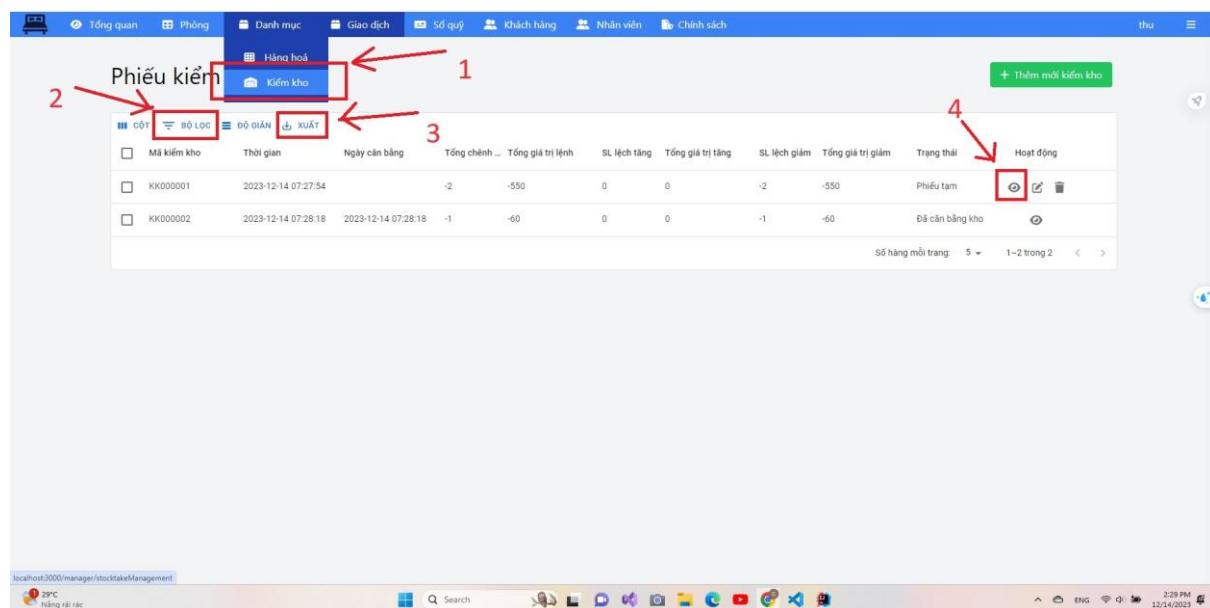


Figure 243: Workflow of manage inventory

3.6.1: View, search, export inventory checklist:

Step 1: Manager login system (Guides 3.2.1) and accesses manage inventory page clicking on inventory button(1 in image).



Step 2: Manager search inventory by clicking on “Bộ lọc” (2 in image of step 1) and input text to search.

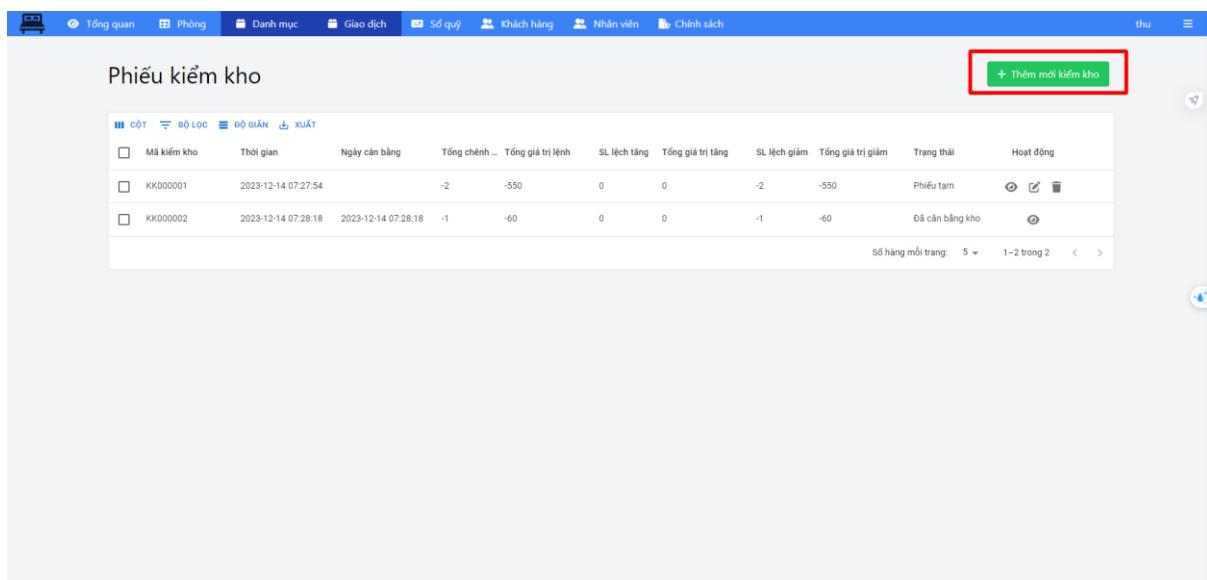
Step 3: Export by clicking export icon in table list inventory. (3 in image of step 1)

Step 4: Views detail each inventory by clicking the view detail icon of each item (4 in image of step 1). Click the close button to close popup.

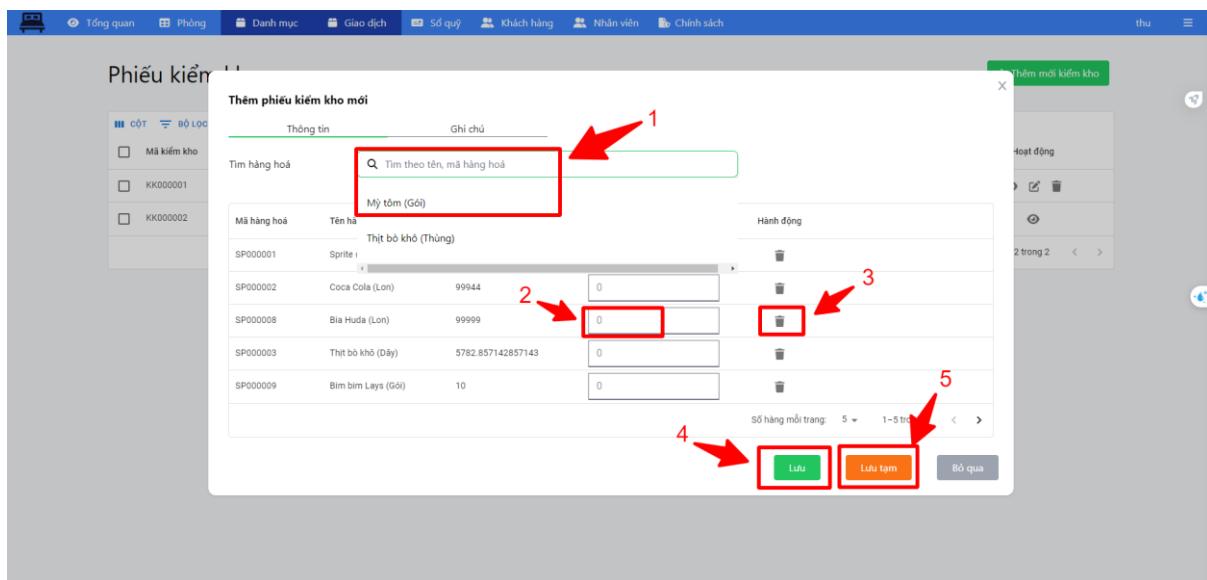
3.6.2: Create inventory checklist:

Step 1: Manager login system (Guides 3.2.1) and accesses manage inventory page. (guide 3.6.1)

Step 2: Clicks button add inventory to open popup create.



Step 3: In the create inventory popup, search goods in the search text box and choose the goods in the list below to add to the inventory list (1 in image).



Step 4: Input actual quantity of goods in actual quantity column (2 in image).

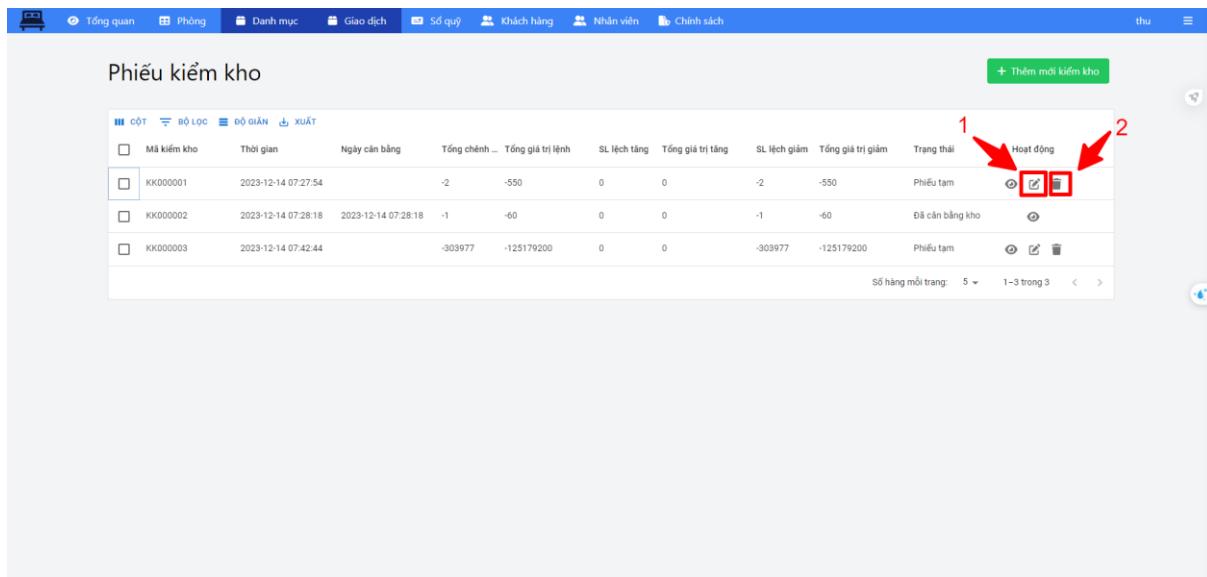
Step 5: Remove goods by delete icon in the right of each item (3 in image).

Step 6: Save button to create a balanced inventory checklist (4 in image).

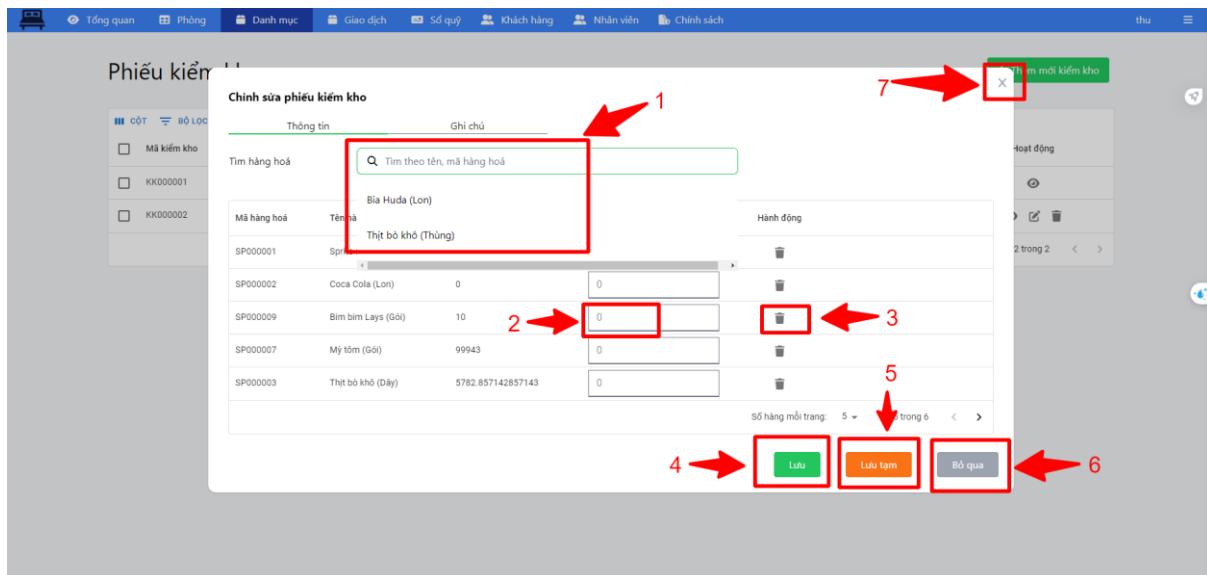
Step 7: Temporary save button to create a temporary inventory checklist (5 in image).

3.6.3: Update, cancel inventory checklist:

Step 1: Manager login system (Guides 3.2.1) and accesses manage inventory page. (guide 3.6.1)



Step 2: Updates temporary checklist by clicking the update icon of each item (1 in image of step 1) to open the update popup.



Search goods in the search text box and choose the goods in the list below to add to the inventory list (1 in image).

Input actual quantity of goods in actual quantity column (2 in image).

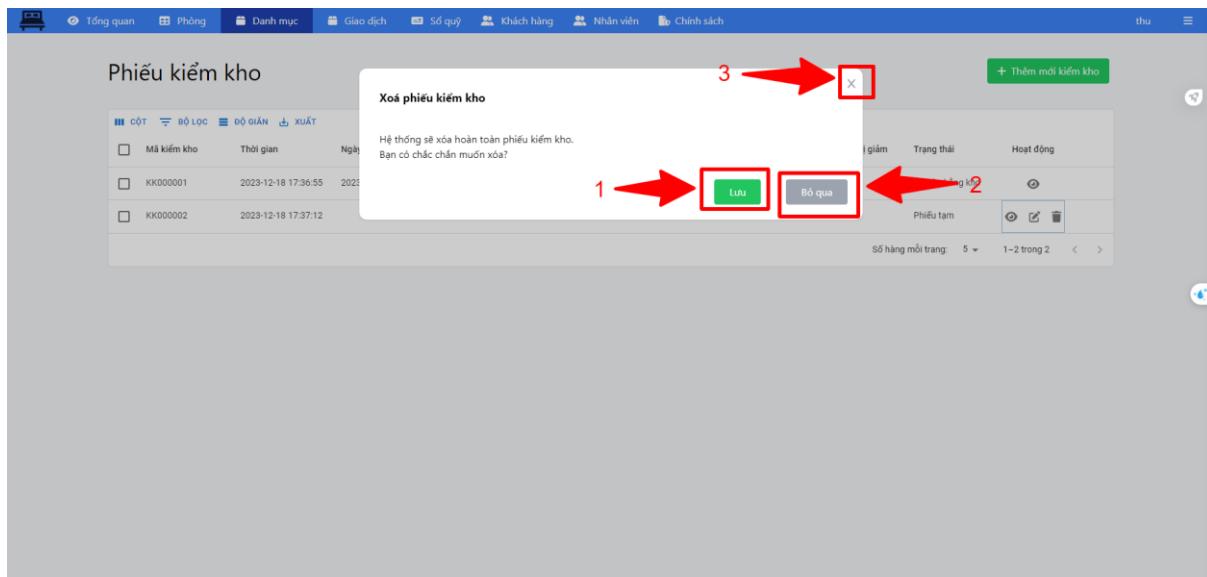
Remove goods by delete icon in the right of each item (3 in image).

Save button to save as a balanced inventory checklist (4 in image).

Temporary save button to save as a temporary inventory checklist (5 in image).

Cancel update by cancel button (6 in image) or close button (7 in image)

Step 3: Deletes temporary checklist by clicking the delete icon of each item (2 in image of step 1) to open the confirm delete popup.



Save button (1 in image) to delete, cancel button (2 in image) or close button (3 in image) to cancel delete.

3.7: Manage customer:

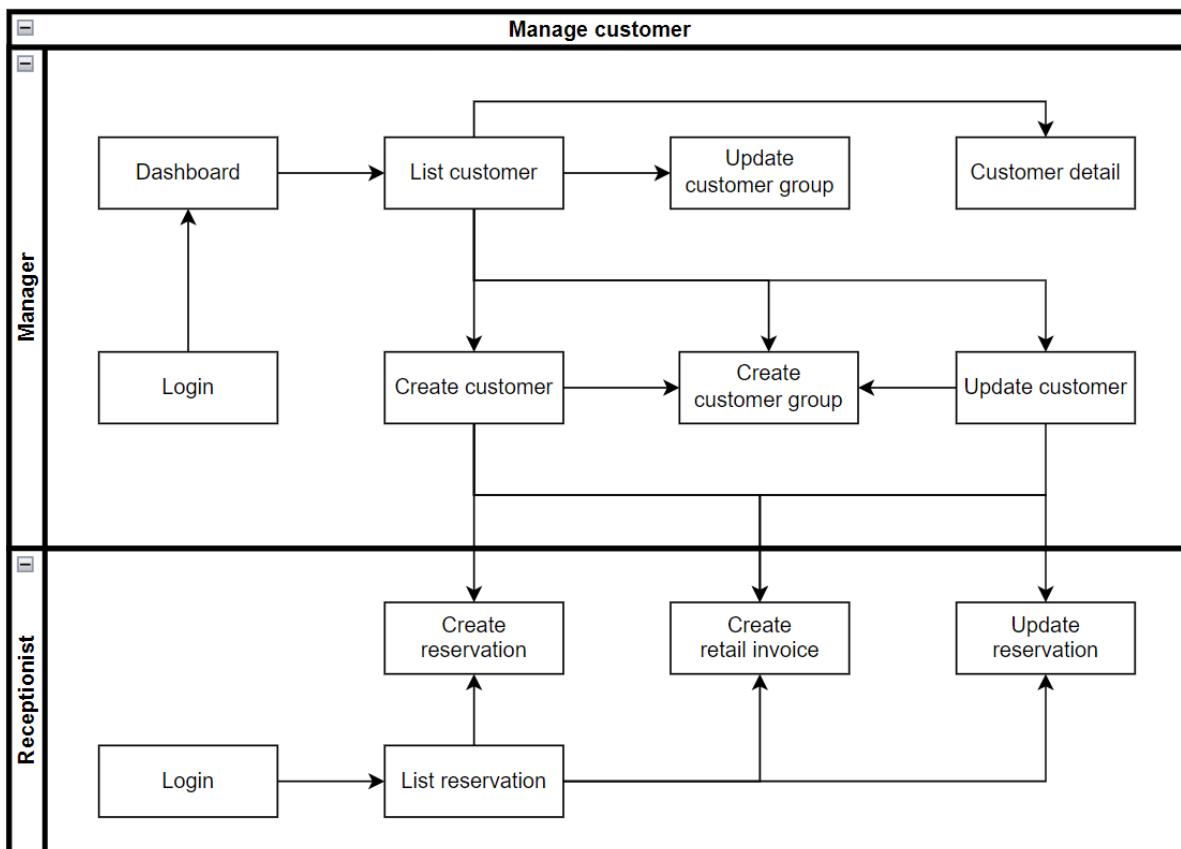


Figure 244: Workflow of manage customer

3.7.1: View list, search, view detail, export customer:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage customer page clicking on customer button(1 in image).

Mã khách hàng	Tên khách hàng	Nhóm khách hàng	CMND	Địa chỉ	Số điện thoại	Năm sinh	Giới tính	Thư điện tử	Mã số thuế	Hoạt động
099282882822222	Khách Lê	Khách Lê	099282882822222	Hoa Lac	0898637030	2000-12-06	Nam giới	trinhabaokhanh1aa306@gmail.com	100000	
099282882822222	Khách Lê	Khách Lê	099282882822222	Hoa Lac	0898637030	2000-12-12	Nam giới	manahotelsystem@gmail.com	100000	
099282882822222	Bán lẻ			Hoa Lac	0898637030	2023-12-06	Nữ giới			
099282882822222	Bán lẻ			Hoa Lac	0898637030	2000-12-12	Nữ giới			
099282882822222	Bán lẻ			Hoa Lac	0898637030	2000-08-18	Nữ giới			

Step 2: Search customer by clicking on “Bộ lọc” (2 in image) and input text to search. Besides, filters the customer by clicking on the customer group(3 in image).

Step 3: Views detail each customer by clicking the view detail icon of each item (4 in image).

Thông tin khách hàng

Thông tin	
Mã khách hàng:	C000001
Tên khách hàng:	Trịnh Bảo Khanh
Nhóm khách hàng:	Khách Lê
Chứng minh nhân dân:	099282882822222
Địa chỉ:	Hoa Lac
Năm sinh:	2000-12-07
Điện thoại:	0898637030
Quốc gia:	Việt Nam
Giới tính:	Nam giới
Mã số thuế	100000
Thư điện tử	trinhabaokhanh1aa306@gmail.com

Step 4: Export by clicking the export icon in the customer table list. (5 in image)

3.7.2: Create customer:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage customer page. (guide 3.7.1)

Step 2: Clicks button add customer to open popup create.

Step 3: Fills necessary fields and clicking on button “Lưu” to create a new customer or button “Bỏ qua” to cancel it

3.7.3: Update customer:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage customer page. (guide 3.7.1)

Step 2: Updates customers by clicking the pen icon of each item to open the update popup.

Nhóm khách hàng

Khách hàng

+ Xoá khách hàng + Thêm mới khách hàng

CỘT BỘ LỌC ĐỘ GIẢN XUẤT

Mã khách hàng	Tên khách hàng	Nhóm khách hàng	CMND	Địa chỉ	Mã số thuế	Hoạt động
C000001	Trịnh Bao Khanh	Khách Lé	0992828828222222	Hoa Lac	100000	

1 hàng đã chọn

Số hàng mỗi trang: 5 1-1 trong 1 < >

Step 3: Fills necessary fields and clicking on button “Lưu” to create a new customer or button “Bỏ qua” to cancel it

Nhóm khách hàng

Khách hàng

Chỉnh sửa khách hàng

Attach a image

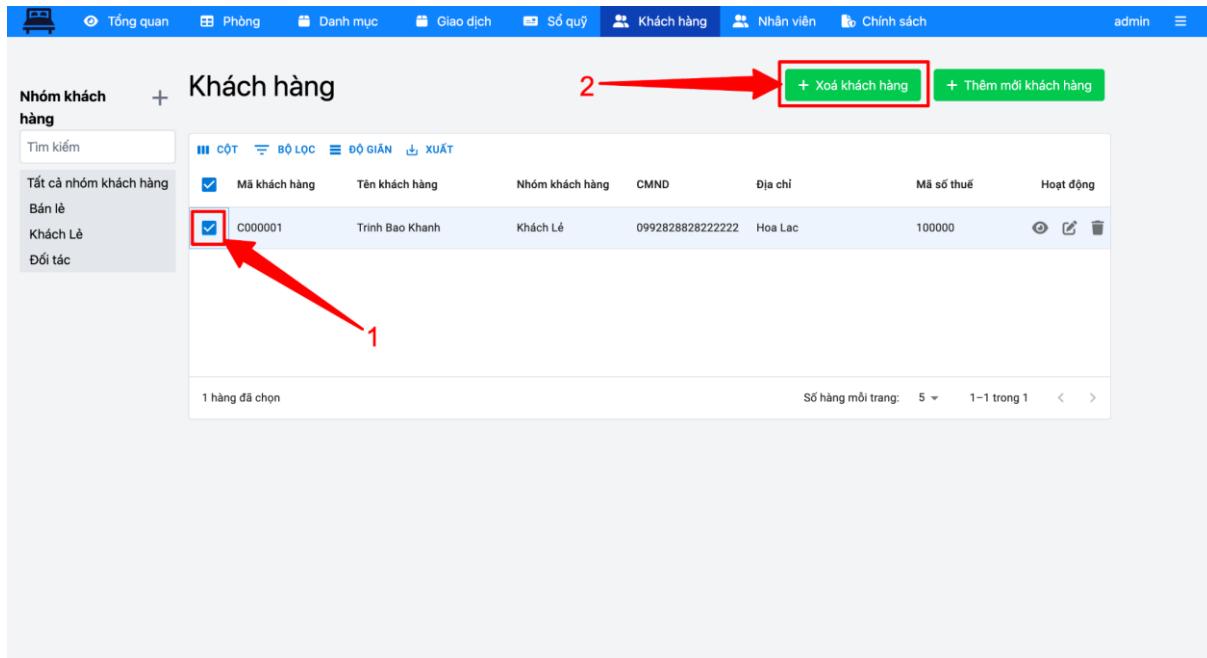
Mã khách hàng	C000001
Tên khách hàng	Trịnh Bao Khanh
Nhóm khách hàng	Khách Lé
Chứng minh nhân dân	0992828828222222
Địa chỉ	Hoa Lac
Số điện thoại	0898637030
Năm sinh	07/12/2000
Email	trinhbaokhanh1aa306@gmail.com
Quốc tịch	Việt Nam
Mã số thuế	100000
Giới tính	<input checked="" type="radio"/> Nam <input type="radio"/> Nữ

Lưu Bỏ qua

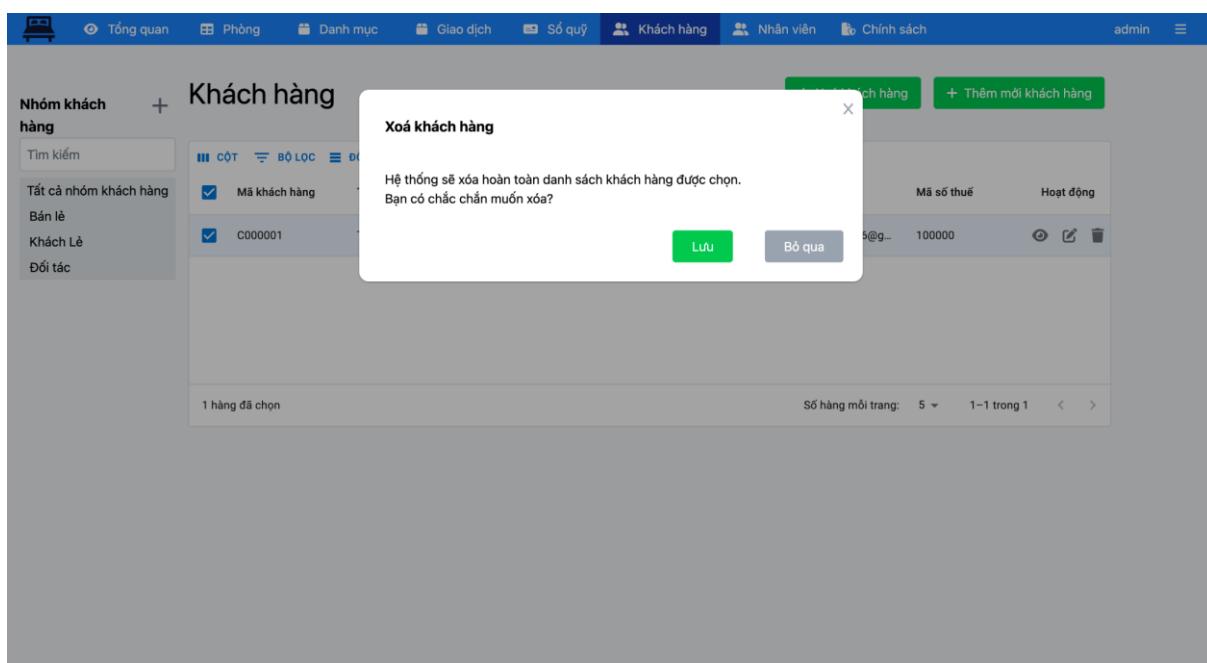
3.7.4: Delete customer:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage customer page. (guide 3.7.1)

Step 2: Clicking on checkbox (1 in image) after that button “Xoá khách hàng” will display and when clicking on that button (2 in image) to open popup



Step 3: Clicking on button “Lưu” to delete a customer or button “Bỏ qua” to cancel it



3.7.5: Create customer group:

Step 1: Login with role manager (guide 3.2.1) and access manage customer page (guide 3.7.1).

Step 2: Clicks plus icon in customer group to open create customer group popup

Mã khách hàng	Tên khách hàng	Nhóm khách hàng	CMND	Địa chỉ	Số điện thoại	Năm sinh	Giới tính	Hoạt động
C000001	Trịnh Bao Khanh	Khách Lẻ	0992828828222222	Hoa Lac	0898637030	2000-12-06	Nam giới	
C000002	Nguyễn Văn A	Khách Lẻ	0992828828222222	Hoa Lac	0898637030	2000-12-12	Nam giới	
C000003	Trịnh Bao Khanh	Bán lẻ		Hoa Lac	0898637030	2023-12-06	Nữ giới	
C000004	Trịnh Bao Khanh	Bán lẻ		Hoa Lac	0898637030	2000-12-12	Nữ giới	
C000005	Trịnh Bao Khanh	Bán lẻ		Hoa Lac	0898637030	2000-08-18	Nữ giới	

2 hàng đã chọn

Số hàng mỗi trang: 5 1-5 trong 7 < >

Step 3: Fill necessary fields and clicking on button “Lưu” to create a customer group or button ”Bỏ qua” to cancel it

Mã số thuế	Hoạt động
100000	

Số hàng mỗi trang: 5 1-1 trong 1 < >

3.7.6: Update customer group:

Step 1: Login with role manager (guide 3.2.1) and access manage customer page (guide 3.7.1).

Step 2: In the field customer group in the customer page, update the customer group by clicking the icon update in the right of the item group (1 in image). Update group and save by clicking save button.

Step 3: Fill necessary fields and clicking on button “Lưu” to update a customer group or button ”Bỏ qua” to cancel it

3.7.7: Delete customer group:

Step 1: Login with role manager (guide 3.2.1) and access manage customer page (guide 3.7.1).

Mã khách hàng	Tên khách hàng	Nhóm khách hàng	CMND	Địa chỉ	Mã số thuế	Hoạt động
C000001	Trinh Bao Khanh	Khách Lẻ	09928288222222	Hoa Lac	100000	

Step 3: Clicking on button “Lưu” to confirm delete customer group or button ”Bỏ qua” to cancel it

3.8: Manage policy:

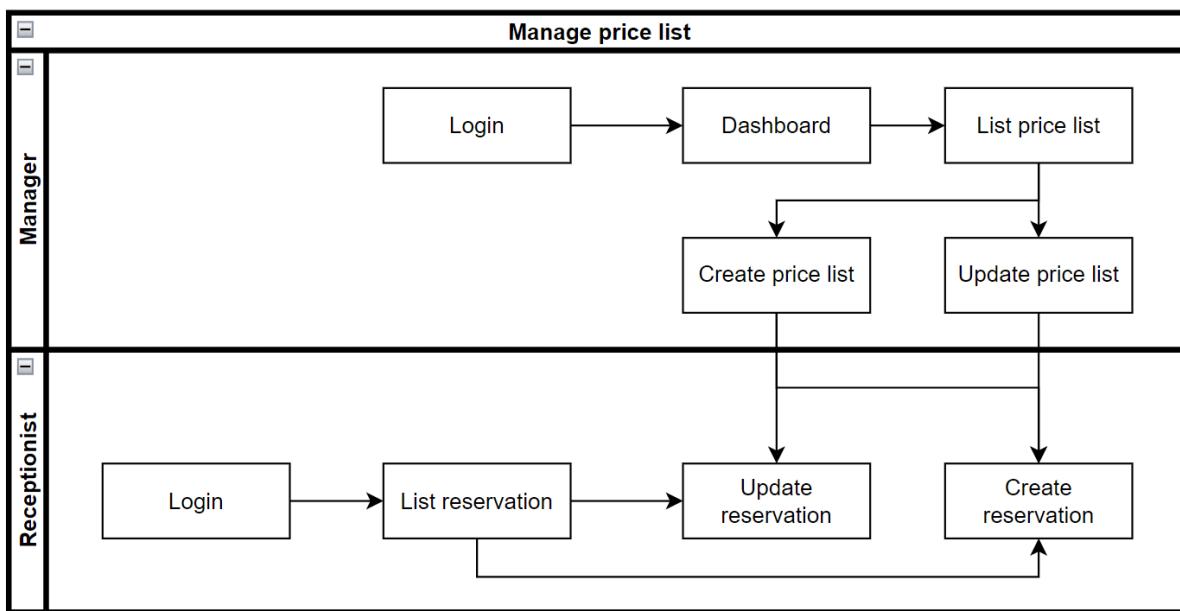
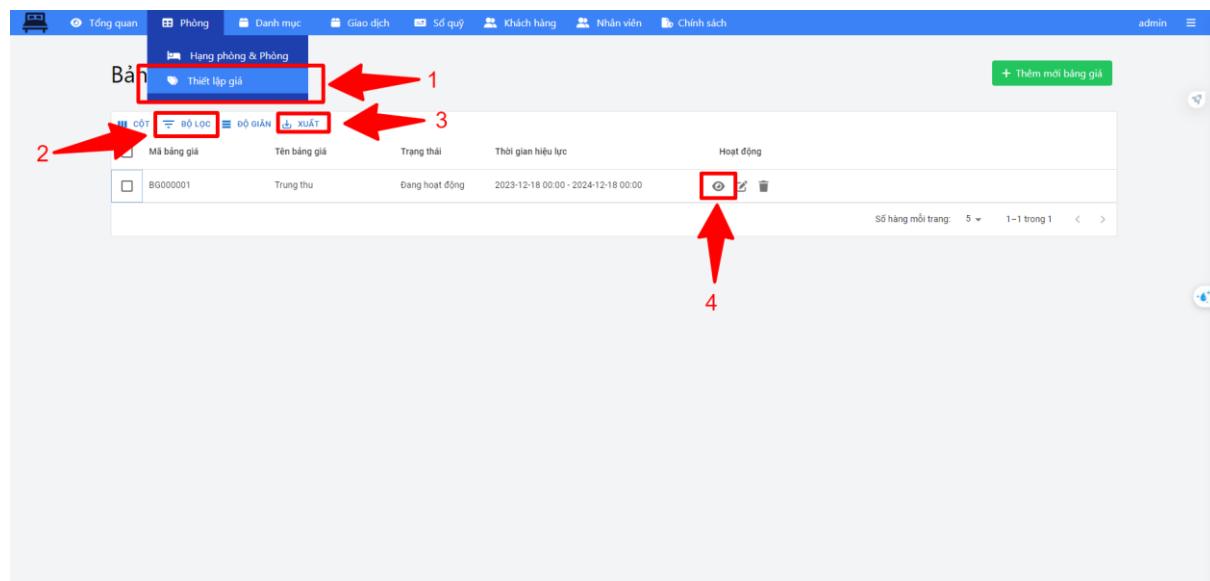


Figure 245: Workflow of manage price list (policy)

(Work flow of guide 3.8.1, 3.8.2, 3.8.3)

3.8.1: View list, search, view detail, export price list:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage price list page clicking on price list button(1 in image).



Step 2: Search price list by clicking on “Bộ lọc” (2 in image) and input text to search.

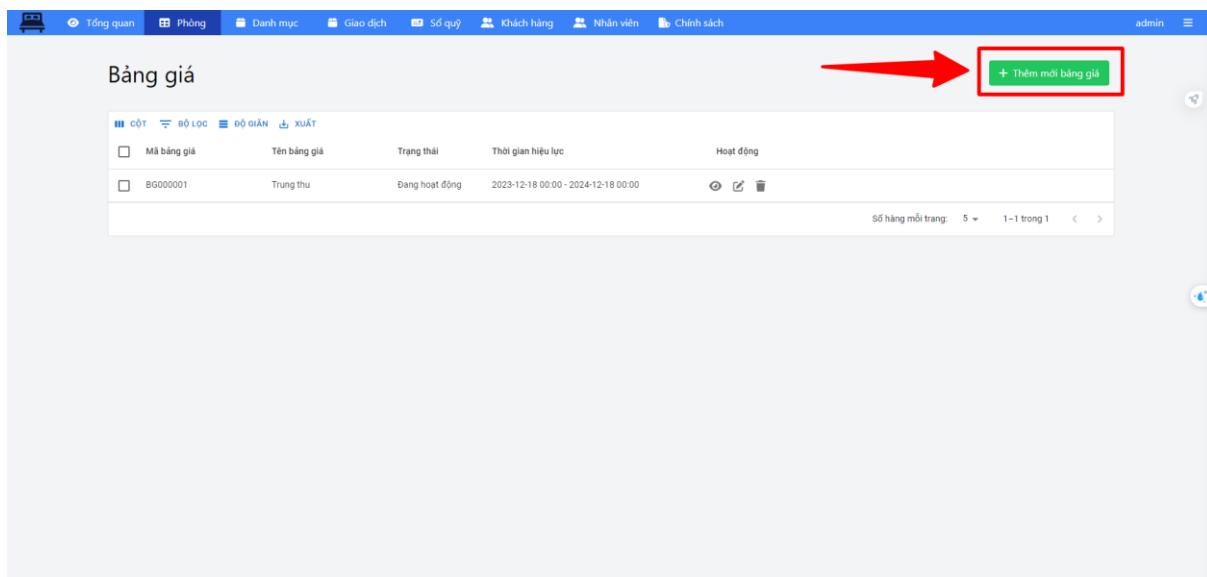
Step 3: Views detail each price list by clicking the view detail icon of each item (4 in image).

Step 4: Export by clicking the export icon in the price list table list. (3 in image)

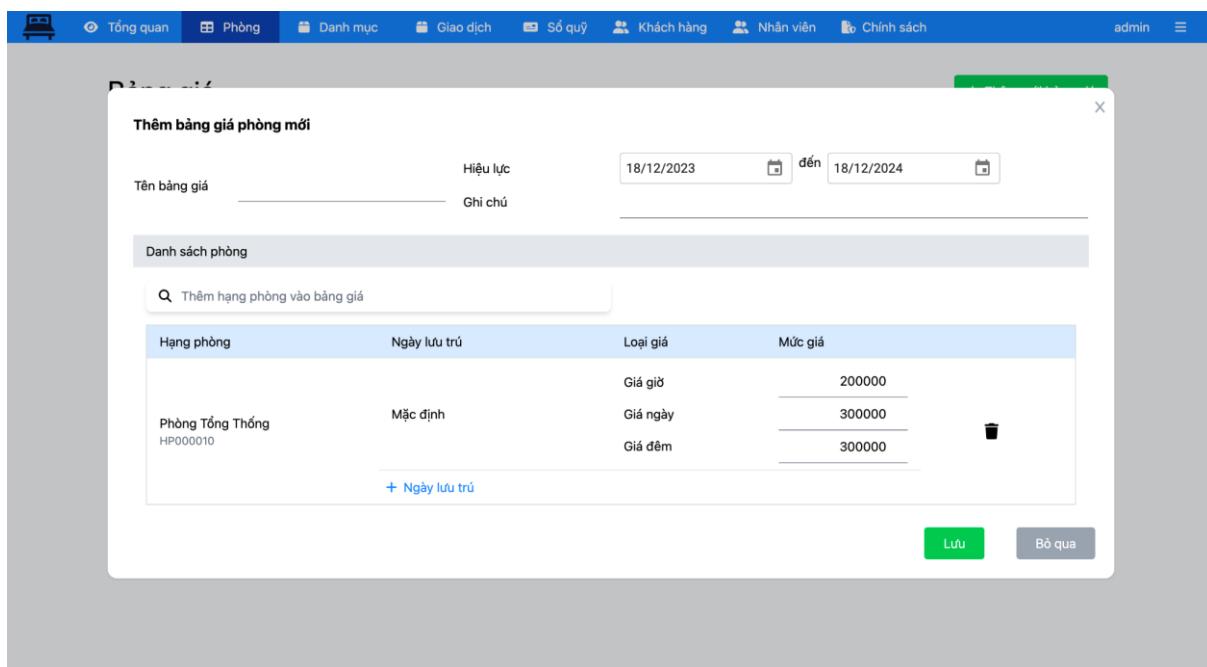
3.8.2: Create new price list:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage price list page. (guide 3.8.1)

Step 2: Clicks button add price list to open popup create.

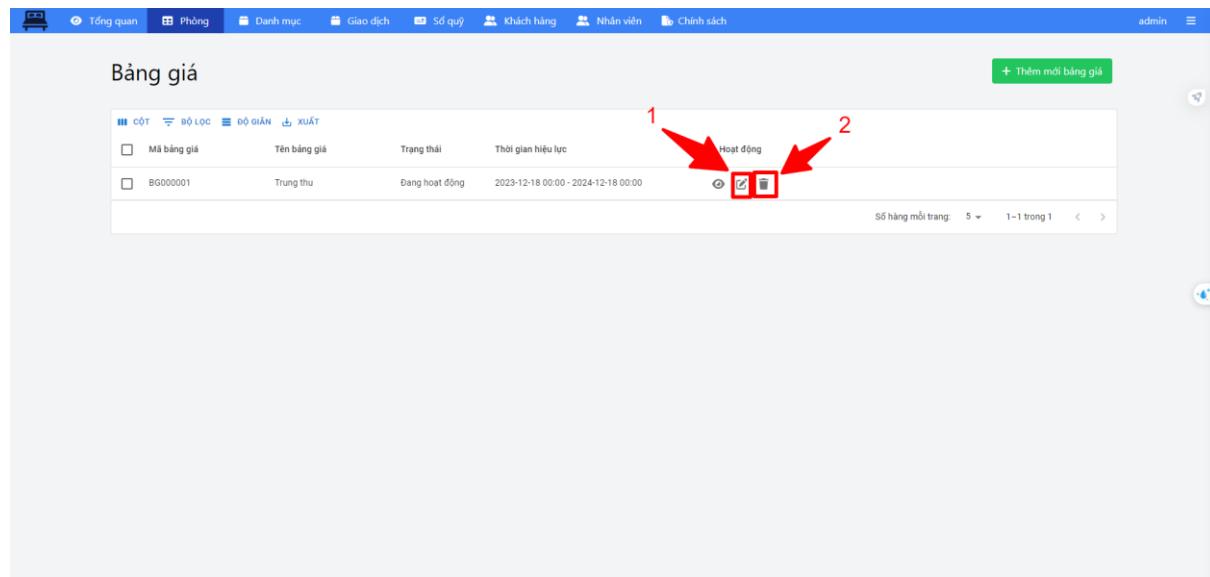


Step 3: Fill necessary fields and clicking on button “Lưu” to create a new price list or button ”Bỏ qua” to cancel it



3.8.3: Update, delete price list:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage price list page. (guide 3.8.1)



Step 2: Updates price list by clicking the update icon of each item (1 in image) to open the update popup.

Step 3: Deletes price list by clicking the delete icon of each item (2 in image) to open the confirm delete popup.

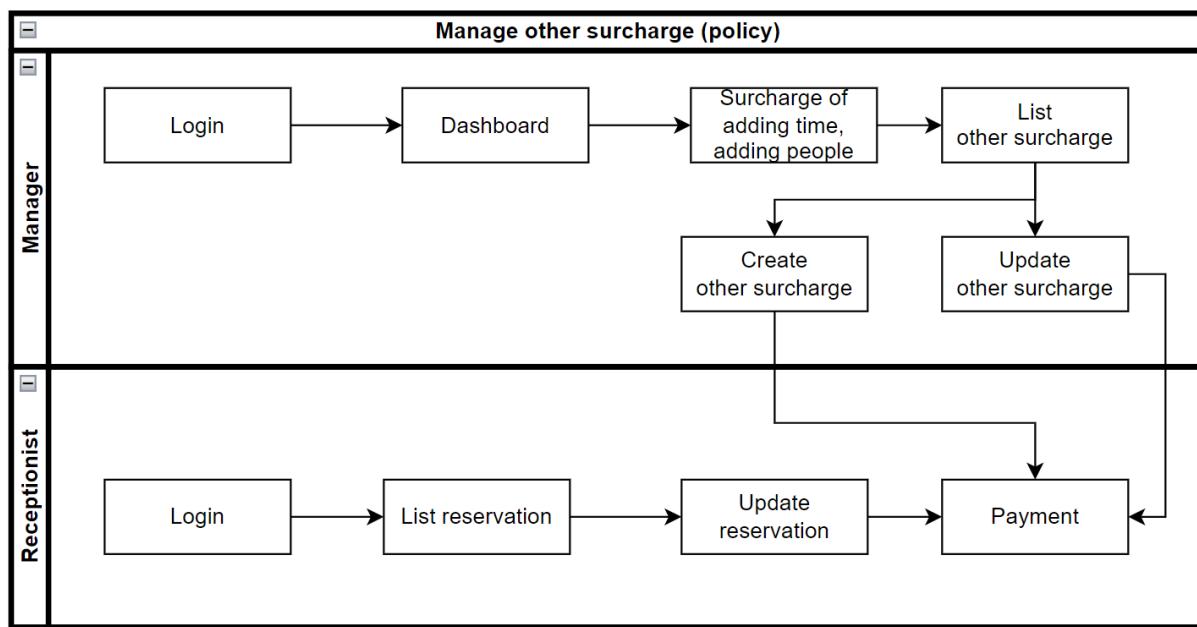


Figure 246: Workflow of manage other surcharges (policy)

(Work flow of guide 3.8.4, 3.8.5, 3.8.6, 3.8.7)

3.8.4: View list other surcharge:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage policy page clicking on policy button(1 in image).

Mã thu khác	Loại thu	Tiền thu	Trạng thái	Hoạt động
199	VAT	10000 VND	Đang thu	
201	Sức khoẻ	5 %	Đang thu	

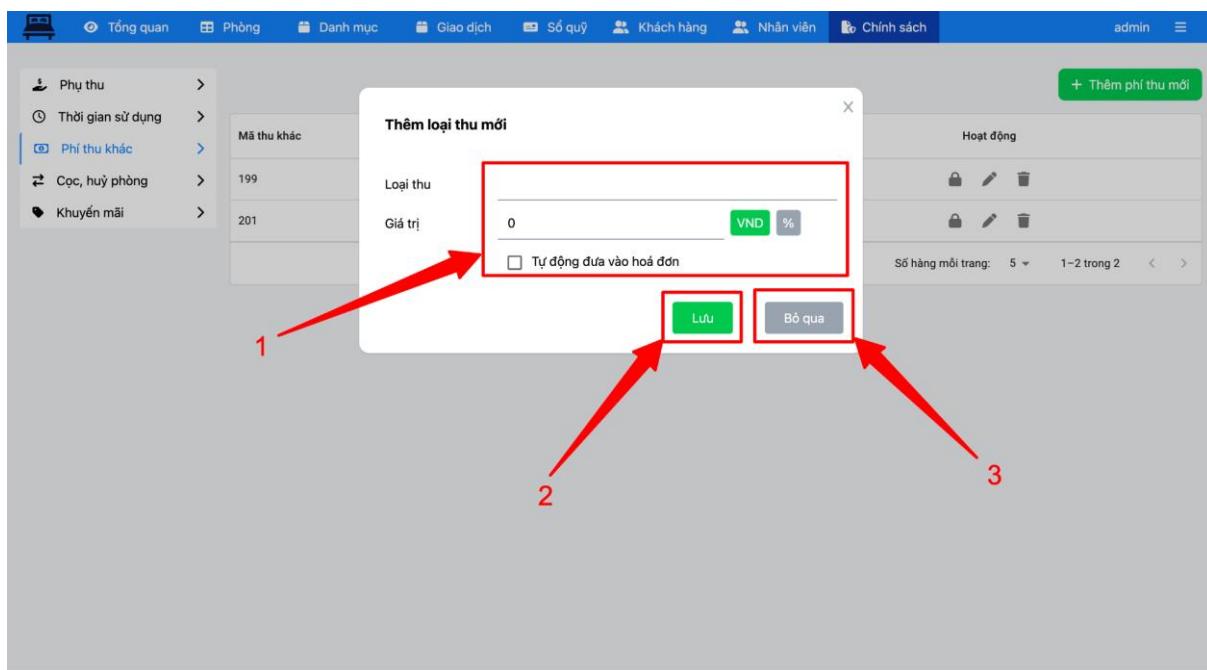
Step 2: Choose other surcharge tap to open other surcharge page. (2 in image)

3.8.5: Create new other surcharge:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)

Step 2: Clicking on button add “Thêm phí thu mới” to open popup.

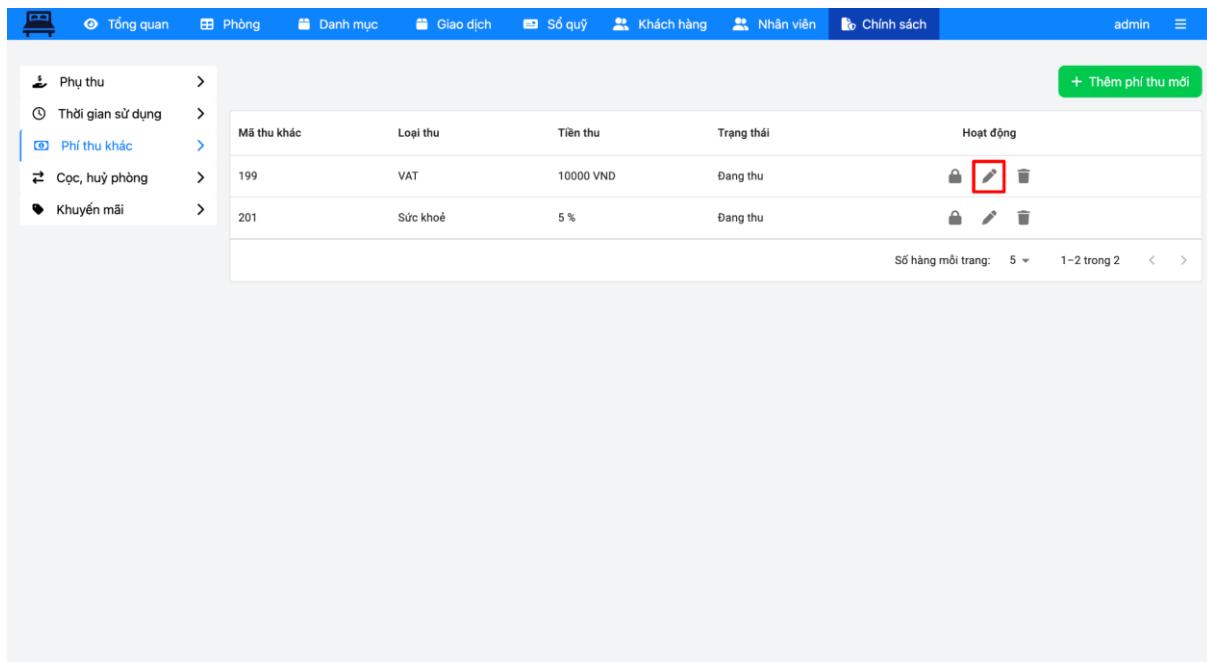
Step 3: Fills necessary fields (1 in image) and clicking on button “Lưu” (2 in image) to create new other surcharge or button “Bỏ qua” (3 in image) to cancel it

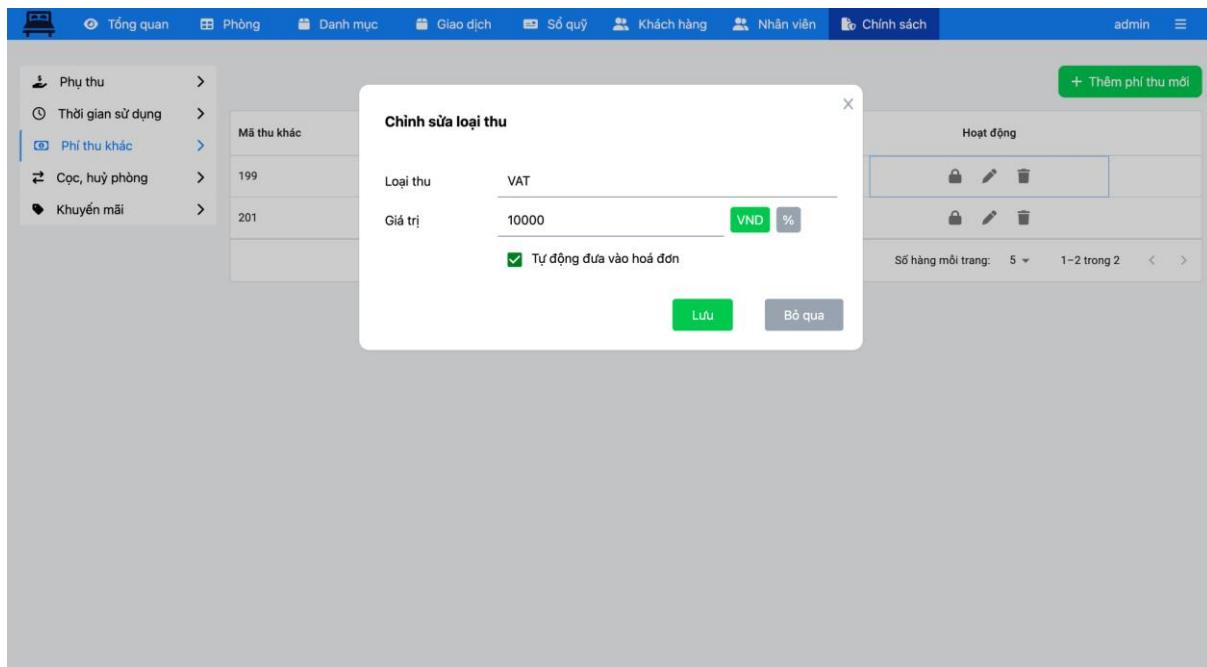


3.8.6: Update other surcharge:

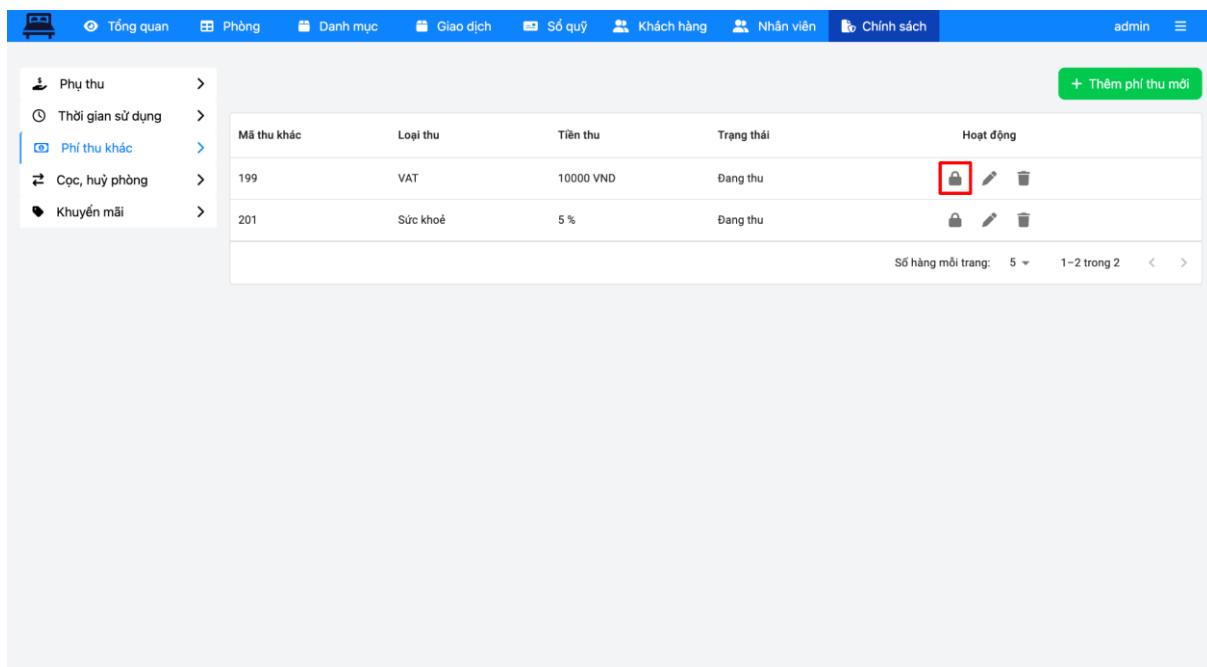
Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)

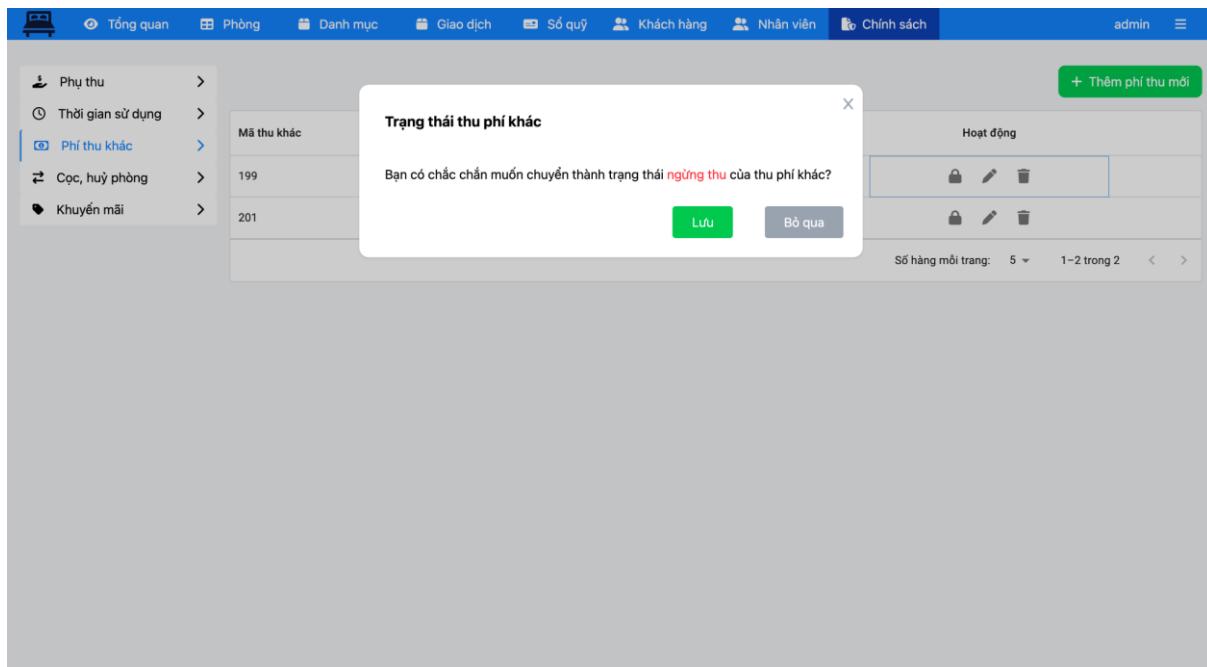
Step 2.1: Updates information of other surcharges by clicking the pen icon of each item to open the update popup, fills necessary fields and clicks button “Lưu” to update other surcharge or button “Bỏ qua” to cancel it





Step 2.2: Updates status other surcharges by clicking the lock icon of each item to open the popup, clicks button “Lưu” to change status other surcharge or button “Bỏ qua” to cancel it

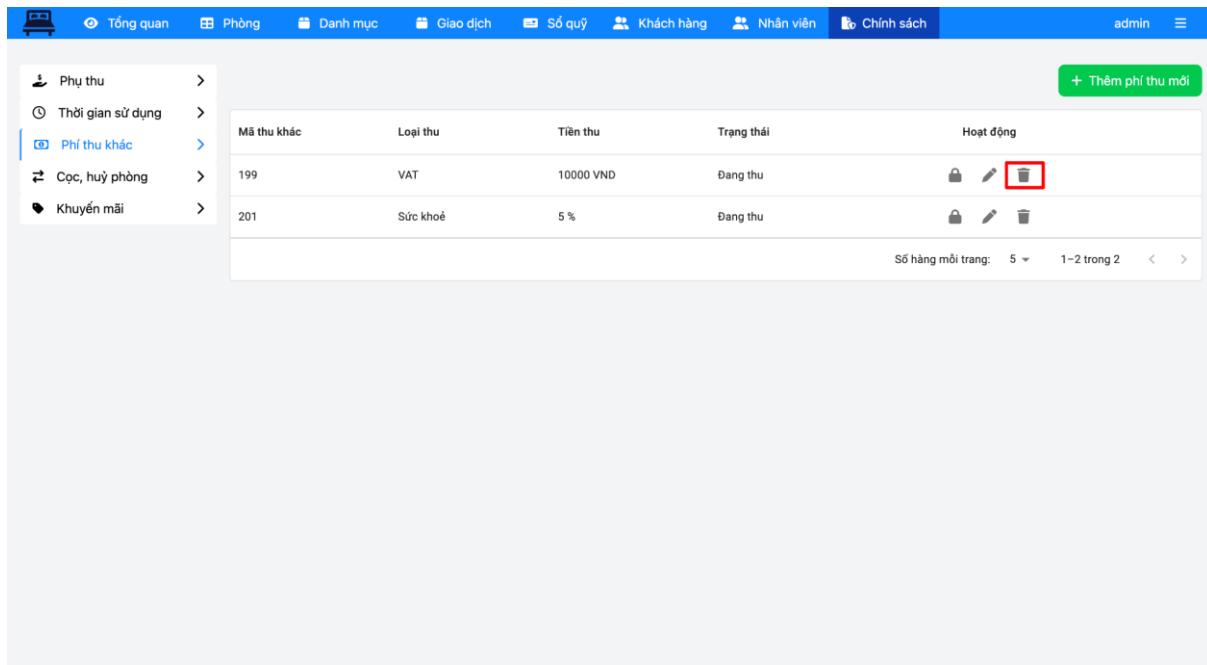




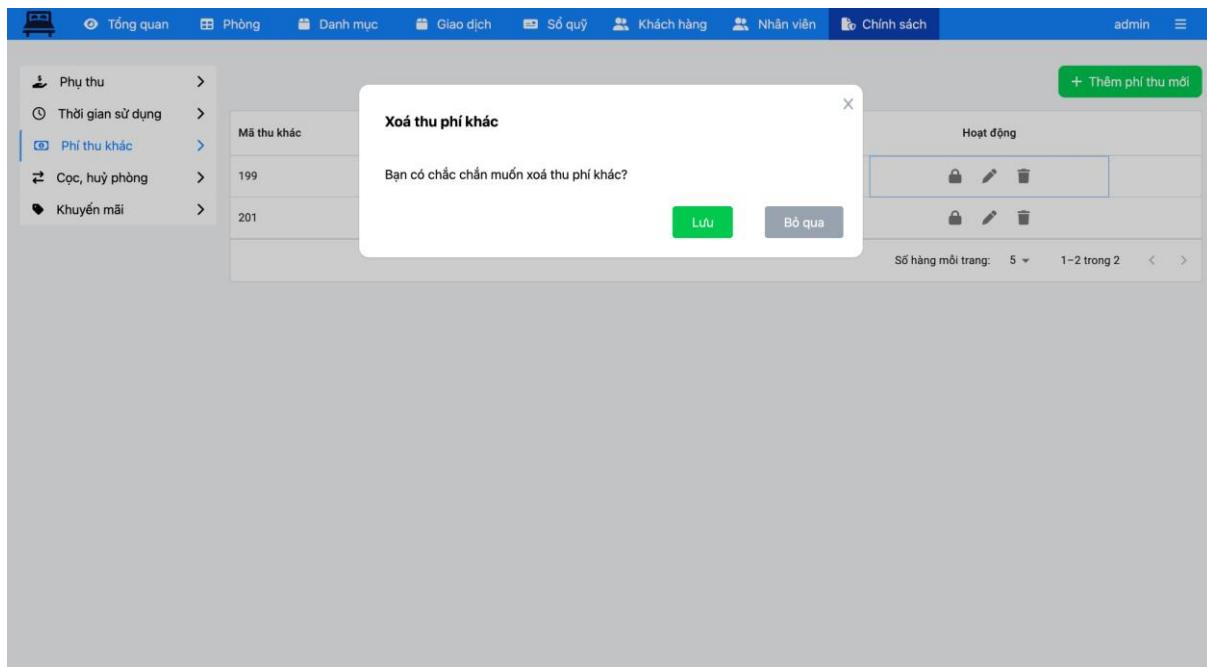
3.8.7: Delete other surcharge:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)

Step 2: Delete other surcharges by clicking the trash icon of each item to open a popup.



Step 3: Clicks button “Lưu” to change status other surcharge or button “Bỏ qua” to cancel it



3.8.8: Set surcharge early check-in, late check-out and over number of people:

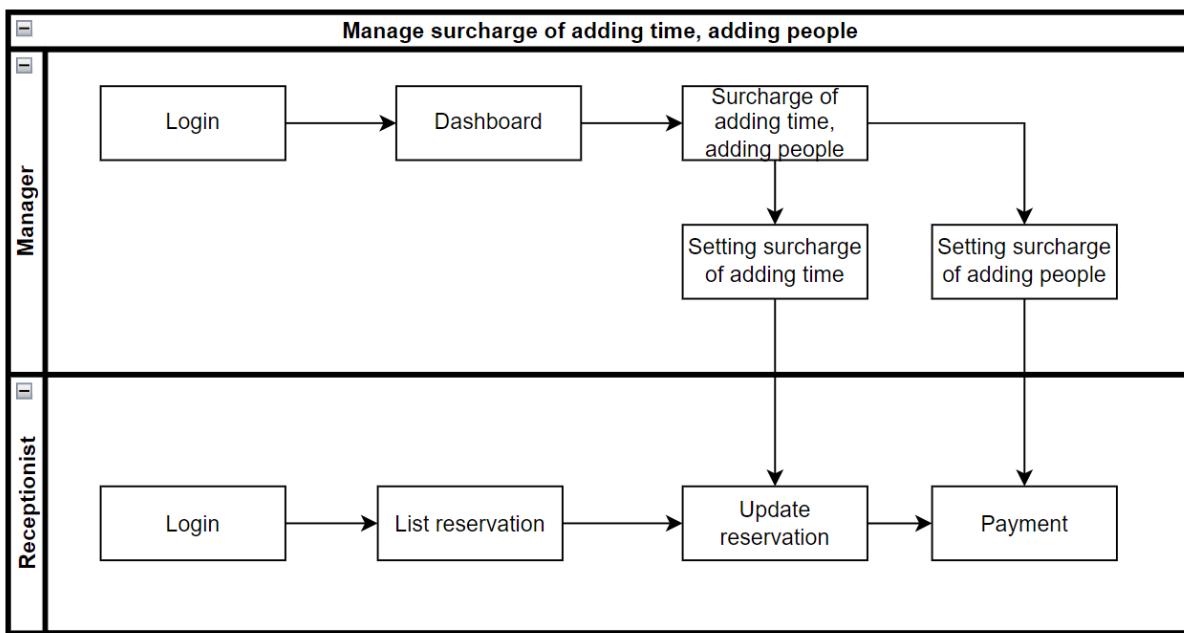
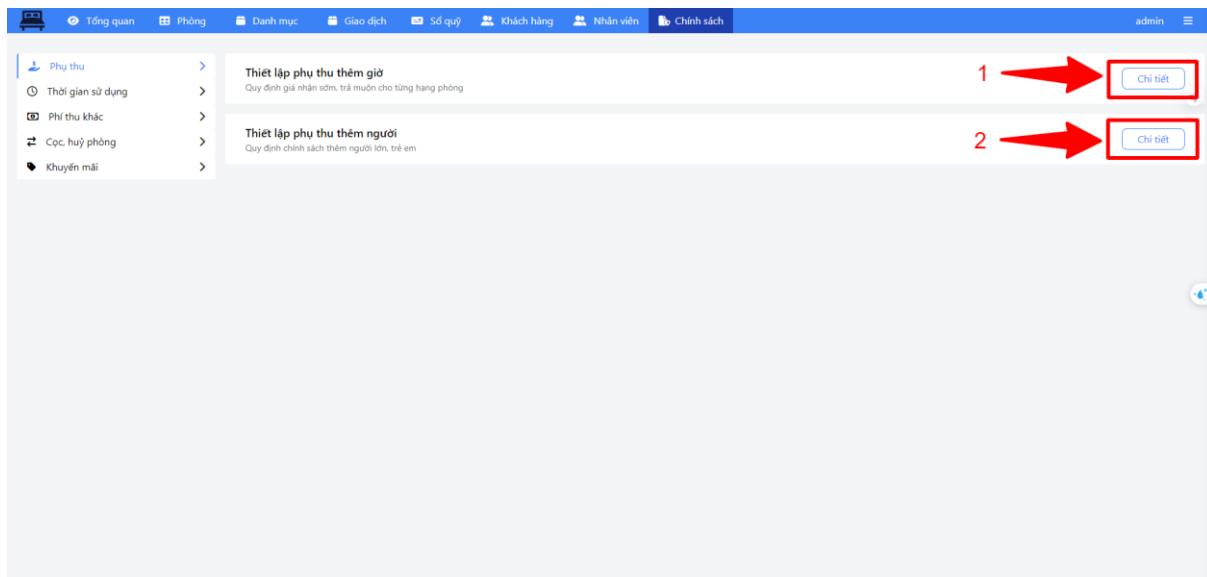


Figure 247: Workflow of manage surcharge of adding time, adding people (policy)

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)



Step 2.1: Set surcharge early check-in, late check-out by clicking button “chi tiết” in row “Thiết lập phụ thu thêm giờ” (1 in image) to open popup settings, and input time, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it

The screenshot shows a detailed configuration table for room surcharges. The columns include: Mã hạng phòng (Room Type ID), Tên hạng phòng (Room Type Name), Loại giá (Price Type), Mức giá (Price), Giá nhận sớm (% giá phòng) (Early payment discount %), and Giá trả muộn (% giá phòng) (Late payment surcharge %). The table lists five room types (HP000001 to HP000005) with their respective details and surcharge configurations. A 'Chi tiết' button is visible at the top right of the table.

Mã hạng phòng	Tên hạng phòng	Loại giá	Mức giá	Giá nhận sớm (% giá phòng)	Giá trả muộn (% giá phòng)
HP000001	Phòng cơ bản	Giá giờ	200,000	Trước 1 giờ giá 5	Sau 1 giờ giá 10
		Giá ngày	300,000	+ Thêm giờ	+ Thêm giờ
		Giá đêm	300,000		
HP000002	Phòng hạng trung	Giá giờ	200,000	Trước 1 giờ giá 5	Sau 1 giờ giá 5
		Giá ngày	700,000	+ Thêm giờ	+ Thêm giờ
		Giá đêm	300,000		
HP000003	Phòng đơn	Giá giờ	250,000	Trước 1 giờ giá 0	Sau 1 giờ giá 0
		Giá ngày	400,000	+ Thêm giờ	+ Thêm giờ
		Giá đêm	400,000		
HP000004	Phòng gia đình	Giá giờ	300,000	Trước 1 giờ giá 0	Sau 1 giờ giá 0
		Giá ngày	900,000	+ Thêm giờ	+ Thêm giờ
		Giá đêm	500,000		
HP000005	Phòng VIP	Giá giờ	500,000	Trước 1 giờ giá 0	Sau 1 giờ giá 0
		Giá ngày	1,200,000	+ Thêm giờ	+ Thêm giờ
		Giá đêm	800,000		

Step 2.2: Set surcharge add people by clicking button “chi tiết” in row “Thiết lập phụ thu thêm người” (2 in image) to open popup settings, and input time, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it

Mã hạng phòng	Tên hạng phòng	Mức giá	Tiêu chuẩn	Tối đa	Giá thêm người lớn (% giá phòng / lớn)	Giá tuổi trẻ em (% giá phòng / trẻ)
HP000001	Phòng cơ bản	Giá giờ	200,000	Người lớn 2	Người lớn 3	Từ 0 đến dưới 6 tuổi giá 0
		Giá ngày	300,000	Trẻ em 1	Trẻ em 2	Từ 6 đến dưới 15 tuổi giá 5
		Giá đêm	300,000			
HP000002	Phòng hạng trung	Giá giờ	200,000	Người lớn 3	Người lớn 4	Từ 0 đến dưới 6 tuổi giá 0
		Giá ngày	700,000	Trẻ em 1	Trẻ em 2	Từ 6 đến dưới 10 tuổi giá 5
		Giá đêm	300,000			+ Thêm mức
HP000003	Phòng đơn	Giá giờ	250,000	Người lớn 1	Người lớn 2	Từ 0 đến dưới 6 tuổi giá 0
		Giá ngày	400,000	Trẻ em 1	Trẻ em 2	Từ 6 đến dưới 7 tuổi giá 0
		Giá đêm	400,000			+ Thêm mức
HP000004	Phòng gia đình	Giá giờ	300,000	Người lớn 4	Người lớn 5	Từ 0 đến dưới 6 tuổi giá 0
		Giá ngày	900,000	Trẻ em 1	Trẻ em 2	Từ 6 đến dưới 7 tuổi giá 0
		Giá đêm	500,000			+ Thêm mức
HP000005	Phòng VIP	Giá giờ	500,000	Người lớn 2	Người lớn 3	Từ 0 đến dưới 6 tuổi giá 0
		Giá ngày	1,200,000	Trẻ em 1	Trẻ em 2	Từ 6 đến dưới 7 tuổi giá 0
		Giá đêm	800,000			+ Thêm mức
		Giá giờ	600,000	Người lớn 2	Người lớn 3	Từ 0 đến dưới 6 tuổi giá 0

3.8.9: Config time using:

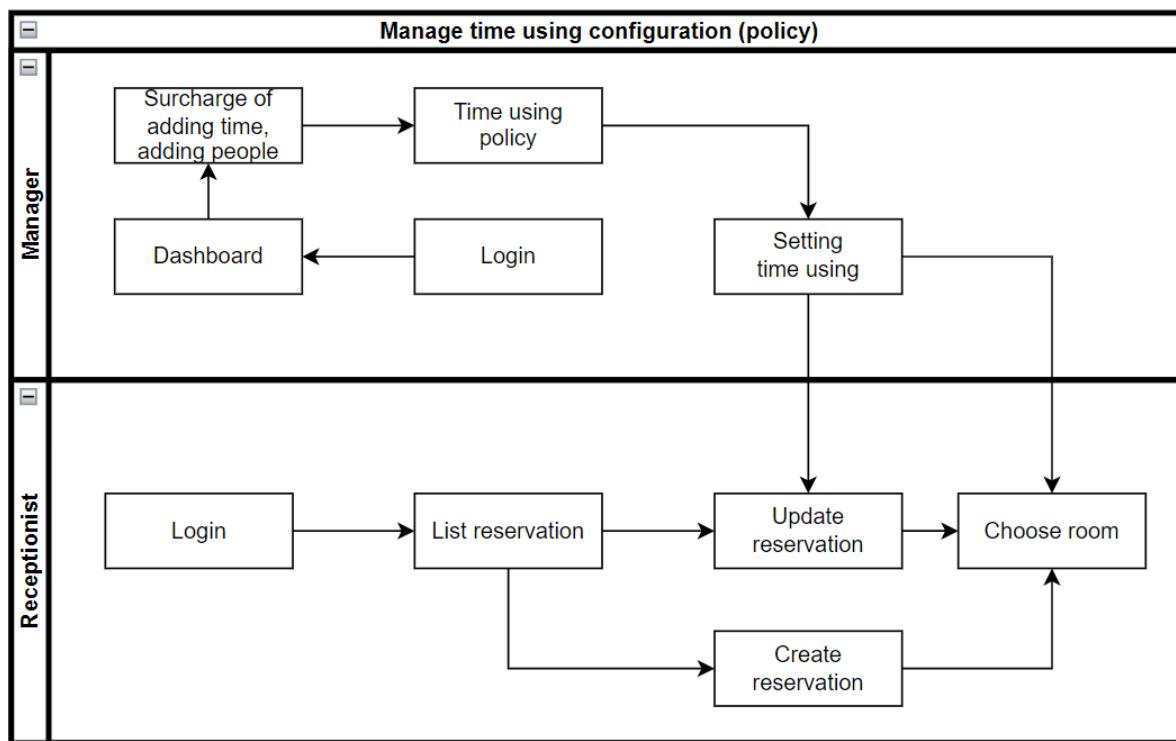
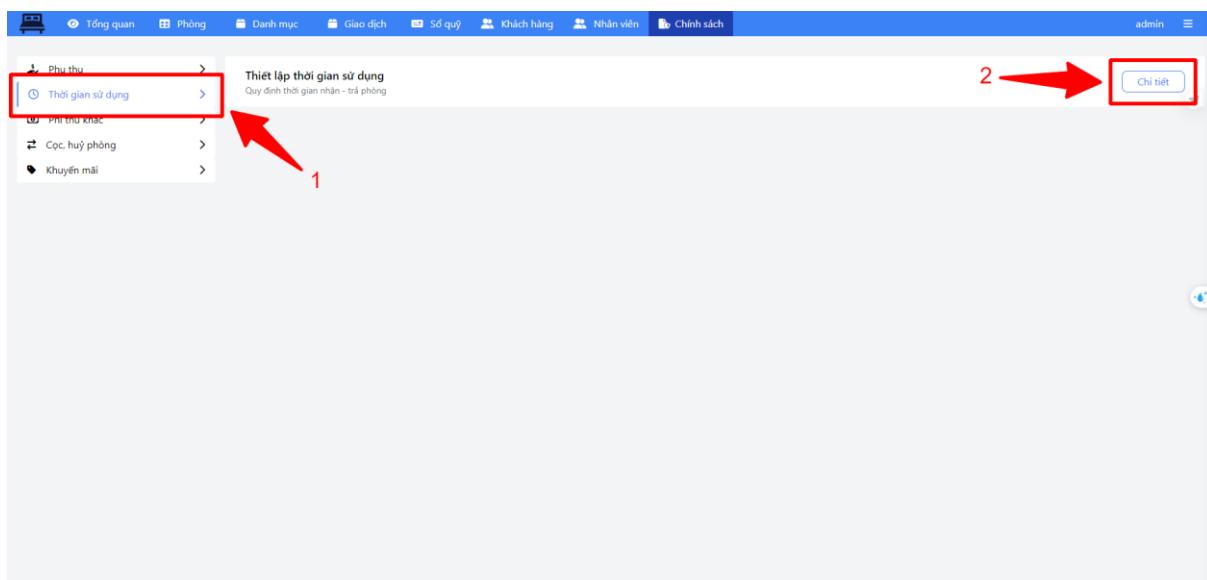


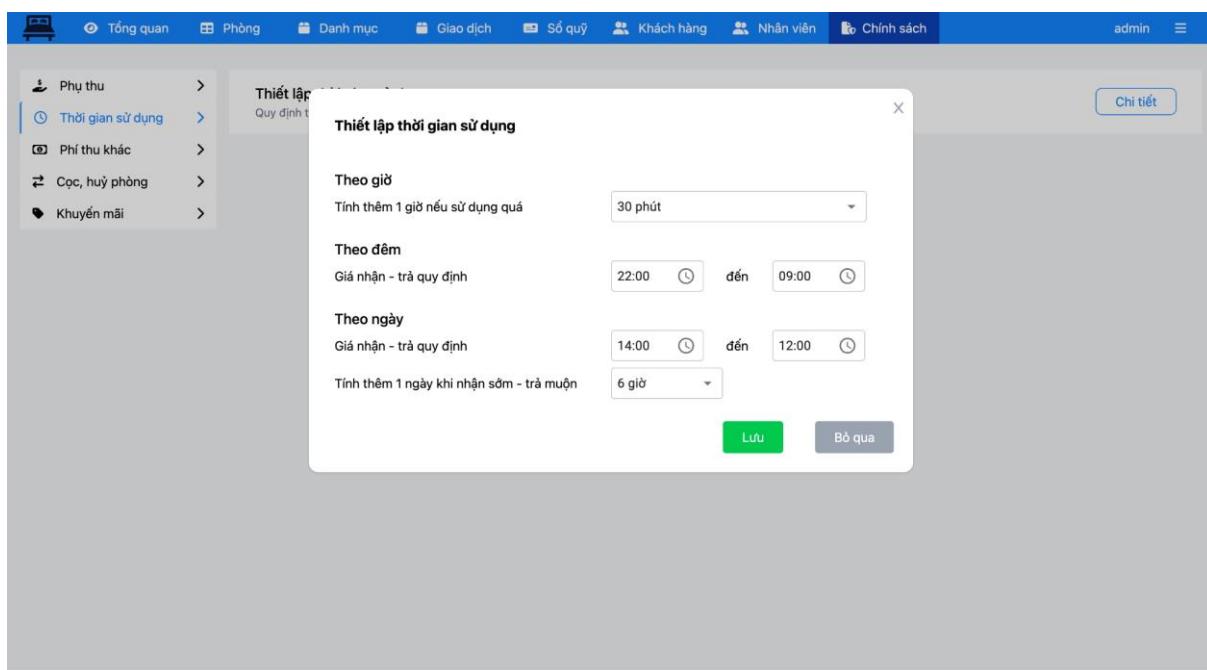
Figure 248: Workflow of manage time using (policy)

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)



Step 2: Choose the setting using time in tap using time. (1 in image)

Step 3: Set configuration time using by clicking button “chi tiết” (2 in image) to open popup settings, and input time, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it



Step 4: Set information and click save button to save.

3.8.10: Config deposit, set surcharge cancel reservation:

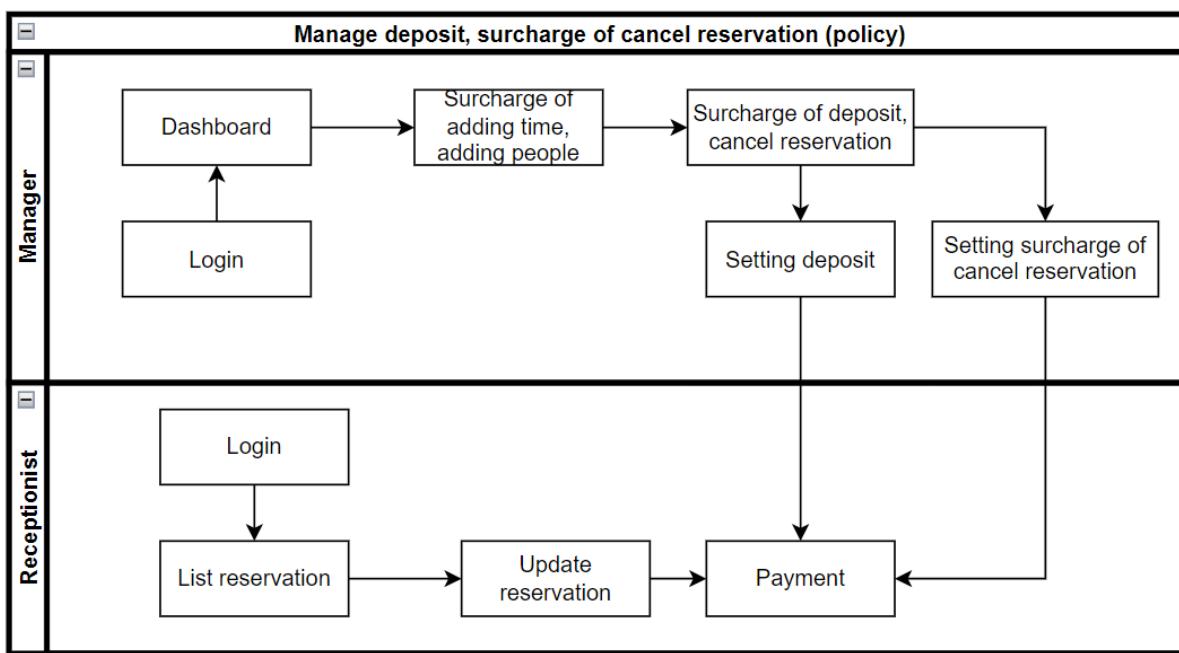
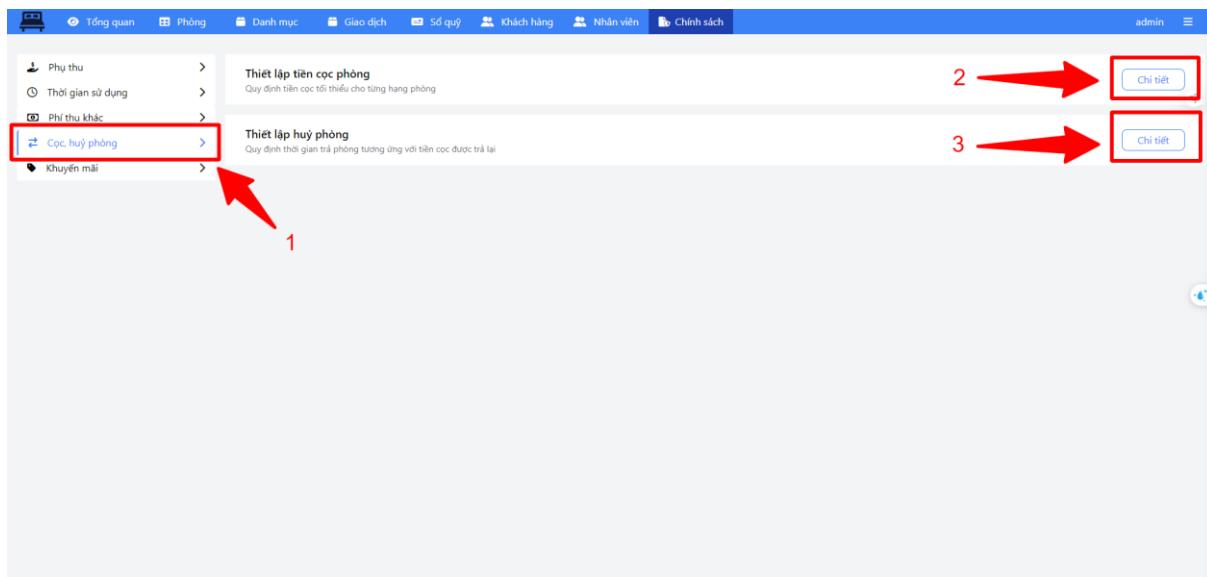


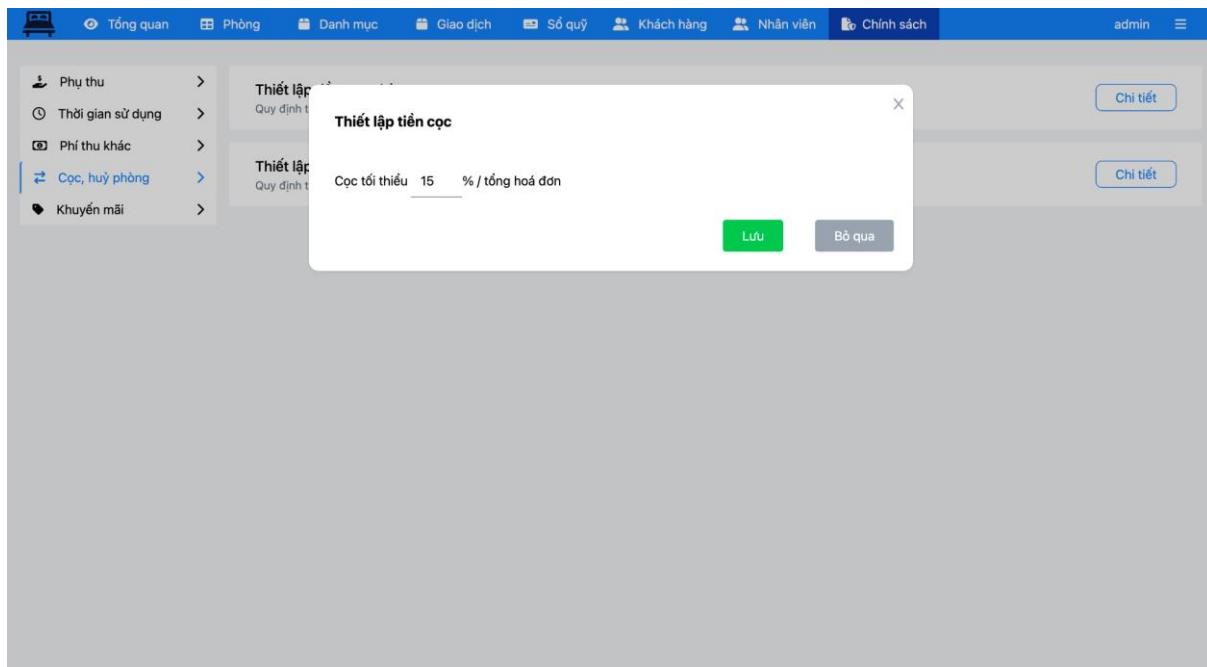
Figure 249: Workflow of manage deposit, surcharge of cancel reservation (policy)

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)

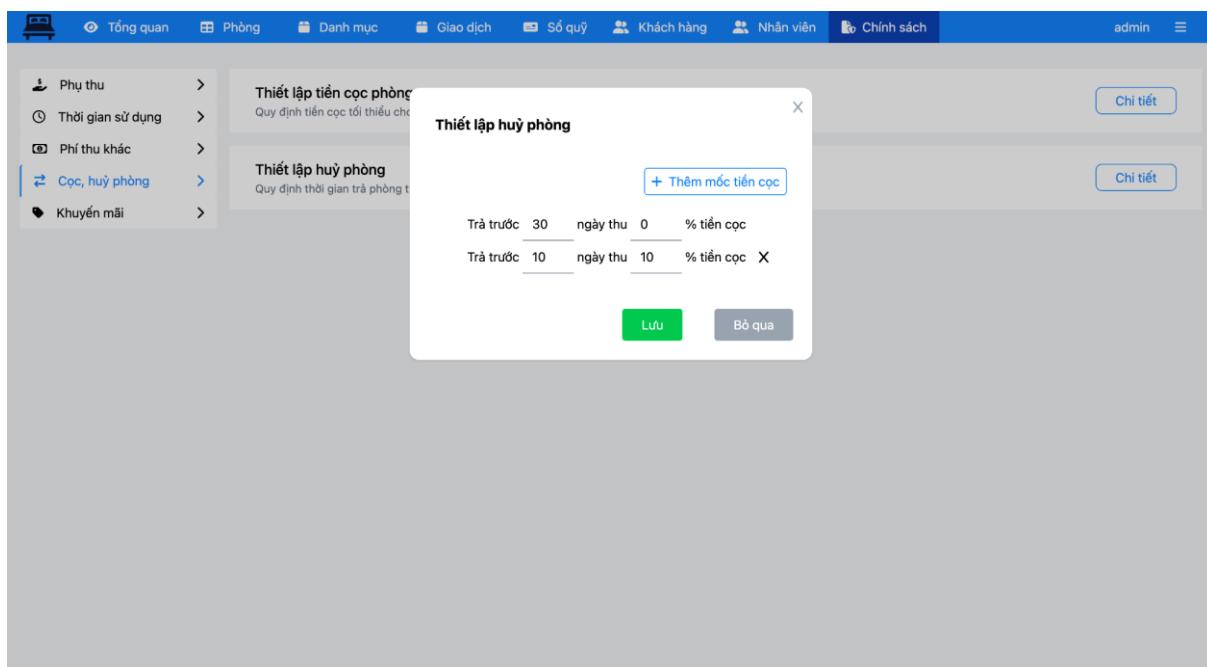


Step 2: Choose the setting deposit, surcharge of cancelling reservation in tap deposit, cancel reservation. (1 in image)

Step 3.1: Set deposit by clicking button “chi tiết” in row “Thiết lập tiền cọc phòng” (2 in image) to open popup settings, and input number, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it



Step 3.2: Set surcharge cancel reservation by clicking button “chi tiết” in row “Thiết lập hủy phòng” (3 in image) to open popup settings, clicking on button “Thêm mốc tiền cọc” to add more cancel reservation option, input day and number deposit, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it



3.8.11: Config promotion

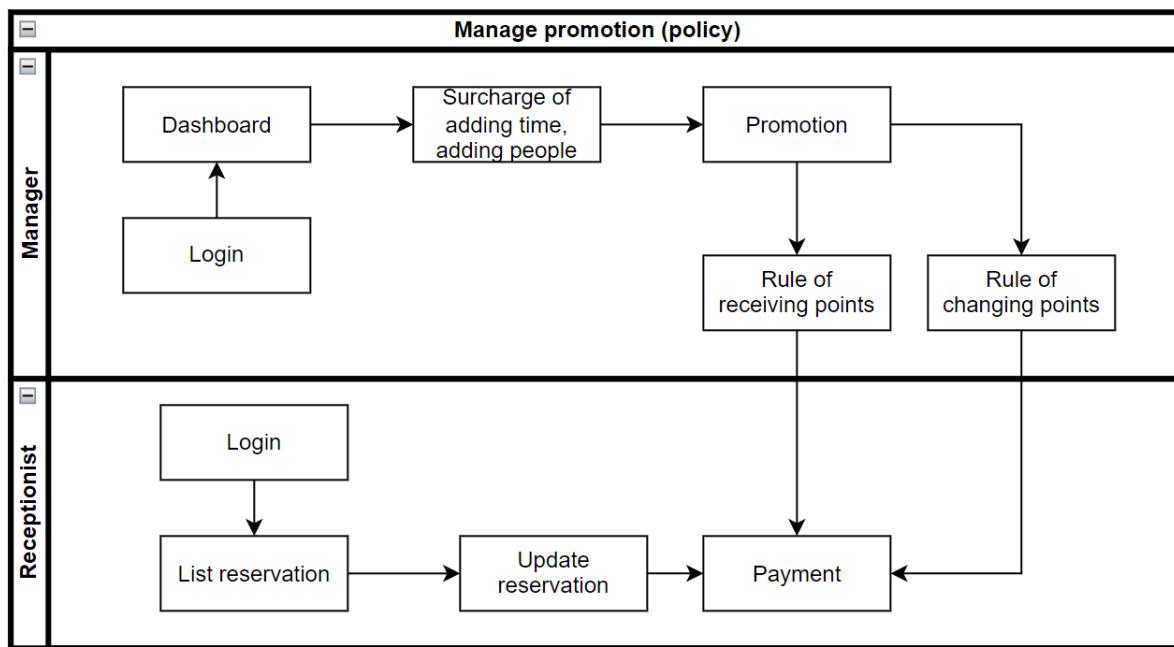
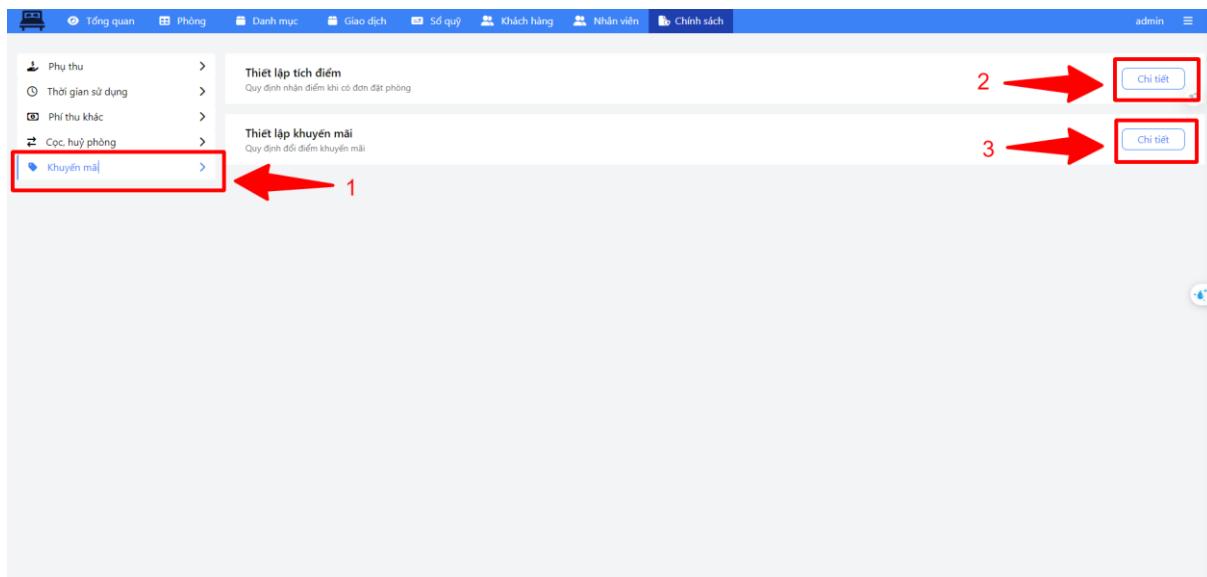


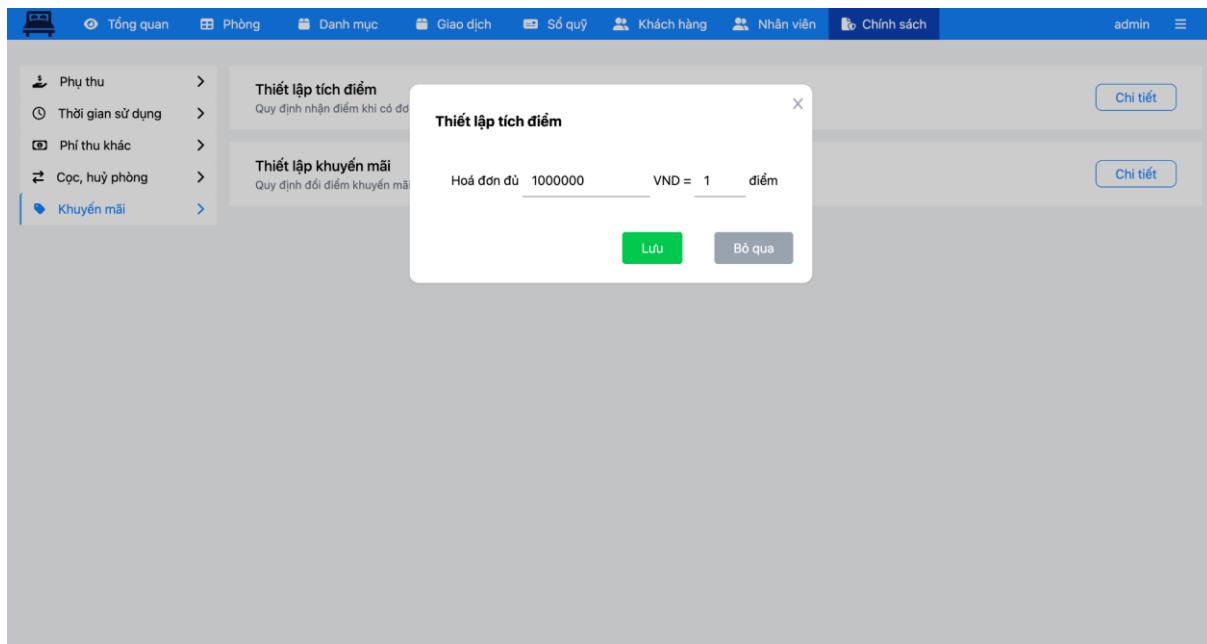
Figure 250: Workflow of manage promotion (policy)

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage other surcharge page. (guide 3.8.4)

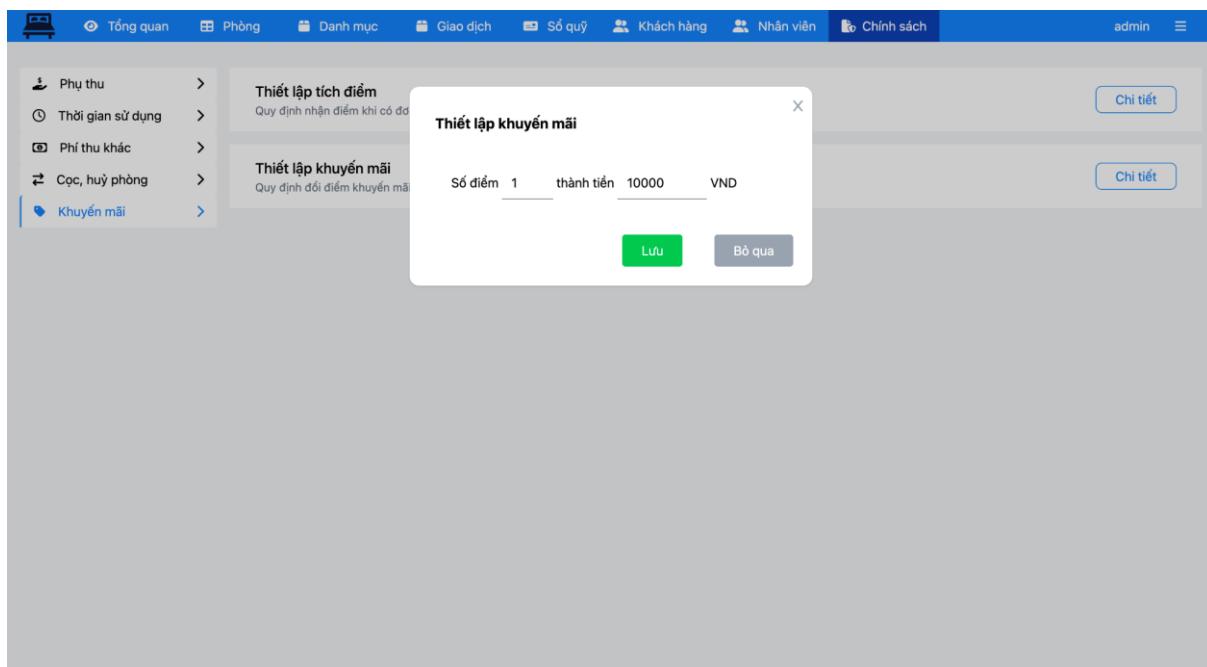


Step 2: Choose the setting promotion in tap promotion. (1 in image)

Step 3.1: Set rule of receiving points by clicking button “chi tiết” in row “Thiết lập tích điểm” (2 in image) to open popup settings, and input money of invoice to receive point, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it



Step 3.2: Set rule of promotion by clicking button “chi tiết” in row “Thiết lập khuyến mãi” (3 in image) to open popup settings, and input point to receive money, clicking on button “Lưu” to update or button “Bỏ qua” to cancel it



3.9: Manage transaction:

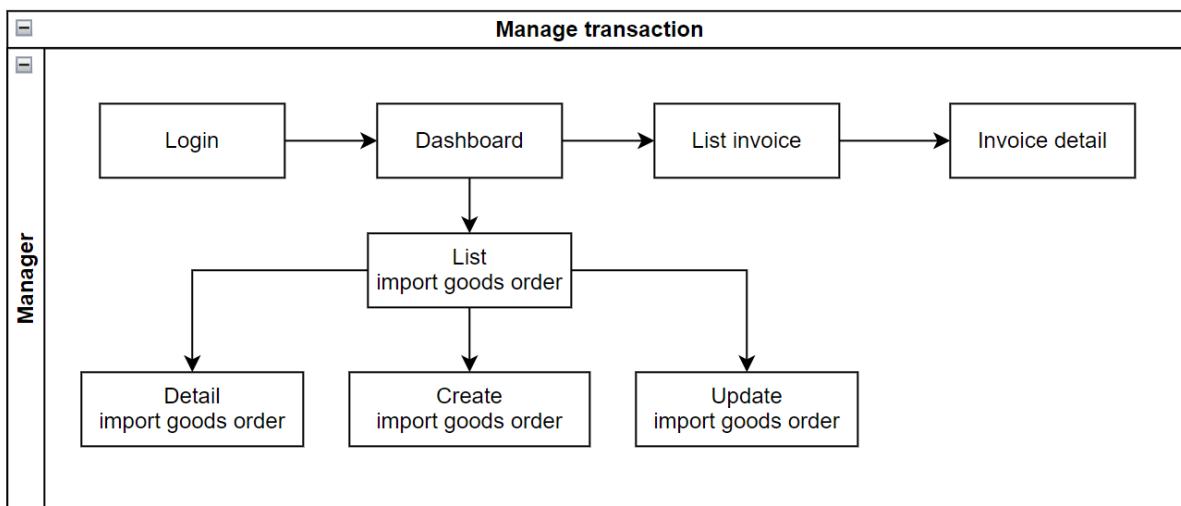


Figure 251: Workflow of manage transaction

3.9.1: View list, search, view detail, export invoice:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage transaction page clicking on transaction button(1 in image).

Mã hóa đơn	Ngày tạo	Khách hàng	Giảm giá	Tổng tiền	Trạng thái	Phương thức thanh toán	Hoạt động
HD000007	17-12-2023	Trịnh Bảo Khanh	0	303840	COMPLETE	Chuyển khoản	
HD000006	14-12-2023	Trịnh Bảo Khanh	10000	647620	COMPLETE	Chuyển khoản	
HD000005	14-12-2023	Trịnh Bảo Khanh	30000	1400000	COMPLETE	Chuyển khoản	
HD000004	14-12-2023	Trịnh Bảo Khanh	20000	2400000	COMPLETE	Chuyển khoản	
HD000003	14-12-2023	Bán lẻ	0	2540	COMPLETE	Chuyển khoản	

Step 2: Search invoice by clicking on “Bộ lọc” (2 in image) and input text to search.

Step 3: Views detail each invoice by clicking the view detail icon of each item (3 in image).

Chi tiết hóa đơn

Mã hóa đơn:	HD000007	Thời gian:	2023-12-17
Khách hàng:	Trịnh Bảo Khanh	Trạng thái:	COMPLETE
Mã giao dịch:	MGDDP000018HD1	Giá khác:	25192
Nhân viên:	Đinh Văn Tiến	Ghi chú:	

Thông tin phòng

Mã phòng:	Tên phòng:	Hạng phòng:	Tổng tiền:		
P000001	P.101	Phòng cơ bản	300,000		
DH000018	Mã hàng	Tên hàng	Số lượng	Đơn giá	Thành tiền
Tình trạng: Đã trả	SP000002	Coca Cola	2	700	1400
	SP000007	Mỹ tôm	3	120	360
	SP000009	Bim bim Lays	1	1,300	1300
DH000019	Mã hàng	Tên hàng	Số lượng	Đơn giá	Thành tiền
Tình trạng: Đã trả	SP000002	Coca Cola	2	700	1400
	SP000007	Mỹ tôm	2	120	240
DH000020	Mã hàng	Tên hàng	Số lượng	Đơn giá	Thành tiền
Tình trạng: Đã trả	SP000001	Sprite	2	1,000	2000
	SP000003	Thịt bò khô	2	100	200
DH000021	Mã hàng	Tên hàng	Số lượng	Đơn giá	Thành tiền
Tình trạng: Chưa xác nhận	SP000002	Coca Cola	2	700	1400
	SP000007	Mỹ tôm	2	120	240

Step 4: Export by clicking the export icon in the invoice table list. (4 in image)

3.9.2: View list, search, view detail, export import goods order:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage import goods order page clicking on import goods order button(1 in image).

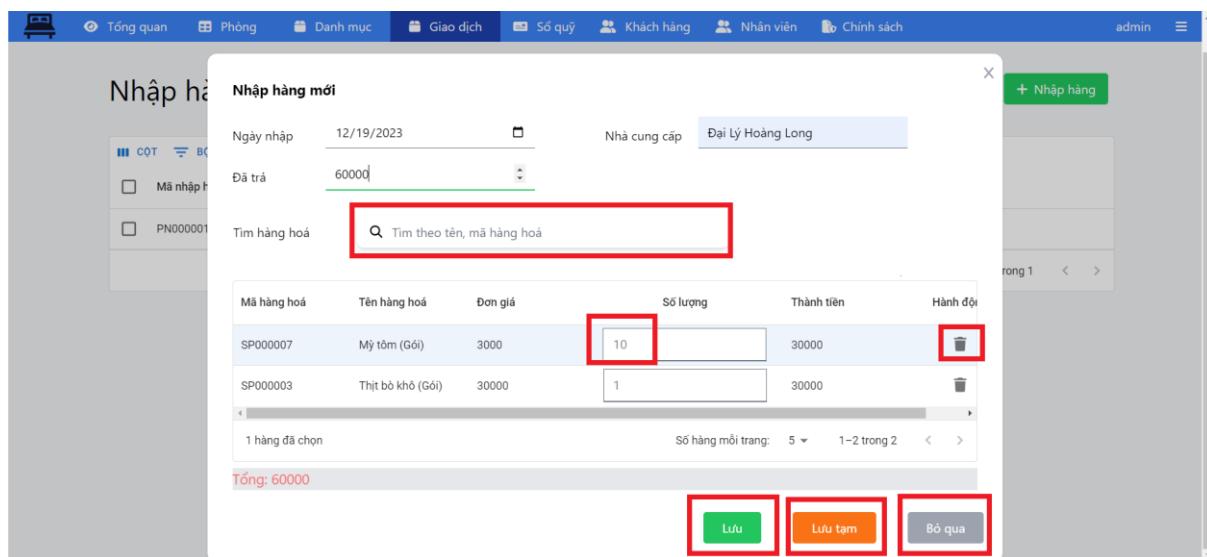
Mã nhập hàng	Ngày tạo	Nhà cung cấp	Đã trả	Tổng	Trạng thái	Hoạt động
PN000001	19-12-2023	Đại Lý Hoàng Long	10000	10000	Đã lưu	

Step 2: Search import goods order by clicking on “Bộ lọc” (2 in image) and input text to search.

Step 4: Export by clicking the export icon in the import goods order table list. (3 in image)

3.9.3: Create new import goods order:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage import goods order page. (guide 3.9.3)



Step 2: Clicks button add import goods order to open popup create.

Step 3: Fills necessary fields. Search text box to input name of goods, service to add to list.

Step 4: Input quantity of goods, service.

Step 5: Remove goods, service by remove button in the right of item.

Step 6: Save import goods order by clicking save button.

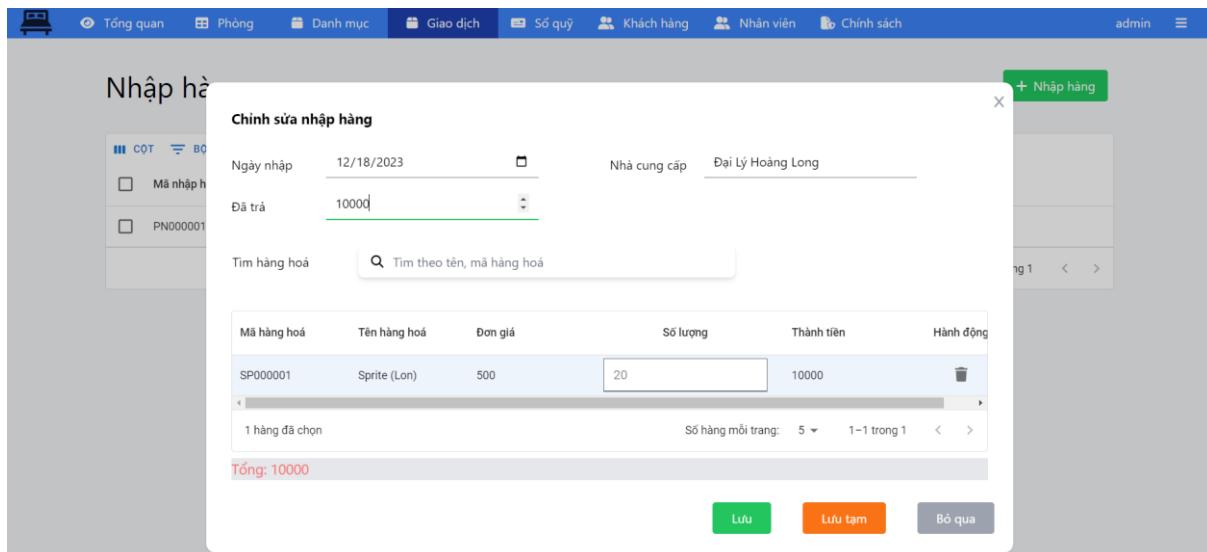
Step 7: Save as temporary order by clicking “Lưu tạm” button.

Step 8: Cancel by cancel button.

3.9.4: Update, cancel import goods order:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage import goods order page. (guide 3.9.3)

Step 2: Updates import goods order by clicking the update icon of each item (1 in image) to open the update popup.



Step 3: Cancel import goods order by clicking the delete icon of each item (2 in image) to open the confirm cancel popup.

3.10: Manage fund book:

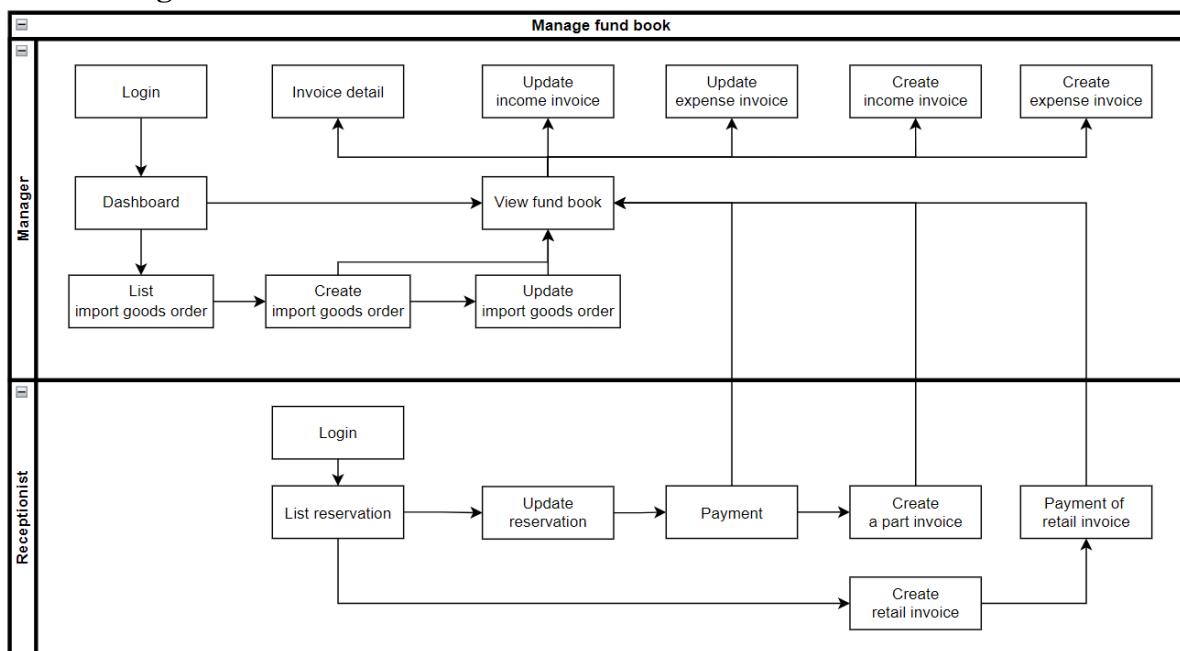


Figure 252: Workflow of manage fund book

3.10.1: View list, search detail, export invoice:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage fund book page clicking on fund book button(1 in image).

Số hiệu chứng từ	Ngày	Điện giải	Hình thức thanh toán	Thu	Chi	Trạng thái	Người nhận/nộp	Hoạt động
TTK00001	2023-12-19	note	CASH	100000 V...	0 VND	Hoàn tất	admin	

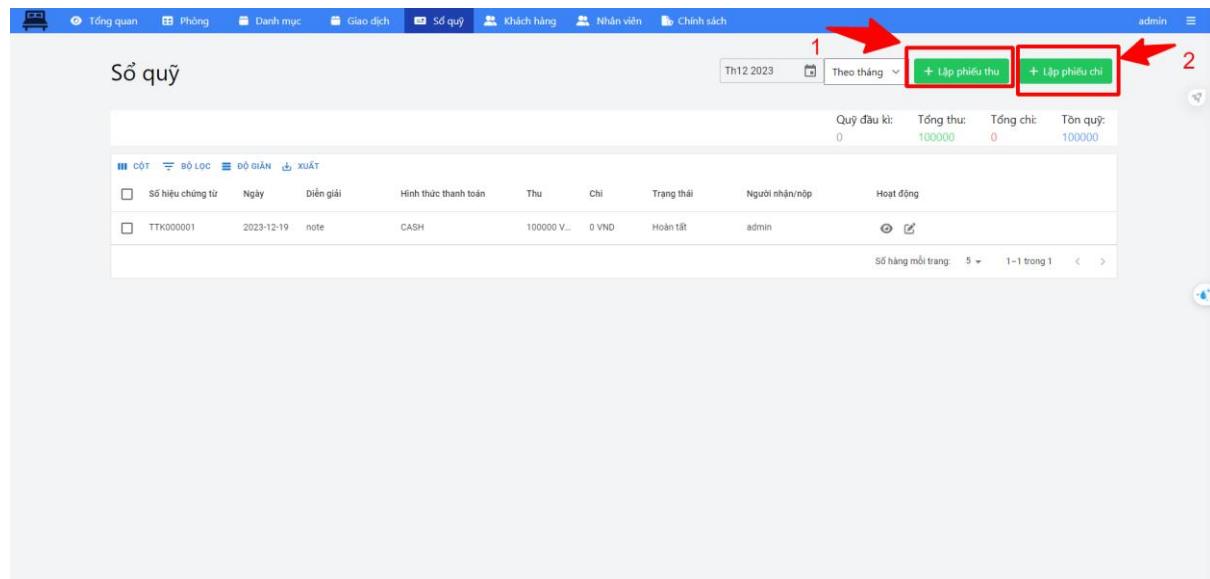
Step 2: Search import goods order by clicking on “Bộ lọc” (2 in image) and input text to search. Besides, choose a range of time to filter. (3 in image)

Step 3: Views detail each invoice by clicking the view detail icon of each item (4 in image).

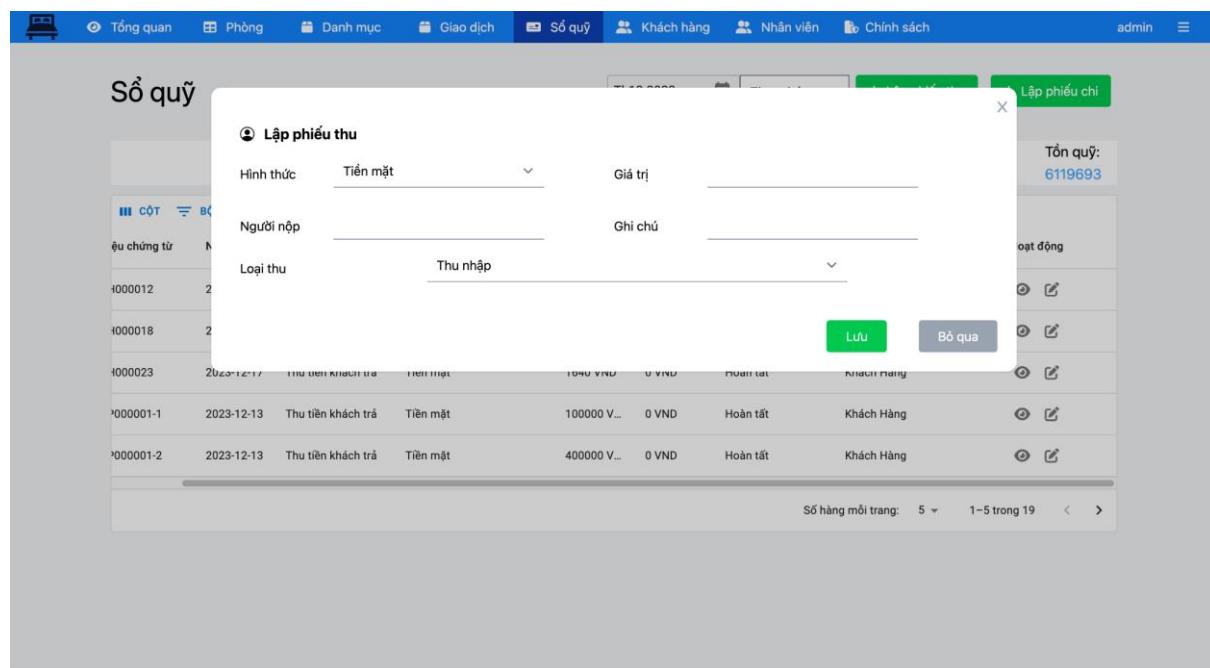
Step 4: Export by clicking the export icon in the invoice table list. (5 in image)

3.10.2: Create fund book:

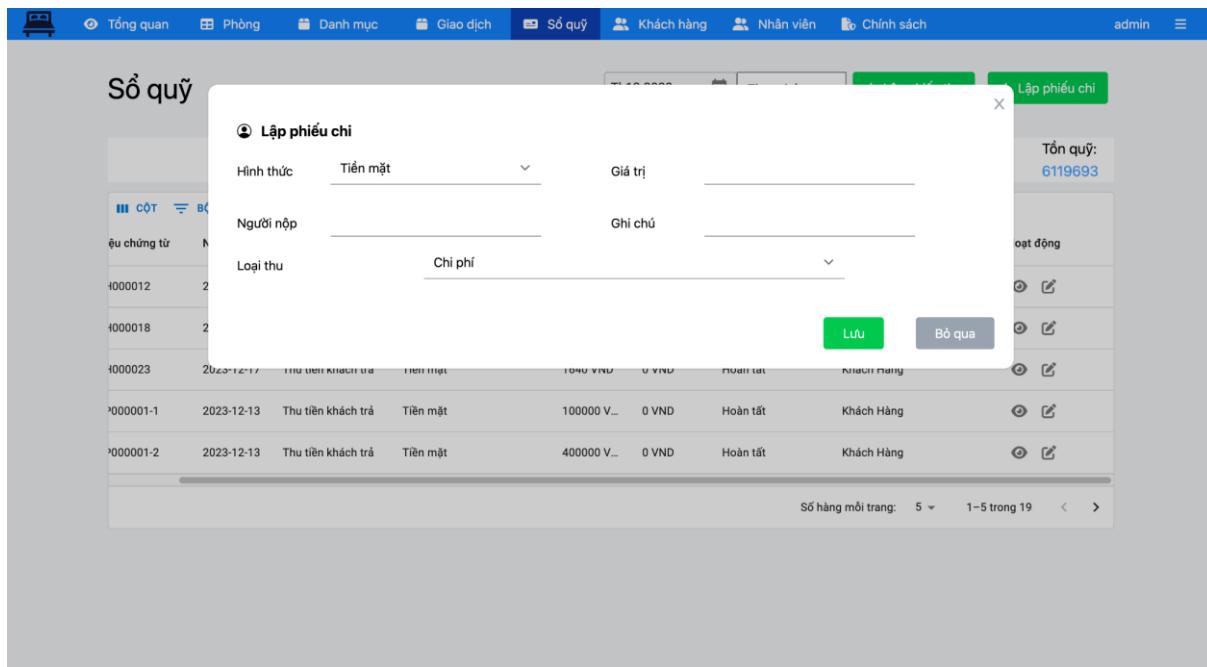
Step 1: Login system with role manager (Guides 3.2.1) and accesses manage fund book page. (guide 3.10.1)



Step 2.1: Clicks button create income invoice (1 in image) to open popup create income invoice, fills necessary fields and clicks save button to create income invoice.



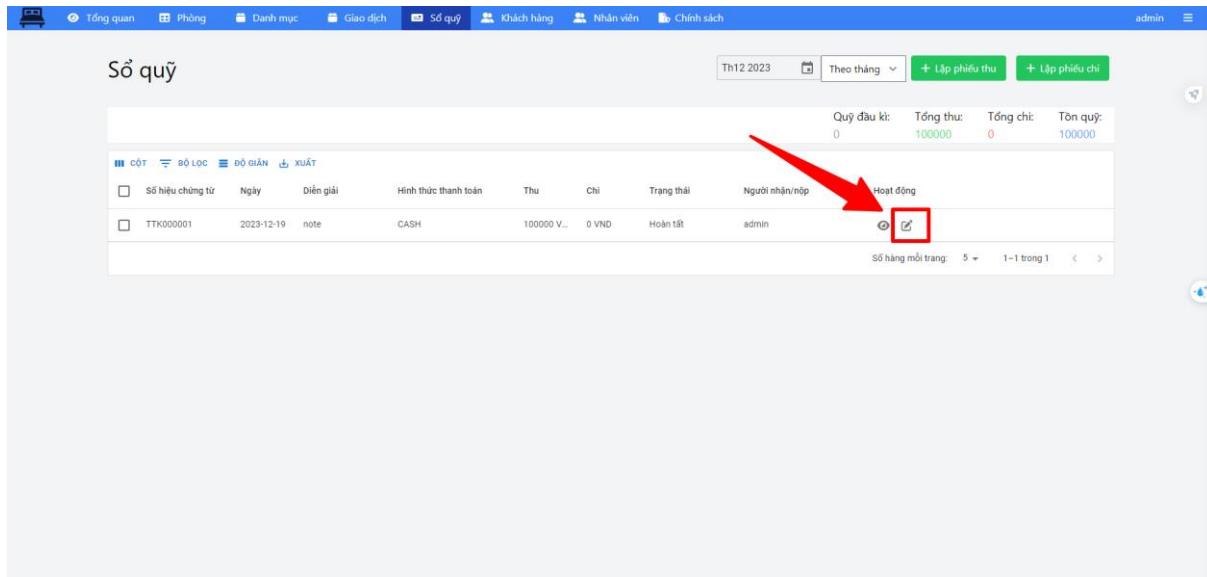
Step 2.2: Clicks button create expense invoice (2 in image) to open popup create expense invoice, fills necessary fields and clicks save button to create expense invoice



3.10.3: Update invoice:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage fund book page. (guide 3.10.1)

Step 2: Updates fund book by clicking the pen icon of each item to open the update popup.



Step 3: Input information of invoice, clicking on button “Lưu” to update fund book or button “Bỏ qua” to cancel it

3.11: Manage human resource:

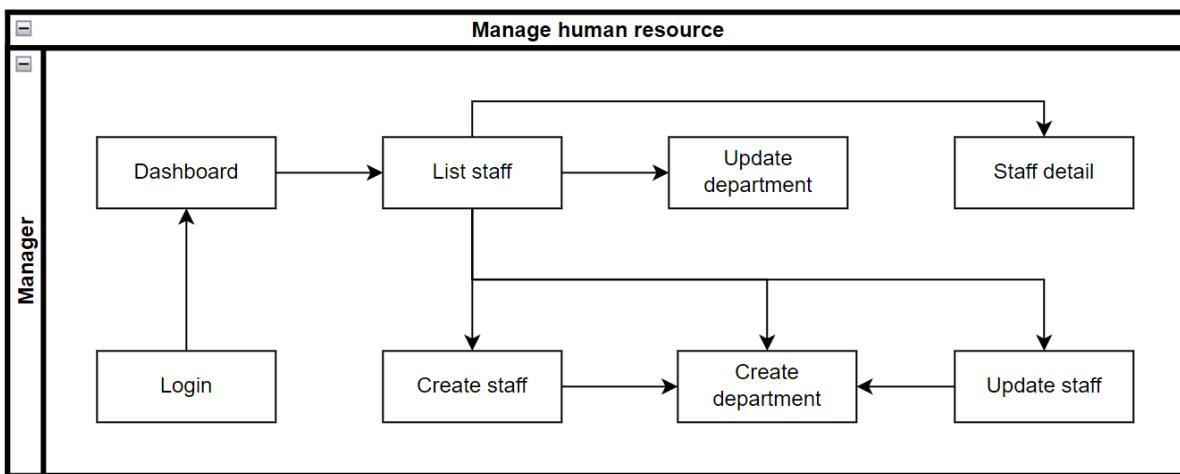


Figure 253: Workflow of manage human resource

3.11.1: View list, search, view detail, export staff:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage staff page clicking on staff button(1 in image).

The screenshot shows the 'Nhân viên' (Staff) section of the ManaHotel system. At the top, there are several tabs: Tổng quan, Phòng, Danh mục, Giao dịch, Sổ quỹ, Khách hàng, Nhân viên (which is highlighted), and Chính sách. A user 'admin' is logged in.

On the left, a sidebar lists 'Phòng ban' (Departments) with options like 'Tất cả phòng ban', 'Nhân Viên', and 'Lễ Tân'. The 'Nhân Viên' option is selected and highlighted with a red box and arrow (labeled 3).

The main area displays a table of staff members. The table has columns: Mã NV, Tên nhân viên, Tình trạng, Email, Số điện thoại, Phòng ban, and Hoạt động. The table includes a header row with sorting and filtering options: CỘT, BỘ LỌC (highlighted with a red box and arrow 2), ĐỘ GIẢN, and XUẤT (highlighted with a red box and arrow 5).

Red arrows point to various UI elements: arrow 1 points to the 'Nhân viên' tab; arrow 2 points to the 'BỘ LỌC' button; arrow 3 points to the 'Nhân Viên' sidebar item; arrow 4 points to the view detail icon in the table's action column; and arrow 5 points to the 'XUẤT' button.

Step 2: Search staff by clicking on “Bộ lọc” (2 in image) and input text to search. Besides, filters the staff by clicking on the department(3 in image).

Step 3: Views detail each staff by clicking the view detail icon of each item (4 in image).

This screenshot shows the detailed view of a staff member. The title is 'Thông tin nhân viên' (Staff Information). On the left, there is a thumbnail image of the staff member. The right side contains a table of staff details:

Thông tin	
Mã nhân viên:	10
Tên nhân viên:	Trịnh Bảo Khánh
Tên đăng nhập:	khanh
Chức danh:	Nhân viên
Tình trạng:	ACTIVE
Năm sinh:	2023-11-15
Địa chỉ:	Số nhà 45B ngõ 46 Phạm Ngọc Thạch
Email:	khanhtbhe153468@fpt.edu.vn
Giới tính:	Nam giới
Identity	12344
Điện thoại	0812569567
Phòng ban	Nhân Viên

Step 4: Export by clicking the export icon in the staff table list. (5 in image)

3.11.2: Create new staff:

Step 1: Login system with role manager (Guides 3.2.1) and accesses manage staff page. (guide 3.11.1)

Step 2: Clicks button add staff to open popup create.

The screenshot shows the ManaHotel staff management interface. On the left, there's a sidebar with a search bar and a 'Phòng ban' dropdown set to 'Nhân Viên'. The main area displays a table of staff members with columns for ID, Name, Status, Email, Phone, Department, and Action. At the bottom right of the table, there's a pagination bar showing 'Số hàng mỗi trang: 5' and '1-5 trong 7'. In the top right corner of the main area, there's a red-bordered green button labeled '+ Thêm mới nhân viên'.

Step 3: Fills necessary fields and clicks button “Lưu” (1 in image) to create new staff or clicking on button “Bỏ qua” to cancel and closing popup

This screenshot shows the 'Thêm nhân viên mới' (Add new staff) dialog box. It includes fields for Name, Login, ID card, Address, Phone, Birthdate, Email, Department, and Gender. At the bottom, there are two buttons: a green 'Lưu' (Save) button with a red arrow pointing to it, and a grey 'Bỏ qua' (Cancel) button with a red arrow pointing to it.

3.11.3: Update, delete staff:

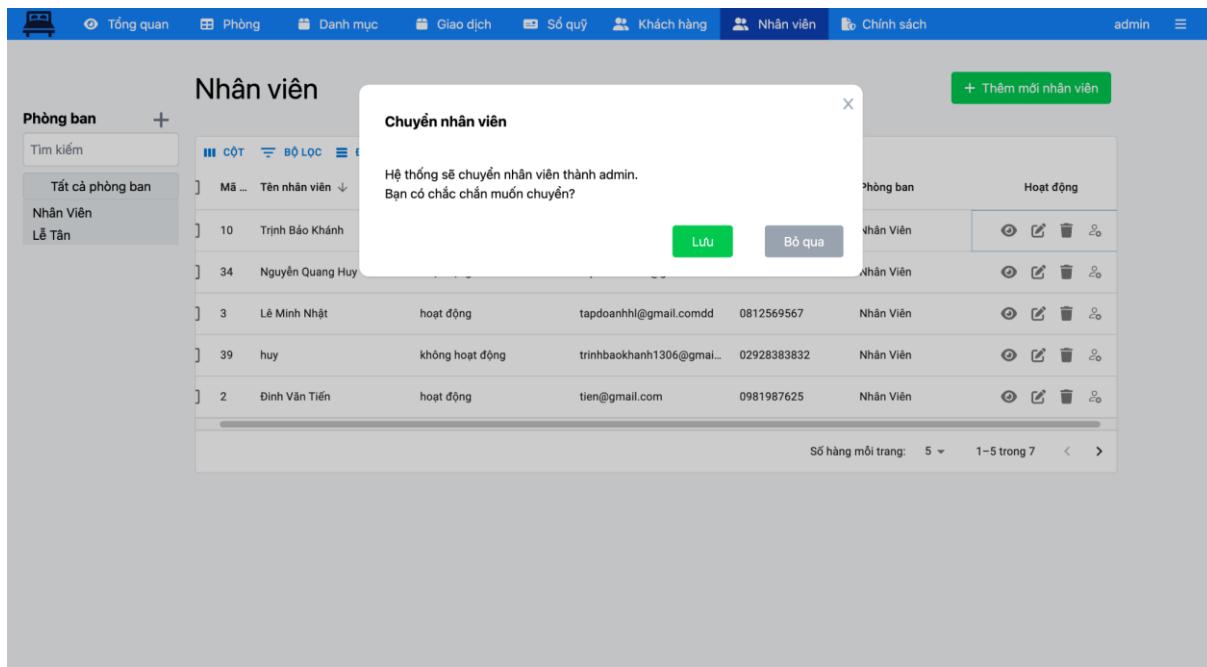
Step 1: Login system with role manager (Guides 3.2.1) and accesses manage staff page. (guide 3.11.1)

The screenshot shows the ManaHotel software interface. At the top, there's a navigation bar with links like 'Tổng quan', 'Phòng', 'Danh mục', 'Giao dịch', 'Số quý', 'Khách hàng', 'Nhân viên', 'Chính sách', and a user 'admin'. Below the navigation is a search bar and a sidebar with a 'Phòng ban' section containing 'Tất cả phòng ban', 'Nhân Viên', and 'Lễ Tân'. The main area is titled 'Nhân viên' and displays a list of staff members with columns for 'Mã...', 'Tên nhân viên', 'Tình trạng', 'Email', 'Số điện thoại', 'Phòng ban', and 'Hoạt động'. The 'Hoạt động' column contains icons for edit, delete, and change role. Red arrows numbered 1, 2, and 3 point to the edit icon, the change role icon, and the delete icon respectively. At the bottom, there's a pagination bar.

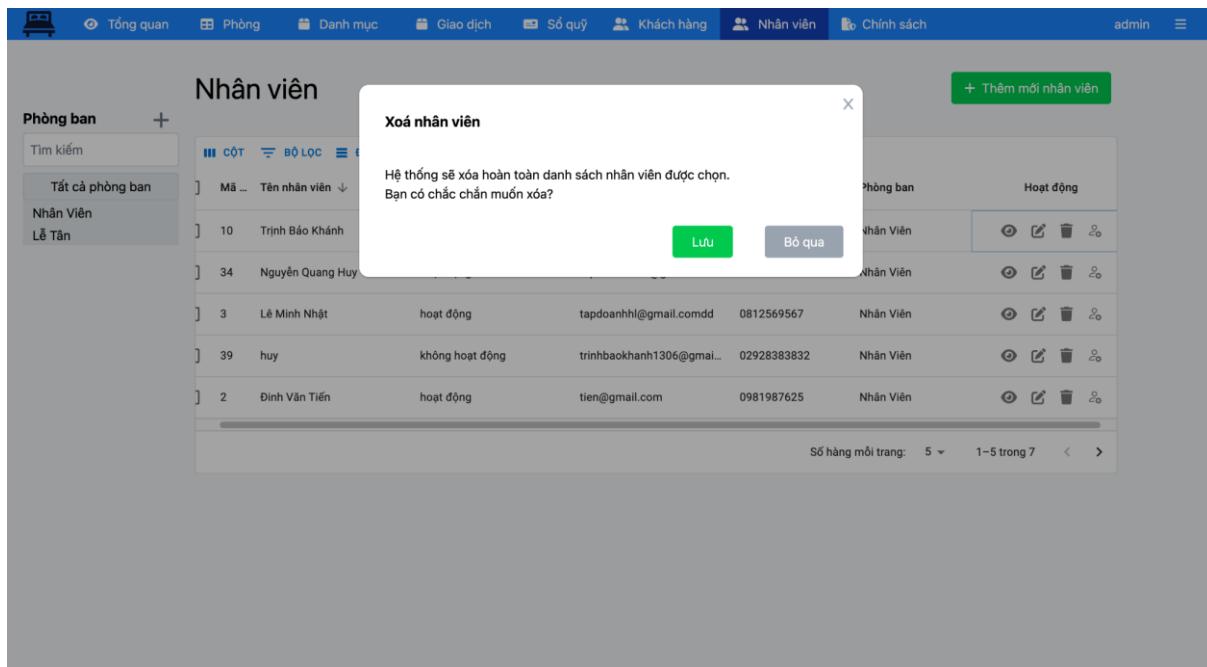
Step 2.1: Updates staff by clicking the pen icon (1 in image) of each item to open the update popup

This screenshot shows a modal dialog box titled 'Chỉnh sửa nhân viên' (Edit Staff). It contains fields for 'Mã nhân viên' (10), 'Tên nhân viên' (Trịnh Bảo Khánh), 'Tên đăng nhập' (khanh), 'Chứng minh nhân dân' (12344), 'Địa chỉ' (Số nhà 45B ngõ 46 Phạm Ngọc Thạch), 'Số điện thoại' (0812569567), 'Năm sinh' (15/11/2023), 'Email' (khanhtbhe153468@fpt.edu.vn), 'Phòng ban' (Nhân Viên), and 'Giới tính' (Nam). To the right of the dialog, there's a sidebar with a 'Hoạt động' section containing several rows of icons. Red arrows point to the edit icon in the dialog and the change role icon in the sidebar.

Step 2.2: Updates role for staff by clicking the change to admin icon (2 in image) to open the confirm popup.



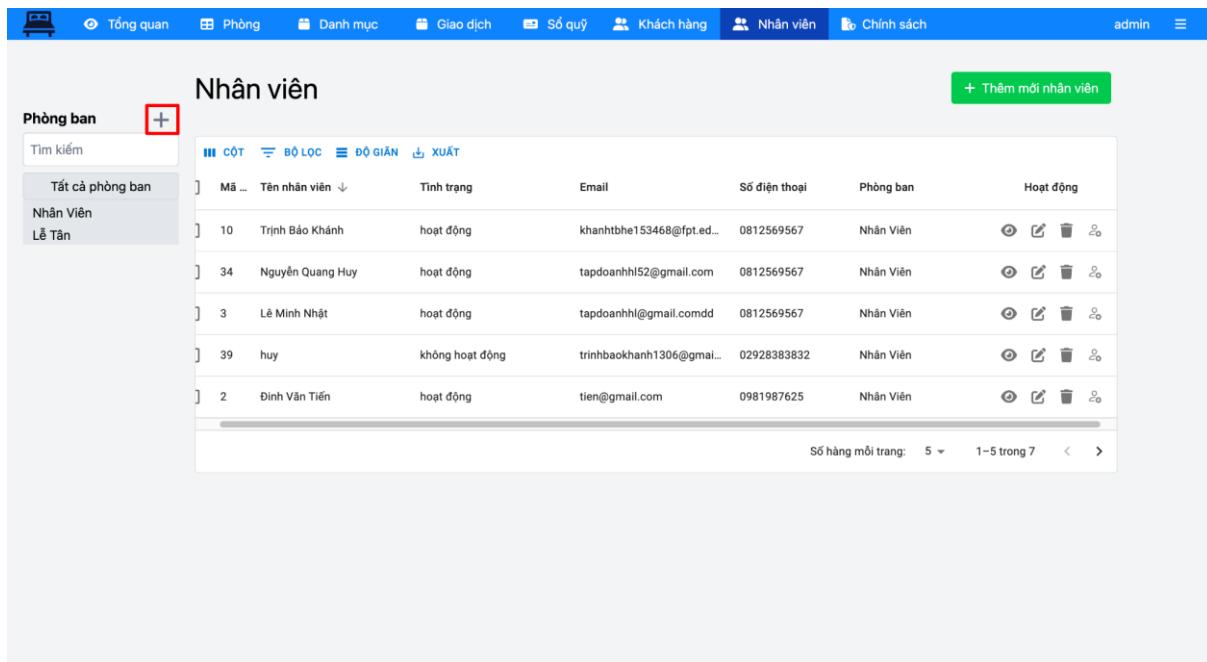
Step 3: Deletes staff by clicking the delete icon of each item (3 in image) to open the confirm delete popup.



3.11.4: Create department:

Step 1: Login with role manager (guide 3.2.1) and access manage staff page (guide 3.11.1).

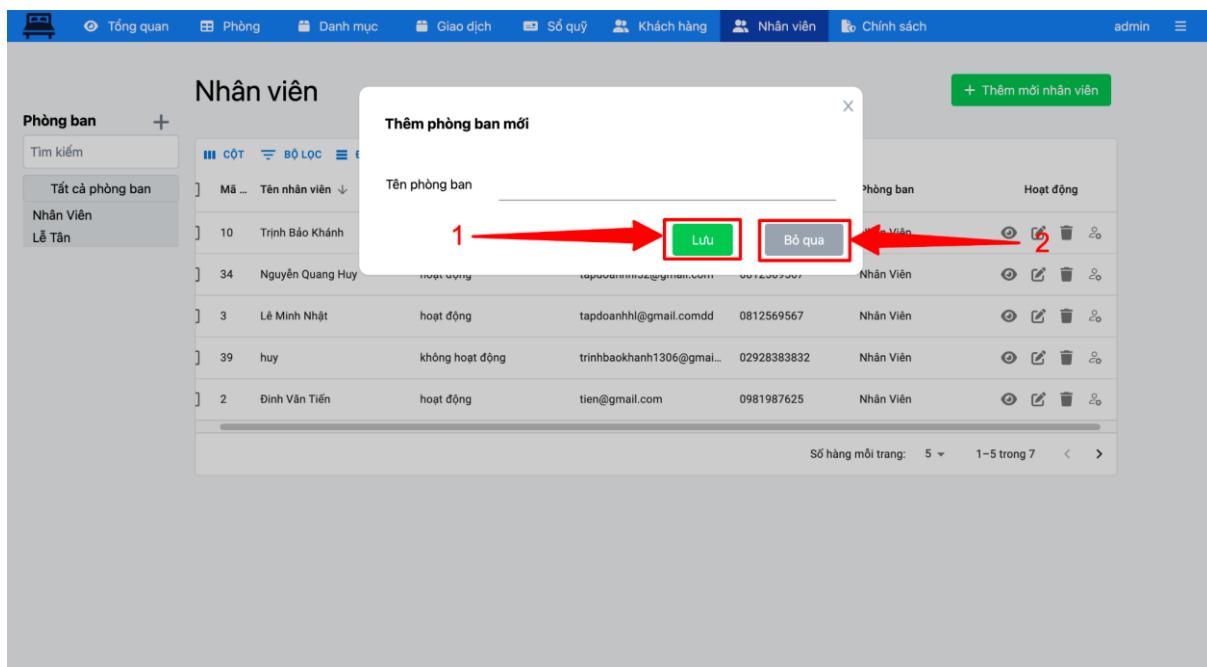
Step 2: Clicks add icon in department to open create department popup



Nhân viên							+ Thêm mới nhân viên
Phòng ban	Tìm kiếm	CỘT	BỘ LỌC	DỘ GIẢN	XUẤT		
Tất cả phòng ban							
Nhân Viên							
Lễ Tân							
[]	Mã ...	Tên nhân viên ↓	Tình trạng	Email	Số điện thoại	Phòng ban	Hoạt động
[]	10	Trịnh Bảo Khánh	hoạt động	khanhtbhe153468@fpt.edu...	0812569567	Nhân Viên	
[]	34	Nguyễn Quang Huy	hoạt động	tapdoanhh152@gmail.com	0812569567	Nhân Viên	
[]	3	Lê Minh Nhật	hoạt động	tapdoanhh1@gmail.comdd	0812569567	Nhân Viên	
[]	39	huy	không hoạt động	trinhhbaokhanh1306@gmail...	02928383832	Nhân Viên	
[]	2	Đinh Văn Tiến	hoạt động	tien@gmail.com	0981987625	Nhân Viên	

Số hàng mỗi trang: 5 ▾ 1-5 trong 7 < >

Step 3: Input name department, clicking on button “Lưu” to add new department or clicking on button “Bỏ qua” to cancel and close popup



Thêm phòng ban mới

Tên phòng ban:

1 **2**

Phòng ban	Hoạt động
Nhân Viên	

Số hàng mỗi trang: 5 ▾ 1-5 trong 7 < >

3.11.5: Update department:

Step 1: Login with role manager (guide 3.2.1) and access manage staff page (guide 3.11.1).

Step 2: In the field department, update the department by clicking the pen icon of the item department to open popup to update department

Mã	Tên nhân viên	Tình trạng	Email	Số điện thoại	Phòng ban	Hoạt động
10	Trịnh Bảo Khánh	hoạt động	khanhtbhe153468@fpt.edu.vn	0812569567	Nhân Viên	
34	Nguyễn Quang Huy	hoạt động	tapdoanhh152@gmail.com	0812569567	Nhân Viên	
3	Lê Minh Nhật	hoạt động	tapdoanhh1@gmail.comdd	0812569567	Nhân Viên	
39	huy	không hoạt động	trinhbaokhanh1306@gmail...	02928383832	Nhân Viên	
2	Đinh Văn Tiến	hoạt động	tien@gmail.com	0981987625	Nhân Viên	

Số hàng mỗi trang: 5 1-5 trong 7

Step 3: Input name department ,clicking on button “Lưu” to update department or clicking on button “Bỏ qua” to cancel it

Chỉnh sửa phòng ban

Tên phòng ban	Nhân Viên
Nhân Viên	

Lưu Bỏ qua

3.11.6: Delete department:

Step 1: Login with role manager (guide 3.2.1) and access manage staff page (guide 3.11.1).

Step 2: In the field department in the staff page, delete the department by clicking on trash icon to open popup to confirm delete department

Mã	Tên nhân viên	Tình trạng	Email	Số điện thoại	Phòng ban	Hoạt động
10	Trịnh Bảo Khánh	hoạt động	khanhtbhe153468@fpt.edu.vn	0812569567	Nhân Viên	
34	Nguyễn Quang Huy	hoạt động	tapdoanhh152@gmail.com	0812569567	Nhân Viên	
3	Lê Minh Nhật	hoạt động	tapdoanhh1@gmail.comddd	0812569567	Nhân Viên	
39	huy	không hoạt động	trinhabaothanh1306@gmail.com	02928383832	Nhân Viên	
2	Đinh Văn Tiến	hoạt động	tien@gmail.com	0981987625	Nhân Viên	

Số hàng mỗi trang: 5 1-5 trong 7 < >

Step 3: Clicking on button “Lưu” to delete department or clicking on button “Bỏ qua” to cancel it

Mã	Tên nhân viên	Tình trạng	Email	Số điện thoại	Phòng ban	Hoạt động
10	Trịnh Bảo Khánh	hoạt động	khanhtbhe153468@fpt.edu.vn	0812569567	Nhân Viên	
34	Nguyễn Quang Huy	hoạt động	tapdoanhh152@gmail.com	0812569567	Nhân Viên	
3	Lê Minh Nhật	hoạt động	tapdoanhh1@gmail.comddd	0812569567	Nhân Viên	
39	huy	không hoạt động	trinhabaothanh1306@gmail.com	02928383832	Nhân Viên	
2	Đinh Văn Tiến	hoạt động	tien@gmail.com	0981987625	Nhân Viên	

Số hàng mỗi trang: 5 1-5 trong 7 < >

3.12: Manage profile:

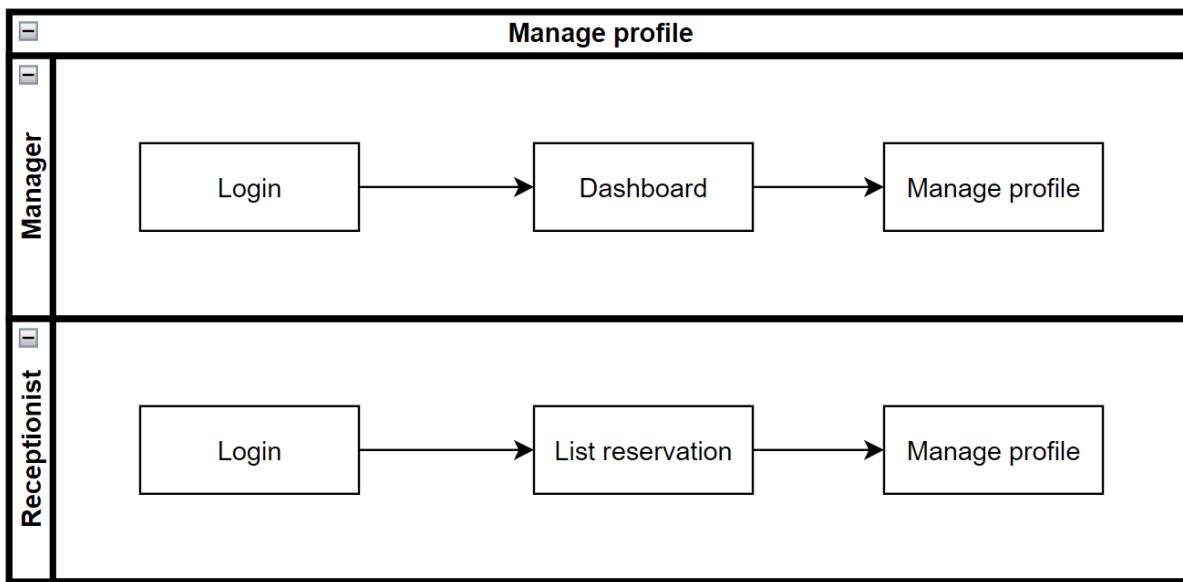


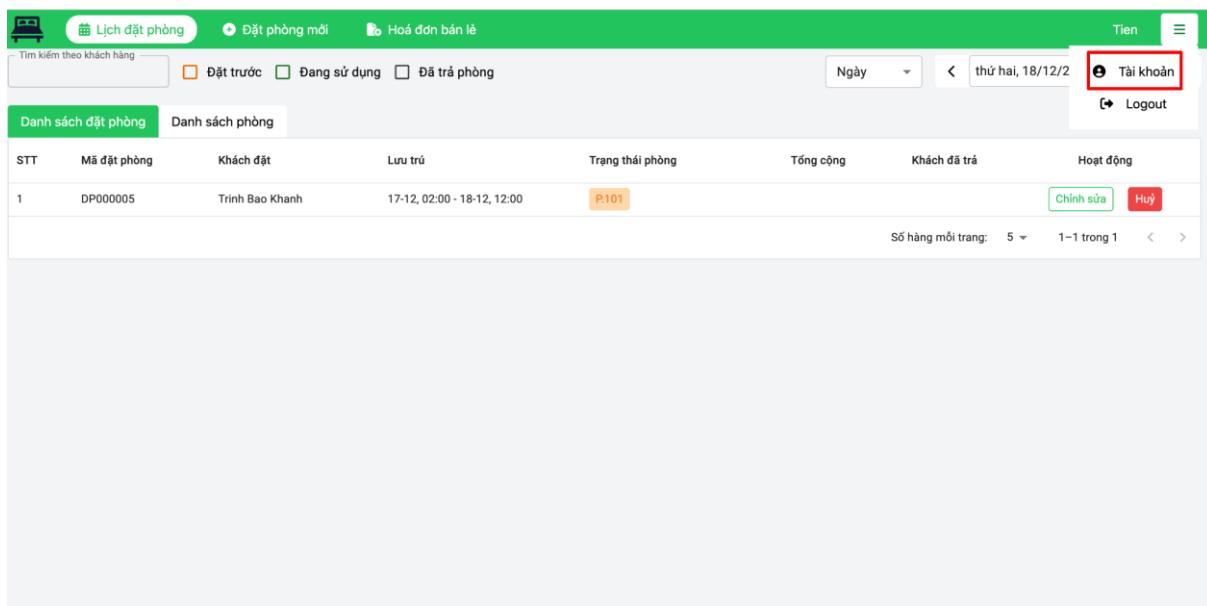
Figure 254: Workflow of manage profile

3.12.1: View, update profile:

Step 1.1: Login with role manager (guide 3.2.1) and access manage profile page by hovering on bar icon and clicking on button “Tài khoản”

Số	Tên phòng	Hạng phòng	Khu vực	Giá theo giờ	Giá theo ngày	Giá theo đêm	Trạng thái	Hành động
1	P101	Phòng cơ bản	Tầng 1	200,000	300,000	300,000	Đang hoạt động	
2	P102	Phòng cơ bản	Tầng 1	200,000	300,000	300,000	Đang hoạt động	
3	P201	Phòng hạng trung	Tầng 2	200,000	700,000	300,000	Đang hoạt động	
4	P202	Phòng hạng trung	Tầng 2	200,000	700,000	300,000	Đang hoạt động	
5	P301	Phòng đơn	Tầng 3	250,000	400,000	400,000	Đang hoạt động	

Step 1.2: Login with role receptionist (guide 3.2.1) and access manage profile page by hovering on bar icon and clicking on button “Tài khoản”



Step 2: Receptionist update her/his information like “Địa chỉ”, “Năm sinh”, “Chứng minh nhân dân”, “Tên nhân viên”, “Giới tính”, “Số điện thoại” and “Email”, clicking on button “Lưu” to save information

Thông tin cá nhân	
Mã nhân viên	2
Tên đăng nhập	tien
Địa chỉ	w
Năm sinh	dd/mm/yyyy
Chứng minh nhân dân	3
Lưu	
Đổi mật khẩu Chỉnh sửa	

3.12.2: Change password:

Step 1: Login with role manager (guide 3.2.1) and access manage profile page (guide 3.12.1).

Step 2: Open change password modal by clicking button “Chỉnh sửa”

Thông tin cá nhân	
Mã nhân viên	2
Tên đăng nhập	tien
Địa chỉ	w
Năm sinh	dd/mm/yyyy
Chứng minh nhân dân	3
Lưu	
Đổi mật khẩu Chỉnh sửa	

Step 3: Input old password, new password and confirm new password, clicking on button “Thay đổi mật khẩu” (1 in image) to change password or clicking on button “Bỏ qua” (2 in image) to cancel

The screenshot shows a user profile editing interface. At the top, there's a section for personal information: Mã nhân viên (Employee ID) with value '2', Tên nhân viên (Name) with value 'Đinh Văn Tiến', Tên đăng nhập (Login Name) with value 'tien', Giới tính (Gender) with 'Nam' selected, Địa chỉ (Address) with value 'W', Số điện thoại (Phone Number), Năm sinh (Birth Year) with value 'dd/mm/yyyy', Email with value '123', and Chứng minh nhân dân (ID Card) with value '3'. Below this is a green 'Lưu' (Save) button. A blue dashed box encloses a 'Đổi mật khẩu' (Change Password) section. This section contains three input fields: 'Mật khẩu cũ' (Old Password), 'Mật khẩu mới' (New Password), and 'Xác nhận mật khẩu' (Confirm Password). A red box highlights the blue 'Thay đổi mật khẩu' (Change Password) button. Another red box highlights the grey 'Bỏ qua' (Cancel) button. Red arrows point from the numbers '1' and '2' to the respective buttons.

3.13: Manage report:

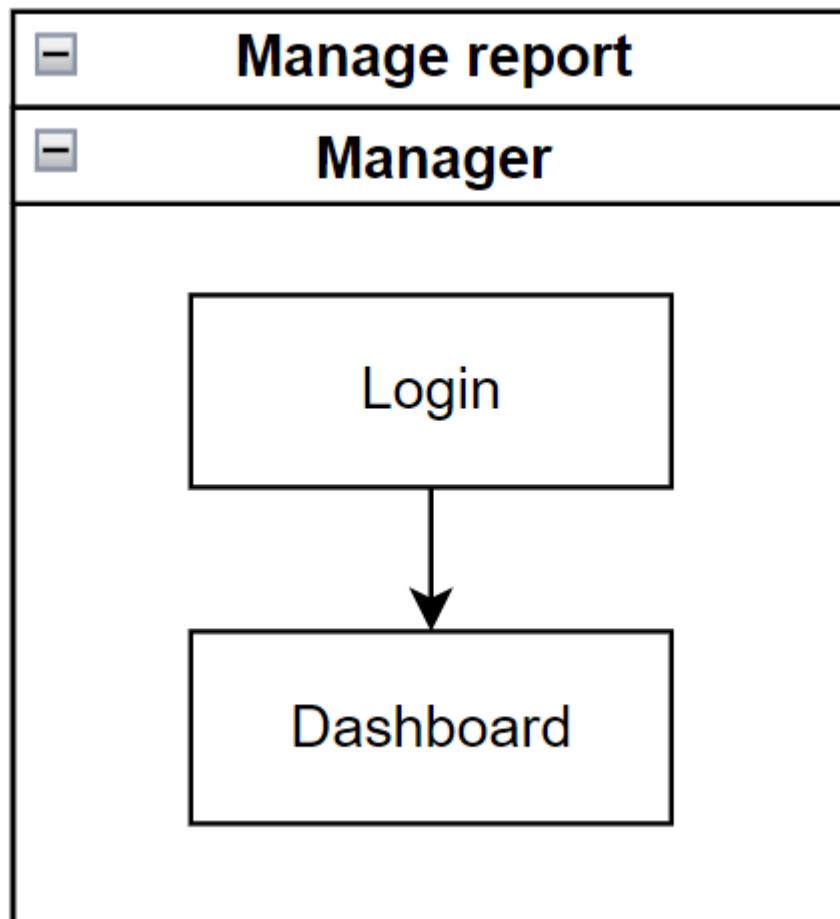
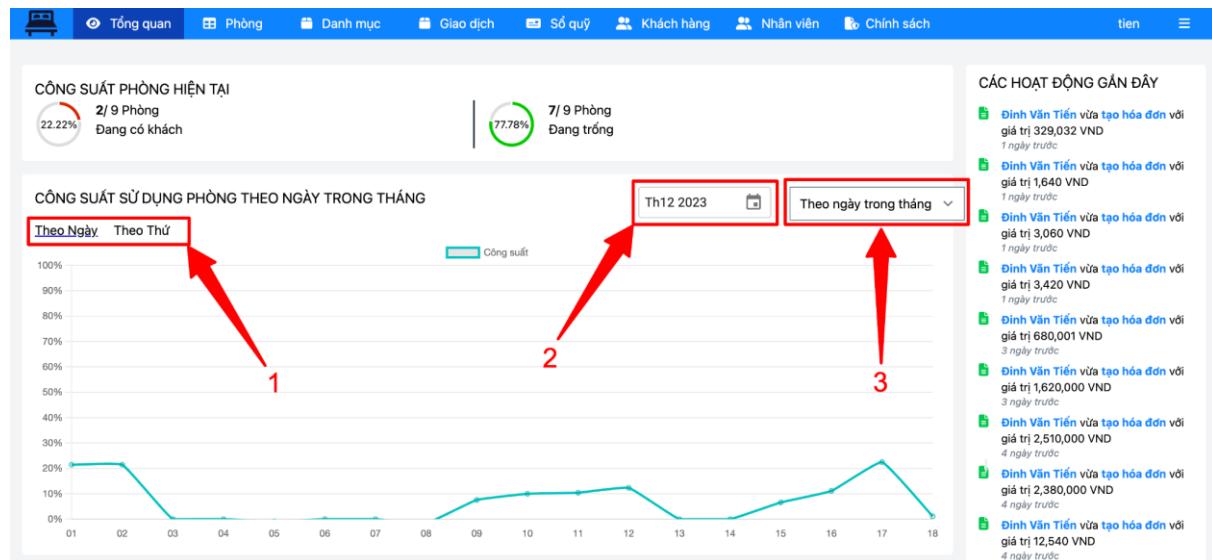


Figure 255: Workflow of manage report

3.13.1: Overview:

Step 1: Login with role manager (guide 3.2.1) and direct overview page

Step 2: Manager click “Theo ngày” or “Theo thứ” (1 in image) to view, search by month, year (3 in image) and time (2 in image)



3.14: Manage reservation:

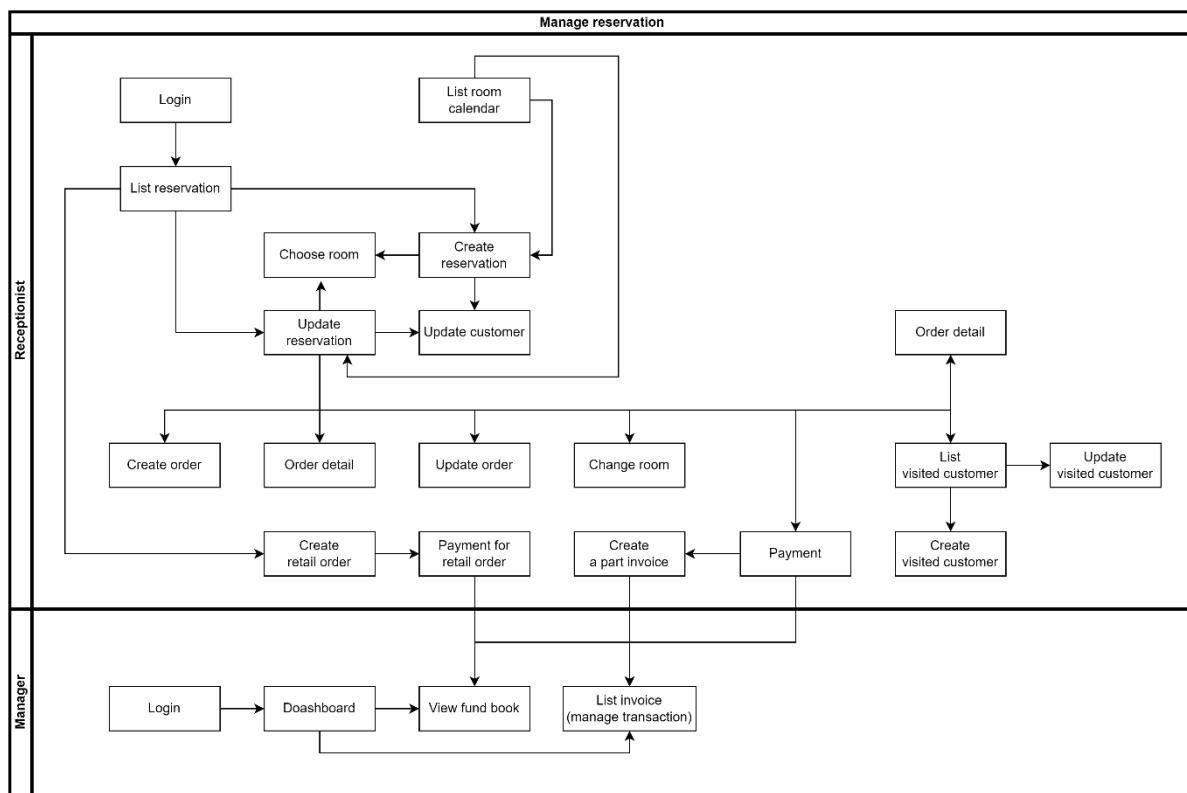


Figure 256: Workflow of manage reservation.

3.14.1: View, search, view detail reservation:

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses reservation list page.

Step 2: Receptionist search reservation by customer's information (name, phone, identity and email) (1 in image) or by status of room in reservation (2 in image) or by date (3 in image)

Step 3: Receptionist view details (4 in image) done reservation.

Step 4: Besides, receptionist can view reservation in list room calendar. Receptionist searches reservation by date and by status.

3.14.2: Create reservation

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses reservation list page (Guides 3.14.1)

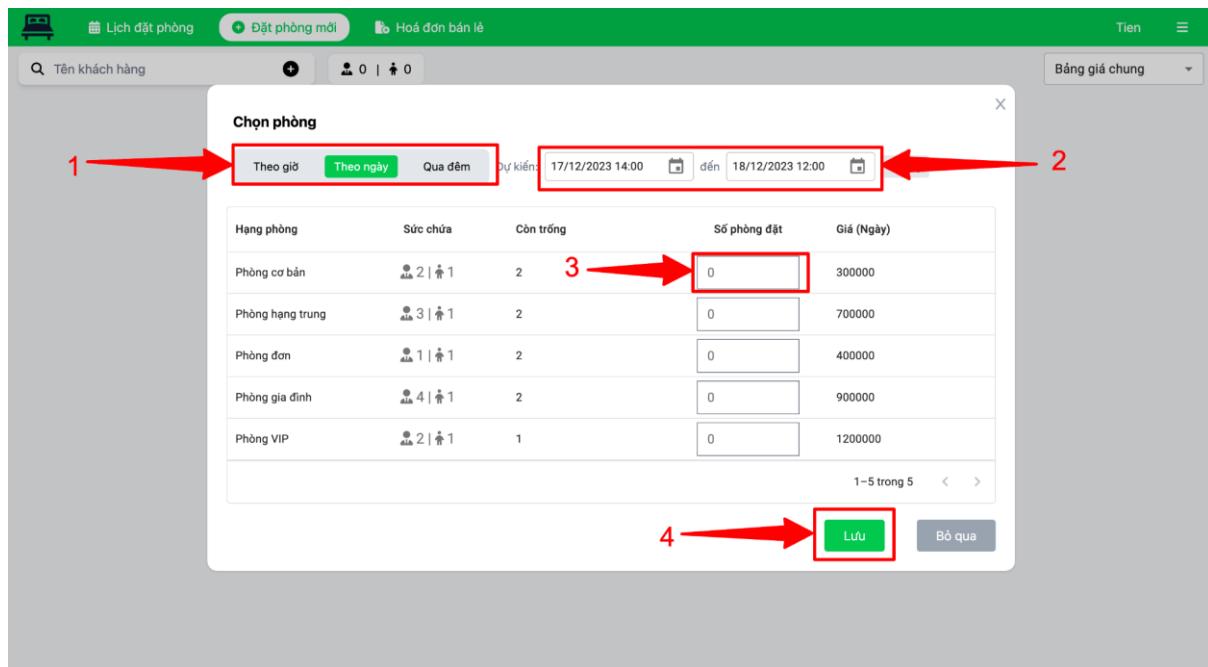
Step 2: Receptionist click “Đặt phòng mới” to direct new reservation page

The screenshot shows a reservation management interface. At the top, there are three tabs: 'Lịch đặt phòng' (Booking Schedule), 'Đặt phòng mới' (New Booking), and 'Hóa đơn bán lẻ' (Sales Invoice). The 'Đặt phòng mới' tab is currently active and highlighted with a red box. Below the tabs, there is a search bar labeled 'Tim kiếm theo khách hàng' (Search by customer) and several filter buttons: 'Đặt trước' (Scheduled), 'Đang sử dụng' (In use), and 'Đã trả phòng' (Returned room). A date range selector shows 'Tuần' (Week) from '11/12/2023 - 17/12/2023'. The main area displays a table titled 'Danh sách đặt phòng' (Booking list) with columns: STT (ID), Mã đặt phòng (Booking ID), Khách đặt (Customer), Lưu trú (Check-in/Check-out), Trạng thái phòng (Room status), Tổng cộng (Total), Khách đã trả (Rooms returned), and Hoạt động (Actions). The table contains six rows of booking data. At the bottom right, there are pagination controls showing 'Số hàng mỗi trang: 5' (5 items per page) and '1-5 trong 6' (1-5 of 6).

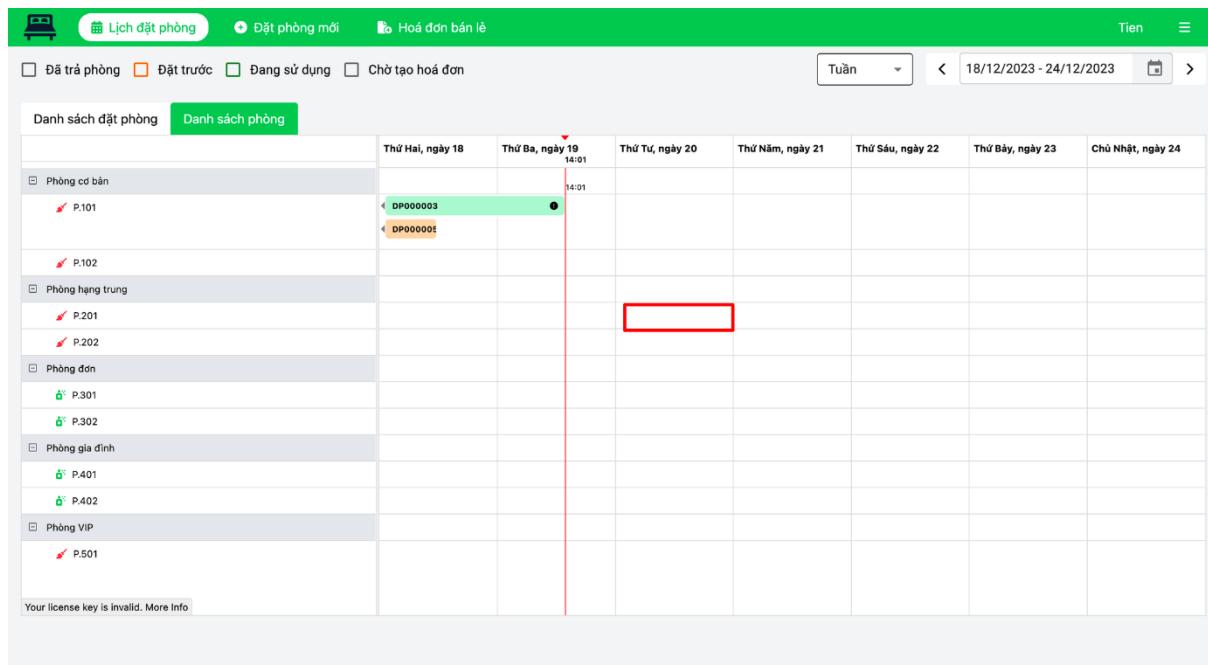
Step 3: Receptionist click plus circle to show popup to create new customer (1 in image), choose customer in “Tên khách hàng” (2 in image), choose price list (3 in image) and click button “Phòng” to open popup to create room in reservation

The screenshot shows the 'Create New Booking' page. At the top, it has the same navigation tabs as the previous screen. Below them, there are input fields: 'Tên khách hàng' (Customer Name) with a red box and arrow labeled '2', a circular icon with a plus sign (Add Customer) with a red box and arrow labeled '1', and a dropdown menu 'Bảng giá chung' (Common Price List) with a red box and arrow labeled '3'. In the center, there is a large green button labeled '+ Phòng' (Add Room) with a red box and arrow labeled '4'.

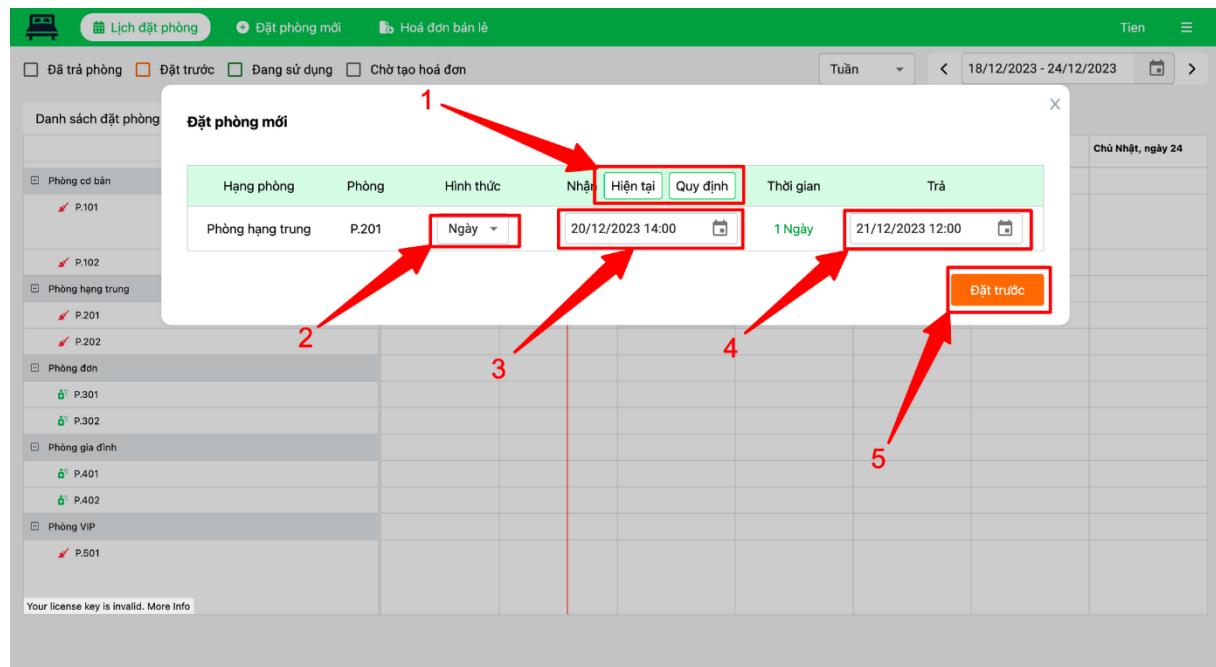
Step 4: Receptionist click box (1 in image) to choose time type, choose time start and time end (2 in image) to rooms, input quantity rooms and click button “Lưu” to save



Step 5: On the other way, receptionist can create reservation in list room calendar page by clicking on time in row of room which reservation choose.



Step 6: Receptionist chooses type of reservation (2 in image), time check-in, check-out (1,3,4 in image) to create reservation



Receptionist create reservation by clicking on booking button (5 in image)

3.14.3: Update reservation (add, update order)

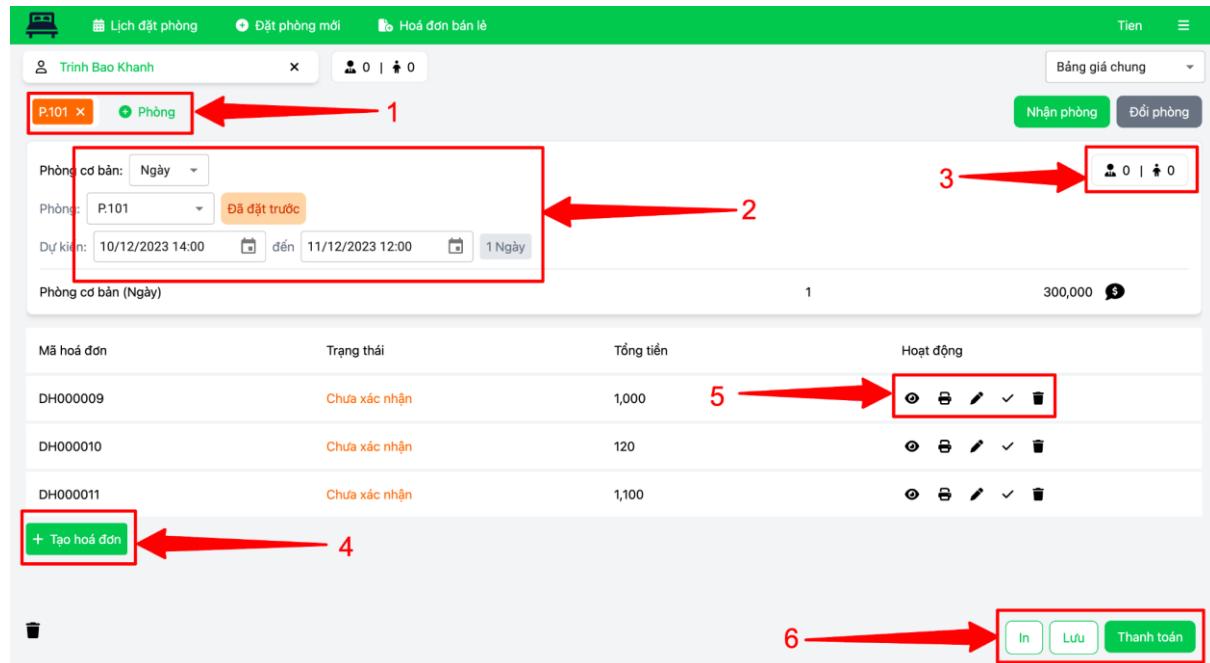
Step 1: Login system with role receptionist (Guides 3.2.1) and accesses reservation list page (Guides 3.14.1)

Step 2: Receptionist click “Chinh sửa” to direct edit reservation page

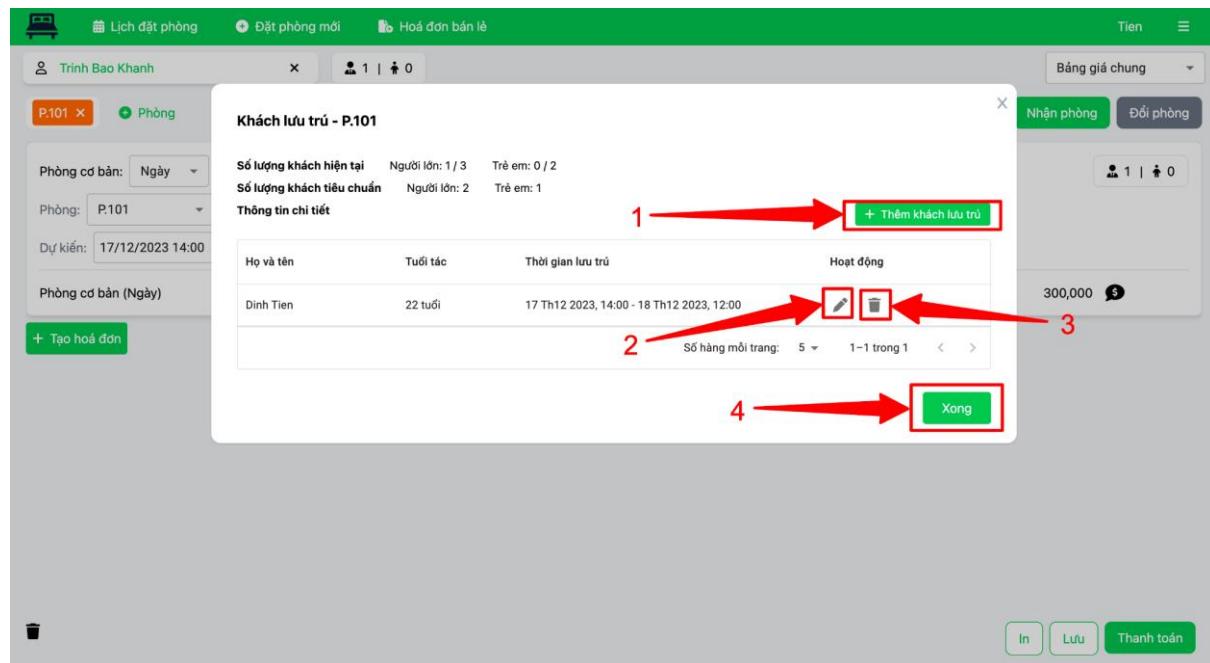
STT	Mã đặt phòng	Khách đặt	Lưu trú	Trạng thái phòng	Tổng cộng	Khách đã trả	Hoạt động
1	DP000001	Trinh Bao Khanh	11-12, 02:00 - 14-12, 12:47	P.102 P.201 P.501 P.202			Xem chi tiết
2	DP000003	Trinh Bao Khanh	10-12, 02:00 - 11-12, 12:00	P.101			Chinh sửa Huy
3	DP000004	Trinh Bao Khanh	10-12, 12:00 - 17-12, 03:55	P.102 P.101 P.501 P.201			Chinh sửa
4	DP000005	Bán lẻ	17-12, 02:00 - 18-12, 12:00	P.101			Chinh sửa Huy
5	DP000006	Trinh Bao Khanh	12-12, 12:00 - 13-12, 01:00	P.101 P.102			Xem chi tiết

Step 3.1: Receptionist add new room (Guides 3.14.2) or remove room with booking status (1 in image), update time type, room or time start, time end (2 in image), click box icon human (3 in image) to open popup (Step 3.2), click button “Tạo hoá đơn” (4 in image) to open popup (Step 3.3) and click icons (5 in image) with eye icons, pen icons to open popup (Step 3.4), with printer icon to print list goods in invoice, with pen icons to open popup (Step 3.5), with check icon to open popup to change

status and with trash icon to open popup to remove order, click buttons (6 in image) click button “In” to print reservation, click button “Lưu” to save reservation after that direct to list reservation and click button “Thanh toán” to open popup (Step 3.5) to add deposit



Step 3.2: Receptionist click button “Thêm khách lưu trú” (1 in image) to open popup to add visitor, click pen icon (2 in image) to open popup to edit visitor, click trash icon (3 in image) to open popup to delete visitor and click button “Xong” to close popup



Lịch đặt phòng | Đặt phòng mới | Hoá đơn bán lẻ

Trinh Bao Khanh | 1 | 0

Bảng giá chung | Nhận phòng | Đổi phòng

P.101 | Phòng

Phòng cơ bản: Ngày | Phòng: P.101 | Dự kiến: 17/12/2023 14:00

Phòng cơ bản (Ngày)

Mã hoá đơn: DH000026

+ Tạo hoá đơn

Thêm khách lưu trú

Attach a image

Tên khách hàng: Bán lẻ
Nhóm khách hàng: Bán lẻ
Chứng minh nhân dân:
Địa chỉ:
Số điện thoại:
Năm sinh: dd/mm/yyyy
Email:
Quốc tịch:
Mã số thuế:
Giới tính: ♂ Nam ♂ Nữ

Xong | Bỏ qua

In | Lưu | Thanh toán

Lịch đặt phòng | Đặt phòng mới | Hoá đơn bán lẻ

Tien | Bảng giá chung

Trinh Bao Khanh | 1 | 0

Nhận phòng | Đổi phòng

P.101 | Phòng

Phòng cơ bản: Ngày | Phòng: P.101 | Dự kiến: 17/12/2023 14:00

Phòng cơ bản (Ngày)

Mã hoá đơn: DH000026

+ Tạo hoá đơn

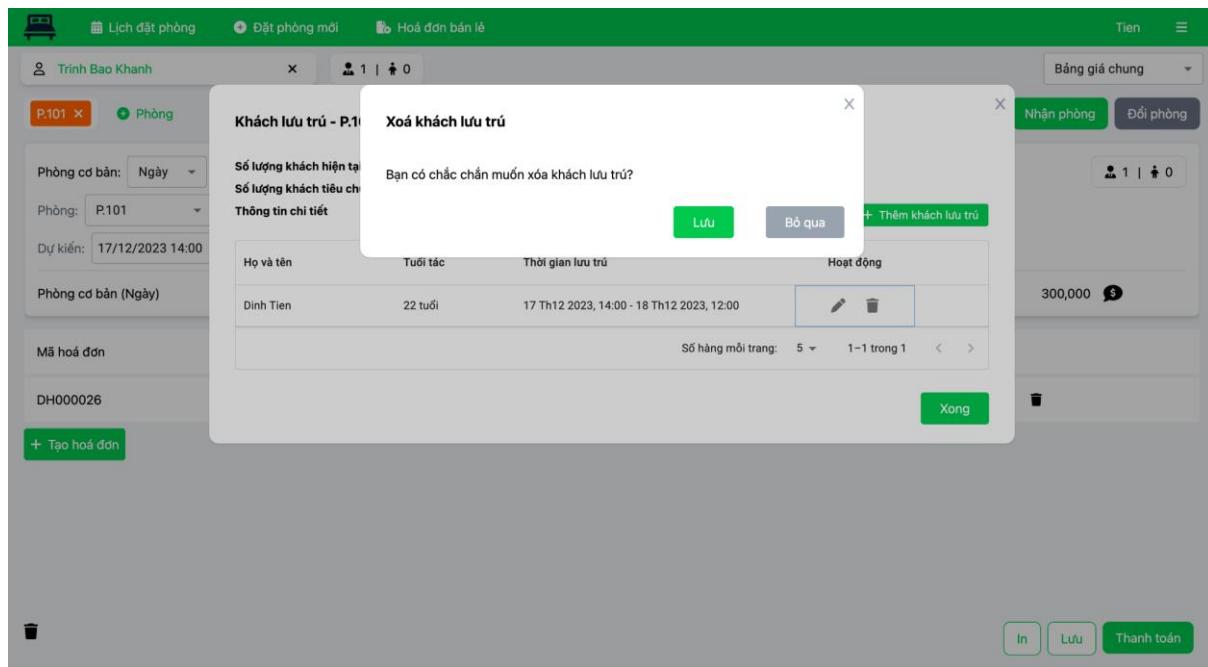
Chỉnh sửa khách lưu trú

Attach a image

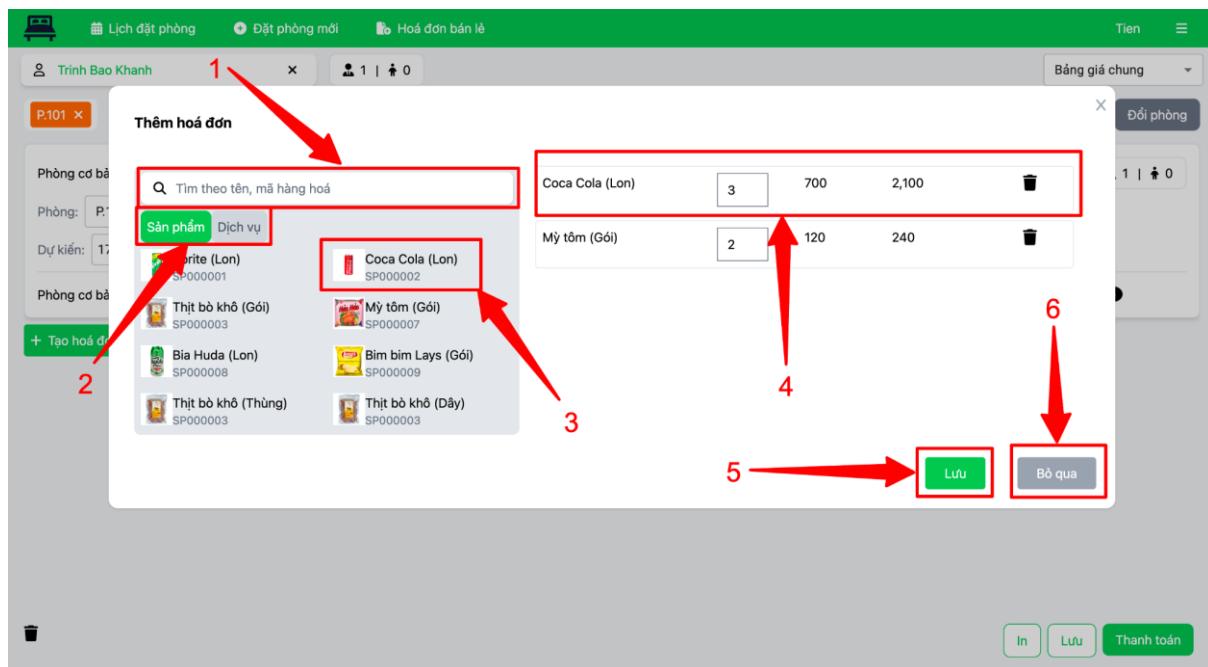
Mã khách hàng: C000008
Tên khách hàng: Dinh Tien
Nhóm khách hàng: Bán lẻ
Chứng minh nhân dân:
Địa chỉ: fpt
Số điện thoại:
Năm sinh: 26/10/2001 | 22 tuổi
Email:
Quốc tịch: Vietnam
Mã số thuế:
Giới tính: ♂ Nam ♂ Nữ

Xong | Bỏ qua

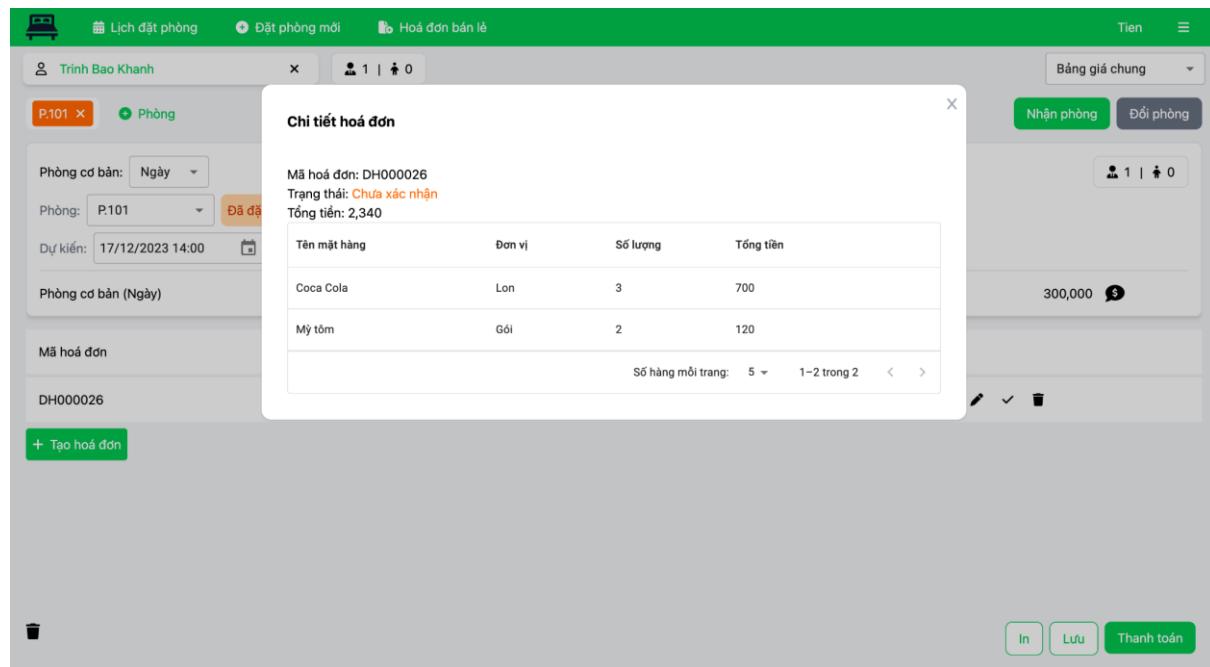
In | Lưu | Thanh toán



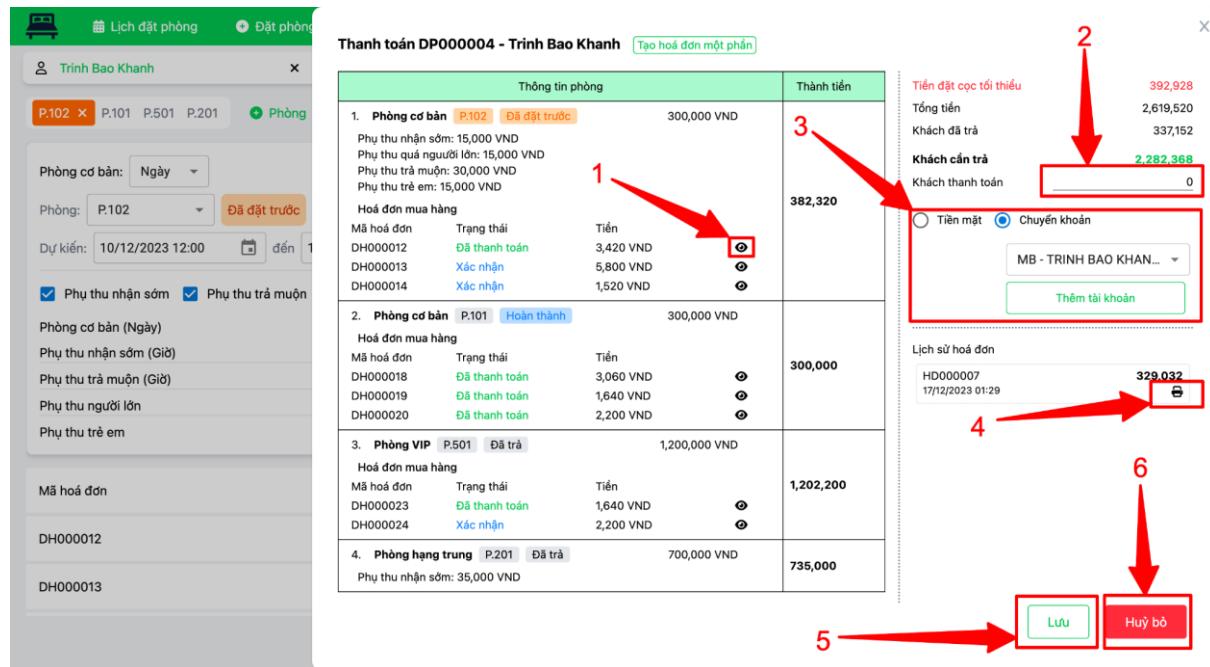
Step 3.3: Receptionist can search goods by name in input (1 in image), click box “Sản phẩm” or “Dịch vụ” (2 in image) to view list good by type, click box “Coca Cola” (3 in image) to add one good to list goods (4 in image), change quantity goods and remove it by trash icon, click button “Lưu” (5 in image) to save it and click button “Bỏ qua” (6 in image) to cancel it



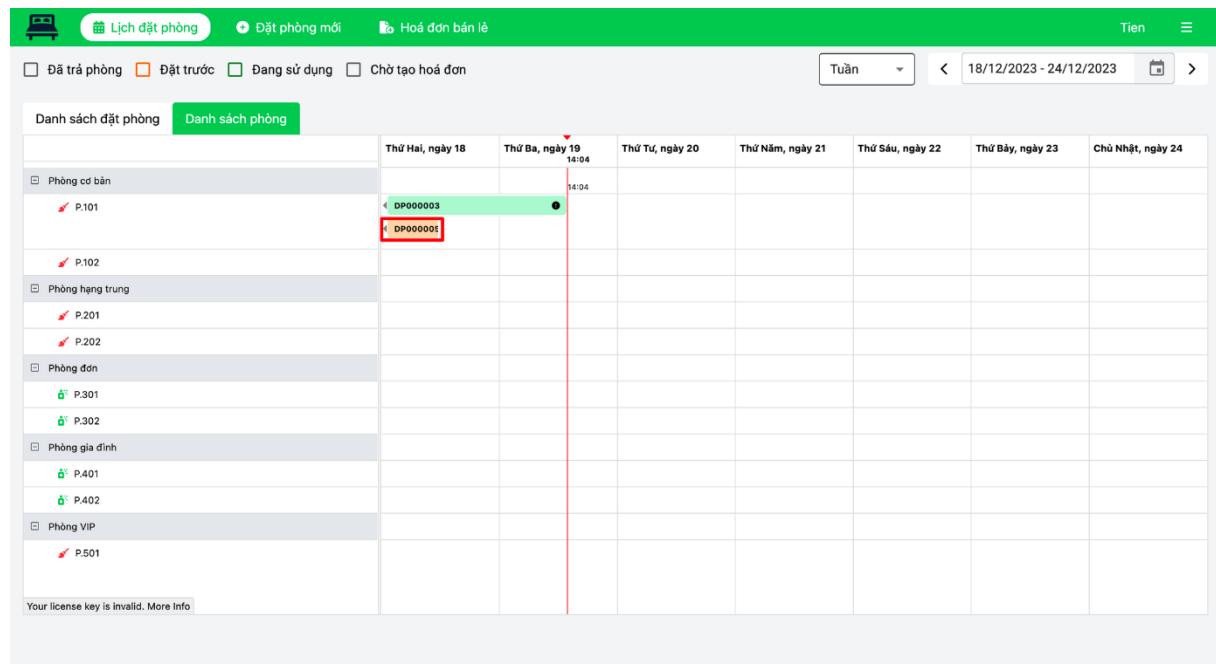
Step 3.4: Receptionist view details list goods in order



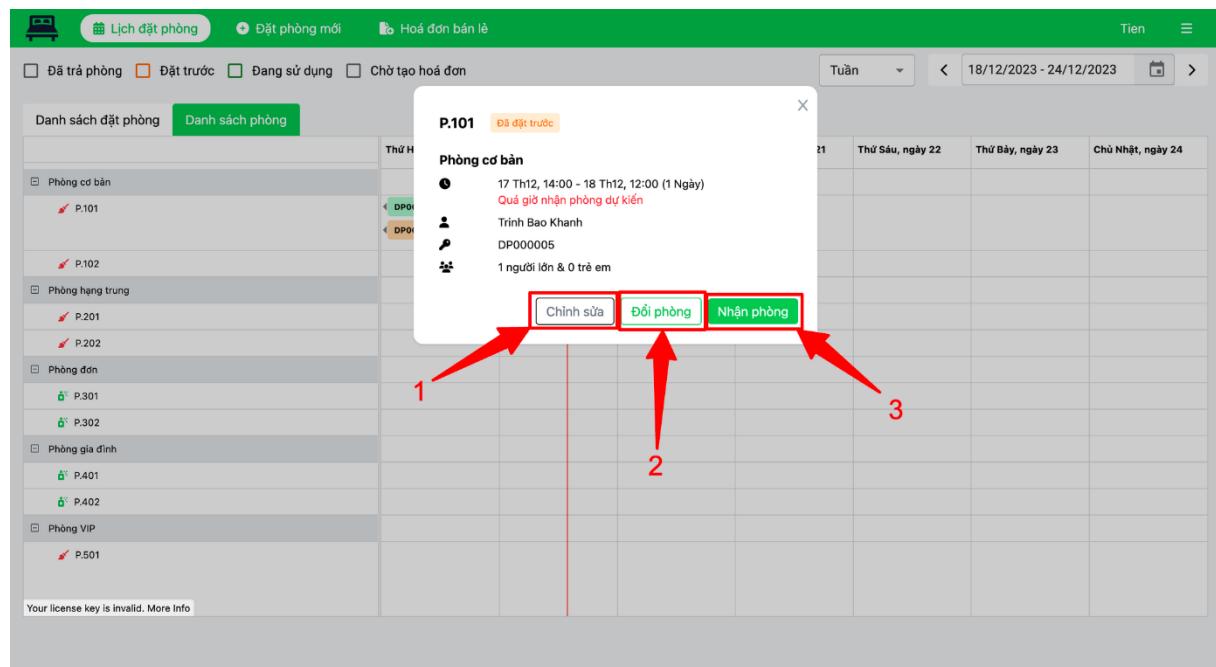
Step 3.5: Receptionist click eye icon (1 in image) to view details order, click input (2 in image) to add deposit for reservation, click circle (3 in image) to choose payment method and button “Thêm tài khoản” to add more account payment, click icon printer (4 in image) to print retail invoice of this reservation, click button “Lưu” (5 in image) to save it and click button “Huỷ bỏ” (6 in image) to cancel it



Step 4.1: Besides, receptionist can view reservation detail by clicking on reservation in list room calendar page.



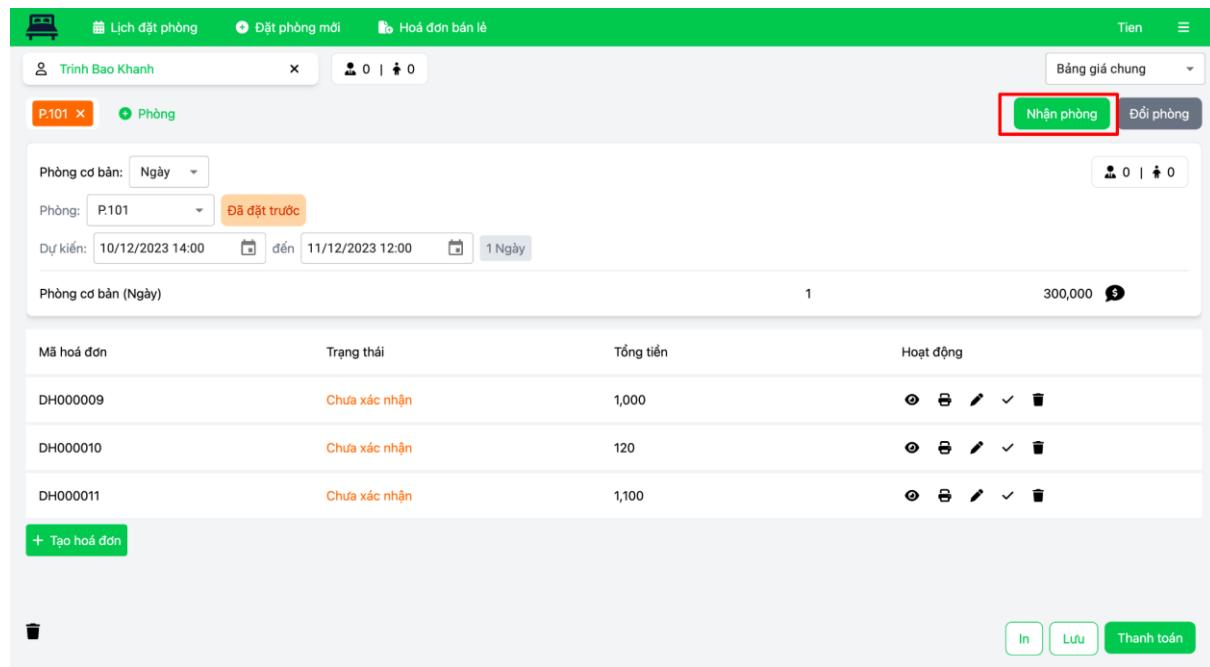
Step 4.2: Receptionist can go to update reservation page by clicking update button (1 in image), change room by clicking change room button (2 in image), check-in / check-out (3 in image)



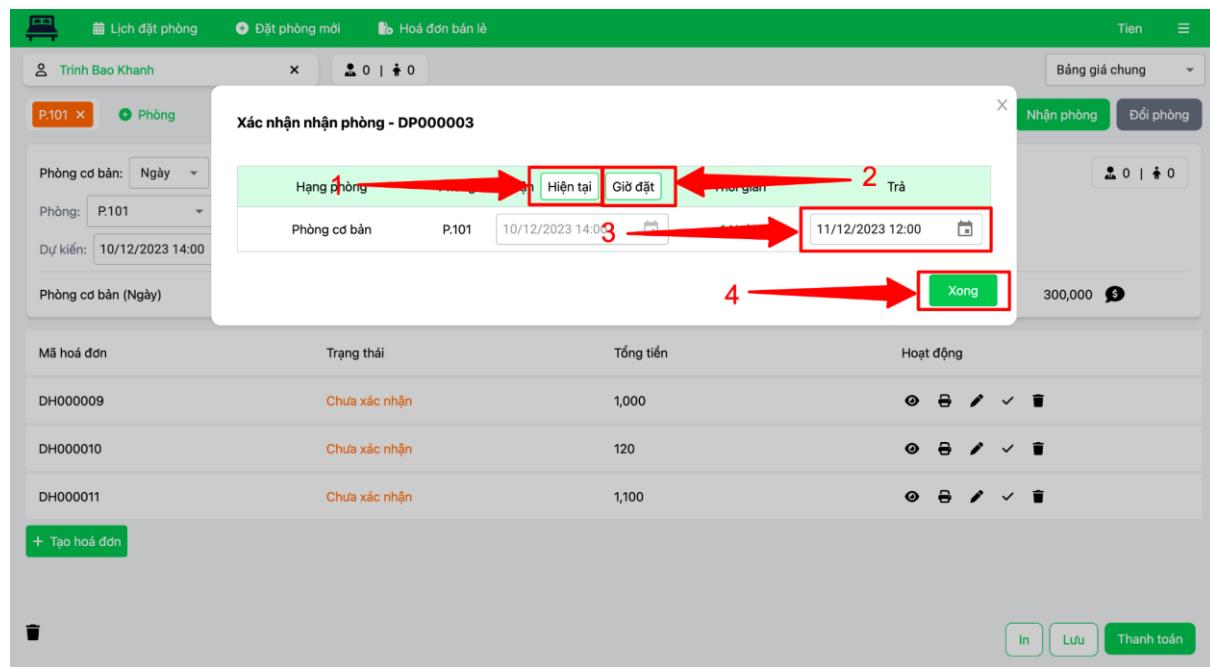
3.14.4: Check-in:

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses edit reservation page (Guides 3.14.3)

Step 2: Receptionist click “Nhận phòng” to open popup to check-in room



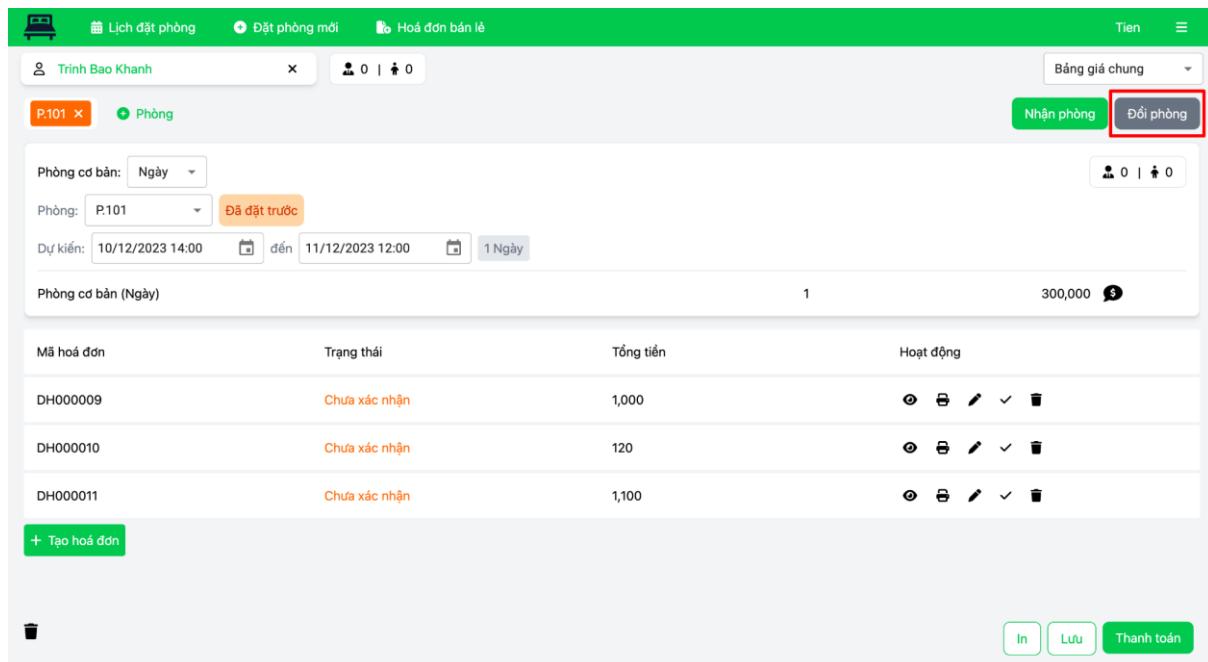
Step 3: Receptionist click button “Hiện tại” (1 in image) to change check-in time to current time, click button “Giờ đặt” (2 in image) to change check-in time to old time, click datepicker (3 in image) to change check-out time in room and click button “Xong” (4 in image) to receive room



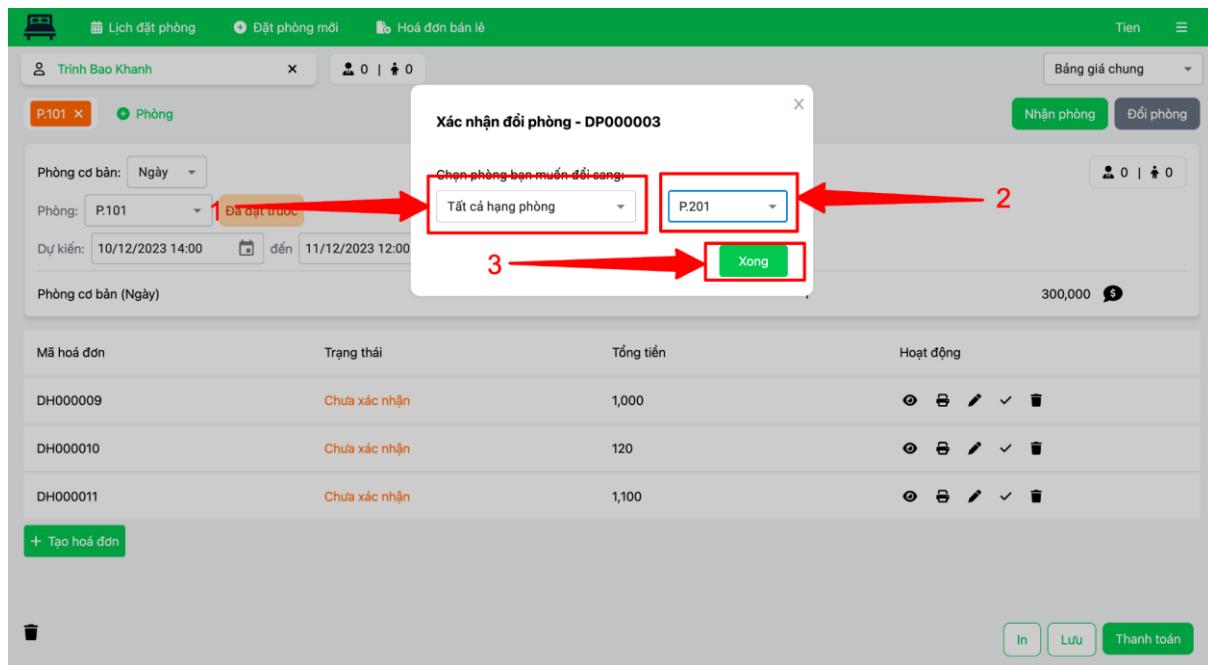
3.14.5: Change room in reservation:

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses edit reservation page (Guides 3.14.3)

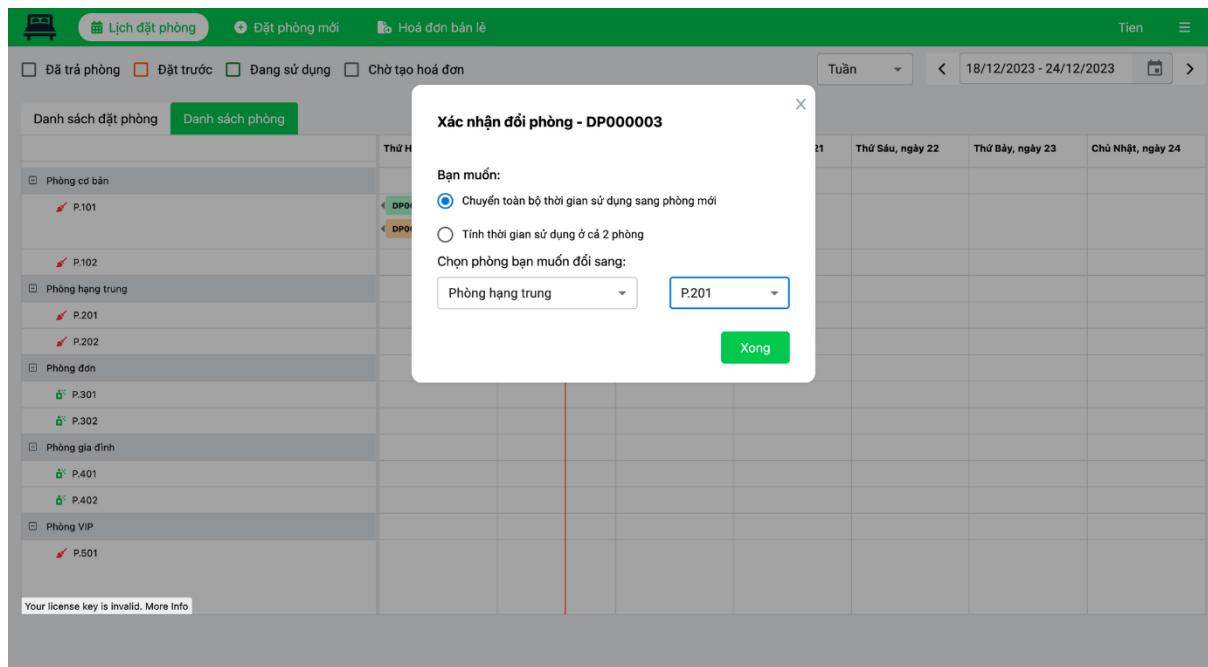
Step 2: Receptionist click “Đổi phòng” to open popup to change room



Step 3: Receptionist click option box (1 in image) to change room class after that click option box (2 in image) to choose room and click button “Xong” (3 in image) to change room



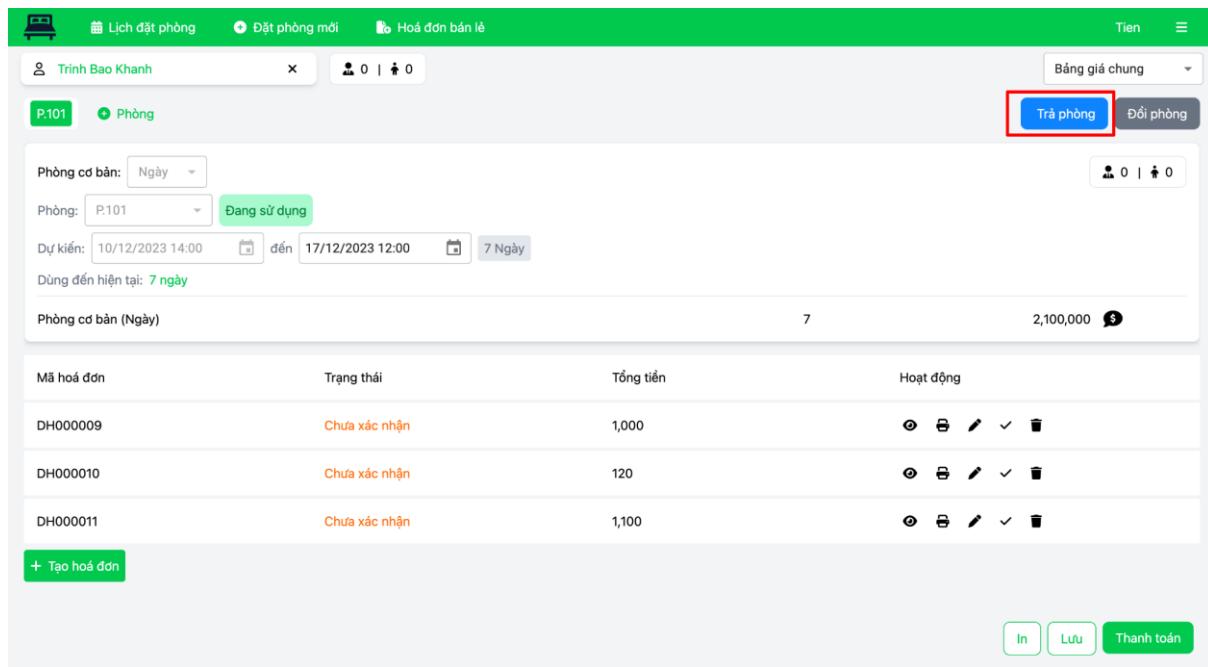
Step 4: On the other way, receptionist can change room in reservation detail popup in list room calendar (guides 3.14.3 step 4).



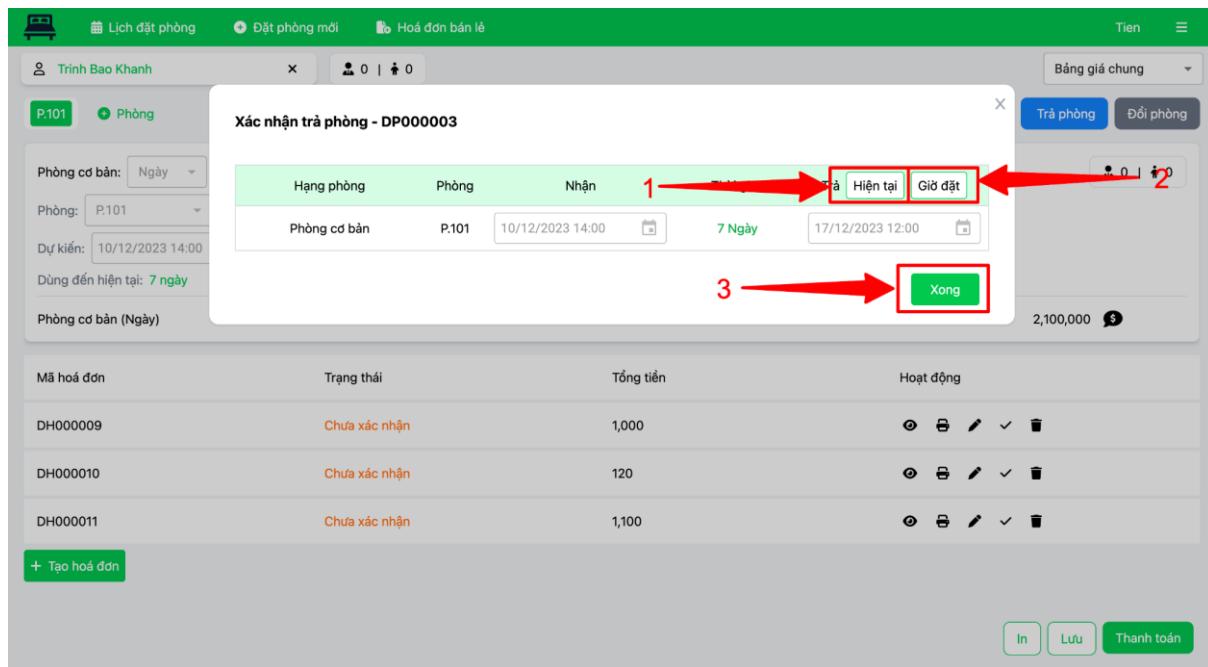
3.14.6: Check-out:

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses edit reservation page (Guides 3.14.3)

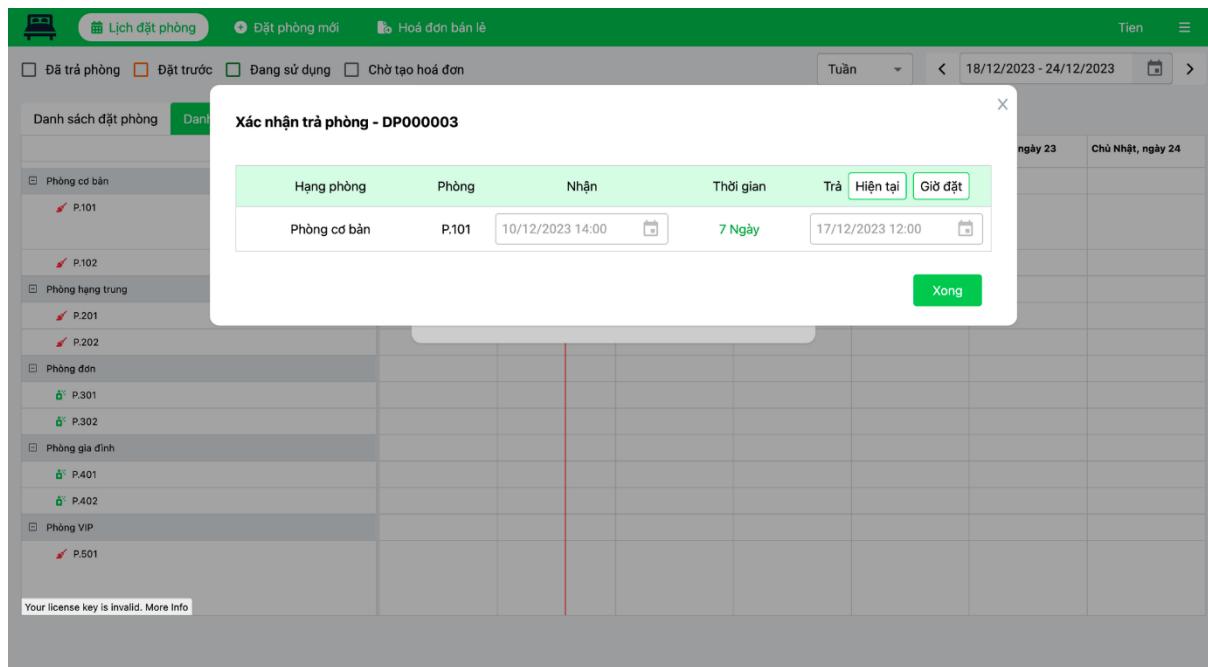
Step 2: Receptionist click “Trả phòng” to open popup to check-out room



Step 3: Receptionist click button “Hiện tại” (1 in image) to change check-out time to current time, click button “Giờ đặt” (2 in image) to change check-out time to old time and click button “Xong” (3 in image) to pay room



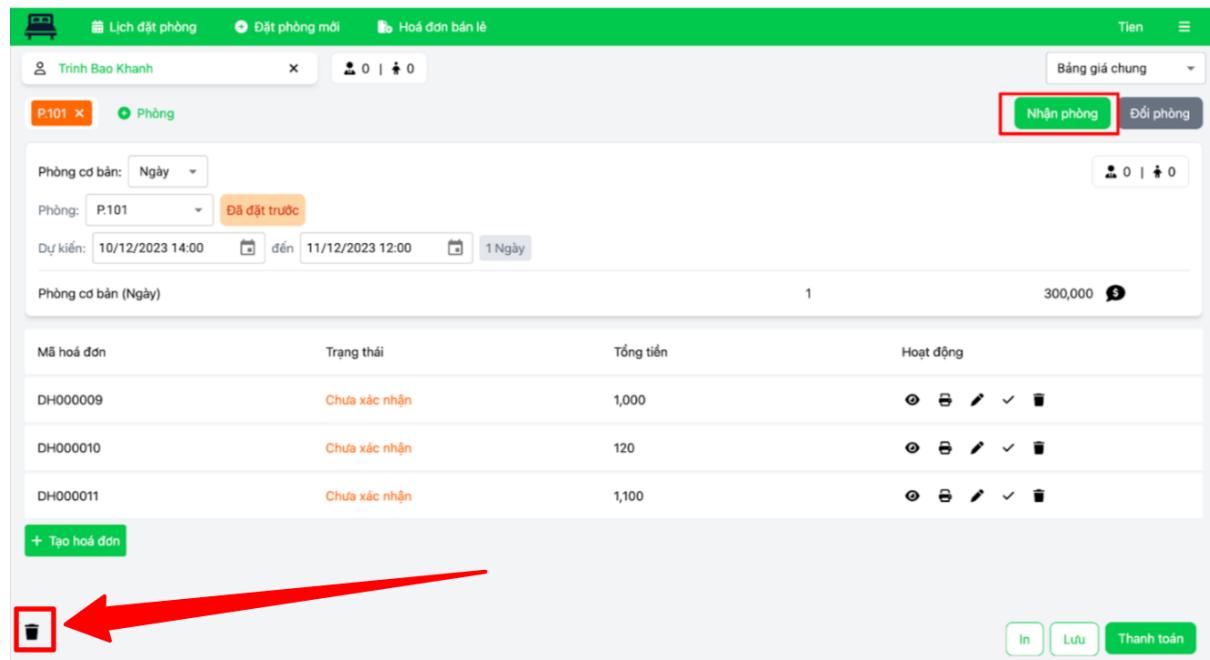
Step 4: On the other way, receptionist can check-out quickly in reservation detail popup in list room calendar (guides 3.14.3 step 4).



3.14.7: Cancel reservation

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses edit reservation page (Guides 3.14.3)

Step 2: Receptionist click button icon cancel reservation (image).

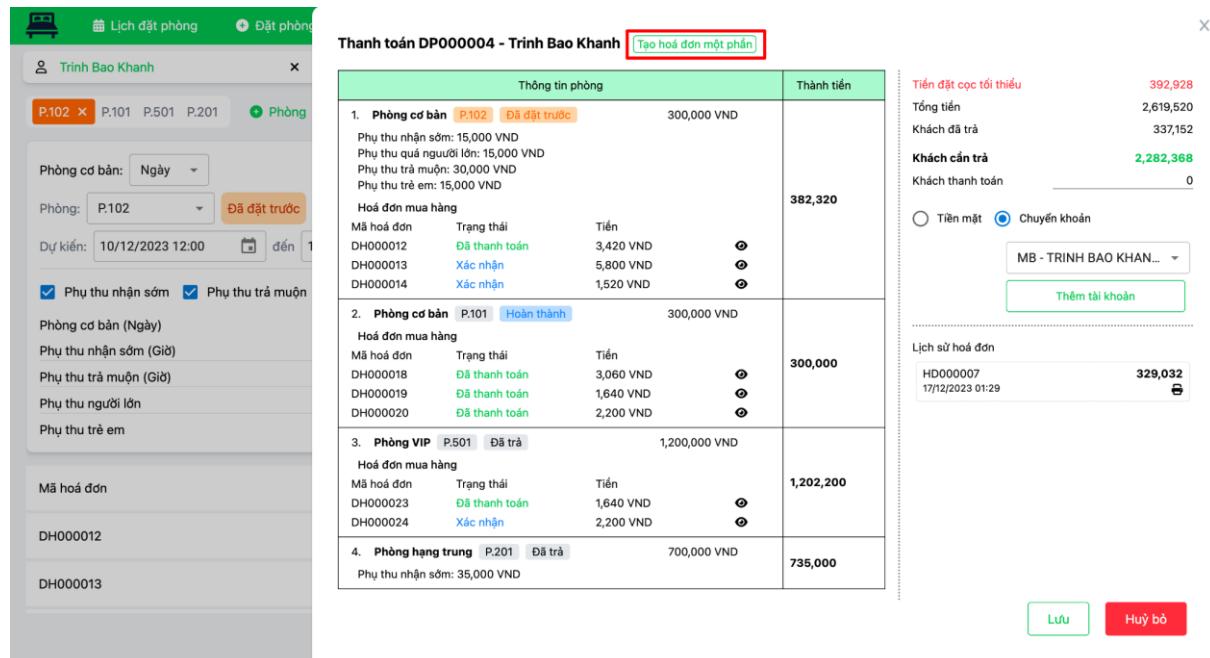


Step 3: After system shows confirm popup, click save button to cancel reservation.

3.14.8: Create a part invoice

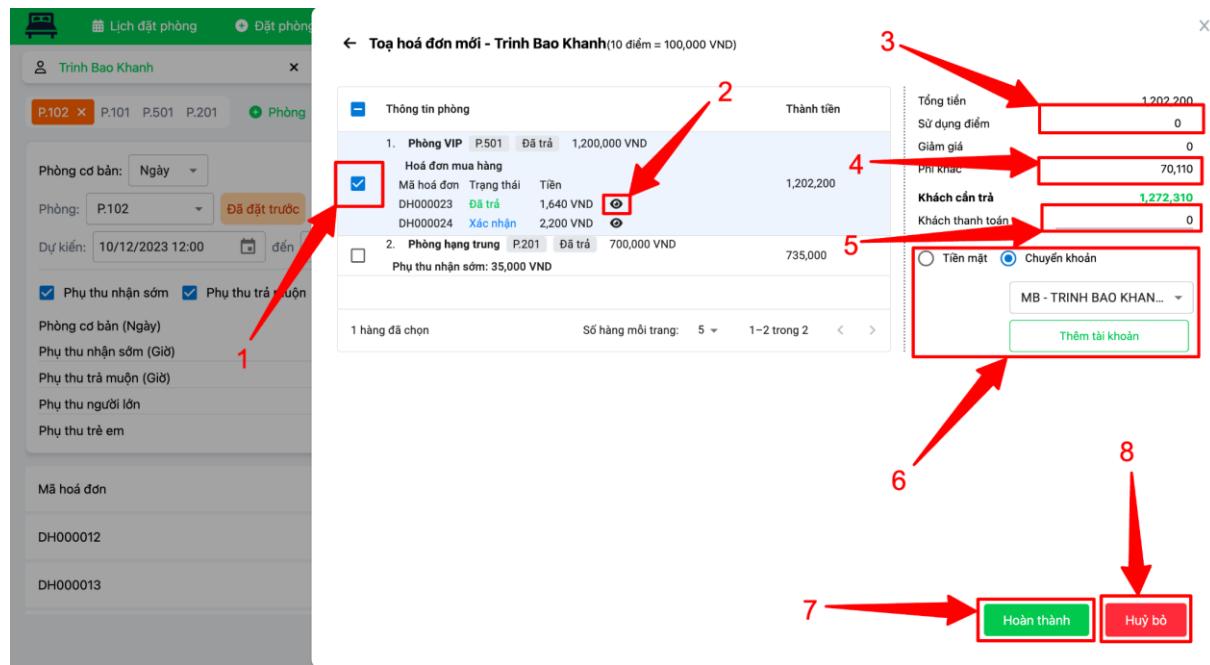
Step 1: Login system with role receptionist (Guides 3.2.1) and accesses edit reservation page (Guides 3.14.3)

Step 2: Receptionist click button “Tạo hoá đơn một phần” to open popup to create retail invoice



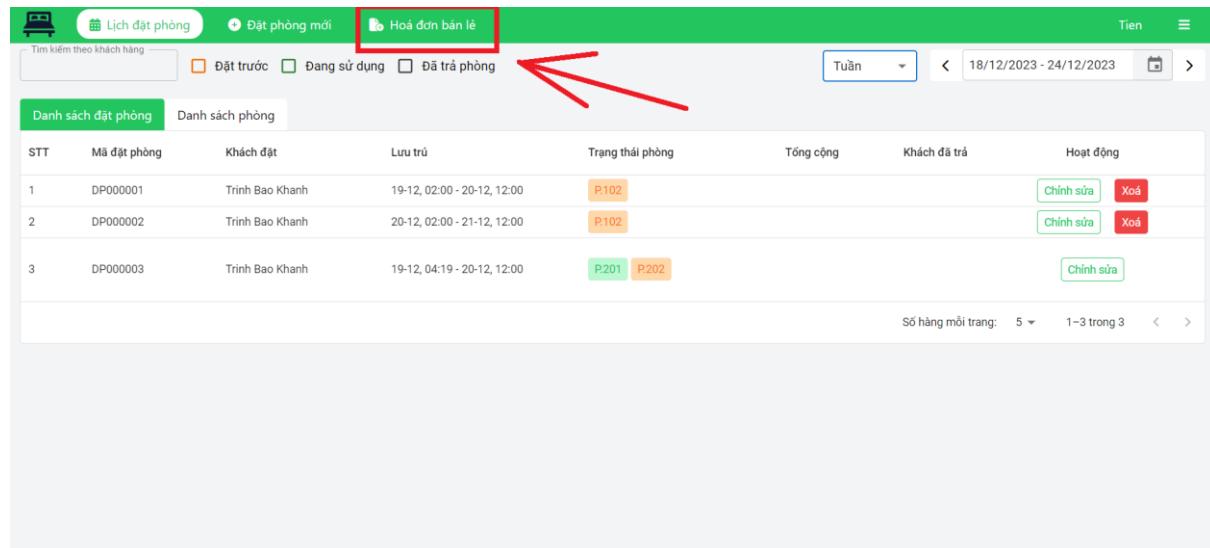
Step 3: Receptionist click checkbox (1 in image) to select room, if this room have order click eye icon (2 in image) to view details order, click input (3 in image) to input quantity point which customer want, click text (4 in image) to open popup to choose other fees, click input (5 in image) to input number need to payment, click circle (6 in image) to choose payment method and button “Thêm tài khoản” to add

more account payment, click button “Hoàn thành” (7 in image) to finish invoice and click button “Huỷ bỏ” to cancel it

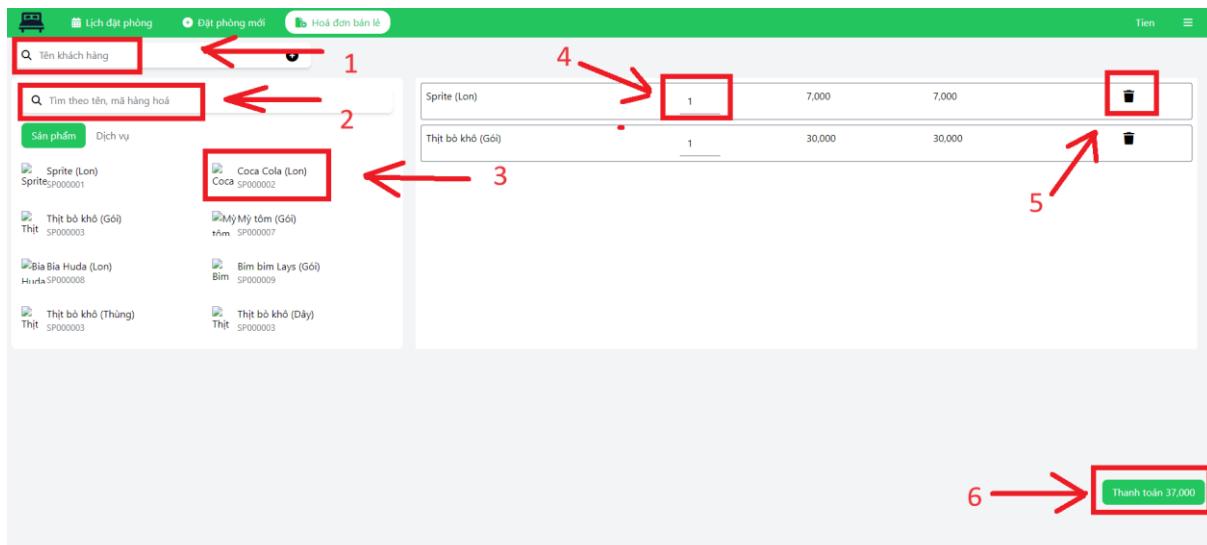


3.14.9: Create retail invoice

Step 1: Login system with role receptionist (Guides 3.2.1) and accesses create retail invoice page.



Step 2: Receptionist can search customer (1 in image), search goods by name in input (2 in image), click box “Sản phẩm” or “Dịch vụ” (2 in image) to view list good by type, click box “Coca Cola” (3 in image) to add one good to list goods, change quantity goods (4 in image) and remove it by trash icon (5 in image), click button “Thanh toán” (6 in image) to pay.



Step 3: Receptionist inputs money customer paid and click done button to create invoice.



If customer uses online payment method, follows guide 3.14.8 step 3.