
Software Requirements Specification for <Multiple Hotel System>

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Chapter 1 :Introduction

Purpose

To develop a dashboard that facilitate online functions like manage hotels, add supervisors, add employees, through some modules suitable for a user's role and application for the guest to Make it easy for him to deal with the hotel

Product Scope

The system to help supervisors to manage hotels and services and guests to order services and for the guest to help him dealing with the hotel.

Actors

Admin:

- Admin needs to login into the system in order to access the system.
- Admin can view all the hotels,employees,rooms,orders and services online with their details.
- System allows the admin to view all the transaction details.

Guest :

- Guest needs to login into the system in order to access the system.
- Guest can view all the services online with their details.
- Guest can order a service.
- System allows the Guest to view all the transaction details.

References

world wide web

- "Hotel Receptionist Resume Sample" [Online].Available: <https://coverlettersandresume.com/receptionist/hotel-front-desk-receptionist-resume-sample/>
- "Hotel Management Case Study", March.6, 2010. [Online].Available: <https://www.scribd.com/doc/27927992/Hotel-Management-Case-Study>
- "srs for hotel management system" Information Technology Project 2014 https://www.academia.edu/10313728/srs_document_for_hotel_management_system

chapter 2 :Project Planning and Analysis

Product Perspective

- the system will merge hardware and software elements.
- the system will available in two language arabic and english
- The building of the web software will take place in 4 parts:
 - Requirement engineering:
Will take all required information about how the website will function, look and what kind of features it will need.
 - System design
Will design the system UML diagrams using software's like magicdraw to give a prototype and diagrams to show the relationship between different classes of how this website will work and communicate with users.
 - Implementation
Will design the website using the above prototypes and diagrams.
 - Testing:
Will test the implemented website in different and check if there are errors in and will be fixed

Product Functions

- the system user will be able to view all the hotels.
- the system user will be able to view all the employees.
- the system user will be able to view all the rooms.
- the system user will be able to view all the orders.
- the system user will be able to view all the services online with their details.
- the guest will be able to view all the orders.
- the guest will be able to make orders.
- the guest will be able to make services..
-

Environment

- It will be a Web and Mobile(android, ios) Platform and the technology will be Laravel PHP And Flutter Framework
-

Architectural Pattern

MVC pattern architecture gives us the idea of separation of concern, it helps us to implement the separation of concern among the model, view and controller classes within applications.

Separation of concern makes it easy for us to test our application as relation among different components of application is clearer and coherent. MVC helps us to implement a test-driven development approach, in which we implement automated test cases before we write the code. These unit test cases help us predefine and verify requirements of new code before writing it.

If we are making an application with enough serious stimulation on the client side to refuse to go along with JavaScript alone. If we are developing an application which have a very high lifting on the server side and a little

communication on the client side then we should not use the MVC pattern architecture, instead we should use simple setup such as web-based form model

Feasibility Study

Being a web application and flutter Application, Multiple Hotel system will have an associated hosting cost.

Since the system does not consist a lot of multimedia data transfer, the bandwidth required for the operation of this application is low.

Multiple Hotel system will follow the freeware software standards.

No cost will be charged from the potential customers. Bug fixes and maintaining tasks will have an associated cost.

From these it is clear that the project Multiple Hotel system is financially feasible.

The web will be hosted in a paid web hosting space with a sufficient bandwidth.

The main technologies and tools that are associated with system are

- Html5, css3 and Bootstrap
- Php Laravel
- Flutter ,Dart

Resource and Time Feasibility

Resources that are required for Multiple Hotel system includes:

Programming device (Laptop)

Programming tools (freely available)

Programming individuals

Social/Legal Feasibility

Multiple Hotel system uses freely available development tools and provide the system an open-source system.

Php libraries that are used in this system are free open-source libraries.

Schedule feasibility

Of course, we divided the application development stages into small tasks with a specific working duration with specific deadline.

Estimated Cost

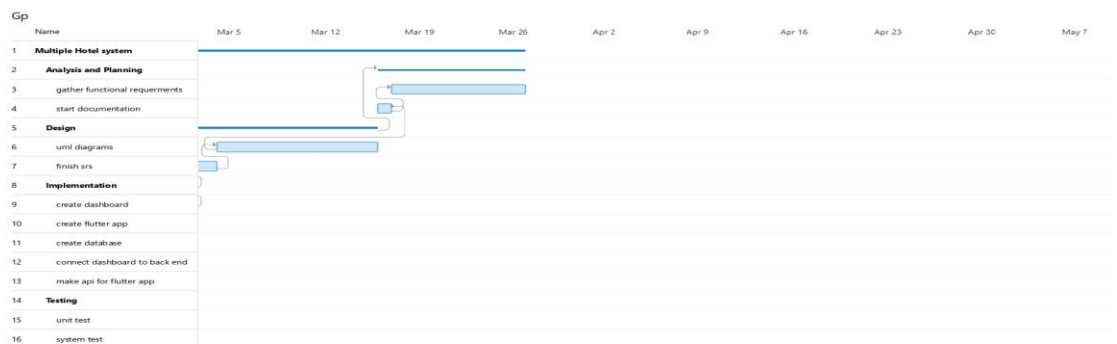
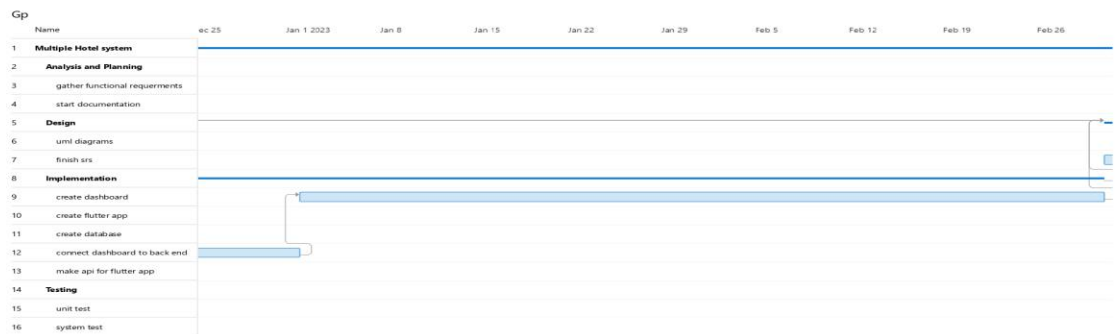
A cost estimate is approximation of the cost of a program, project or operation. The cost estimate is the product of the cost estimating process. in a paid web hosting space with a sufficient bandwidth.

In our system, we have five components to estimate how much the system will cost:

- **Hardware:** Potential hardware costs may include clouds, desktop computers and tablets/laptops.
- **Software:** Potential software costs may include Multiple hotel System web application, interface modules and upgrades to web application.
- **Implementation Assistance:** Potential implementation assistance costs include IT contractor, attorney, chart conversion, hardware/network installation and workflow redesign support.
- **Training:** We will need to train Receptionists and office staff to understand how to use the system and associated hardware.
- **Ongoing Network Fees and Maintenance:** Potential ongoing costs include hardware and software license maintenance agreements, ongoing staff education and IT support fees.

Gantt Chart

Software Requirements Specification for <Multiple Hotel System>



Analysis of the new system

User Requirements

- The guest uses the app with him at any place and any time so our app should be available in any place and any time.
- The admin uses the dashboard at Official working hours so the system must be available and have integrity and confidentiality.

System Requirements

Browser: The application works on any browser ex.” Chrome, Microsoft edge, Internet explorer”

Internet connection: This app uses a hosting server to store data, so you need to be connected to the internet to fetch and view it.

Domain Requirements

- Multiple users must be able to use the application easily
- A server must be set up to host the hosting server, and the server must be accessible by all the systems running the inventory tracking software.
- The web application must verify all values before making the change in the server.
- The application must have update capabilities for future models.

System Requirements

System Functions

- login
- logout
- manage user (add , update,view)
- manage employees (add , update,view)
- manage guest (add , update,view)
- manage categories (add , update,view)
- add payment gateway
- make order
- view orders
- make a reservation
- manage rooms (add , update,view,search)
- manage inventory (add , update,view,search)
- view the bill

Functional Requirements

- Login: Allows supervisor Login
 - The system shall allow an admin to log-in to his account.
 - The system shall require a username and password from the admin.
 - The system will verify the username and password, and the user will be considered logged-in.
- Logout: Allows users account to logout
 - The system shall allow the admin who is logged-in to exit his/her account, so that access to operations requiring a user to be logged in are now disabled
- Add User: the admin can add user
 - the admin will enter name ,username ,password for user.
 - the admin will identify the role of this user (supervisor or not).
 - the admin will upload the image for him and choose the hotel name .
- Delete User: the admin can delete a user.
- View users: All user details will be displayed to the admin
- Update User Information: Allows admin to update account information
 - The system shall allow an admin to update users account information.
 - The admin shall be allowed to view and change their name, mailing address, billing address, password and them roles.
- Add Employee: the admin can add employee
 - the admin will enter name ,username ,password for user.
 - the admin will upload the image for him and choose the hotel name that he will be in.
- Delete Employee: the admin can delete an employee.
- View Employee: All employees details will be displayed to the admin
- Update Employee Information: Allows admin to update account information
 - The system shall allow an admin to update employees account information.
 - The admin shall be allowed to view and change their name, mailing address, billing address, password and them roles.

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- Add Guest: the admin can add guest
 - the admin will enter the name , choose the hotel the guest would be in .
enter the payment method the guest would to pay with it
- Delete Guest: the admin can delete a guest when he left
- View Guest: All guests details will be displayed to the admin
- Update Guest Information: Allows admin to update account information
 - The system shall allow an admin to update guests account information.
 - The admin shall be allowed to view and change their name,hotel
,payment method.
- Add categories: the admin can add a categories
 - the admin can add a category and define its type.
- Delete categories: the admin can delete a category
- View categories: All categories details will be displayed to the admin
- Update categories: Allows admin to update a category
- Add Payment: the admin can add a Payment
 - the admin can add a payment for each hotel.
- Add an Order: the guest can add a Payment
 - the admin can add an order for any room.
 - the admin will enter the room id, type of order.
- Delete Order: the guest can delete an order
- View Orders: All order for each user will be displayed to the admin
- Update Order: Allows guest to update an order.
- Make a Reservation:
 - the admin can add a reservation for a room.
 - the admin will enter the room id, and record it as reserves..
- Create Account
 - Each account has a name/description, a category or more that it belongs to,and whether it increases with debits or credits.
A unique identifying number is generated by the system for
each account. Accounts are created by the user

- Logout: Allows users account to logout
 - The system shall allow the guest who is logged-in to exit his/her account, so that access to operations requiring a user to be logged in are now disabled
- Cancel order: the guest can cancel the order.
- order service : the guest can order a service
- View the bill: each user and admin can show the bill.

Nonfunctional Requirements

It is essential for this system to conform to the user's needs and demands. Requirements Analysis produced the following non-functional requirements:

1- Product Operation Software

- **Performance**
 - System login/logout shall take less than max 5 seconds.
 - Searches shall return results within max 7 seconds.
 - Orders shall be processed within max 7 seconds.
 - System shall support approximately 5000 simultaneous users.
- **Availability**
 - The Dashboard shall be available to supervisors 24 hours a day, 7 days a week, with the exception of being down for maintenance no more than one hour a week. If the system crashes, it should be back up within one hour.
- **Usability**
 - Usability requirements deal with the scope of staff resources needed to train a new employee and to operate the software system so the system must be easy to use.

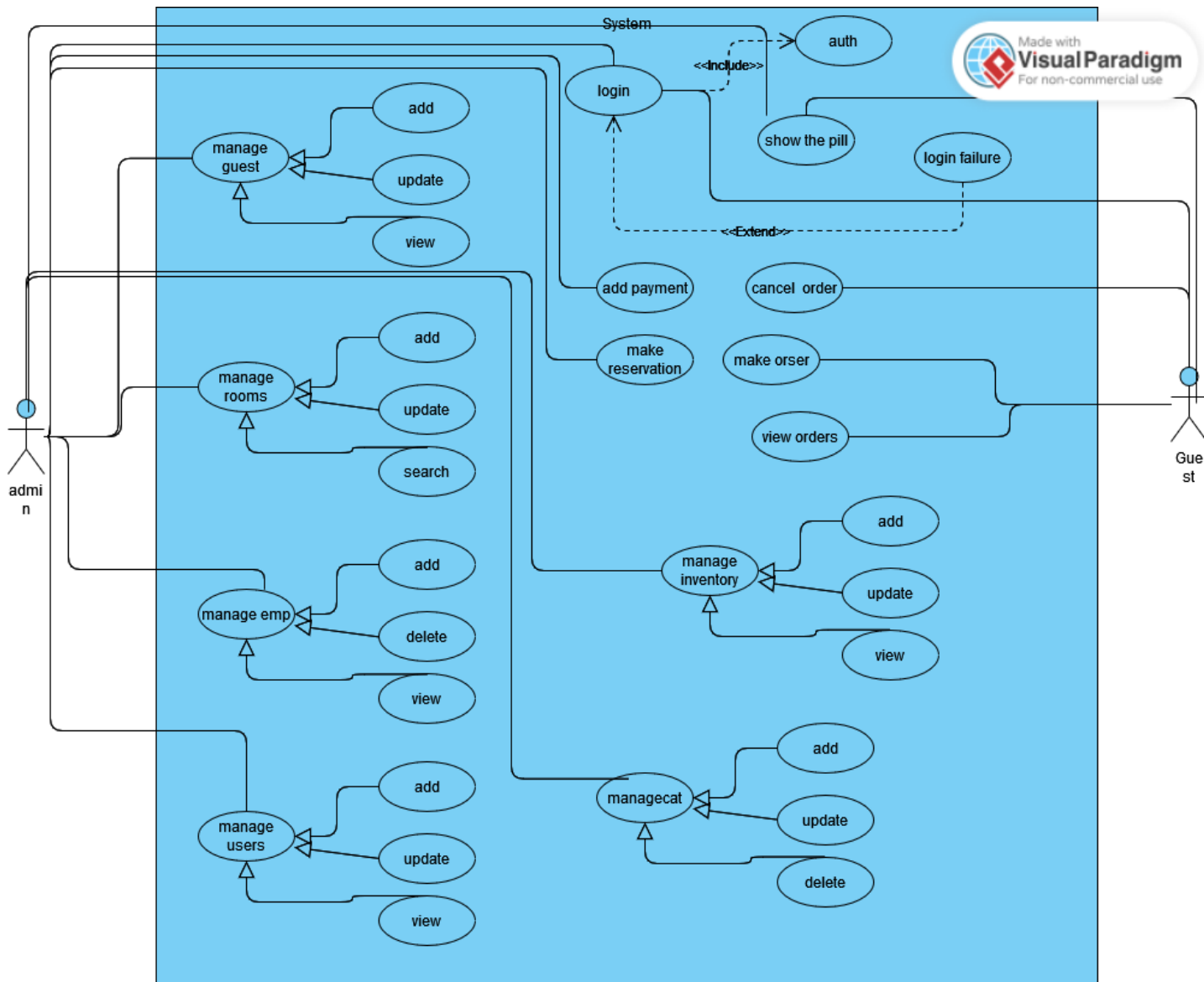
2- Product Revision Software

- **Maintainability**
 - Maintainability requirements determine the efforts that will be needed by users and maintenance personnel to identify the reasons for software failures, to correct the failures, and to verify the success of the corrections.
- **Flexibility**
 - The capabilities and efforts required to support adaptive maintenance activities are covered by the flexibility requirements. These include the resources required to adapt a software package to a variety of customers of the same trade, of various extents of activities, of different ranges of products and so on.

Chapter 3 :Software Design & models

1. Functional Diagrams

1.1 use case diagram



Use Case Scenario

<i>use case name</i>	make a reservation
<i>goal</i>	booking room for guest
<i>actor</i>	admin
<i>steps</i>	1.admin goes to the reservation panel. 2 System searches for room details 3 System presents room types 4 admin selects room and confirms tariff 5 System records customer's name and address 6 admin confirms booking on
<i>pre-condition</i>	the admin must login to the system
<i>post-condition</i>	a room is reserved for the guest

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<i>use case name</i>	login
<i>goal</i>	login to the system/ app
<i>actor</i>	admin/guest
<i>steps</i>	<ol style="list-style-type: none"> 1. admin opens his dashboard in the system. 2. The system displays the login form and the admin enters username and password. 3. The system checks the username and password. 5. If the username and password are correct then the system will display the admin dashboard.
<i>pre-condition</i>	The system must be available or on process or opened, and the login page must be opened.
<i>post-condition</i>	username and password of admin is validated and go to the admin dashboard.

<i>use case name</i>	manage employee
<i>goal</i>	add , delete or edit employee info
<i>actor</i>	admin
<i>steps</i>	<ol style="list-style-type: none"> 1.admin login to the system. 2. admin goes to Employees Info. 3. The system displays The Employees Information. 4.admin clicks on add, edit or delete employee. 5. The system displays the form of add or edit employee. 6. admin fills in the form of Employee's information. 7. admin clicks on save. 8. The system sends notification of successfully process
<i>pre-condition</i>	The system must be available or on process system
<i>post-condition</i>	New employee is added successfully or

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	old employee is edited or deleted.
--	------------------------------------

<i>use case name</i>	manage guest
<i>goal</i>	add , delete or edit guest info
actor	admin
steps	1.admin login to the system. 2. admin goes to guest Info panel. 3. The system displays The guest Information. 4.admin clicks on add, edit or delete guest . 5. The system displays the form of add or edit guest . 6. admin fills in the form of guest information. 7. admin clicks on save. 8. The system sends notification of successfully process
pre-condition	The system must be available or on process
post-condition	New guest is added successfully or old guest is edited or deleted.

<i>use case name</i>	manage user
<i>goal</i>	add , delete or edit userinfo
actor	admin
steps	1.admin login to the system. 2. admin goes to user Info panel. 3. The system displays The user Information. 4.admin clicks on add, edit or delete user. 5. The system displays the form of add or edit user. 6. admin fills in the form of user information. 7. admin clicks on save. 8. The system sends notification of successfully process
pre-condition	The system must be available or on

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	process
post-condition	New user is added successfully or old user is edited or deleted.

<i>use case name</i>	manage room
<i>goal</i>	add , delete or edit room info
actor	admin
steps	1.admin login to the system. 2. admin goes to room Info panel. 3. The system displays The room Information. 4.admin clicks on add, edit or delete room. 5. The system displays the form of add or edit room. 6. admin fills in the form of room information. 7. admin clicks on save. 8. The system sends notification of successfully process
pre-condition	The system must be available or on process
post-condition	New room is added successfully or old room is edited or deleted.

<i>use case name</i>	manage category
<i>goal</i>	add , delete or edit category info
actor	admin
steps	1.admin login to the system. 2. admin goes to categoryInfo panel. 3. The system displays The category Information. 4.admin clicks on add, edit or delete category. 5. The system displays the form of add or edit category. 6. admin fills in the form of category information. 7. admin clicks on save.

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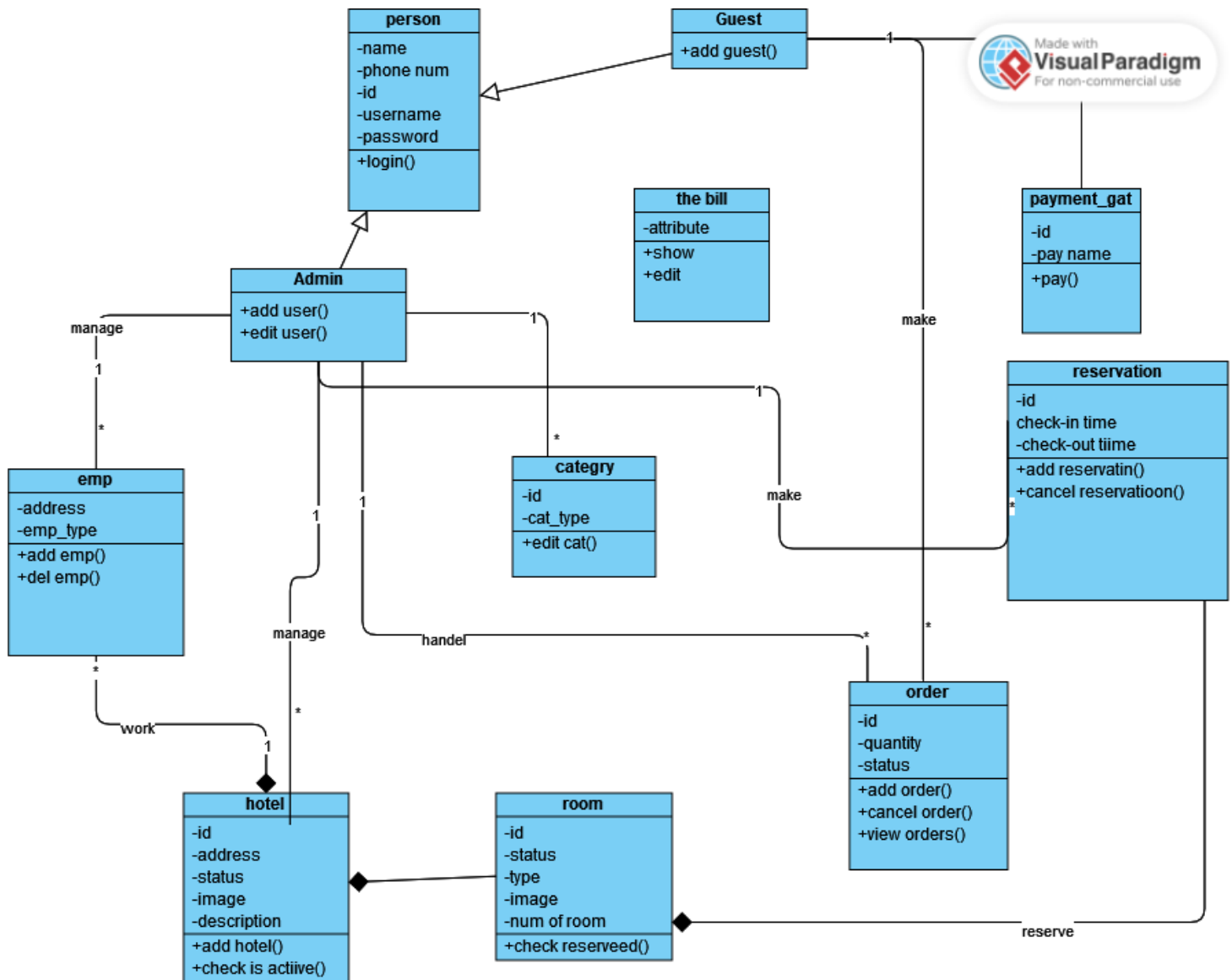
	8. The system sends notification of successfully process
pre-condition	The system must be available or on process
post-condition	New category is added successfully or old category is edited or deleted.

<i>use case name</i>	show the bill
<i>goal</i>	show the bill to admin or guest
actor	admin / guest
steps	1.admin / guest login to the system. 2. admin goes the bill panel. 3. The admin enter name of guest / guest go th the bill activity. 5. The system displays the bill of guest.
pre-condition	The system must be available or on process
post-condition	the bill is viewed

<i>use case name</i>	add order
<i>goal</i>	add order
actor	guest
steps	1.guest login to the app. 2. guest goes the orders activity and click on add order. 3. The system show the add order form 4. guest enter what he need. 5.guest click send.
pre-condition	The system must be available or on process
post-condition	added new order

2. Structural Diagrams

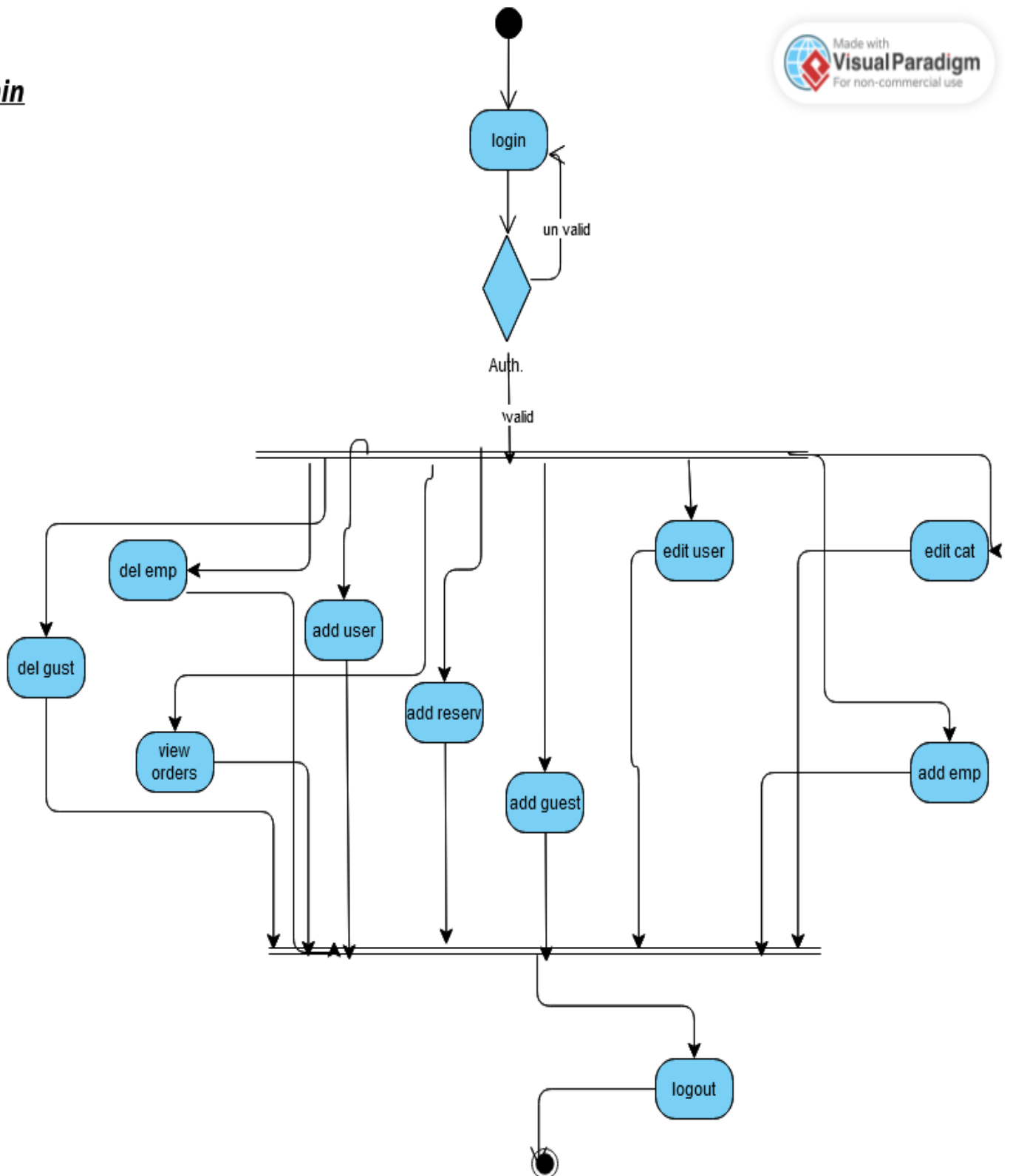
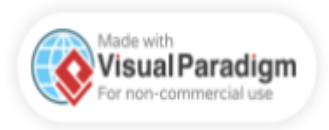
2.1 Class diagram



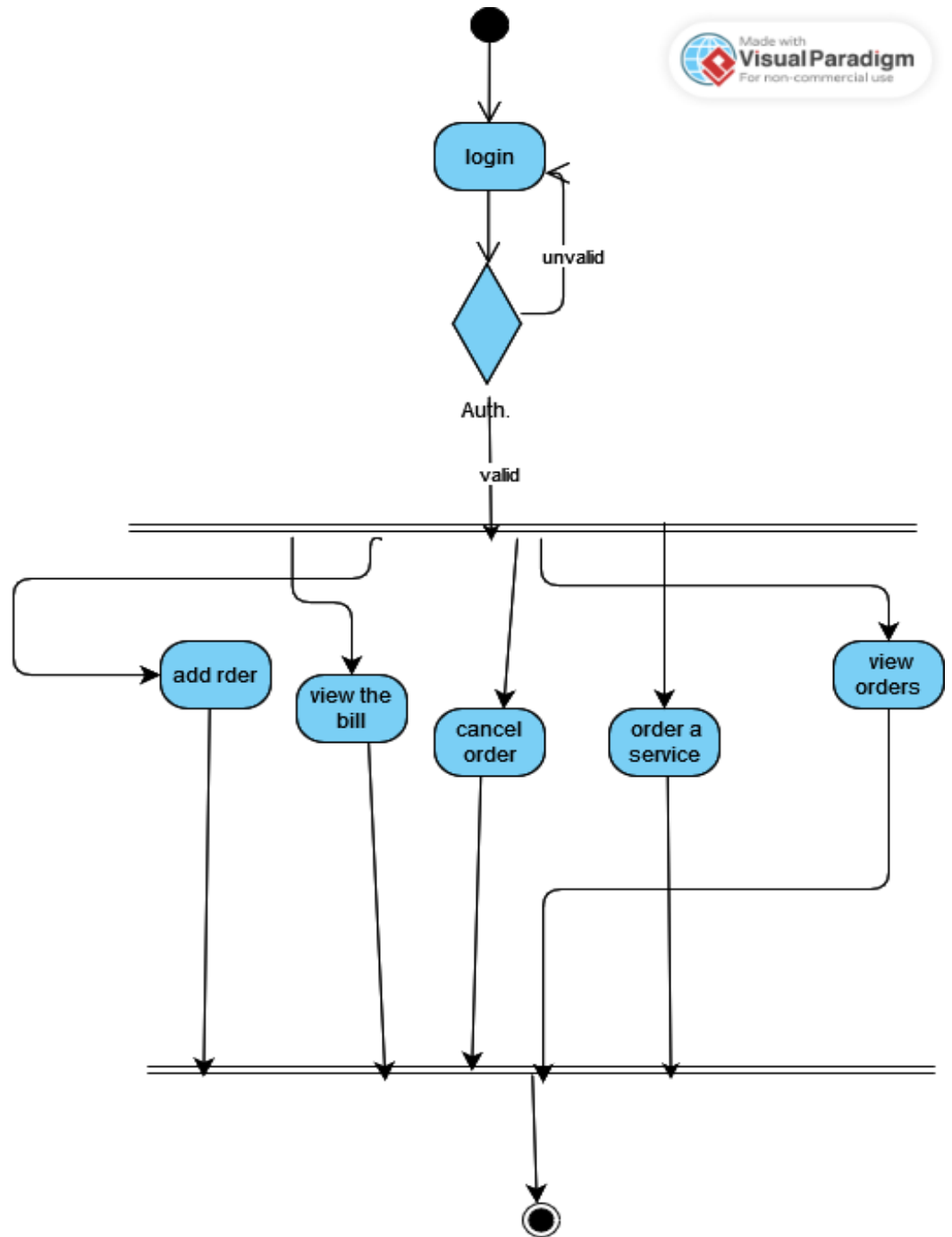
3. Behavioral Diagram

3..1 Activity Diagram

Admin

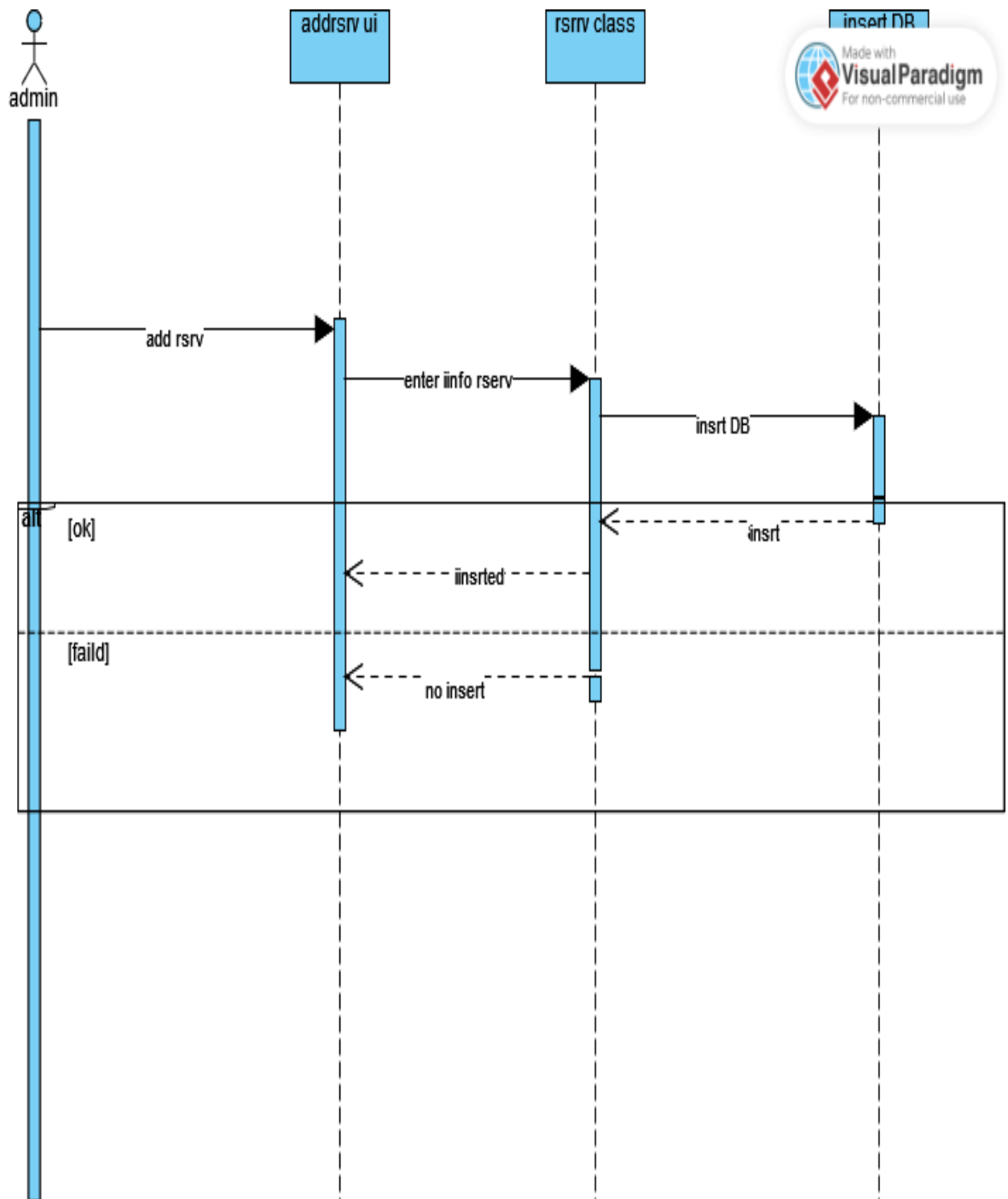


guest

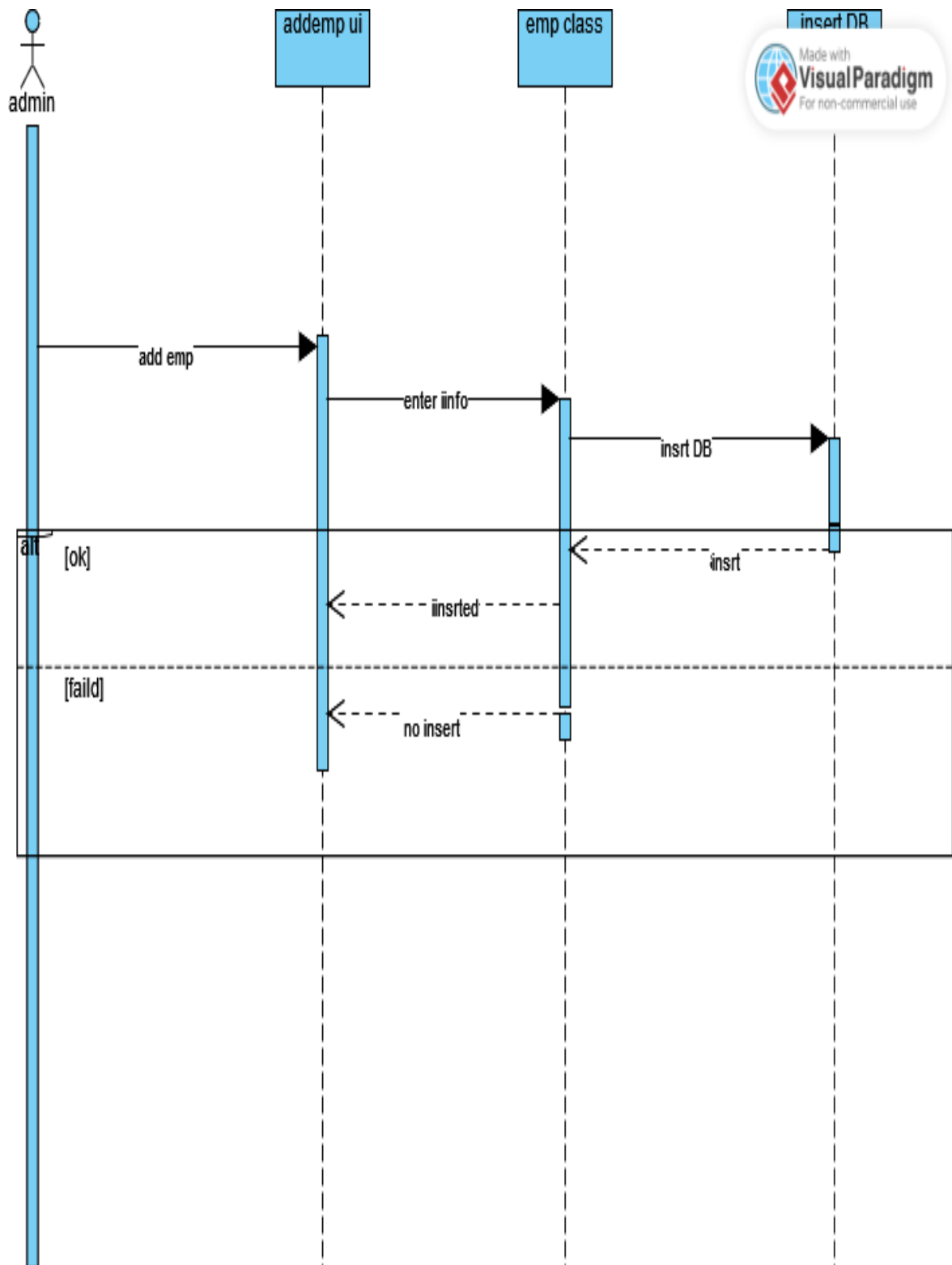


3.2 Sequence Diagrams

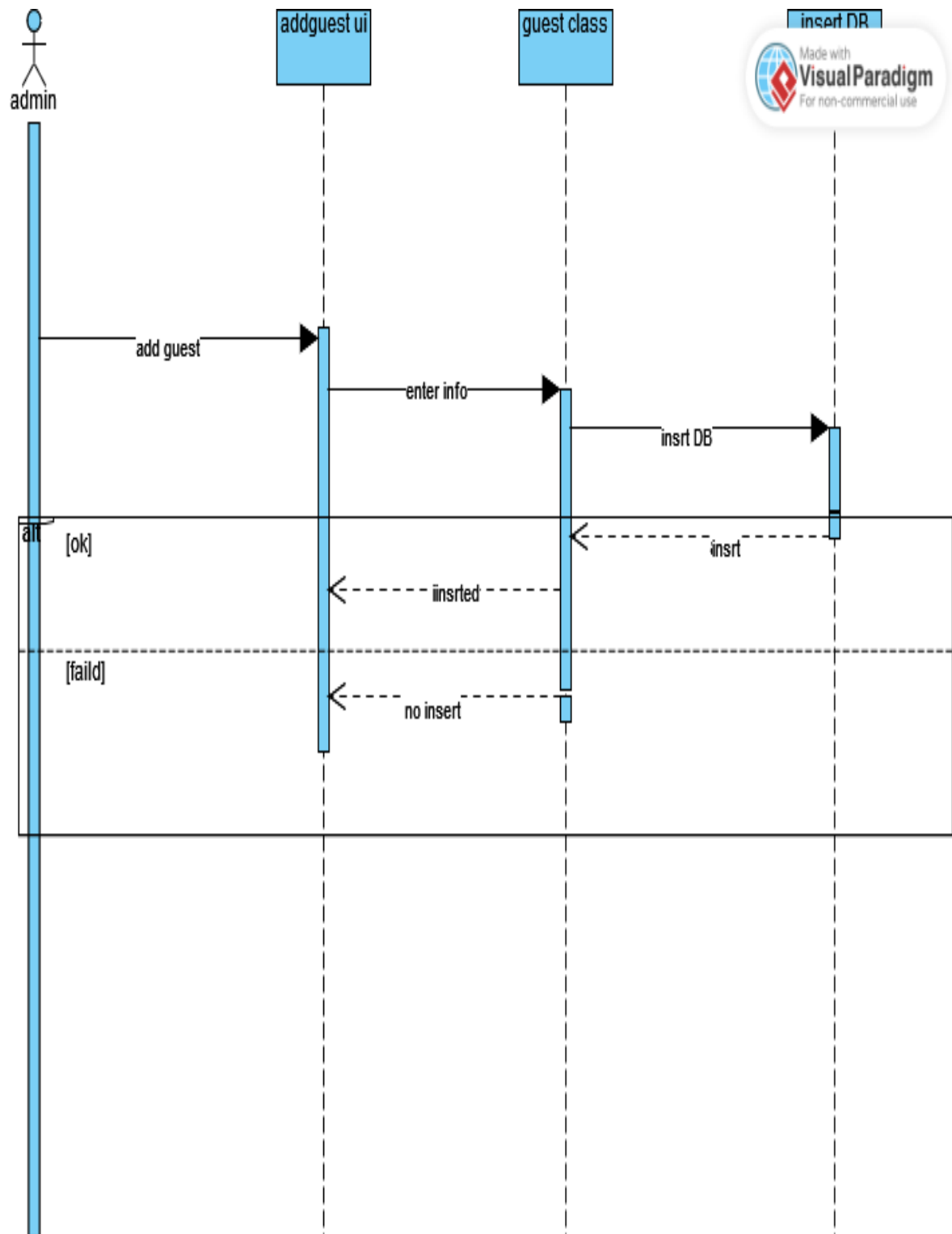
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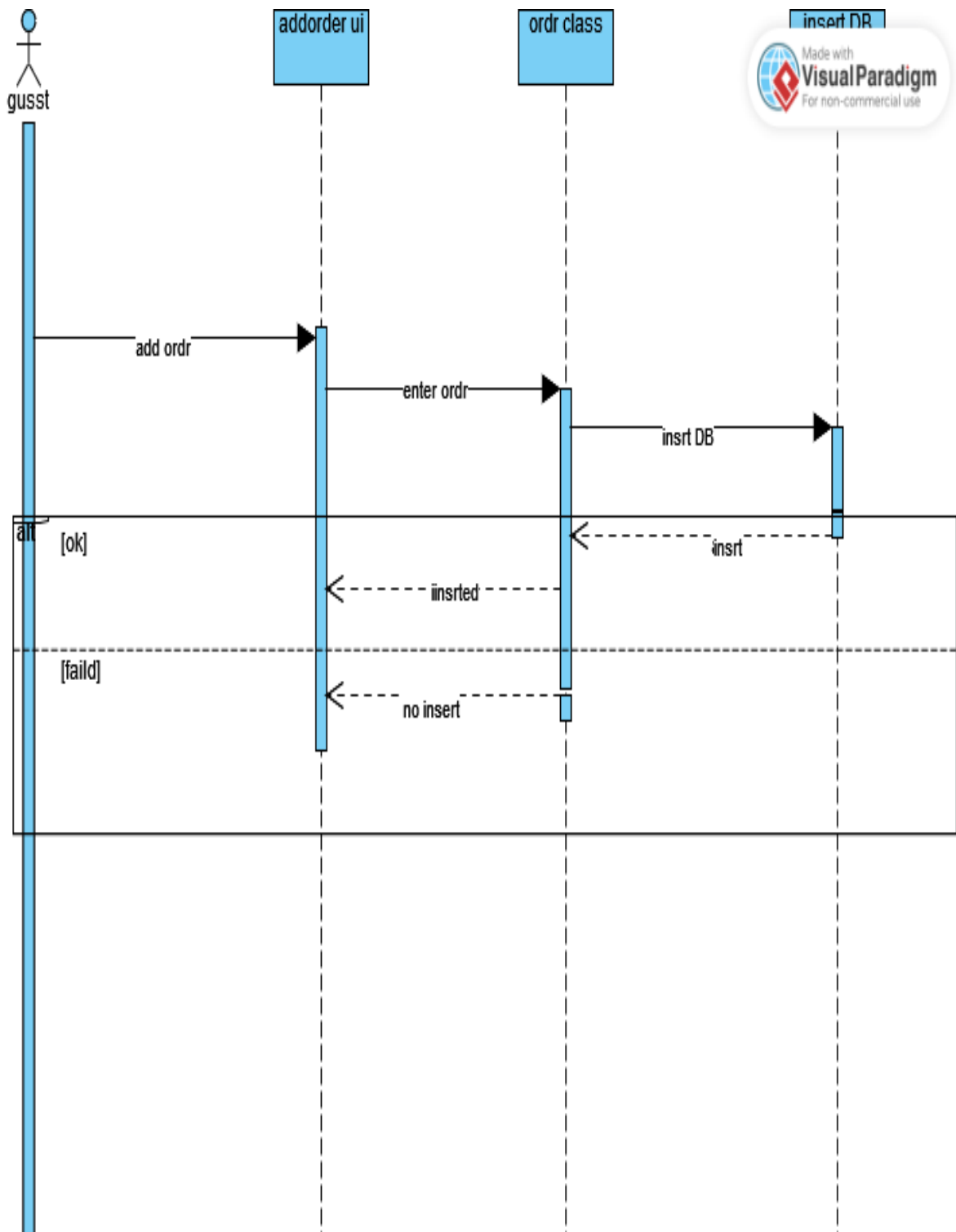
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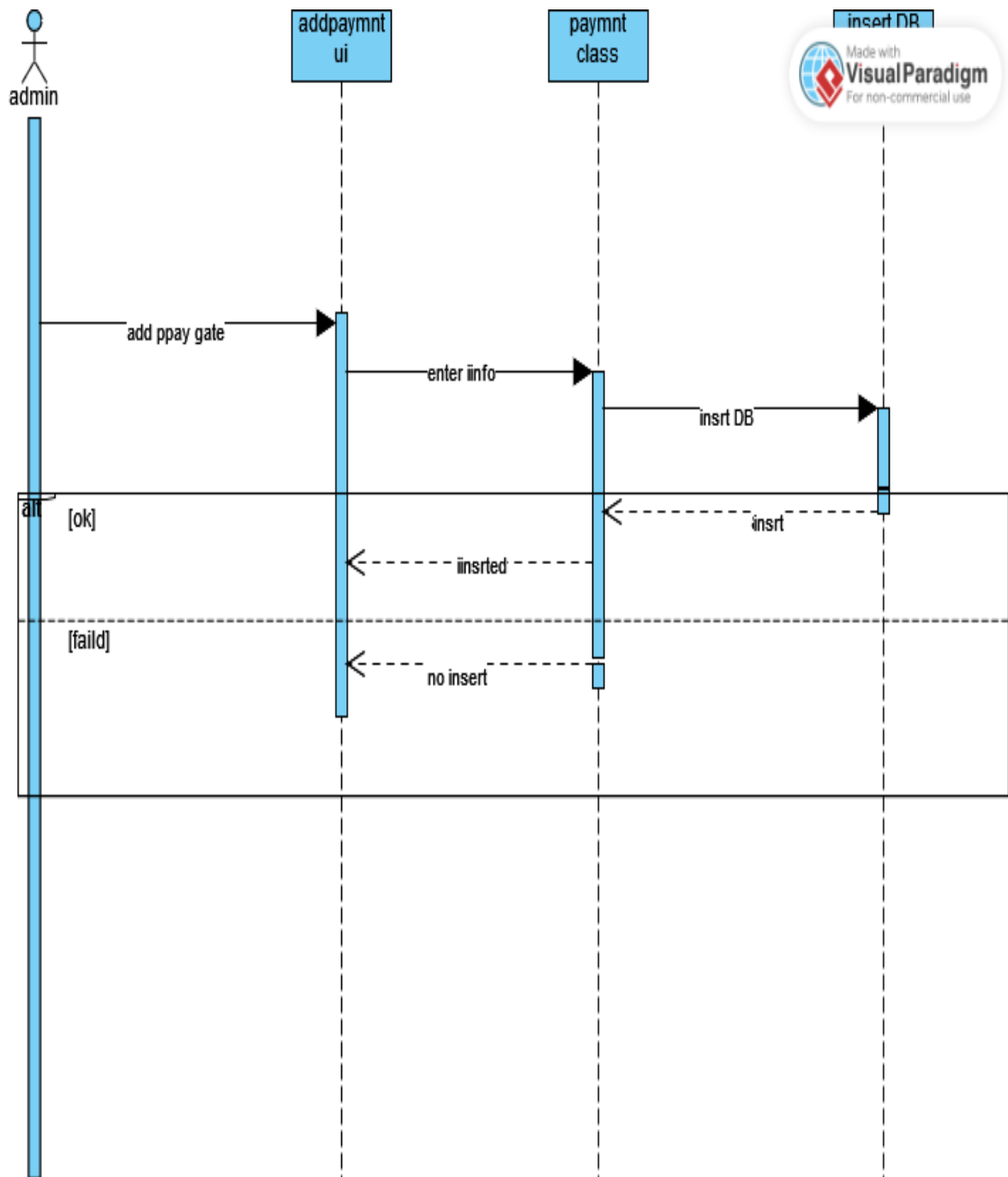
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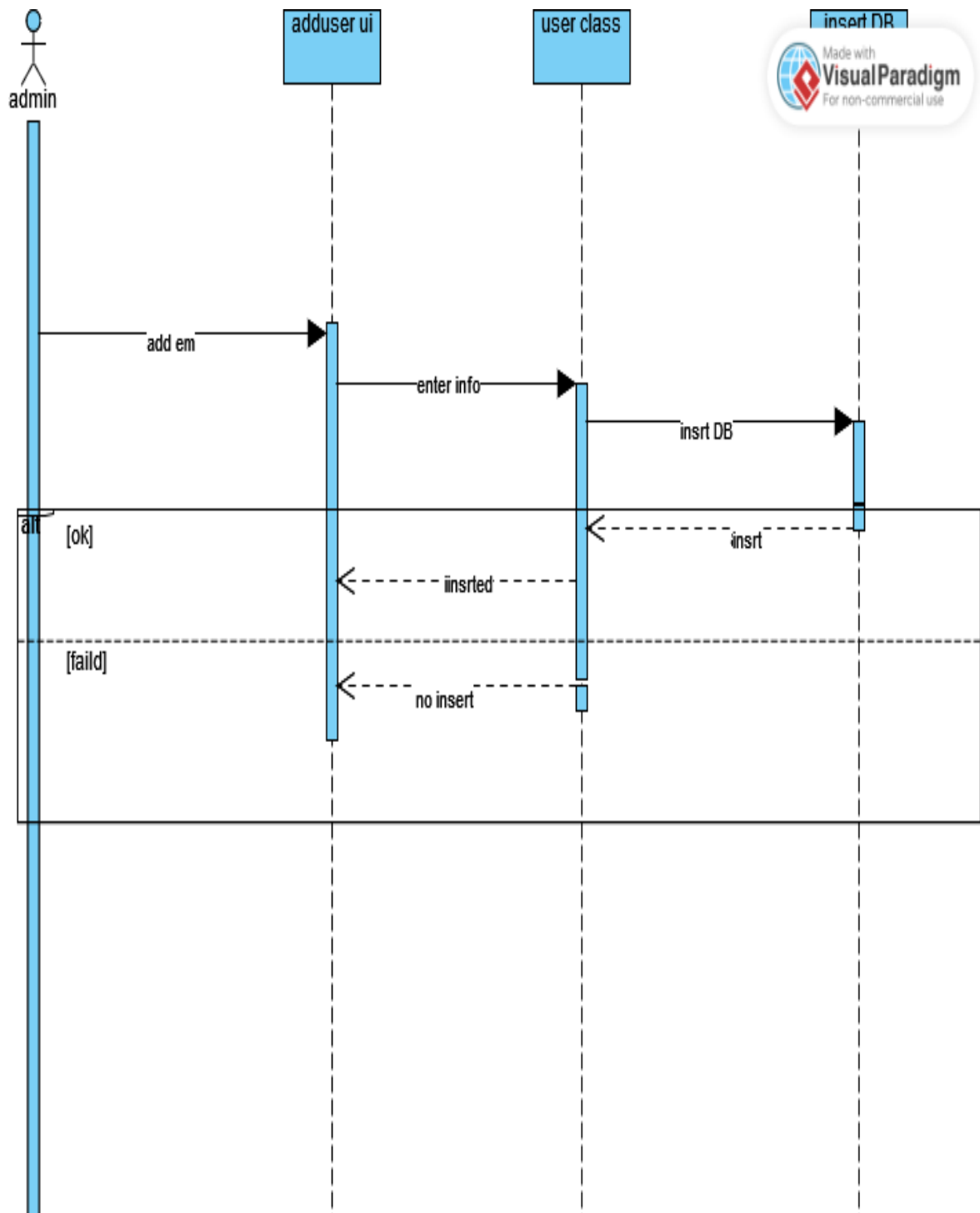
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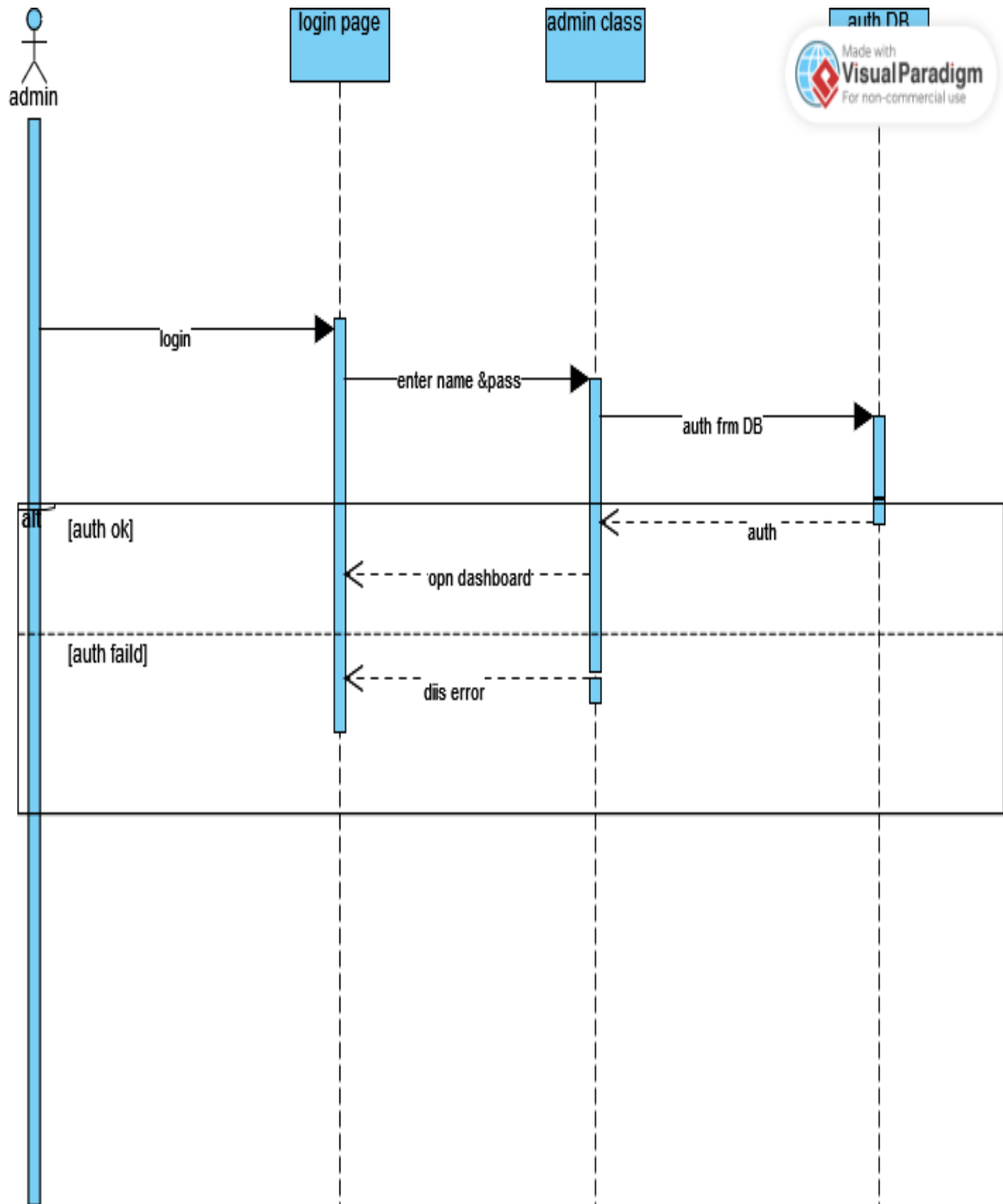
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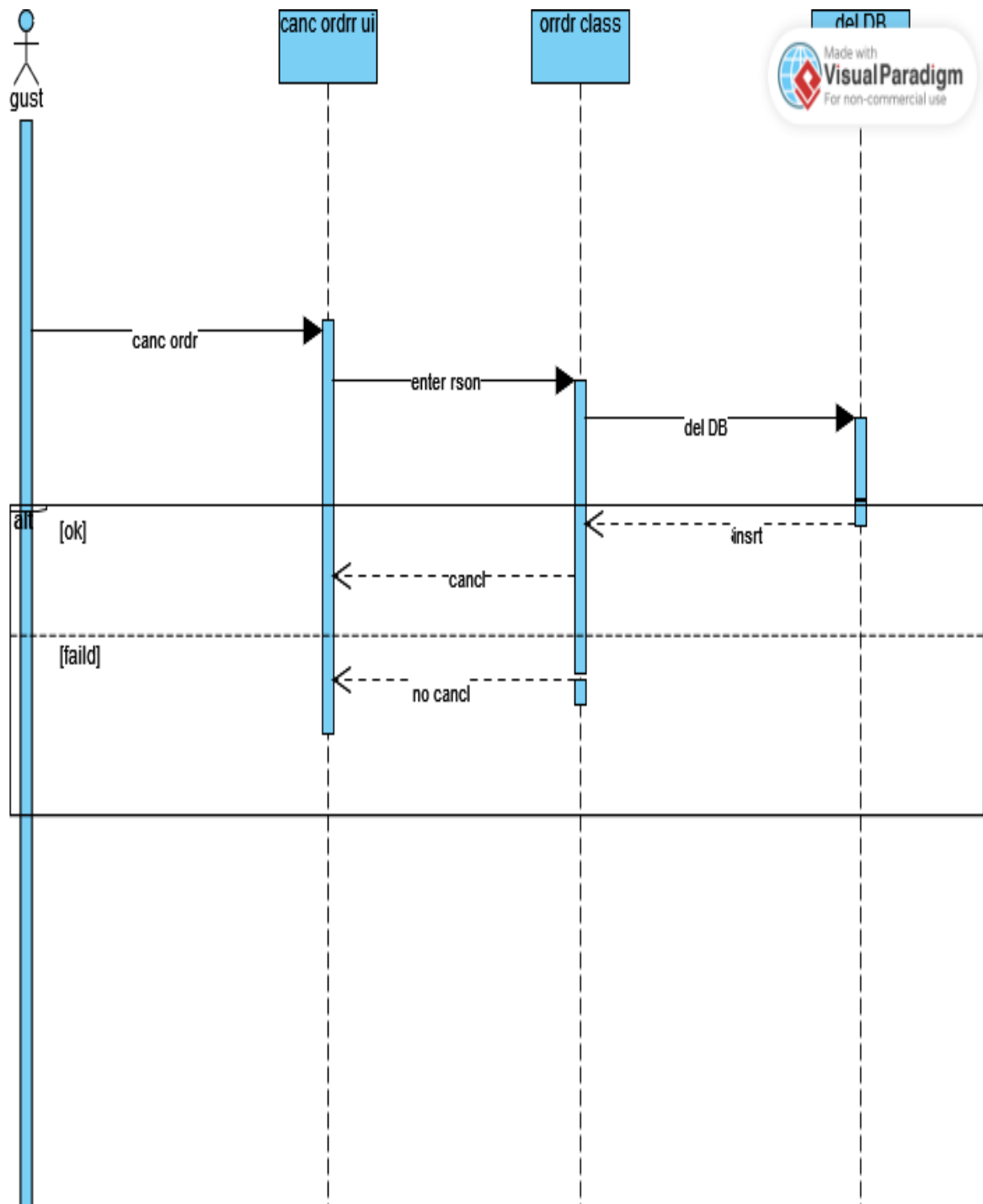
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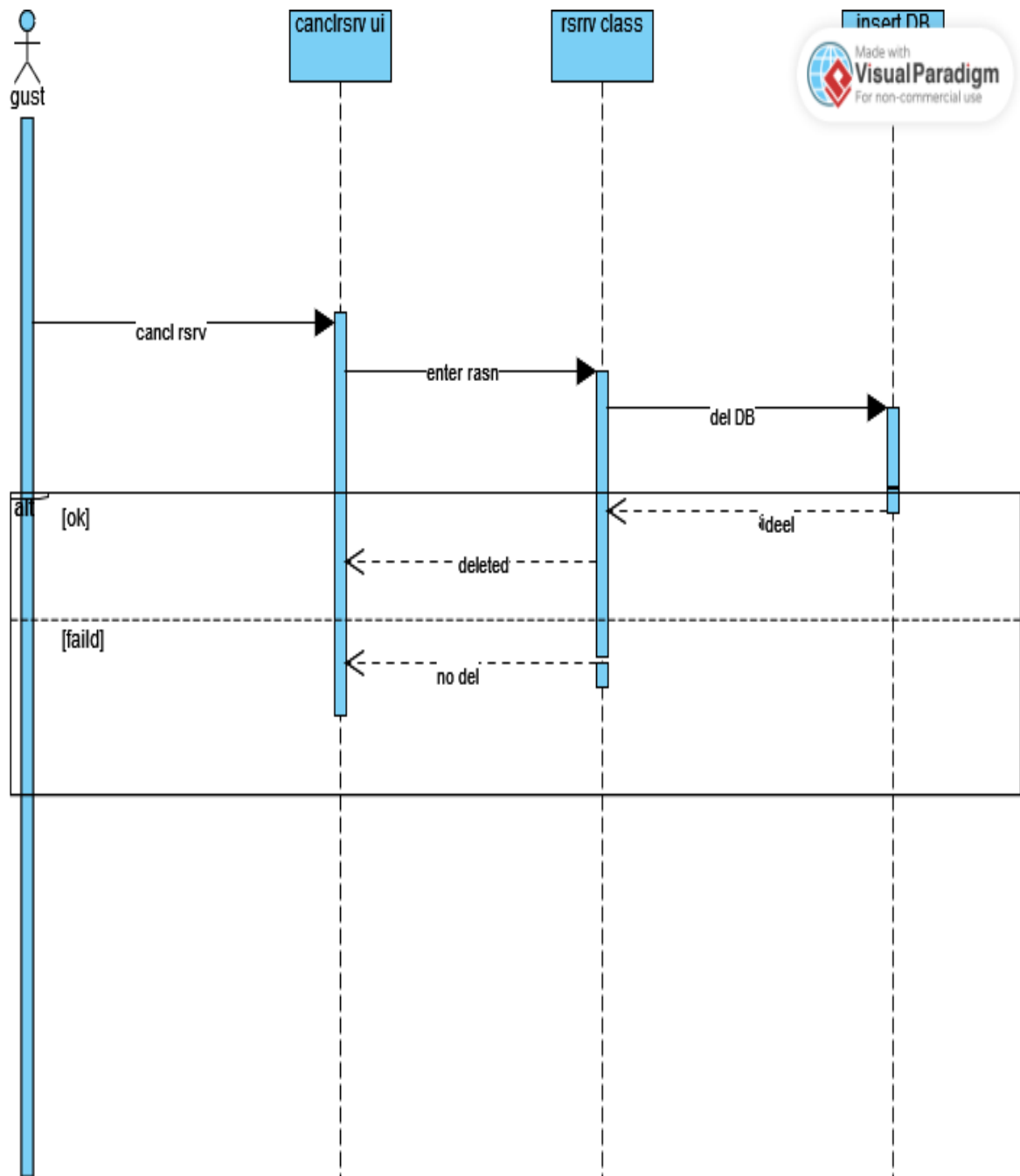
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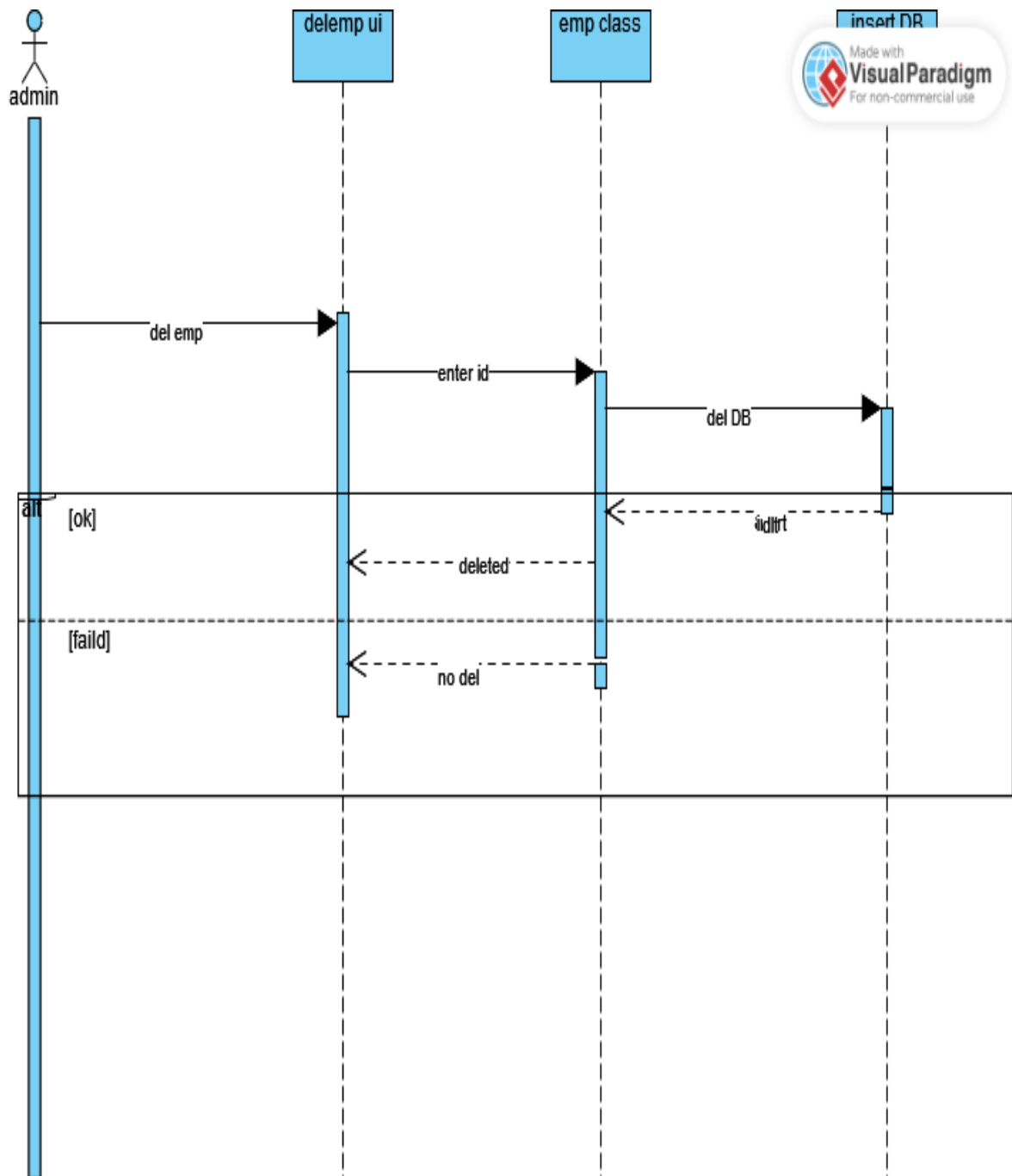
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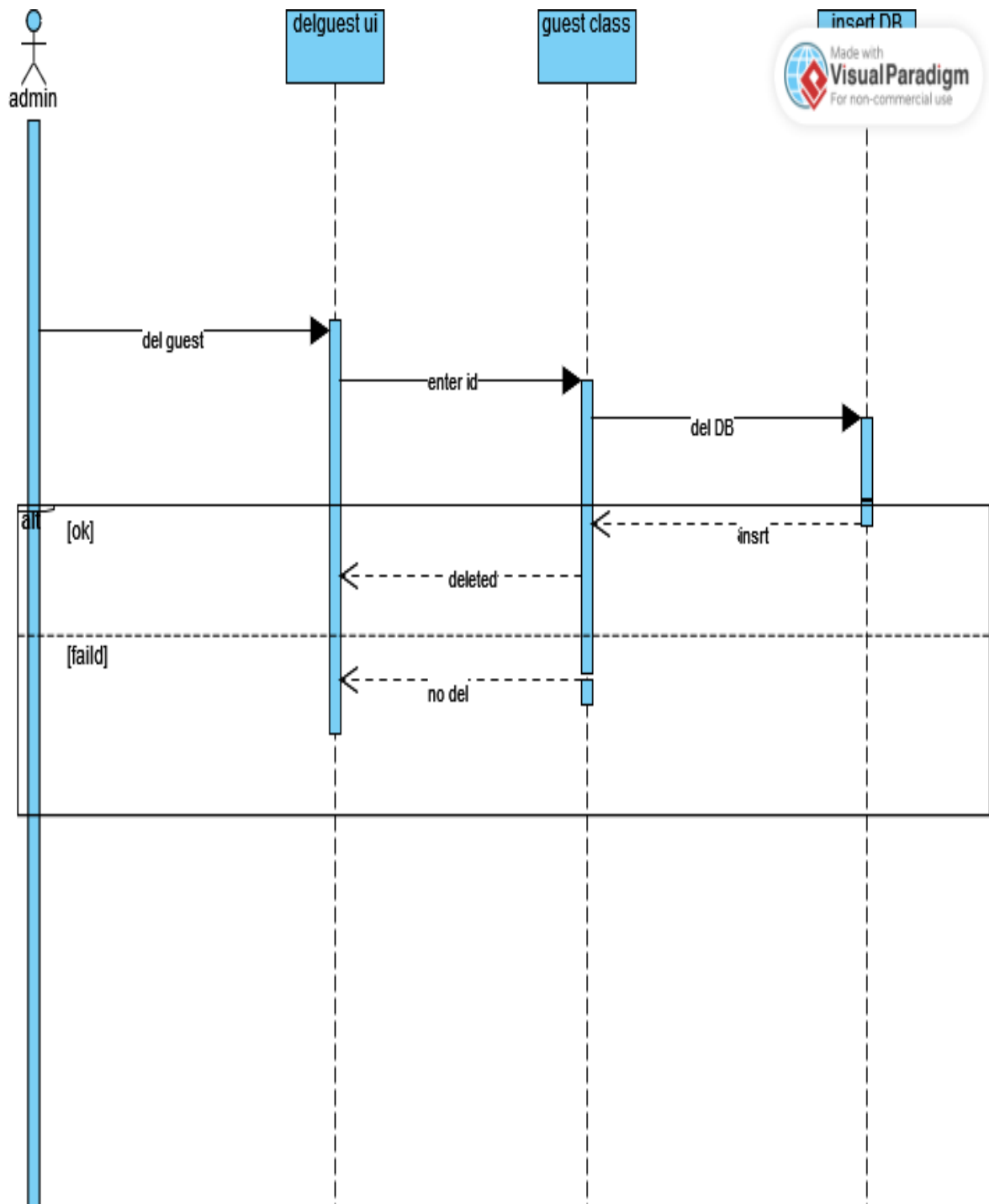
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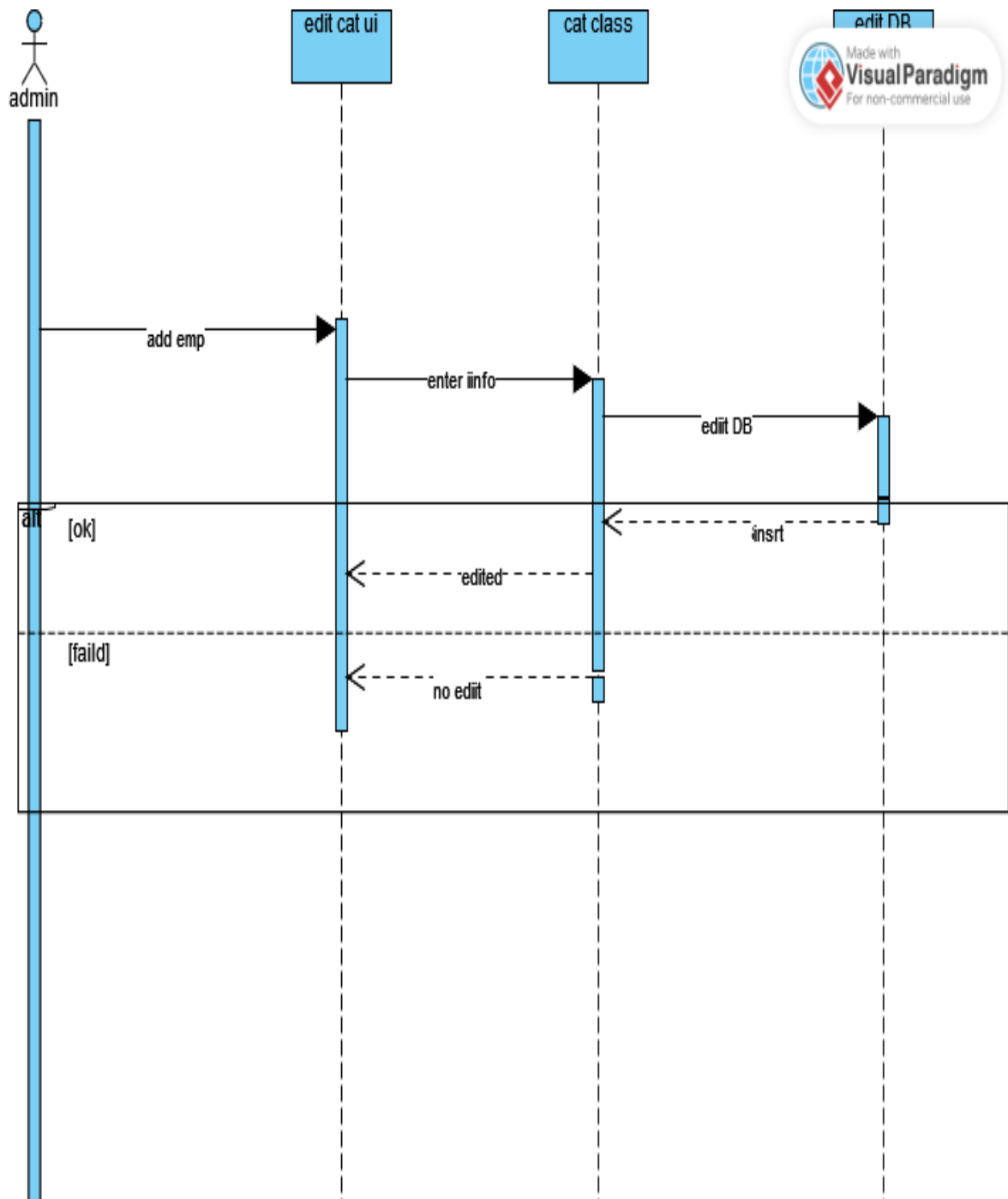
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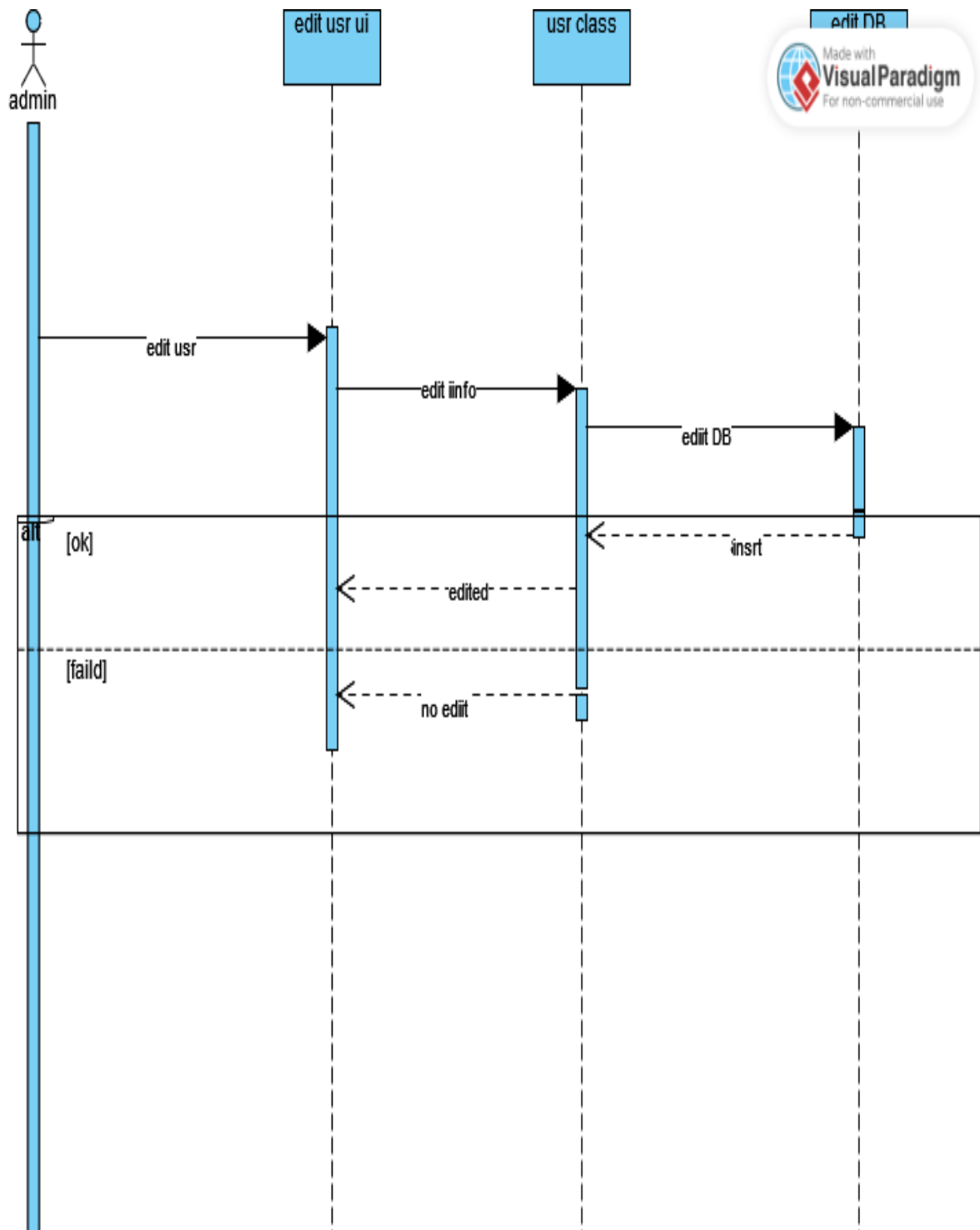
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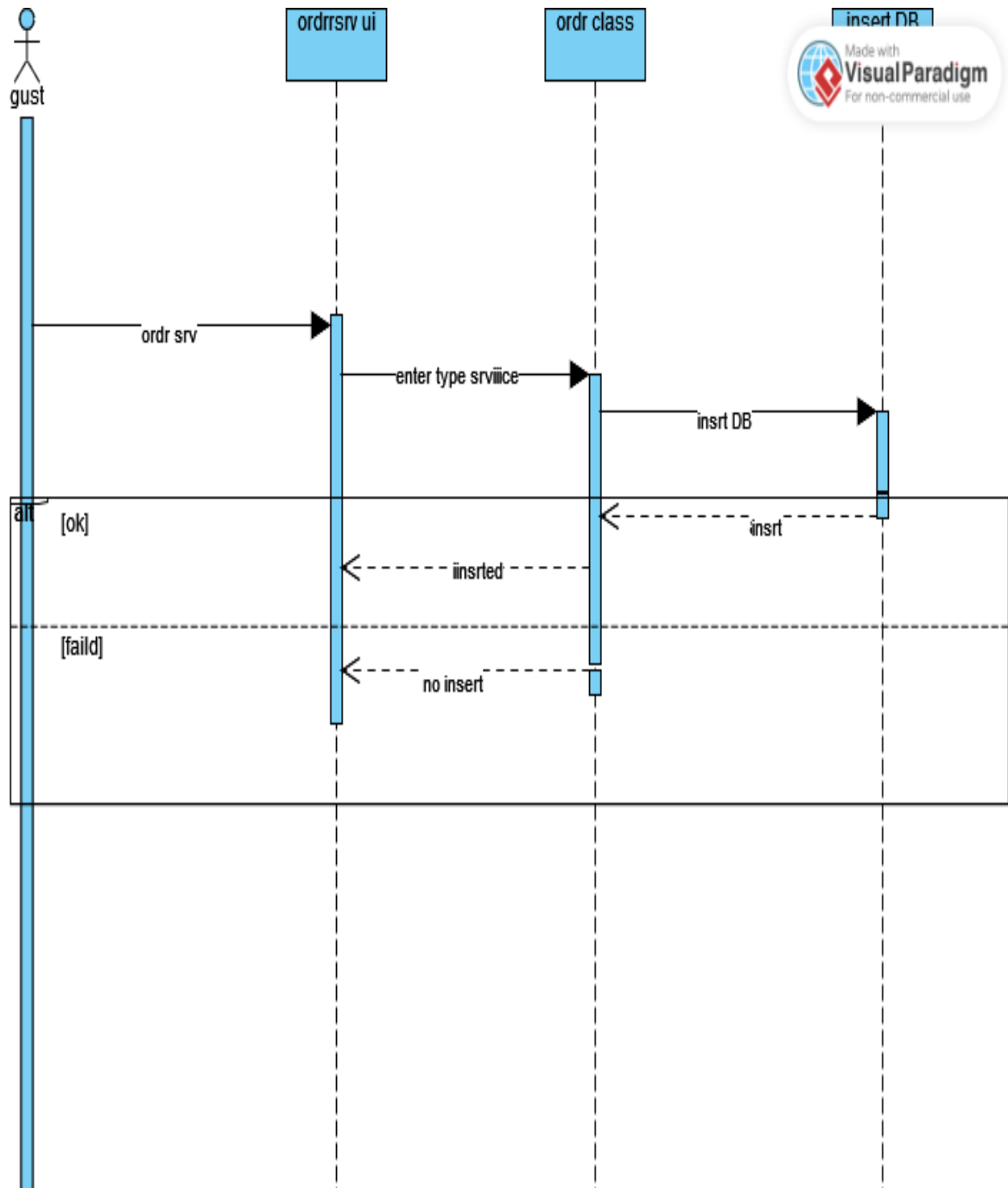
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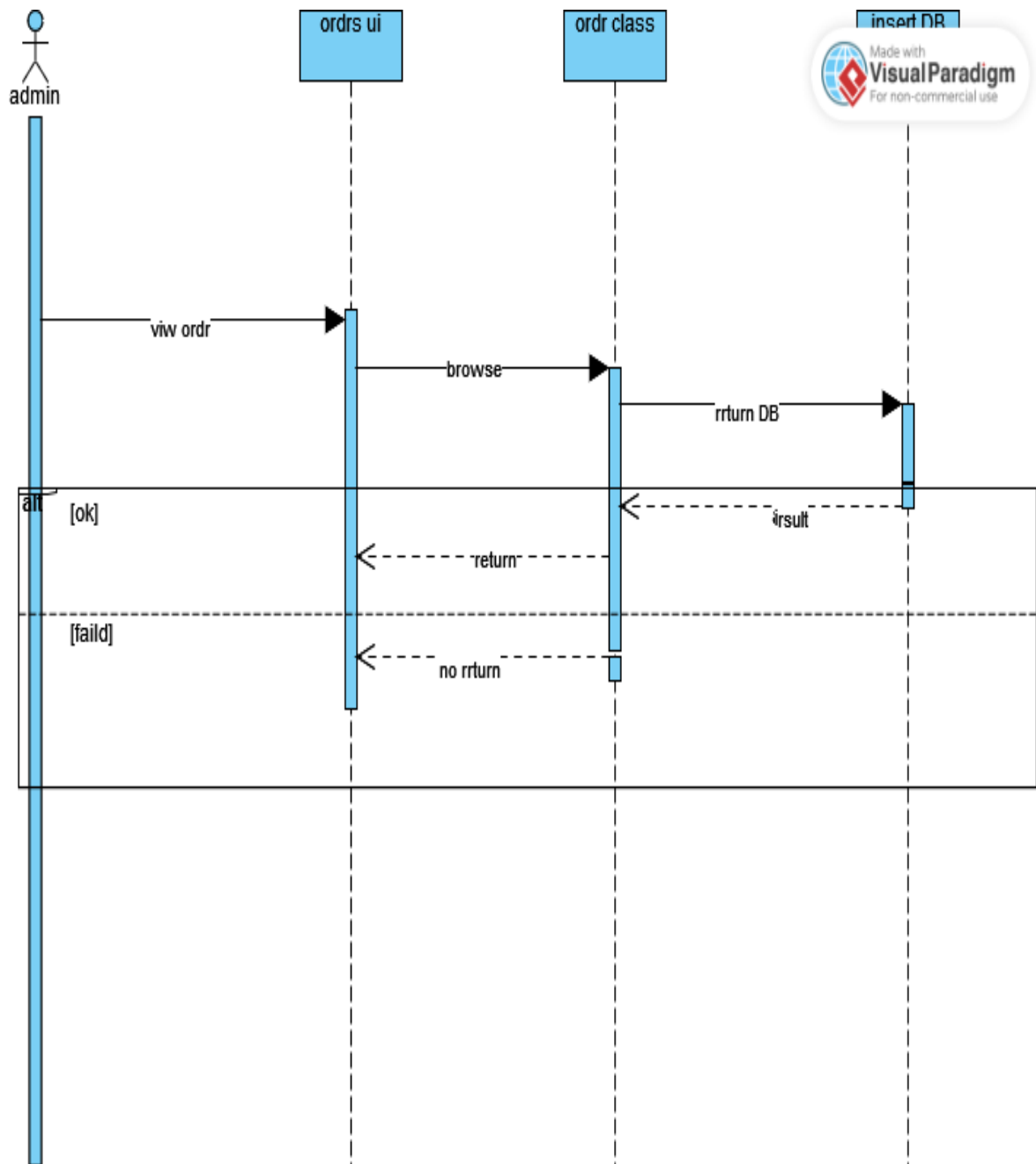
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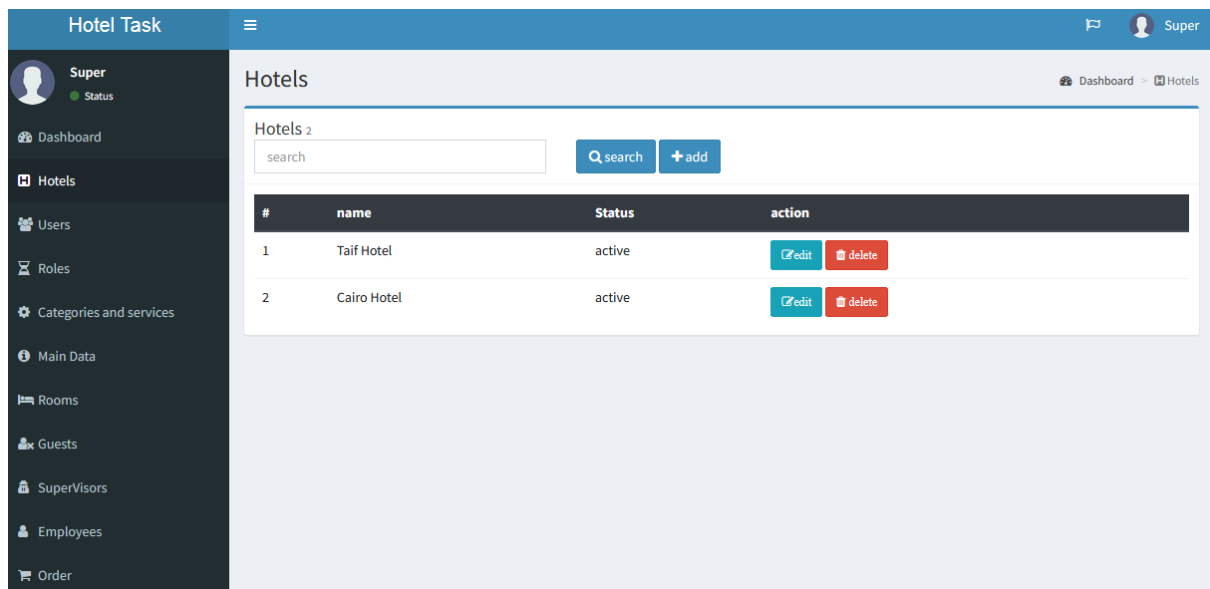
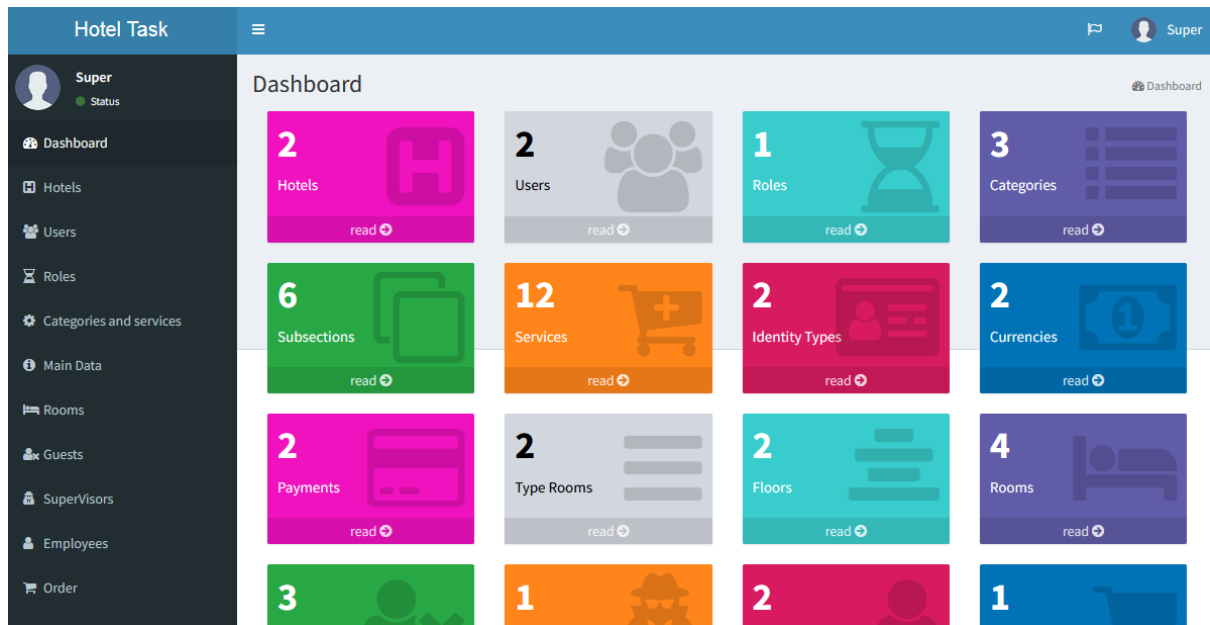
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Chapter 4 :Implementation



Software Requirements Specification for <Multiple Hotel System>

Hotel Task

Super

Status

Dashboard

Hotels

Users

Roles

Categories and services

Main Data

Rooms

Guests

SuperVisors

Employees

Order

Users Edit

Dashboard > Users > edit

edit

name

Mahmoud

Email

mahmoud4012@yahoo.com

Password

Password Confirmation

phone

01140465989

address

Al Naser

Hotel


Cairo Hotel

☒ super

image

Browse...

No file...ected.



User Edit

Hotel Task

Super

Status

Dashboard

Hotels

Users

Roles

Categories and services

Main Data

Rooms

Guests

SuperVisors

Employees

Order

Roles Edit

Dashboard > Roles > edit

edit

Hotel

Choose Hotel

name

super

description

Super

Users

☒ create

☒ read

☒ update

☒ delete

Roles

☒ create

☒ read

☒ update

☒ delete

Categories

☒ create

☒ read

☒ update

☒ delete

Subsections

☒ create

☒ read

☒ update

☒ delete

Hotel Task

Super

Status

Dashboard

Hotels

Users

Roles

Categories and services

Main Data

Rooms

Guests

SuperVisors

Employees

Order

Category Edit

Dashboard > Categories > Category Edit

edit

arabic name

مناظيل

english name

napkins

Status

Active

Type

Other


Hotel

Cairo Hotel

image

Browse...

No file selected.



Category Edit

41

Software Requirements Specification for <Multiple Hotel System>

Hotel Task

Super

Status

Dashboard

Hotels

Users

Roles

Categories and services

Main Data

Rooms

Guests

SuperVisors

Employees

Order

Services

Dashboard > Services

Services 10

search

search

add

#	name	Status	Period By Minutes	Price	Subsection	action
1	Luxurious toilet paper	active	15	35	Toilet paper	edit delete
2	Toilet paper	active	15	15	Toilet paper	edit delete
3	box napkins	active	10	25	handkerchiefs	edit delete
4	wet wipes	active	10	15	handkerchiefs	edit delete
5	Cooked chicken pieces	active	70	200	cooked chicken	edit delete
6	Whole chicken cooked	active	60	175	cooked chicken	edit delete
7	Grilled chicken pieces	active	60	125	Grilled Chicken	edit delete
8	Grilled whole chicken	active	50	150	Grilled Chicken	edit delete
9	Mango juice	active	10	25	cold drinks	edit delete

Mahmoud Welcome!

Hotel:

فندق القاهرة

Floor:

1

Room:

1

Room Type:

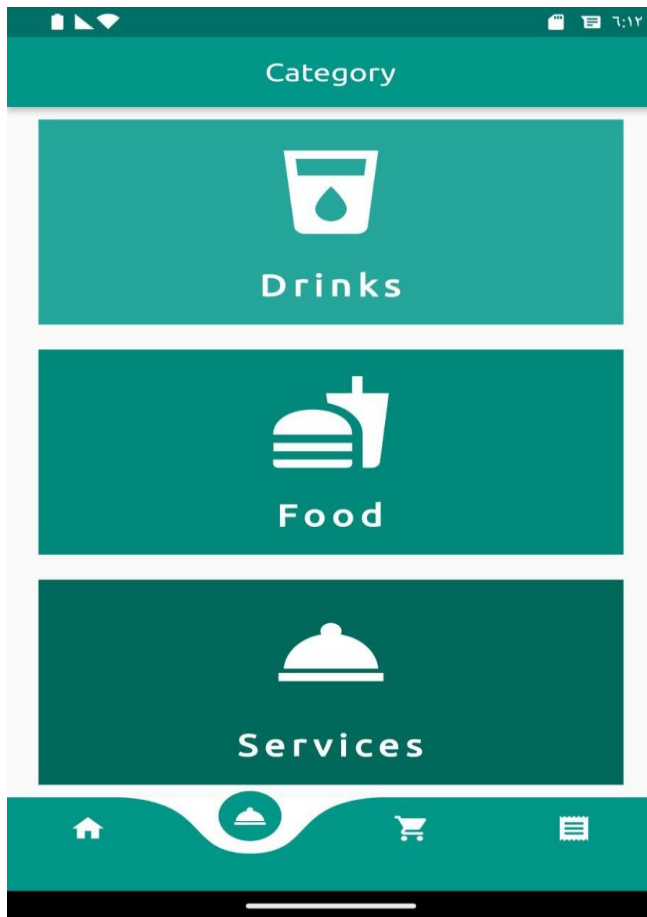
فردى

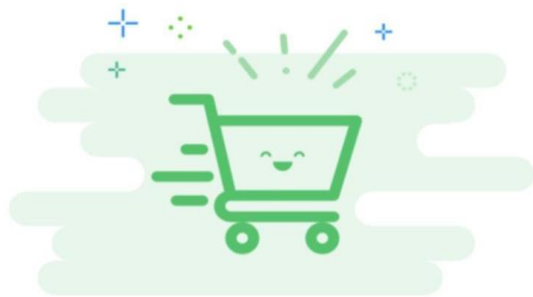
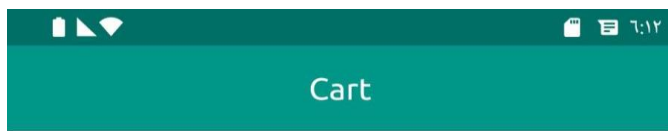
Home

Hotel

Shopping

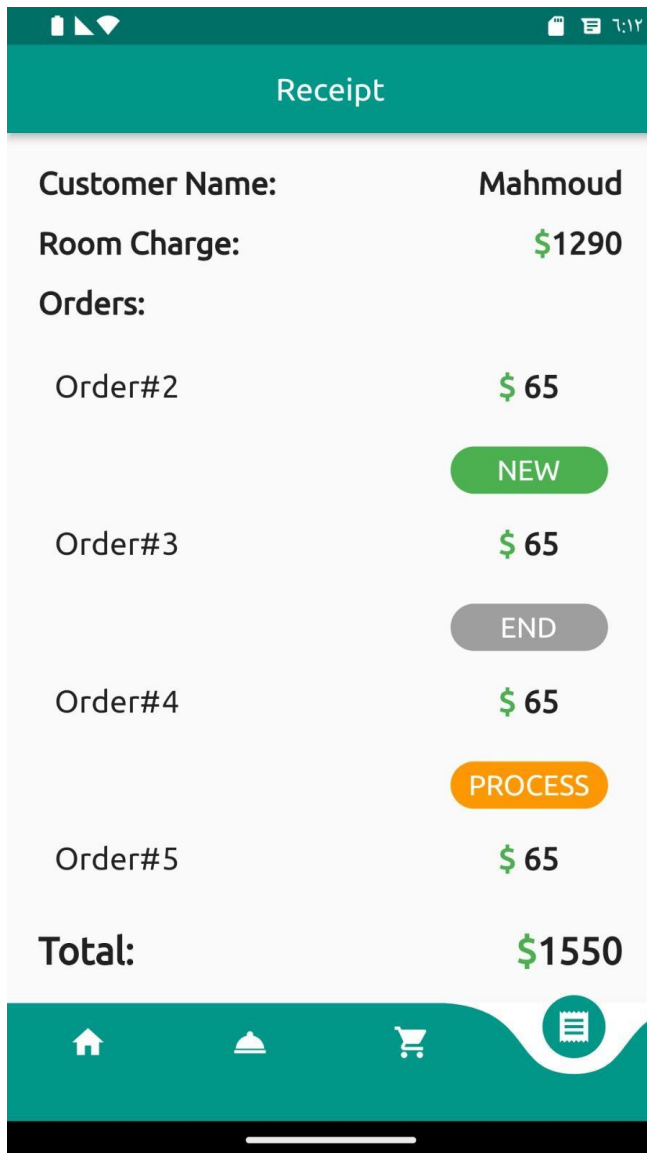
Menu





Your Cart Is Empty !





Chapter 5 :Testing

Functional Testing:

Unit Testing

Testing of individual items (e.g., modules, programs, objects, classes, etc.) Usually as part of the coding phase, in isolation from other development items and the system as a whole.

Integration testing

Testing the interfaces between major (e.g., systems level application modules) and minor (e.g., individual programs or components) items within an application which must interact with each other.

System Testing

Testing a system behavior as a whole when development is finished, and the system can be tested as a complete entity.

Regression Testing

To check older functionality after integrating new functionality.

Acceptance testing

Testing to ensure that a development is ready to be deployed into the business, operational or production environment.

Non-Functional Testing

Performance Testing

Accomplished a designated function regarding processing time and throughput rate.

Load Testing

Measuring the behavior of within creasing load which can be handled by the component or system.

Stress Testing

Evaluate a system or component at or beyond the limits of its specified

requirements.

Security Testing

How well the system protects against unauthorized internal or external access.

Chapter 6: Results and Discussion

Expected result

- The guest's records are saved securely in one place.
- The guest has easily access to his/her profile.
- The guest has easily access to his/her orders and cancel it.
- The admin can easily manage employees.
- The admin can easily manage room.
- The admin can easily manage orders.
- The admin can easily manage other admins and their permissions.

Actual Results

- The guest's records are saved securely in one place.
- The guest has easily access to his/her profile.
- The guest has easily access to his/her orders and cancel it.
- The admin can easily manage employees.
- The admin can easily manage room.
- The admin can easily manage orders.
- The admin can easily manage other admins and their permissions.

Discussion

As a conclusion for the previous points, we have managed to meet most of the expectations we planned for except for some points.

Chapter 7 :Conclusion

Finally, here we are writing the very last words and putting the last lines of our story and adventure at FCAI-HU, working in this project was really different from any other project we worked on during the last 4 years, this project was full of the feeling of responsibility towards our society and ourselves, that why we tries to do our best in it, regardless the poor resources we had and the limited time.

We consider this project as a thanks to all our professors and teacher assistance and to our country as well, We hope that system will play its role in society as we are expecting.

Chapter 8: Future Work

Multiple hotel System in Future Work

Here is our plan for the coming versions of Multiple hotel System:

Develop a machine learning model to manage inventory resource and suggest the optimal solutions as we studied in the subject of operation research.

- Make the authentication easier using social media's api
- Globalize the app and make and add features Suit the opinions of the guests.