



STAR BOOKING

Software Engineering Project

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Abstract

In this paper we are showing in details the work done in 3 months for the project of Software Engineering course. The software is called Star Booking same as the hotel name, because it will be a personalized software. This software was decided to be created after noticing all the problems and difficulties at Star Hotel. The aim of this software is to make it easy for the workers to deal with clients' needs and to simplify financial issues. This software will also serve to the clients and provide them the necessary information for room details and price and will make the accommodation in Star Hotel even more pleasant.

Acknowledgement

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1.Executive Summary

1.1 Project Overview

Star Booking is a project that we started because of many problems we had to solve at Star hotel. Technology is advancing every day also the service offered by the hotel should be updated . As we know some small details bring to a big difference for the hotel and that is directly converted in profit. So after talking with the owner and understanding the problem we have decided to make an software which is called Star Booking ,named same as the hotel name ,because it will be a personalized software .This software will have the purpose to make it easy for the costumers and hotel workers and manager . So make it easy to have information about the hotel and its location , prices , service and everything related to it. About the audience ,, as we said before main idea is to simplify booking at the hotel so that customers are happy and don't get bored with waiting to take a room or find some information about the hotel . As we hope the idea for the software is to make it easy not only for the customers but even for users (workers).

1.2 Purpose and scope of this specification

Star Booking

In this project we are able to bring the costumer closer to the hotel accommodation. In what sense? By using our software costumer will be more informed and renting a room will be easy.

They will know the price for every room and how many room are at service .

There will be a rating system where each costumer will rate(if they have the wish)to know the quality of the service provided . There will be a brief information about the room accommodation and its accessories . There will be an get direction so that costumer find the way to hotel easy. So the purpose is to make it easy for the costumer to book at the hotel and be informed at all the time ..

On the other hand this software will also be used by hotel workers and manager to be informed at all the time about the hotel status and providing information easy to the costumer .

2.Product Service Description

2.1 PRODUCT CONTEXT

Star Booking: In this project we will try to bring our costumer closer to the hotel accommodation. In what sense . By using our software , the costumer will be more informed and renting a room will be easy. They will know the price for every room and how many rooms are free for use. There will be a rating system where each costumer will rate(if our service satisfies their needs)to know the quality of the service provided . There will be a brief information about the room accommodation and its accessories . There will be an get direction so that costumer find the way to hotel easy. So the purpose is to make it easy for the costumer to book at the hotel and be informed at all the time .. On the other hand this software will also be used by hotel workers and manager to be informed at all the time about the hotel status and providing information easy to the costumer .

2.2 User characteristics

Star Booking: This is a project that we started because of some problems that Star hotel had. Technology is advancing every day,so the service offered by the hotel should be updated . As we know some small details bring to a big difference and that is directly converted in profit .So after talking with the owner and understanding the problem we have decided to make an software which is called Star Booking ,named same as the hotel name ,because it will be a personalized software .This software will have the purpose to make it easy for the costumers, hotel workers and manager . So it will make it easy to provide information about the hotel and its location , prices , service and everything related to it . As we said before main idea is to simplify booking at the hotel so that customers are happy and don't get bored while waiting to take a

room or find some information about the hotel . As we hope the idea for the software is to make it easy not only for the customers but even for users (workers). In this project we are able to bring the costumer closer to the hotel accommodation. In what sense ... By using our software costumer will be more informed and renting a room will be easy. They will know the price for every room and how many room are at service . There will be a rating system where each costumer will rate (if they have the wish)to know the quality of the service provided . There will be a brief information about the room accommodation and its accessories . There will be an get direction so that costumer find the way to hotel easy. So the purpose is to make it easy for the costumer to book at the hotel and be informed at all the time .. On the other hand this software will also be used by hotel workers and manager to be informed at all the time about the hotel status and providing information easy for the costumer . The end users here are the phones connected with this software and that are connected – interacting with each-other in order to have a better operation in order to provide a better service.

2.3ASSUMPTIONS

We assume that this projects is going to generate a good connection between users which is going to affect the service , as we saw the biggest problems there was communications between employees caused from the big number of customers ,and to prevent communication losses we came up with hierarchical log in that help every user to manage and report online .External users will will have it easier to be informed for every change and for every update of the activities that are currently happening in the hotel ,bar ,restaurant. Even for the manager everything will be easy to be informed for the performance of every employee .

2.4 CONSTRAINTS

This project will be done before July 30 and that is the date of the delivery and the last date of consoling every problem . after that we are going to have 2 days to install and guide users for the functions of this software and after that everything must be finished.

We have chosen that main programming language of this project will be (php) also with some other programming languages to make it more useful and interactive as possible.

2.5 Dependencies

Sales-inventory this is the most type of dependencies at this project because it will have a big impact at the software, after a sale is done from an user account it will be reported at the user report also will be a information for all managers to know every user performance .

Reservation-vacancy another very important service that will be depended form each other , because after the reservation is done the software will report for every user that a reservation is done and will delete from the list the room that has been reserved.

user- user this dependency is conducted with some specific users ,managers will have every information that their employees are doing and how they are doing their job .

3.Requirements

3.1 Functional requirements

Req #	Requirement	Comments	Priority	Date Rwd
R_01	For each person that signs up the software should put his data in the database .	Personal information is put in the database	1	
R_02	After the user has been registered once, he can login every time with username and password	USER data will be available now in database	1	
R_03	Users can only update or manipulate only some kind of information that is allowed for them.	Clients of the hotel can only manipulate their personal info.	1	
R_04	Different kind of users will see different pages.	Security issues	1	
R_05	The software should be able to keep user data private and secure	Security issues	2	
R_06	The software should be able to generate financial reports.	Reports will be generated in excel sheets	1	
R_07	Users that are clients of the hotel can check their booking or orders history .	Activity log available	2	
R_08	-Users that are workers of the hotel can check their daily operations while working .	Activity log available	2	
R_09	Users that are clients of the hotel can search for the type of rooms they want to book.	Search button available so thing will be faster	2	
R_10	Users that are workers in the restaurant should register all the orders in the system .	This will make their work easier	1	
R_11	Users that are workers in the restaurant can edit , add or delete products.	Edit ,add or delete buttons available		

R_12	Users that are workers in the restaurant can edit , add or delete rooms	Edit ,add or delete buttons available		
R_13	Users that are human resources workers can manage the employee lists.	Edit ,add or delete buttons available		

Non – functional Requirements

3.2 User interfaces

While designing our software the most important thing that we will keep in mind is to make it easy and understandable for the users. It will not have too much information, just the most important things. Also for the users it will not require useless personal data but only some important data needed to identify each user. The information will be organized in such a way that it will not make the users confused. There will be different buttons and the function of each one of them will be clear so that users won't get confused. Regarding to colors we will use colors that are not tiring for the eyes. The users will start with the login and we will make sure that the other steps will be clear and easy to follow. This software will also take care of the hotel's financial reports that will come in excel sheets. Everything will be in Albanian language so users will have it easier to understand the functionality of each button without being confused .

3.3 Usability

For the usability of our software these are the most important tasks to be completed:

- The interface will not be complicated .
- it will be very easy to use so that users can complete the tasks in short time and without errors.
- The application will come with instructions on how to use it and will be very easy to understand.
- The function of all different buttons will be clear so that users won't get confused.

3.4 Performance

3.4.1 Capacity

Expected number of simultaneous user should be at least 7. System should be able to deal with 7 users at the same time.

3.4.2 Availability

System Availability is the availability of the system when it is used.

- The system availability should be more than 98% of the time not considering network failures.
- It should be available in all Albanian territory 24/7
- The reliability that the system gives the right result on a search -- More than 98% of the searches.
- The system must be connected to the internet in order to communicate with the database.

3.4.3 Latency

Although this will depend from the internet connection:

- The max amount of time for a restaurant order to be accepted should not exceed 20 sec
- The max amount of time for a booking request to be completed should not exceed 15 sec .

3.5 Manageability/Maintainability

3.5.1 Monitoring

According to our predictions the system failures will be rare ,as we have worked hard to make it runnable. The most common reason why the system may fail is the bad internet connection. In case of other failures we will provide a guide of how users can handle this failures. We will also provide to them our contact numbers so they can contact us and we can help. We will also be present with updates and do our best to improve our system and make it easier for users.

3.5.2 Maintenance

All we can do for the maintenance of our software is to provide updates in order to improve the functionality of it. The users will not have difficulties in maintaining the software as long as it is easy and only requires capabilities that each person nowadays has. We will make sure that everything works fine time after time.

3.5.3 Operations

These will be some of the most important operations:

- Users can login whenever they want in our software.
- Users can update their personal information.
- Users that are clients of the hotel can check their booking or orders history . They can search for the type of rooms they want to book.
- Users that are workers of the hotel can check their daily operations while working and can generate financial reports
- Users that work in the human resources department can manage employee lists.
- Users that work in the restaurant can add ,edit or delete products.
- Users that work in the hotel can add,edit or delete products.
- Some type of users can communicate of each other.

3.7 Security

Nowadays the majority of the apps that each one of us uses have already been hacked. But how can we protect our application from being hacked.

3.7.1 Protection

The first important thing is to keep the software up to date. Although it may seem like something obvious it is the most important thing in order to keep the software secure.

Validation – Firstly it should be done on browser and server side .Especially for passwords validation is really important. It is important to be used strong passwords with at least eight characters, with numbers, lower case and upper case letter. We should also use validation for some mandatory fields that should not be empty.

Another important issue is to make sure that no malicious code will be put in our database because this will cause big problems such as stolen or deleted information.The best thing to be done is to use parameterised queries. For example:

```
$stmt = $pdo->prepare('SELECT * FROM table WHERE column = :value');  
$stmt->execute(array('value' => $parameter));
```

3.7.2 Authorization & Authentication

Authorization-There will be different type of users. Each one of them will have access constraints. Users can not modify any information except their personal information. Only admin can modify information and access the database.

Authentication- each user will login with a username and password .

3.8 Data management

The types of data will be a lot . Firstly we will have the data of the users personal information such as names surnames phone numbers and email addresses. We will have data about the rooms ;available rooms and non available rooms. We will have data about all restaurant products. Also we will have data about the purchases and all other financial data. These data will be kept in the database in an organized way . Some of these data will be kept private and others will be visible to everyone.

3.9 Standards Compliance

In order to sign up the users should provide some information such as name, surname, city and phone number or email address. This information is used when the clients make a reservation, or for example

when we send emails. It is our duty to make sure that the personal information of the clients of Star Hotel will be kept private. We will never make this information public. We will share information only in response of a lawful request by public authorities. Regarding to financial statements we will never make public any details about the financial issues of Star Hotel.

3.10 Portability

Portability means running on most number of different platform without an additional effort. To achieve this, web application should be developed by using the common technologies and tools which are provided by all common web browsers and operating system such as HTML5, JQuery etc. The application should be portable with iOS and Android.

4.User stories/Scenarios/Use Cases

4.1 USER STORIES

NR.	USER STORY NAME	Description
1	Personnel log in	Using username and password of Star Hotel to access the system functionality.
2.	Register	Client has to sign up in order to make reservations
3.	Edit client data	If an error has occurred during client registration, the user may edit the person information.
4.	Add room	The user adds a new room which has been remodeled or repaired
5.	Delete room	If there is a room that is not more offered by Star hotel, the user may delete that room.

6.	Edit room	If one of the information of the room is not correct, the user may make changes and reuse this room with the new data .(from two beds in one bed or inverse etc)
7.	Add product of restaurant	If the client looks for a new product and it is possible for you, then the user may add that product to the restaurant .
8.	Delete product of restaurant	If any product has expired than the user may delete that product from the restaurant and can replace it with another one .
9.	Edit product	The user may edit description of product e.i from linguine in spaghetti.
10.	Search by ID	The user searches number ID and he/she will see all the information about that person.(more functional at the hotel)
11.	Search by name	The user searches for a person by name and surname .The result will show all information about that person .
12.	Search by date	The user search for persons by particular date. By clicking one date the system generates a list of clients that attended the restaurant in that date.
13	Generate report 1	The system when accessed and asked by user generates a report with all the clients, grouped by their Date.
14.	Generate report 2	The system when accessed and asked by user generates a report with all the clients ,grouped by their product.
15	Generate report 3	The system generates a report with all the clients that has

		taken rooms the specific day that the user wants to access.
16	Generate report 4	The system also generates a report with all the clients that have used double rooms.
17	Print report	The user may download and print it whenever it is needed.
18	Enter the salaries cost	The financier enters to the finance model the total monthly salaries cost, which correspond to the total value of the salaries of the employees.
19	Enter the food cost	The financier enters to the finance model the total monthly cost for food for employees.
20	Enter light and water cost	The financier enter to the finance model the total monthly cost for water and light at both hotel and restaurant.
21	Enter the transportation cost	The financier enters to the finance model the total monthly cost for transportation of the employees.
22	Enter the utilities cost	The financier enter to the finance model the total monthly utilities cost(taxes)
23	Other costs	The financier enters to the finance model all other cost that exist but are not included in previous groups.
24	Generate the income statement	A report that includes all the costs and shows to the financier the income statement.
25	Print the income statement	After generating the income statement the financier wants to download and then print it.
26	Generate the employees report	A report that includes all the employees by name surname and their description.

27	Add employee	The human resources manager (boss or someone else) adds a new employee with all the information.
28	Delete employee	The human resources manager deletes one employee who left the work or rest from work.
29	Edit employees data	Hrm may edit the information that each of the employees has at the system.
30	Upload a cv	This part includes the cv of each of the employees that works in restaurant or in hotel.
31	Upload the photo	Each employee should have their profile photo in the jpg format.
32	Online booking	Client can make a reservation online.
33	Booking	Client can also make a reservation at the hotel receptionist.
33	Check in /out	User checks in when he arrives at the hotel and checks out when he leaves
34	User cancels reservation	User can cancel an reservation if he changes his mind
32	Log out	Provide the user of the *Star to log out from the system by changing the work shift.

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4.2 User Scenarios

Scenario 1

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- After the user is logged in, now he/she can use the administration panel.
- User fills registration form for e new client.
- Client is registered now.
- User finished his/her work and logs out.

Scenario 2

- Username and password are entered incorrectly by the user.
- System doesn't verify username and password.
- By writing incorrect password It asks for the password and username again.
- User is logged in.
- After the user is logged in, now he/she can use the administration panel.
- User fills correctly registration form for new client.
- Client is registered now.
- User finished his/her work and logs out.

Scenario 3

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.

- After the user is logged in, now he/she can use the administration panel.
- User fills registration form incorrectly for a new client.
- His/her registration is not accepted by the system.
- The user is warned to fix the problem.
- Client is registered now.
- User finished his/her work and logs out.

Scenario 4

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User fills registration form correctly for a new room.
- The room now is registered and it can be used by clients.
- User finished his/her work and logs out.

Scenario 5

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User click the button delete room and he deletes it
- The room now is unregistered and it cannot be used by clients.
- User finished his/her work and logs out.

Scenario 6

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- After the user is logged in, now he/she can use the administration panel.
- User fills registration form incorrectly for a new room.
- Its registration is not accepted by the system.
- The user is warned to fix the problem.
- Room is registered now.
- User finished his/her work and logs out.

Scenario 7

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User fills registration form correctly for a new product.
- The product now is registered and it can be ordered by clients.
- User finished his/her work and logs out.

Scenario 8

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User deletes a product that expired.
- The product now is unregistered and it cannot be ordered by clients.
- User finished his/her work and logs out.

Scenario 9

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- After the user is logged in, now he/she can use the administration panel.
- User fills registration form incorrectly for a new product.
- His registration is not accepted by the system.
- The user warns to fix the problem.
- Room is registered now.
- User finished his/her work and logs out.

Scenario 10

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User searches the clients by ID number .
- The client has been registered there before, the user enter finish.
- User finished his/her work and logs out.

Scenario 11

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User searches the clients by name and he/she findss him.

- The client has not been registered there before.
- The user registered the client and search by name.
- The client is registered.
- User finished his/her work and logs out.

Scenario 12

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- User searches the clients by date and he/she finds him.
- The client has not been registered there before.
- The user registered the client and search by date.
- The client is registered.
- User finished his/her work and logs out.

Scenario 13

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- The system access and generates by user to report all the clients grouped by date.
- The report is already done.
- User finished his/her work and logs out.

Scenario 14

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- The system generates the report of all the clients, grouped by product that the clients have order.
- The report is already done.
- User finished his/her work and logs out.

Scenario 15

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- The user generates all the clients grouped by specific day.
- The report is already printed.
- User finished his/her work and logs out.

Scenario 16

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- The user generates all the clients grouped by clients that have used double rooms.
- The report is already done.
- User finished his/her work and logs out.

Scenario 17

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- The system generates the report of all clients grouped by clients that has used double rooms.
- The report is already done.
- User finished his/her work and logs out.

Scenario 18

- Username and password are entered correctly by the user.
- System verifies username and password.
- User is logged in.
- The user print the reports with all the clients grouped by name ,product day and date
- The report is already printed.
- User finished his/her work and logs out.

Scenario 19

- Username and password are entered correctly by the user.
- User is directed at his home page
- The user (financier) clicks the add salaries button.
- The salaries costs for all employees for a specific month are added.
- Users finishes his job and logs out .

Scenario 20

- Username and password are entered correctly by the user.
- User is directed at his home page
- The user (financier) clicks the add food costs button.
- The food costs for all employees for a specific month are added.
- User finishes his job and logs out .

Scenario 21

- Username and password are entered correctly by the user.
- User is directed at his home page
- The user (financier) clicks the add w&l costs button.
- The costs for lights and water for both hotel and restaurant for a specific month are added.
- User finishes his job and logs out .

Scenario 22

- Username and password are entered correctly by the user.
- User is directed at his home page
- The user (financier) clicks the add transportation costs button.
- The costs for transportation for the employees for a specific month are added.
- User finishes his job and logs out.

Scenario 23

- Username and password are entered correctly by the user.
- User is directed at his home page
- The user (financier) clicks the add taxes costs button.
- The taxes costs for a specific month are added.
- User finishes his job and logs out.

Scenario 24

- Username and password are entered correctly by the user.
- User is directed at his home page
- The user (financier) clicks the add other costs button.
- All other costs that do not belong in any of the groups above are added.
- User finishes his job and logs out.

Scenario 25

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(human resources manager clicks human resources button
- The user clicks add new employee button
- The user enters the required information for the new employee in the required fields
- The user clicks save
- User finishes his job and logs out.

Scenario 26

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(human resources manager clicks human resources button
- The user clicks delete employee button
- The user chooses the employee that wants to delete from the list of employees.
- User finishes his job and logs out.

Scenario 27

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(human resources manager clicks human resources button
- The user clicks edit employee button
- The user chooses the employee that wants to edit from the list of employees
- The user edits his personal information.
- The user clicks save
- User finishes his job and logs out.

Scenario 28

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(human resources manager clicks human resources button
- The user clicks upload CV button
- The user uploads the cd and clicks save.
- User finishes his job and logs out.

Scenario 29

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(human resources manager clicks human resources button
- The user searches for an employee
- The user chooses the employee he wants and clicks upload photo button
- User finishes his job and logs out.

Scenario 30

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(human resources manager clicks human resources button
- The user clicks employees button
- The user clicks generate button to generate the list of all employees with their information
- User finishes his job and logs out.

Scenario 31

- Username and password are entered correctly by the user.
- User is directed at his home page.
- The user(Financier) clicks finance button
- The user clicks generate income statement
- The user clicks download button , to download income statement
- The user clicks print ,to print income statement
- User finishes his job and logs out

Scenario 32

- User(client) clicks register
- User enters name
- User enters surname
- User enters telephone number
- User enters password
- User clicks sign up
- Everything is OK ,so the user is now registered

Scenario 33

- User (client) clicks register
- User enters name
- User enters surname
- User enters telephone number
- User enters password
- User clicks sign up
- Password has to be at least 6 character long so the user reenters it
- User is now registered

Scenario 34

- User (receptionist) clicks login
- User says he has made online reservation
- User searches for client name
- User clicks check in
- User clicks save
- User prints receipt after payment
- Client can use the room
- User finishes his job and logs out

Scenario 35

- User (receptionist) clicks login
- User searches rooms
- User selects a room
- User enters date
- The room is free so it can be booked
- User enters client information
- Room is now booked
- User finishes his job and logs out

Scenario 36

- User (receptionist) clicks login
- User searches rooms
- User selects a room
- User enters date
- The room is taken so it cannot be booked
- User finds another room according to client preferences
- User clicks book
- User enters client information
- Room is now booked
- User finishes his job and logs out

Scenario 37

- User (receptionist) clicks login
- User searches rooms
- User selects a room
- User enters date
- The room is taken so it cannot be booked
- Client doesn't want other rooms so he leaves .
- User finishes his job and logs out

Scenario 38

- User clicks login
- User searches rooms
- User selects a room
- User enters the date
- The room is free so it can be booked
- User clicks book
- The room is now booked

Scenario 39

- User clicks login
- User searches rooms
- User selects a room
- User enters the date
- The room is already taken in those days so the client cannot book it
- User finds another room that is free
- User clicks book
- The room is now booked

Scenario 40

- User clicks login
- User searches rooms
- User selects a room
- User enters the date
- The room is free so it can be booked
- User clicks book
- The room is now booked
- User changes his mind
- User Clicks cancel reservation
- Are you sure message is shown

- User clicks Yes
- Reservation is canceled and the room is free again
- User finishes his job and clicks the log out button to log out.

Scenario 41

- User clicks the login button.
- Username and password are entered correctly by the user.
- User is directed at his home page.
- User does what he has to do .
- User finishes his job and clicks the log out button to log out.

Scenario 42

- Check out date arrives
- Client goes to the receptionist
- User(receptionist) searches and finds client
- User clicks check out
- User finishes his job and clicks the log out button to log out.

4.3 Use cases

Use case number	UC-01
Use case name	Log In
Overview	In order to login there will be needed a username and password. The right to login is only for the clients and hotel employees.
Actor(s)	Clients, Employees
Pre-condition(s)	In order to login there will be needed a username and password.
Scenario flow	<p><i>Main flow:</i></p> <ul style="list-style-type: none">• Username and password are entered correctly by the user.• System verifies username and password.• User is logged in.
	<p><i>Alternate flows-1:</i></p> <ul style="list-style-type: none">• Username and password are entered incorrectly by the user.• System doesn't verify username and password.• By writing incorrect password It asks for the password and username again.• User enters username and password correctly.• User is logged in
Post conditions	Only the users log in he will be able to continue his job in the system.

Use case number	UC-02
Use case name	<i>Edit Client information</i>
Overview	When the personal information of clients has changed ,or in case of errors their information can be edited.
Actor(s)	<i>Receptionist</i>
Pre-condition(s)	<i>The employee has to login with his username and password in order to edit client information.</i>
Scenario flow	<ul style="list-style-type: none"> • <i>Main flow:</i> • <i>User logs in with username and password</i> • <i>User searches for a client</i> • <i>User finds the client and clicks edit info</i> • <i>The information is edited and now the user can click save</i>
	<i>Alternate flows-1:</i> <ul style="list-style-type: none"> • <i>User logs in with username and password</i> • <i>User searches for a client</i> • <i>User does not find the client.</i> • <i>User clicks add client.</i> • <i>User fills the registration form with the needed information.</i> • <i>User clicks save.</i> • <i>User finishes his job.</i>
Post conditions	<i>User can log out ,or do other things in the system.</i>

Use case number	UC-03
Use case name	Add a new client
Overview	The receptionist of the hotel can register every client that wants to take a room
Actor(s)	Receptionist
Pre-condition(s)	The receptionist has to login with his username and password in order to add a new client
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks add client • User fills the registration form with client's data • User clicks save and the client is now registered
	<p>Alternate flows-1:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks add client • Client already exists • User clicks OK
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-04
Use case name	Edit Room information
Overview	Sometimes the rooms are changed or remodeled. In this cases the information about the rooms has to be changed.
Actor(s)	Receptionist
Pre-condition(s)	The employee has to login with his username and password in order to edit room information.
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User searches for a room • User finds the room and clicks edit info • The information is edited and now the user can click save
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User searches for a room • User does not find the room. • User clicks add room. • User fills the form with the needed information. • User clicks save. • User finishes his job.
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-05
Use case name	Delete room
Overview	Sometimes some rooms are not available anymore for the clients
Actor(s)	Receptionist
Pre-condition(s)	The receptionist has to login with his username and password in order to delete a room
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User searches a room • User clicks delete room • Are you sure message is shown. • User clicks yes and the room is now deleted
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User searches for a room • Room doesn't exist message is shown • User clicks OK
	Alternate flows-2: <ul style="list-style-type: none"> • User logs in with username and password • User searches a room • User clicks delete room • Are you sure message is shown. • User clicks No
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-06
Use case name	Add a new room
Overview	Sometimes new rooms are added in the hotel. These rooms have to be added in the system
Actor(s)	Receptionist
Pre-condition(s)	The receptionist has to login with his username and password in order to add a new room
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User clicks add room • User fills the registration form with room's data • User clicks save and the room is now added
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User clicks add room • Room already exists • User clicks OK
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-07
Use case name	Edit Product information
Overview	The user may edit description of product e.i from linguine in spaghetti.
Actor(s)	Restaurant Employee
Pre-condition(s)	The employee has to login with his username and password in order to edit product information.
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User searches for a product • User finds the product and clicks edit info • The information is edited and now the user can click save
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User searches for a product • User does not find the product. • User clicks add product. • User fills the form with the needed information. • User clicks save. • User finishes his job.
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-08
Use case name	Add a new product
Overview	Sometimes new products are added in the restaurant. These products have to be added in the system
Actor(s)	Restaurant employee
Pre-condition(s)	The user has to login with his username and password in order to add a new product
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User clicks add product • User fills the registration form with product's data • User clicks save and the product is now added
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User clicks add product • Product already exists • User clicks OK
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-09
Use case name	Delete product
Overview	Sometimes some products have expired or are not available anymore. These products should be removed from the system.
Actor(s)	Restaurant employee
Pre-condition(s)	The user has to login with his username and password in order to delete a product
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User searches a product • User clicks delete product • Are you sure message is shown. • User clicks yes and the product is now deleted
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User searches for a product • Product doesn't exist message is shown • User clicks OK
	Alternate flows-2: <ul style="list-style-type: none"> • User logs in with username and password • User searches a product • User clicks delete product • Are you sure message is shown. • User clicks No
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-10
Use case name	Generate report
Overview	Sometimes it is needed a list of all clients by the day of their registration
Actor(s)	Receptionist
Pre-condition(s)	The user has to login with his username and password in order to generate a report
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User clicks All clients • User clicks Generate by Date • User enters date • User clicks save report
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User clicks All clients • User clicks Generate by Date • User enters date • Date doesn't exist • User corrects the date and clicks save
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-11
Use case name	Generate report
Overview	Sometimes it is needed a list of all clients by the products they have consumed
Actor(s)	Restaurant employee
Pre-condition(s)	The user has to login with his username and password in order to generate a report
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks All clients • User clicks Generate by product • User enters product name • User clicks save report
	<p>Alternate flows-1:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks All clients • User clicks Generate by Product • User enters product name • Product doesn't exist • User corrects the product name and clicks save
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-12
Use case name	<i>Edit Employee information</i>
Overview	When the personal information of employees has changed ,or in case of errors their information can be edited.
Actor(s)	<i>Human Resources manager</i>
Pre-condition(s)	<i>The user has to login with his username and password in order to edit employee information.</i>
Scenario flow	<ul style="list-style-type: none"> • <i>Main flow:</i> • <i>User logs in with username and password</i> • <i>Users clicks Human Resources button</i> • <i>User searches for an employee</i> • <i>User finds the employee and clicks edit info</i> • <i>The information in edited and now the user can click save</i>
	<i>Alternate flows-1:</i> <ul style="list-style-type: none"> • <i>User logs in with username and password</i> • <i>User searches for an employee</i> • <i>User does not find the employee.</i> • <i>User clicks add employee.</i> • <i>User fills the form with the needed information.</i> • <i>User clicks save.</i> • <i>User finishes his job.</i>
Post conditions	<i>User can log out ,or do other things in the system.</i>

Use case number	UC-13
Use case name	Add a new employee
Overview	The human resources manager can add a new employee that is hired.
Actor(s)	Human resources manager
Pre-condition(s)	The user has to login with his username and password in order to add a new employee
Scenario flow	<ul style="list-style-type: none"> • Main flow: • User logs in with username and password • User clicks Human Resources button • User clicks add employee • User fills the form with employee's data • User clicks save and the employee is now registered
	Alternate flows-1: <ul style="list-style-type: none"> • User logs in with username and password • User clicks Human Resources button • User clicks add employee • The employee already exists message is shown. • User clicks Ok
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-14
Use case name	Delete employee
Overview	When an employee is fired or has left he has to be deleted from the system.
Actor(s)	Human resources manager
Pre-condition(s)	The user has to login with his username and password in order to delete an employee
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks Human Resources button • User searches an employee • User clicks delete employee • Are you sure message is shown. • User clicks yes and the employee is now deleted
	<p>Alternate flows-1:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks Human Resources button • User searches for an employee • Employee doesn't exist message is shown • User clicks OK
	<p>Alternate flows-2:</p> <ul style="list-style-type: none"> • User logs in with username and password • User clicks Human Resources button • User searches an employee • User clicks delete employee • Are you sure message is shown. • User clicks No
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-15
Use case name	Upload CV
Overview	An external user that wants to get a job at the hotel or restaurant can upload a CV
Actor(s)	External user
Pre-condition(s)	The user has to login with his username and password in order to upload a cv
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Human Resources button • User clicks upload a CV • User clicks save
	<p>Alternate flows-1:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Human Resources button • User clicks upload a CV • Format non valid message is shown • User uploads CV again in a valid format • User clicks save
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-16
Use case name	Generate employee list
Overview	Sometimes it is needed a list of all employees . the human resources manager can generate it easily
Actor(s)	Human Resources manager
Pre-condition(s)	The user has to login with his username and password in order to generate the employees list
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Human Resources button • User clicks All employees • User clicks generate employee list • User clicks save • User clicks print
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-17
Use case name	Generate Income Statement
Overview	Income Statement is very important for every business. Finance manager can generate it easily from the system.
Actor(s)	Finance manager
Pre-condition(s)	The user has to login with his username and password in order to generate income statement.
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User clicks Generate Income Statement • User clicks generate employee list • User clicks download if he wants it downloaded • User clicks print if he wants it printed.
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-18
Use case name	Products Total Cost
Overview	For every business it is important to be known the total cost of products
Actor(s)	Finance manager
Pre-condition(s)	The user has to login with his username and password in order to generate products total cost
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User clicks all products • User clicks add quantity for every product • User clicks add price for every product • User clicks total cost • Use clicks save
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User clicks all products • User clicks add quantity for every product • User adds the quantity wrong • User corrects the quantity • User clicks add price for every product • User clicks total cost • Use clicks save

	<p><i>Alternate flow-2:</i></p> <ul style="list-style-type: none"> • <i>User enters with username and password</i> • <i>User clicks Finance</i> • <i>User clicks all products</i> • <i>User clicks add quantity for every product</i> • <i>User clicks add price for every product</i> • <i>User adds the price wrong</i> • <i>User corrects the price</i> • <i>User clicks total cost</i> • <i>User clicks save</i>
<i>Post conditions</i>	<i>User can log out ,or do other things in the system.</i>

Use case number	UC-19
Use case name	W/L Total Costs
Overview	For every business it is important to be known the total cost of light and water
Actor(s)	Finance manager
Pre-condition(s)	The user has to login with his username and password in order to generate W/L costs reports
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User chooses a specific month • User clicks add w/l costs • User clicks save • Do you want a 6 or 3 months report message is shown • User clicks yes 6 or yes 3 • Report is generated
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User chooses a specific month • User clicks add w/l costs • User clicks save • Do you want a 6 or 3 months report message is shown • User clicks No
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-20
Use case name	Employees Costs
Overview	For every business it is important to be known the total cost of employees
Actor(s)	Finance manager
Pre-condition(s)	The user has to login with his username and password in order to generate employees wages reports
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User chooses a specific month • User clicks add wages • User clicks save • Do you want a monthly report message is shown • User clicks yes • Report is generated
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User chooses a specific month • User clicks add wages • User clicks save • Do you want a monthly report message is shown • User clicks No
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-21
Use case name	Other Costs Report
Overview	Sometimes are needed reports of other cost that are not employees costs or w/l costs
Actor(s)	Finance manager
Pre-condition(s)	The user has to login with his username and password in order to generate other costs reports
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User chooses a specific month • User clicks add other costs • User clicks save • Do you want a 6 or 3 months report message is shown • User clicks yes 6 or yes 3 • Report is generated
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User enters with username and password • User clicks Finance • User chooses a specific month • User clicks add other costs • User clicks save • Do you want a 6 or 3 months report message is shown • User clicks No
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-22
Use case name	Register
Overview	The client needs to register in order to see available rooms and make reservations
Actor(s)	Client
Pre-condition(s)	Client needs to provide name surname telephone nr and password in order to register
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User clicks register • User enters name • User enters surname • User enters telephone number • User enters password • User clicks sign up • Everything is OK ,so the user is now registered
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User clicks register • User enters name • User enters surname • User enters telephone number • User enters password • User clicks sign up • Password has to be at least 6 character long so the user reenters it • User is now registered
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-23
Use case name	Check in
Overview	The client checks in
Actor(s)	Receptionist
Pre-condition(s)	The room has to be free so it can be booked
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User clicks login • User says he has made online reservation • User searches for client name • User clicks check in • User clicks save • User prints receipt after payment • Client can use the room
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User clicks login • User says he has made online reservation • User searches for client name • User cannot find client name • User enters name again correctly • User clicks check in • User clicks save • User prints receipt after payment • Client can use the room
Post conditions	User can log out ,or do other things in the system.

Use case number	UC-24
Use case name	Online booking
Overview	The client can make an reservation online
Actor(s)	Client
Pre-condition(s)	The room has to be free so it can be booked
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User clicks login • User searches rooms • User selects a room • User enters date • The room is free so the client clicks book • Room is now booked
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User clicks login • User searches rooms • User selects a room • User enters the date • The room is already taken in those days so the client cannot book it • User finds another room that is free • User clicks book • The room is now booked
Post conditions	User can log out ,or do other things in the system.

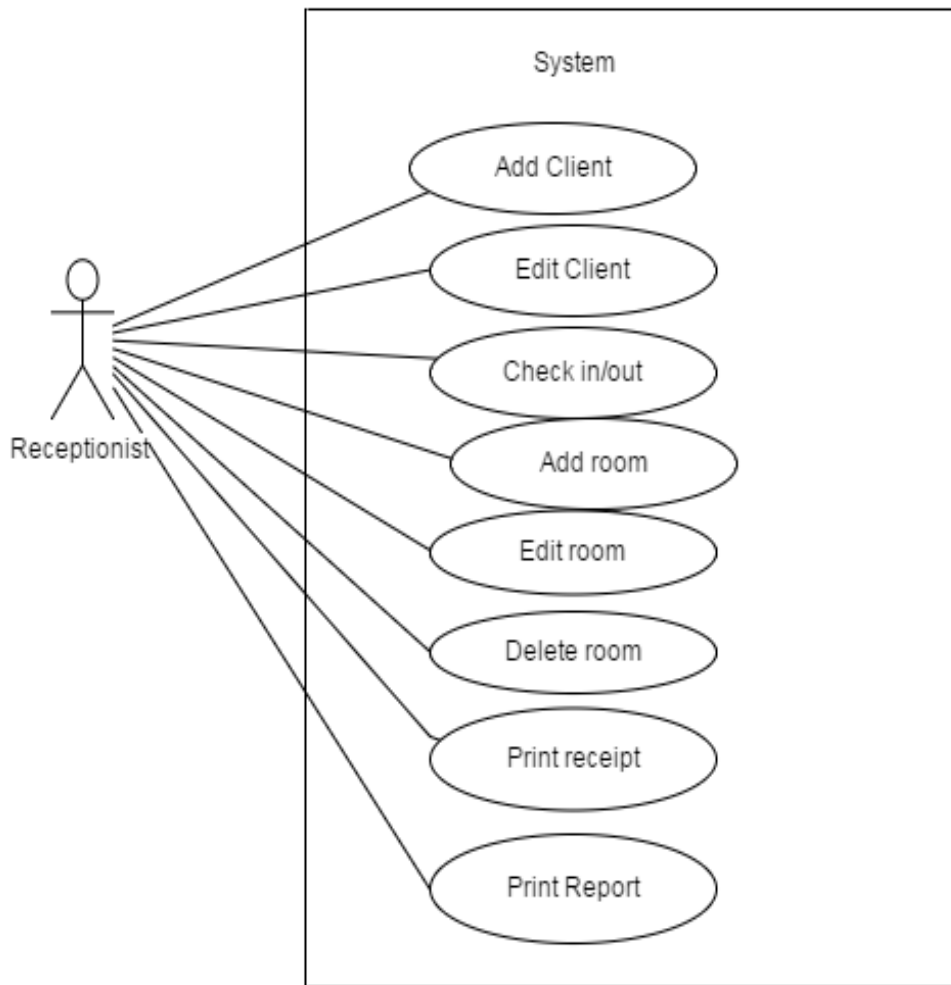
Use case number	UC-25
Use case name	Booking
Overview	The client can go personally at the hotel and make reservation
Actor(s)	Receptionist
Pre-condition(s)	Receptionist has to confirm that the room is free so that client can make reservation
Scenario flow	<p>Main flow:</p> <ul style="list-style-type: none"> • User clicks login • User searches rooms • User selects a room • User enters date • The room is free so it can be booked • Receptionist enters client information • Room is now booked
	<p>Alternate flow-1:</p> <ul style="list-style-type: none"> • User clicks login • User searches rooms • User selects a room • User enters date • The room is taken so it cannot be booked • User finds another room according to client preferences • User clicks book • User enters client information • Room is now booked

	<i>Alternate flow-2:</i> <ul style="list-style-type: none"> • <i>User clicks login</i> • <i>User searches rooms</i> • <i>User selects a room</i> • <i>User enters date</i> • <i>The room is taken so it cannot be booked</i> • <i>Client does not want another room so he leaves</i> • <i>Nothing has changed</i>
Post conditions	<i>User can log out ,or do other things in the system.</i>
Use case number	<i>UC-26</i>
Use case name	<i>Check out</i>
Overview	<i>Client has to check out when he leaves the room</i>
Actor(s)	<i>Receptionist</i>
Pre-condition(s)	<i>Client has to go to the receptionist to check out</i>
Scenario flow	<i>Main flow:</i> <ul style="list-style-type: none"> • <i>User clicks login</i> • <i>User searches client</i> • <i>User Finds client</i> • <i>User clicks check out</i> • <i>The room is free again</i>
	<i>Alternate flow-1:</i> <ul style="list-style-type: none"> • <i>Check out date arrives</i> • <i>Client goes to the receptionist to stay some more days</i> • <i>User Check dates if the room is available</i> • <i>Room is available so the client makes payment</i> • <i>User prints receipt</i> • <i>Room is taken again</i>
Post conditions	<i>User can log out ,or do other things in the system.</i>

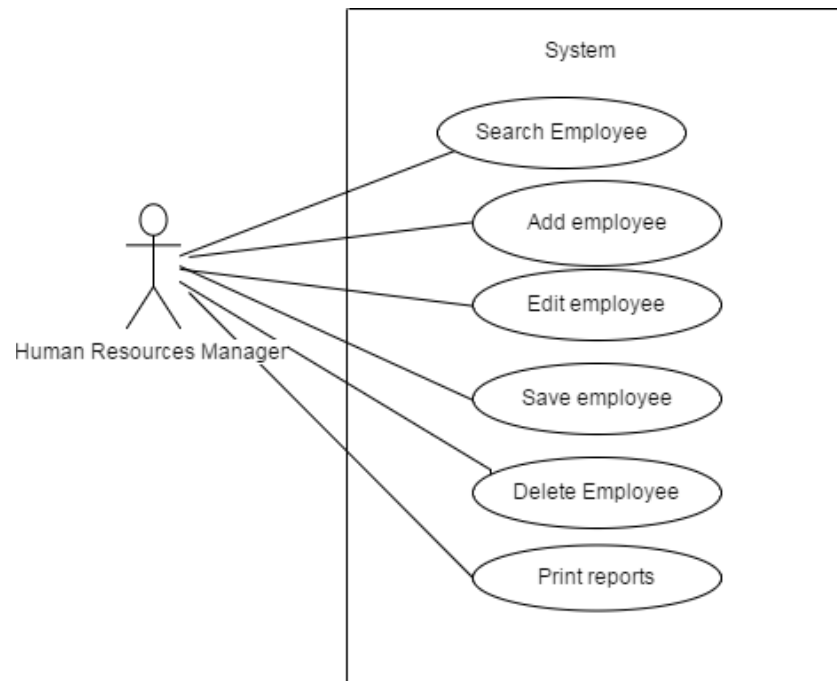
5. Diagrams

5.1 Use case diagrams US Cases 2,3,4,5,6,10,23,25

UC_01 / Actor - receptionist

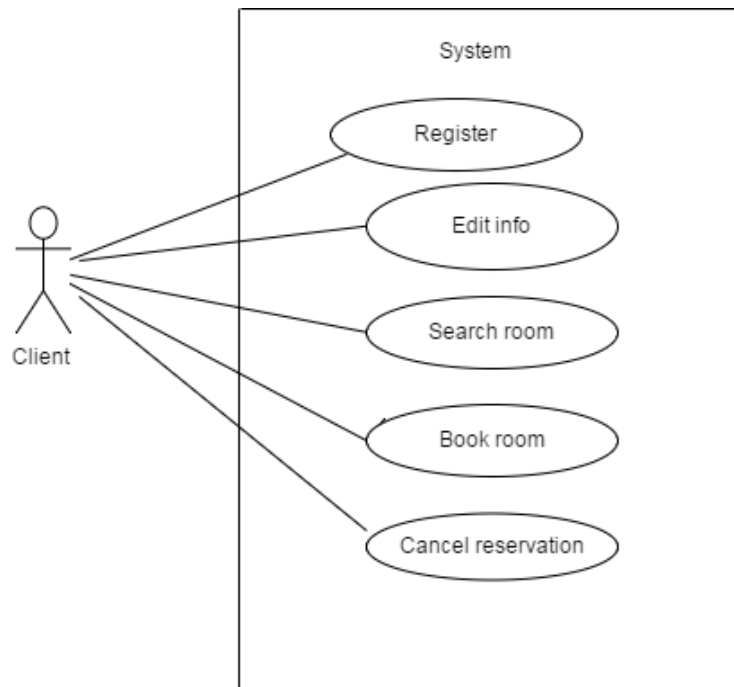


UC_02 /Actor-Human Resources manger Use cases 12,13,14,16

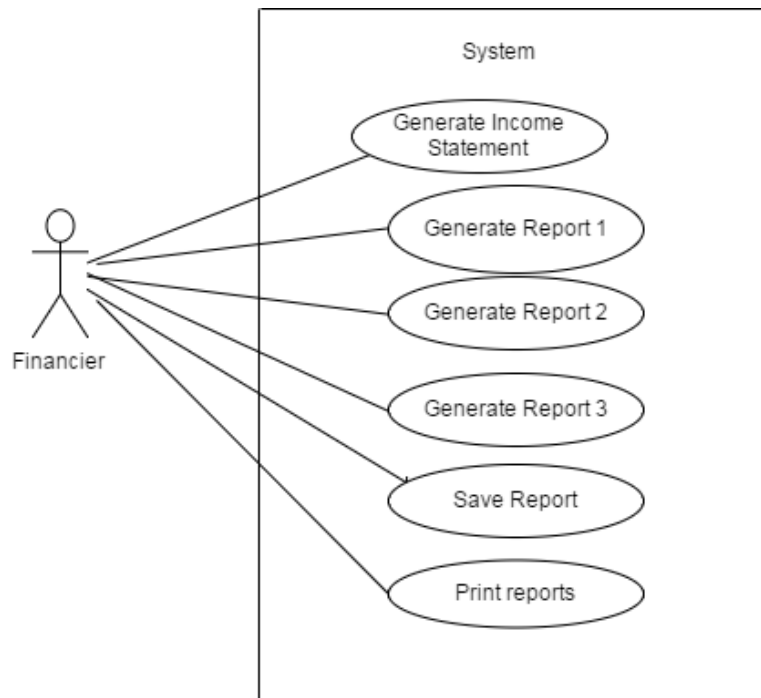


*UC_03/Actor
22,24*

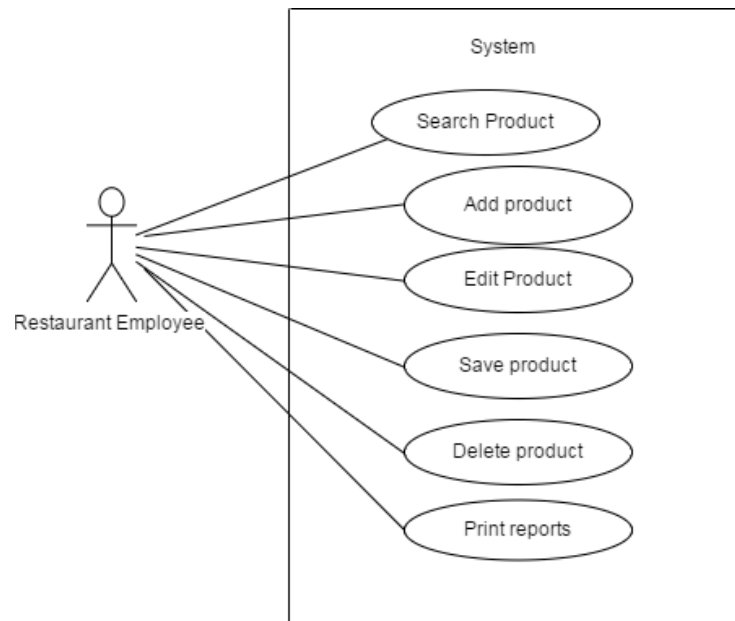
–Client Use cases



UC_04/ Actor –Financier Use Cases 17,18,19,20,21

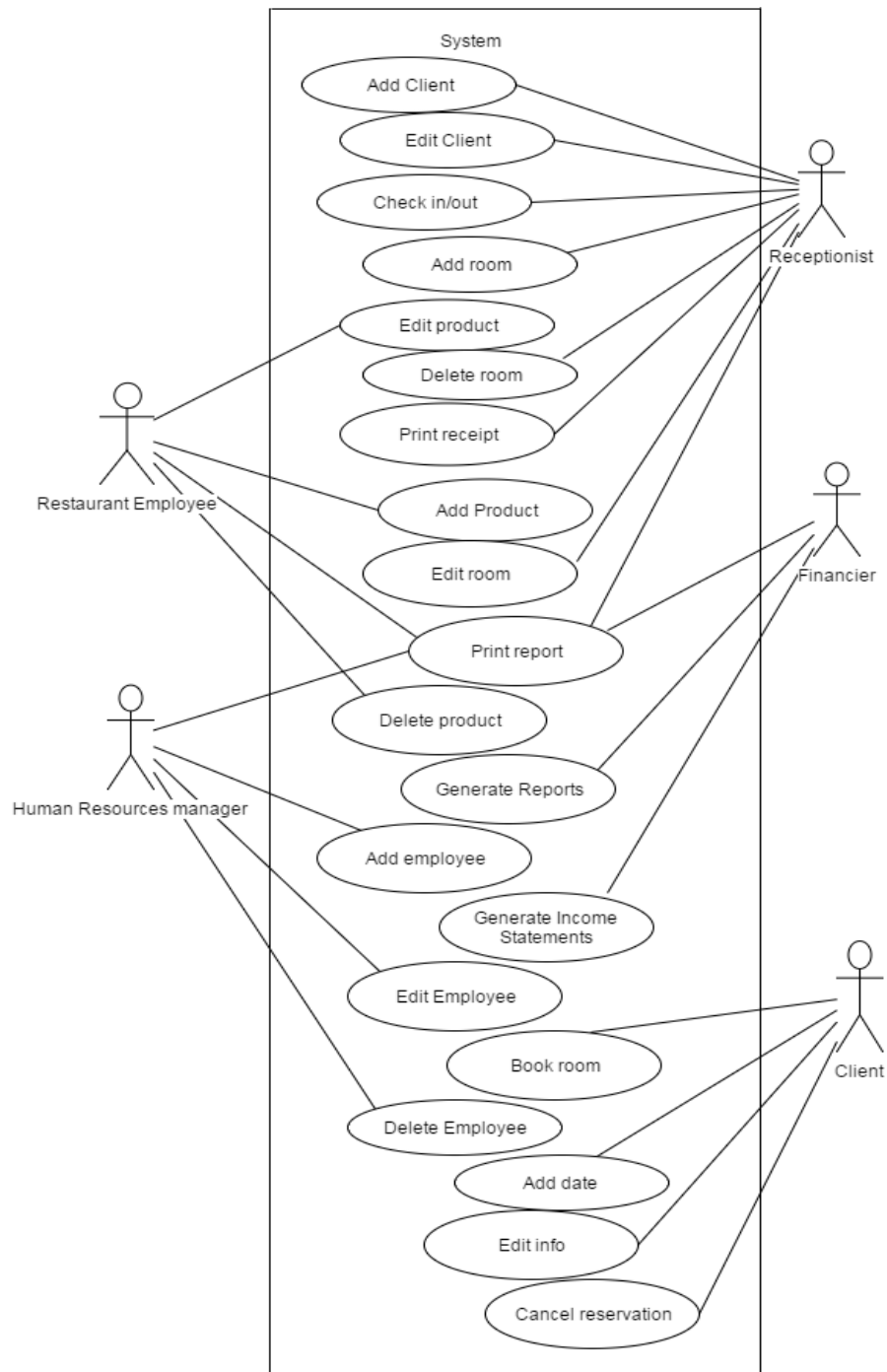


UC_05/ Actor -Restaurant employee Use cases 7,8,9,11



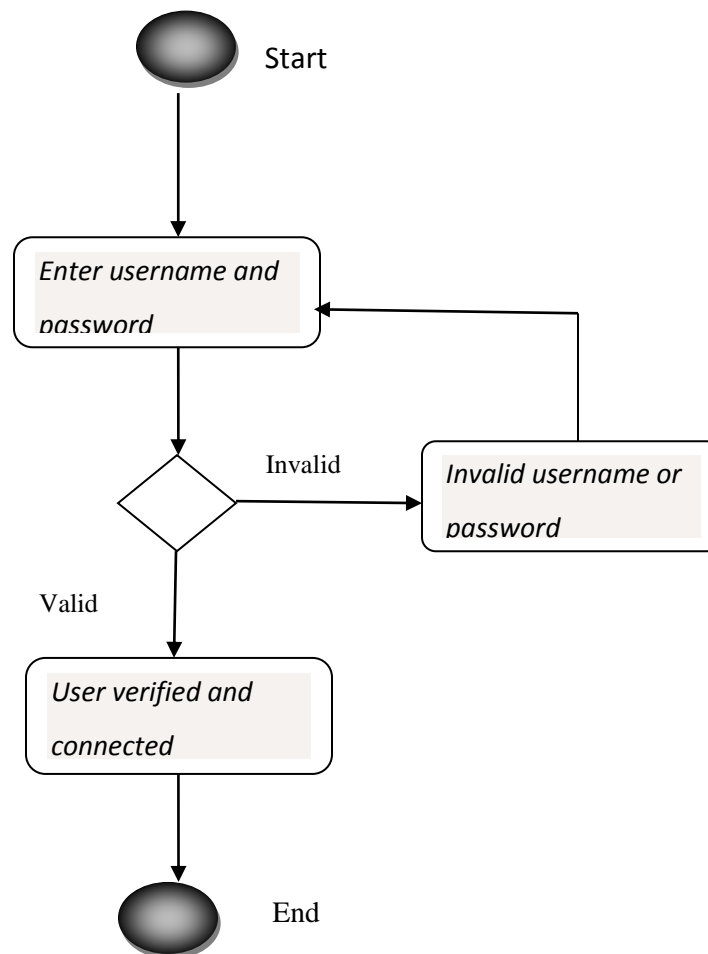
UC_06

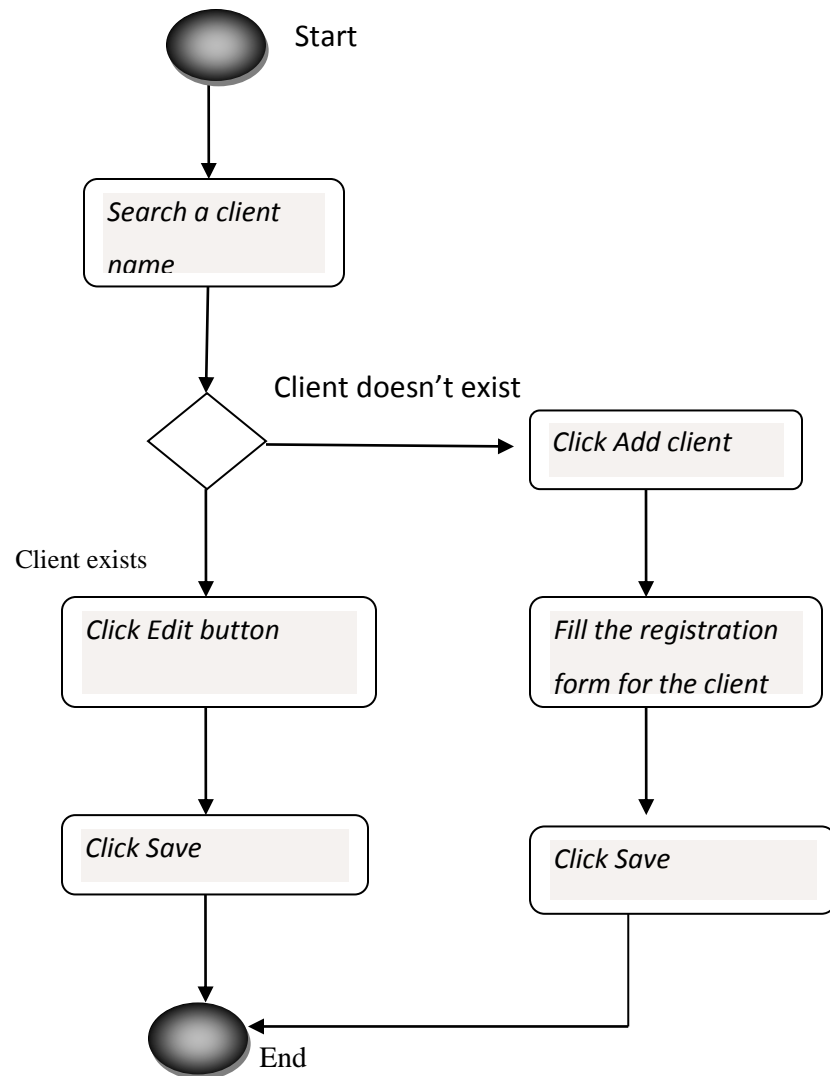
General Use Case Diagram

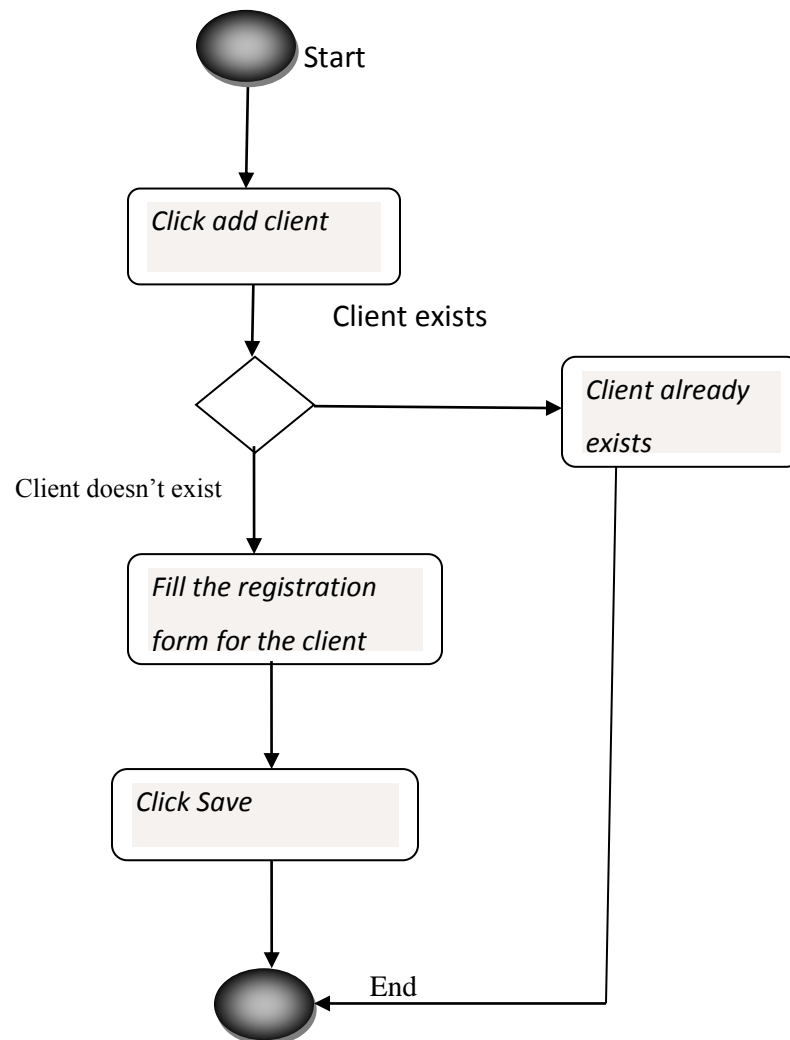


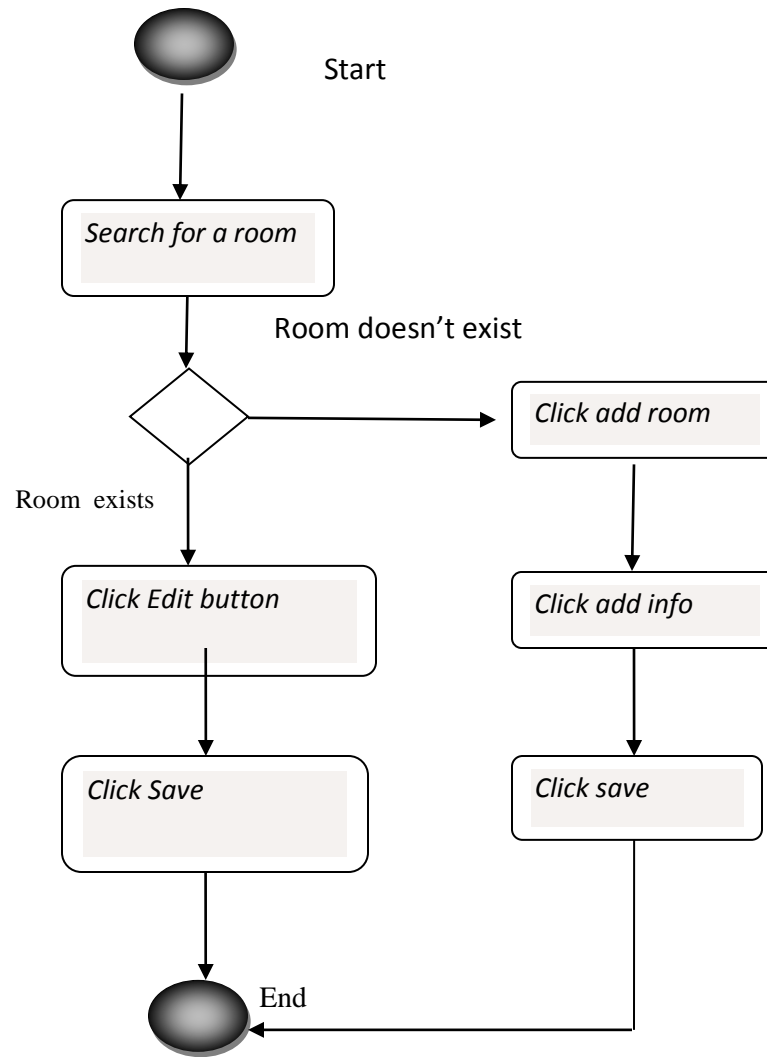
5.2 Activity diagrams / One activity diagram for each use case

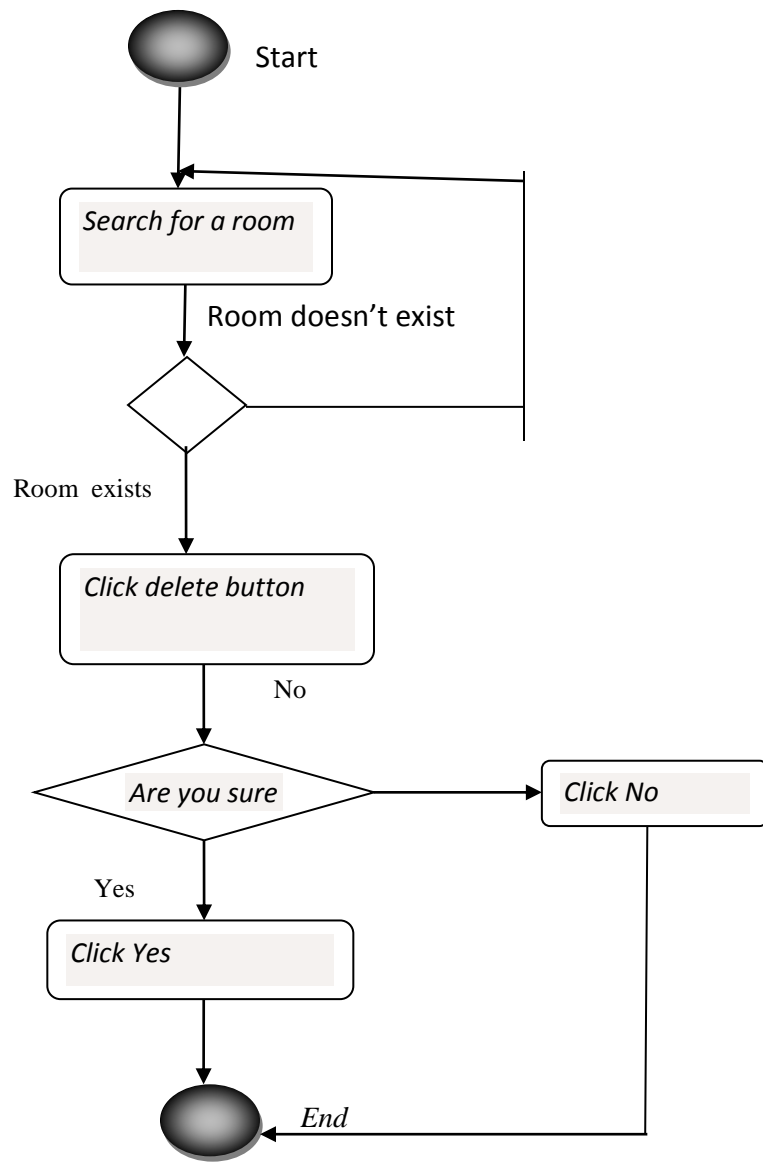
AD_01



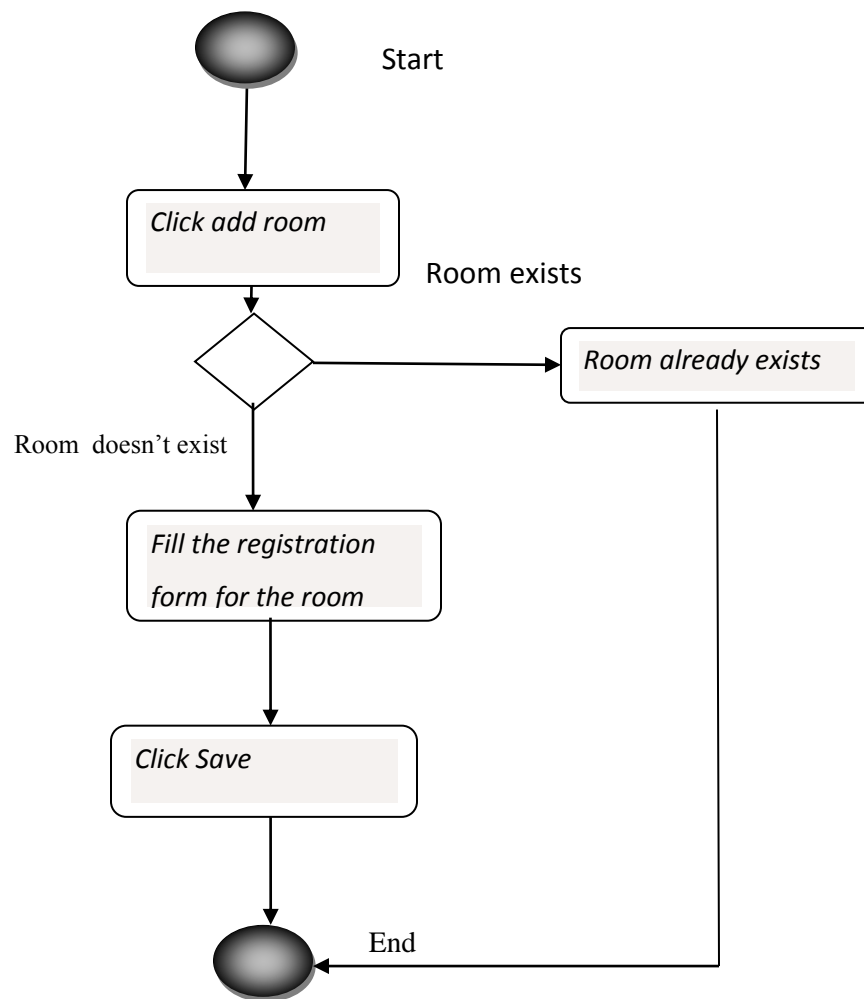


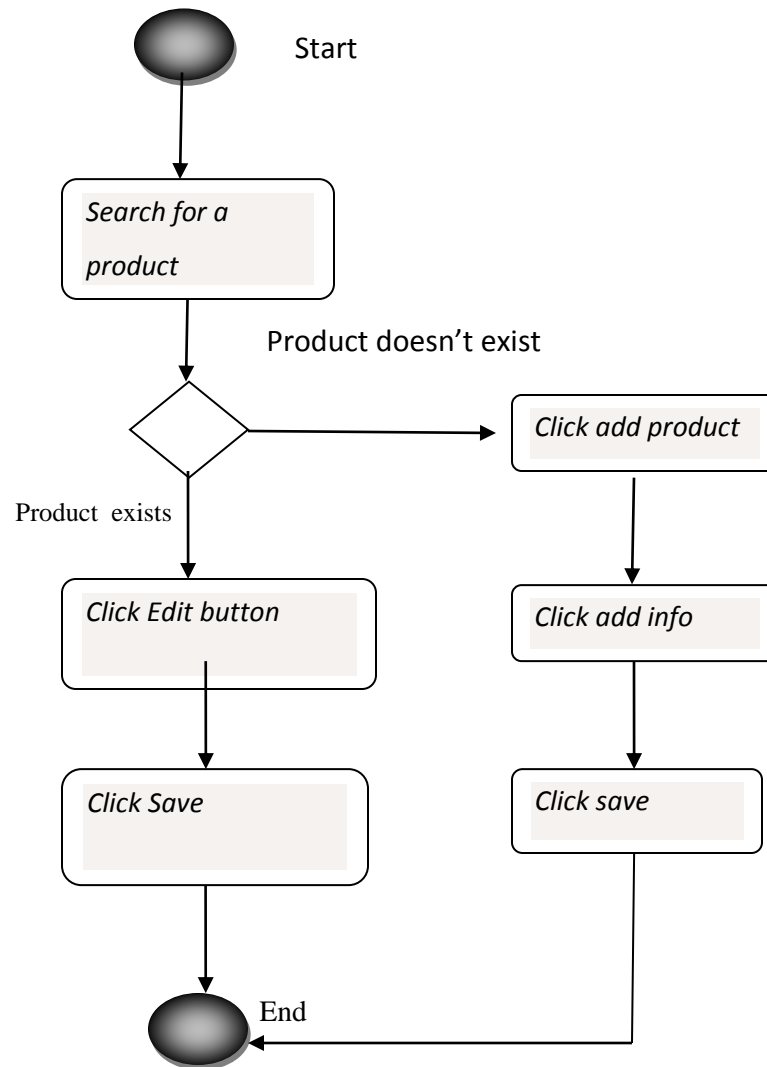


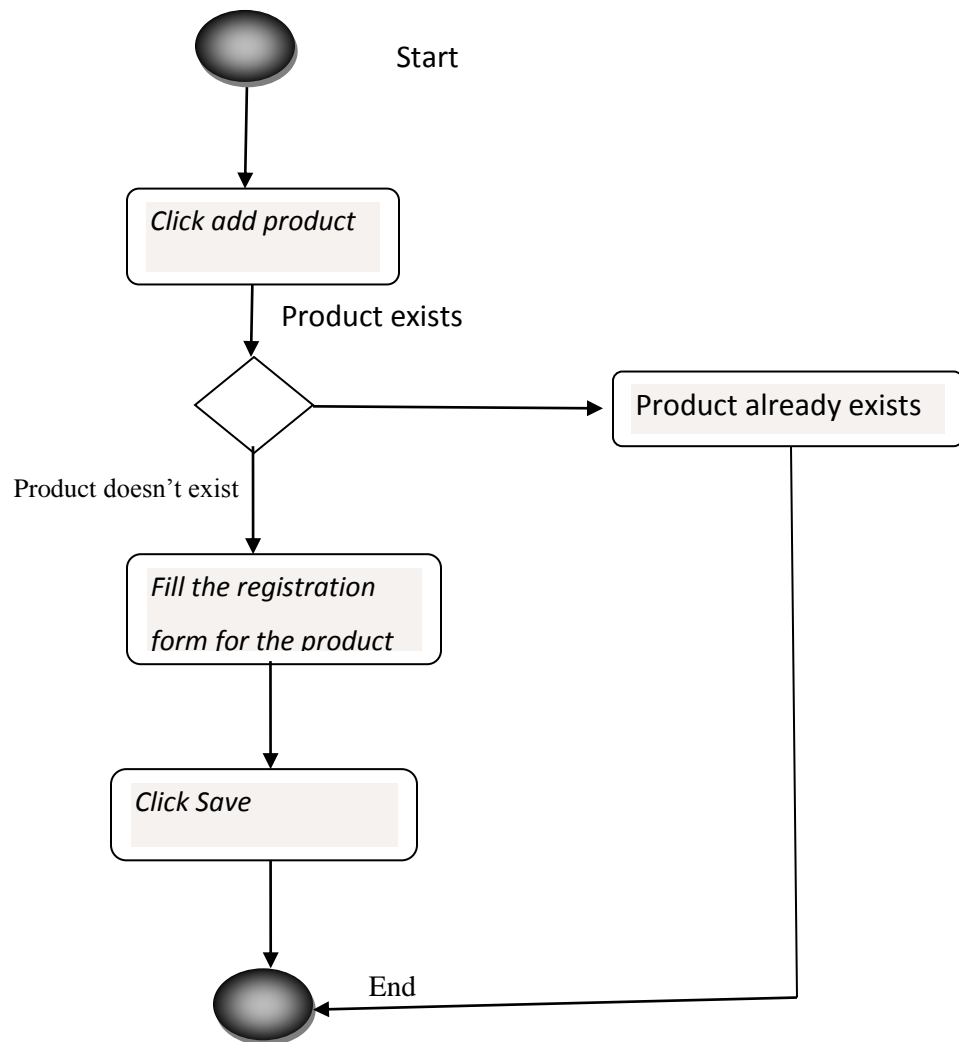


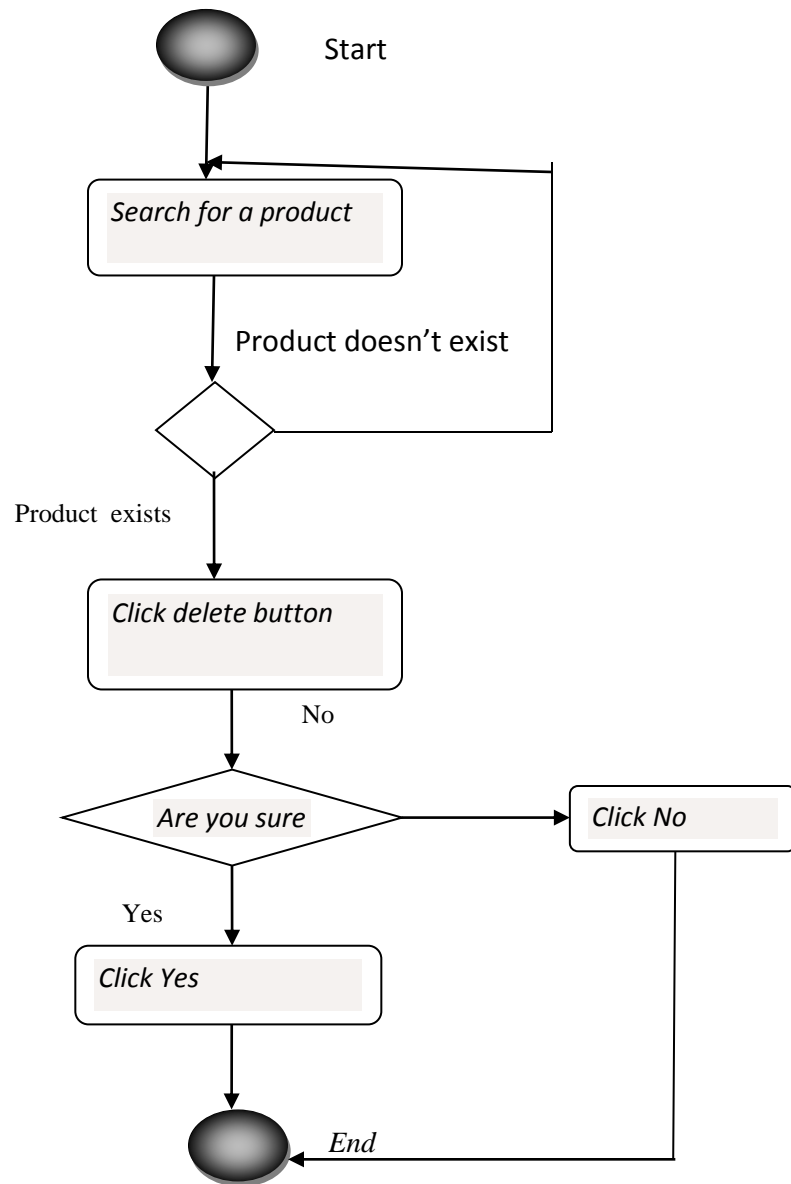


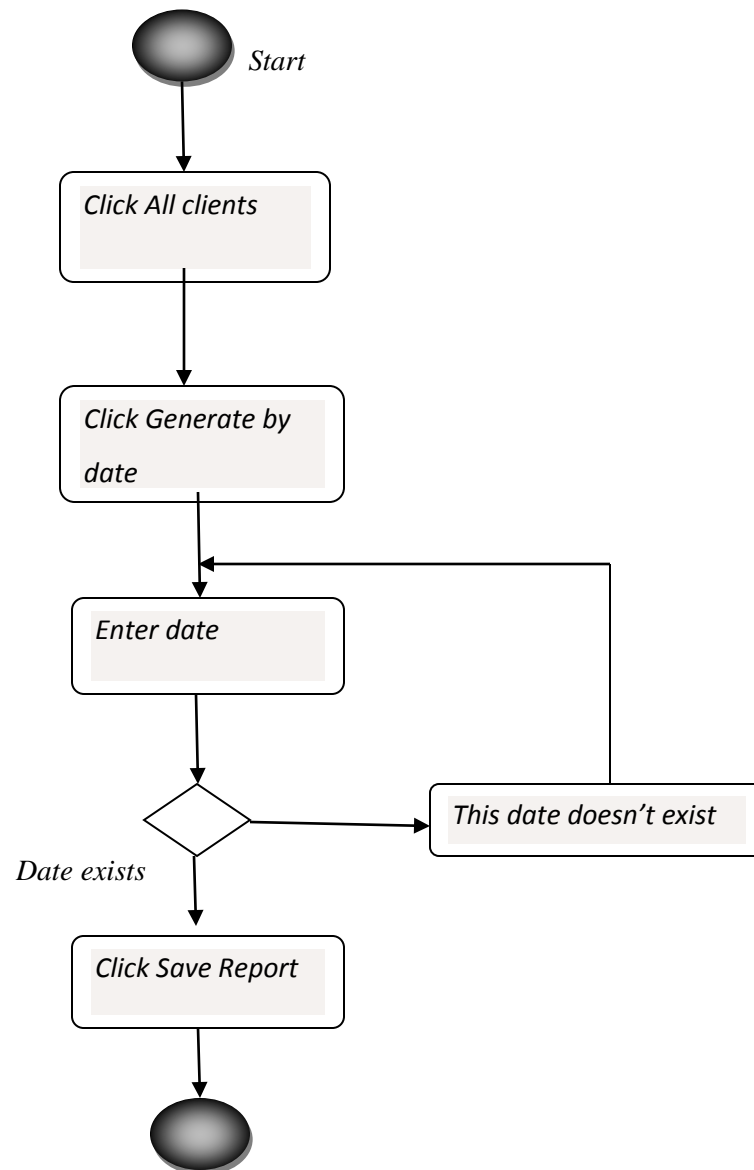
AD_06

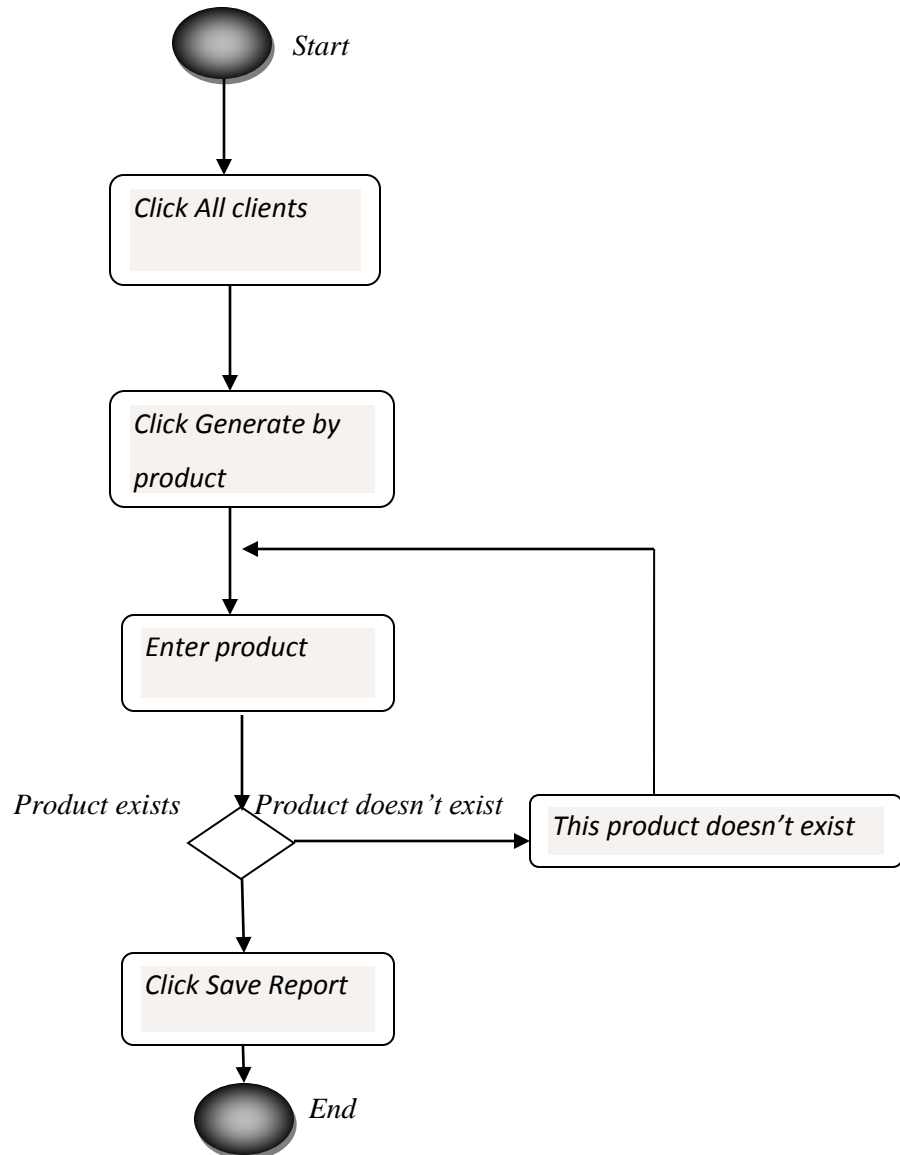


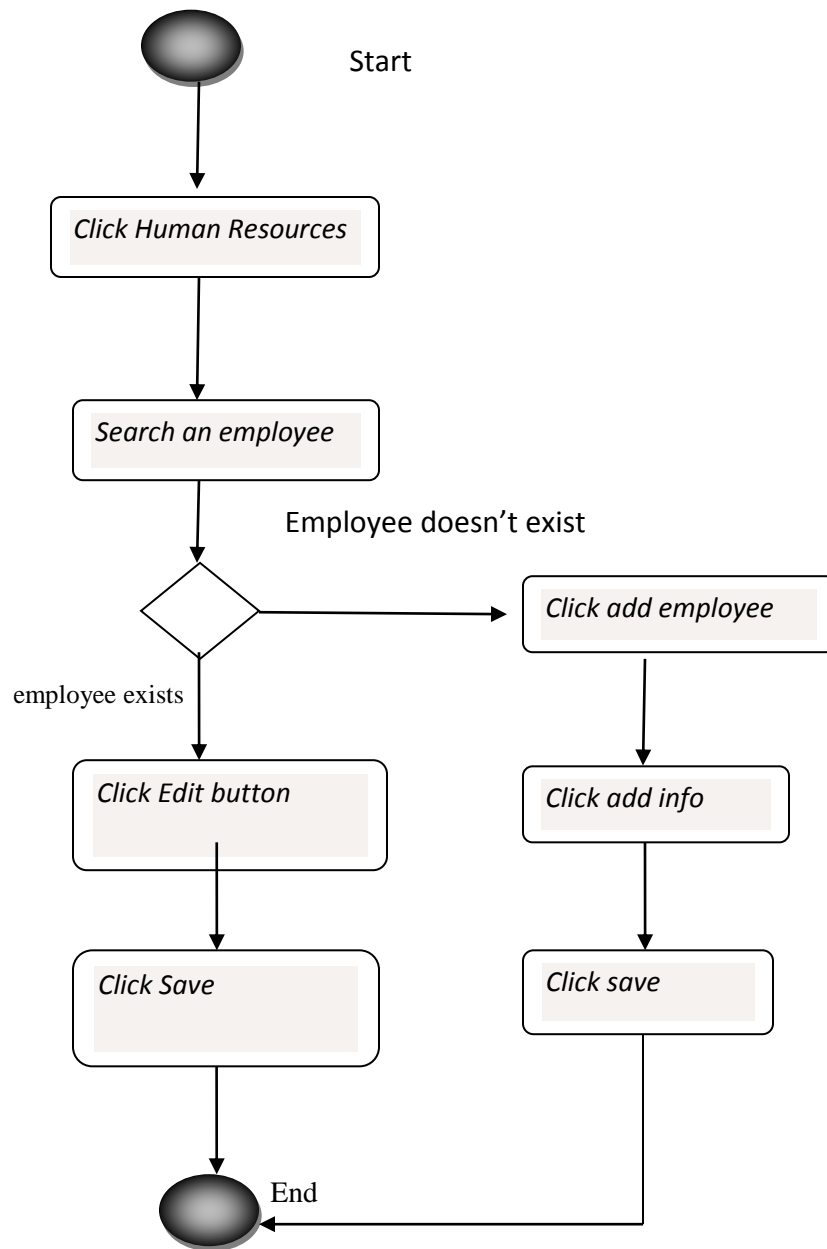


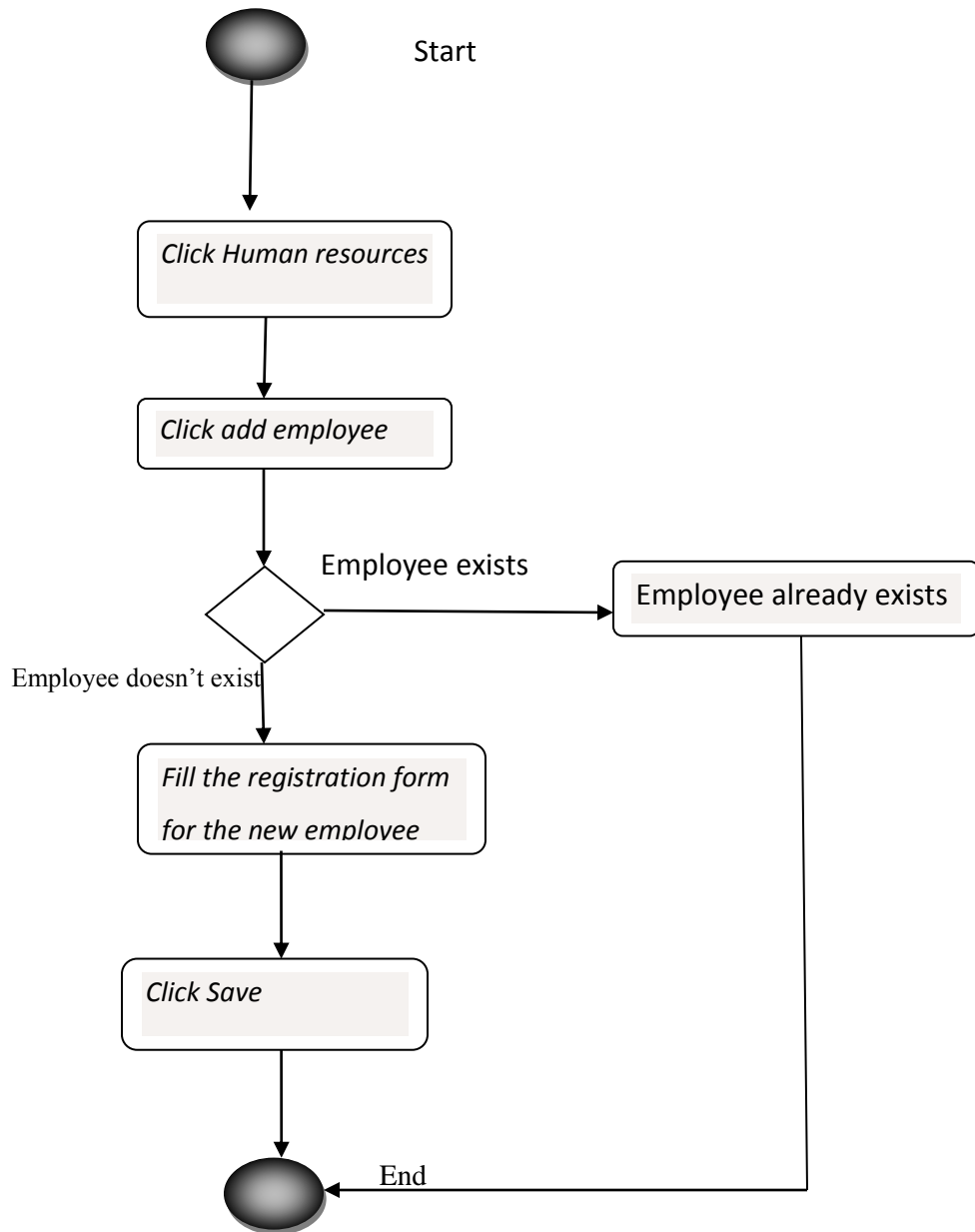


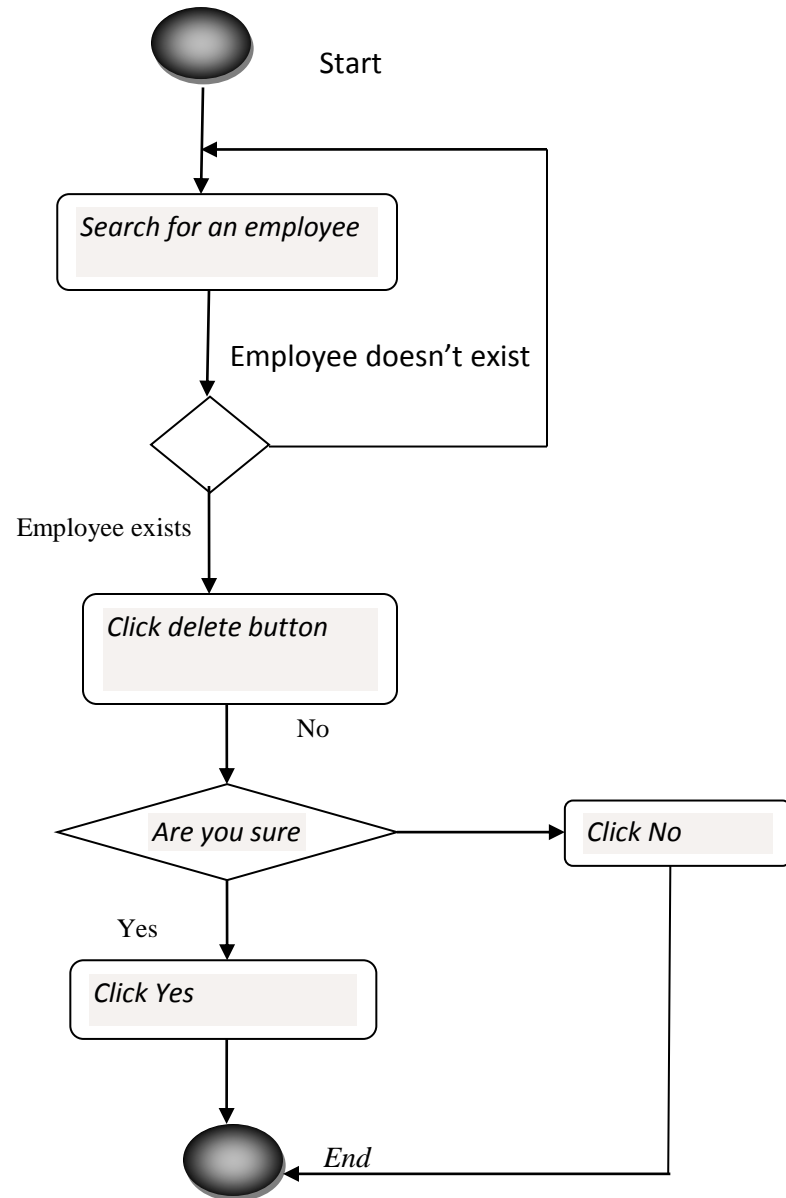




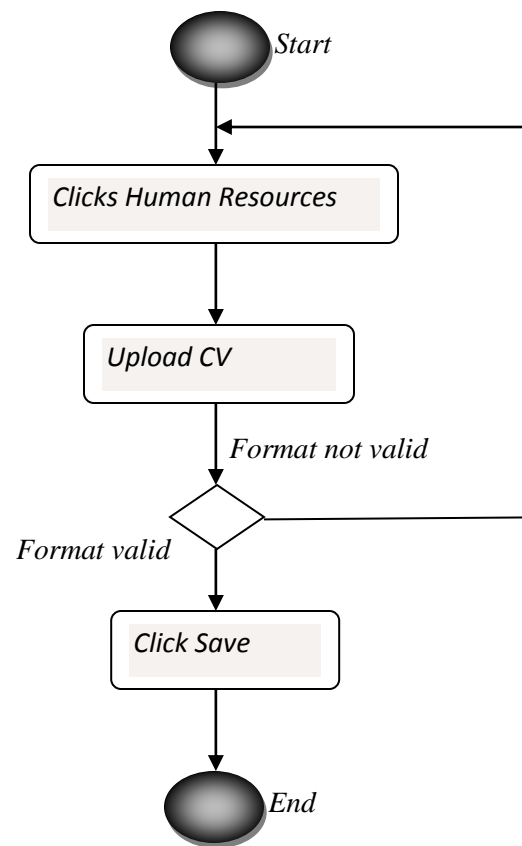




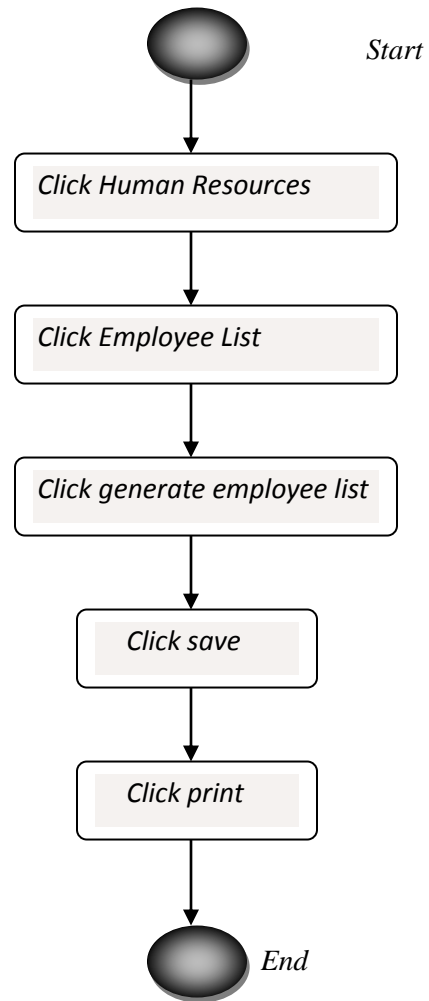


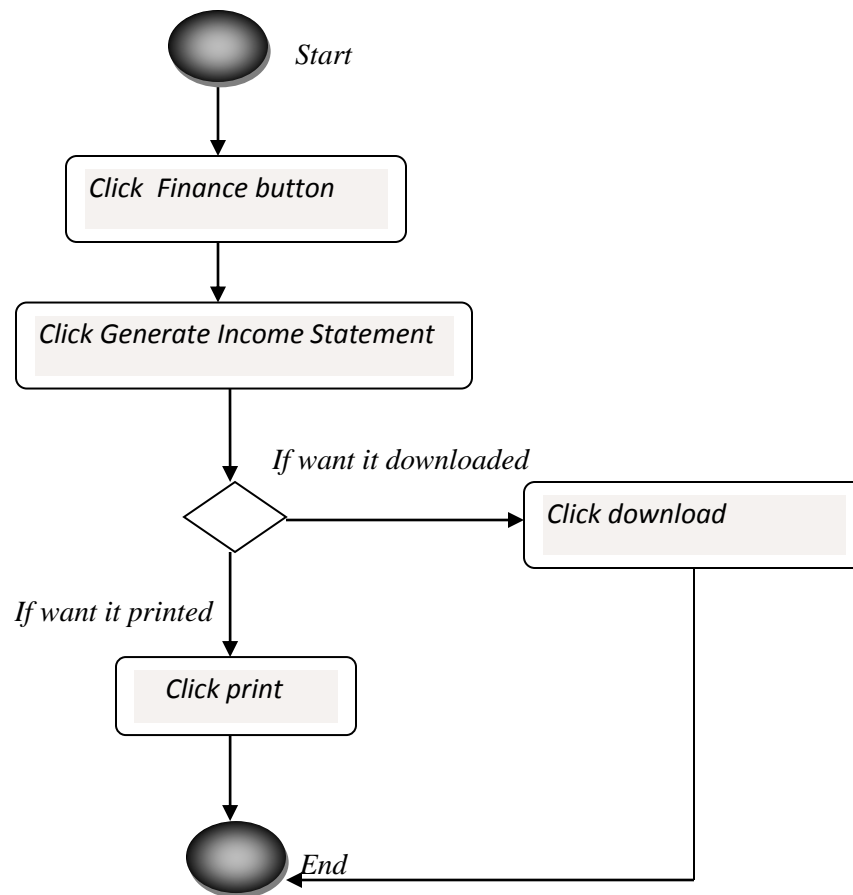


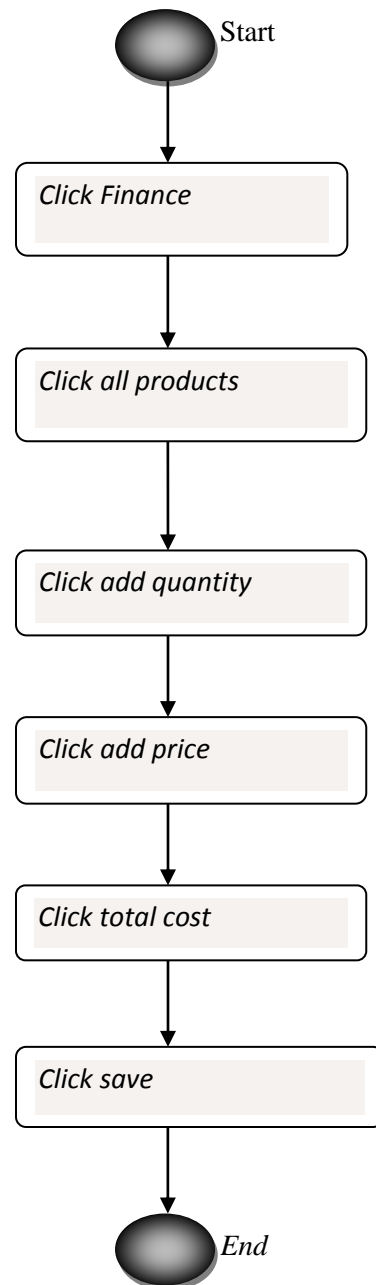
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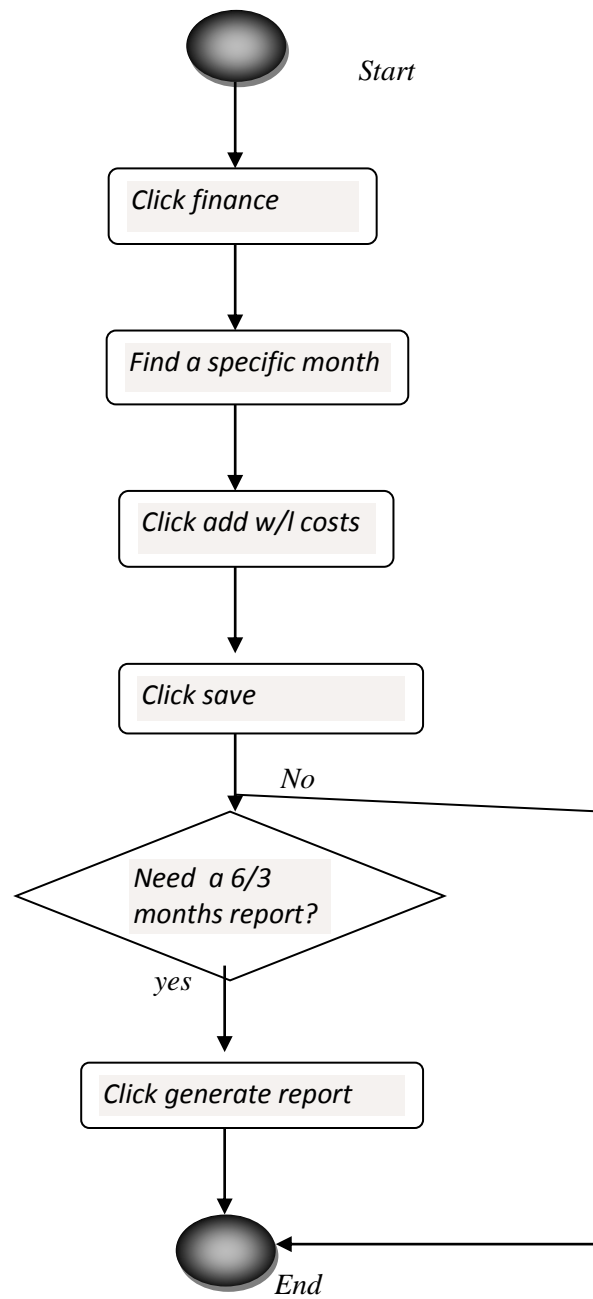


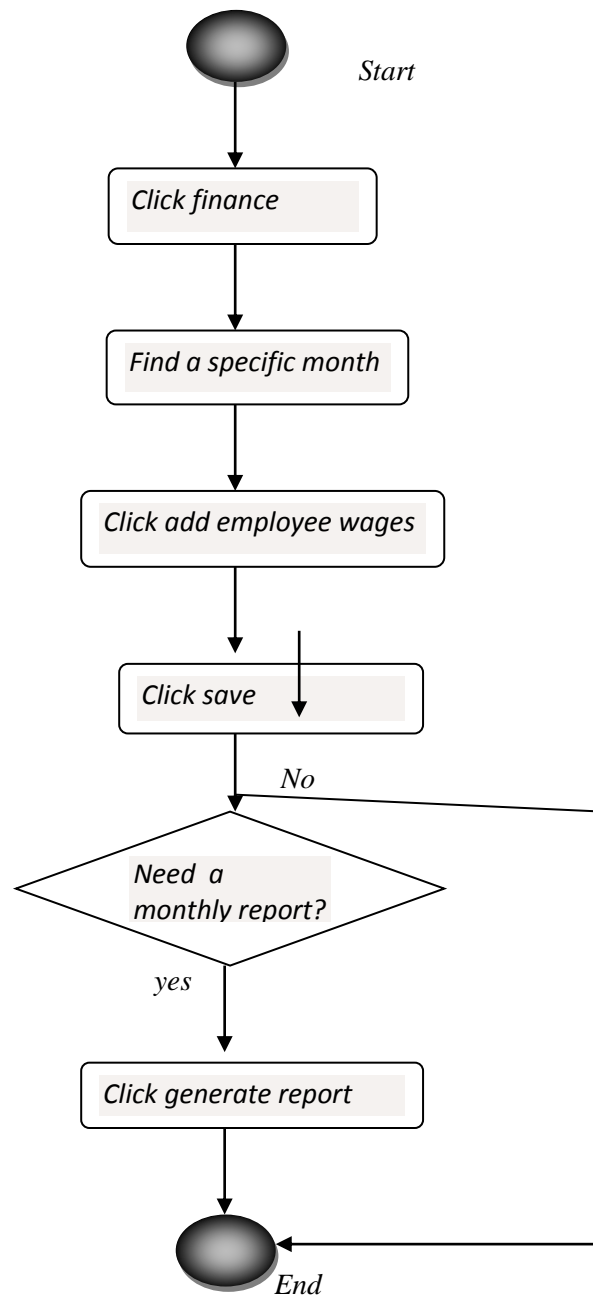
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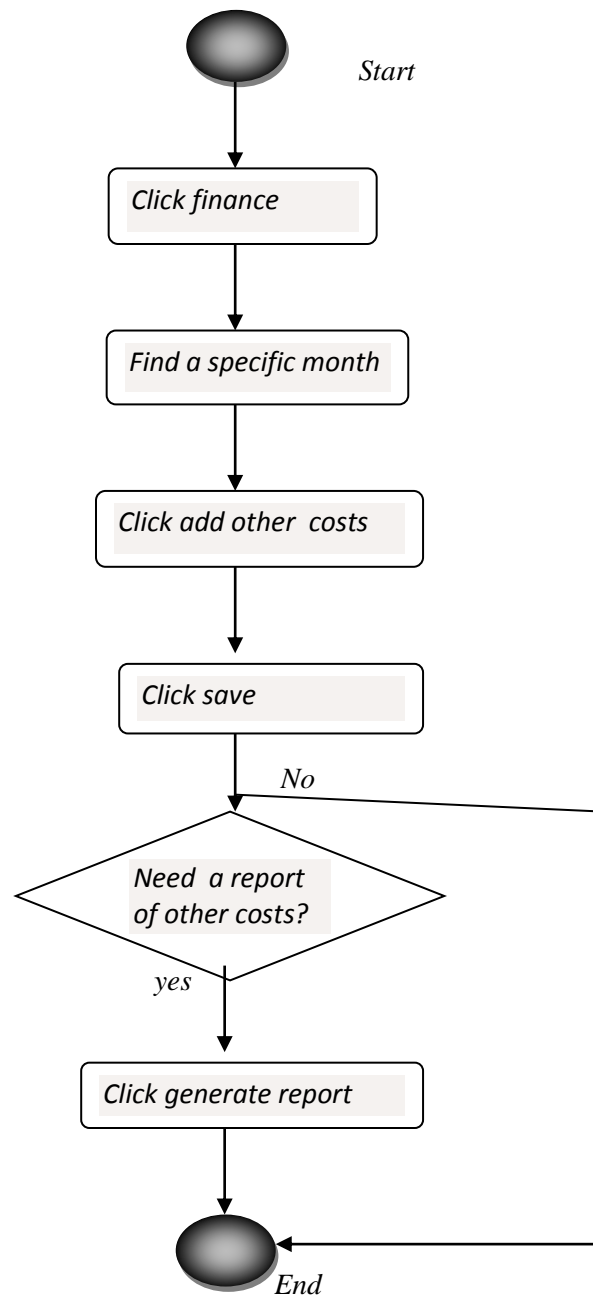


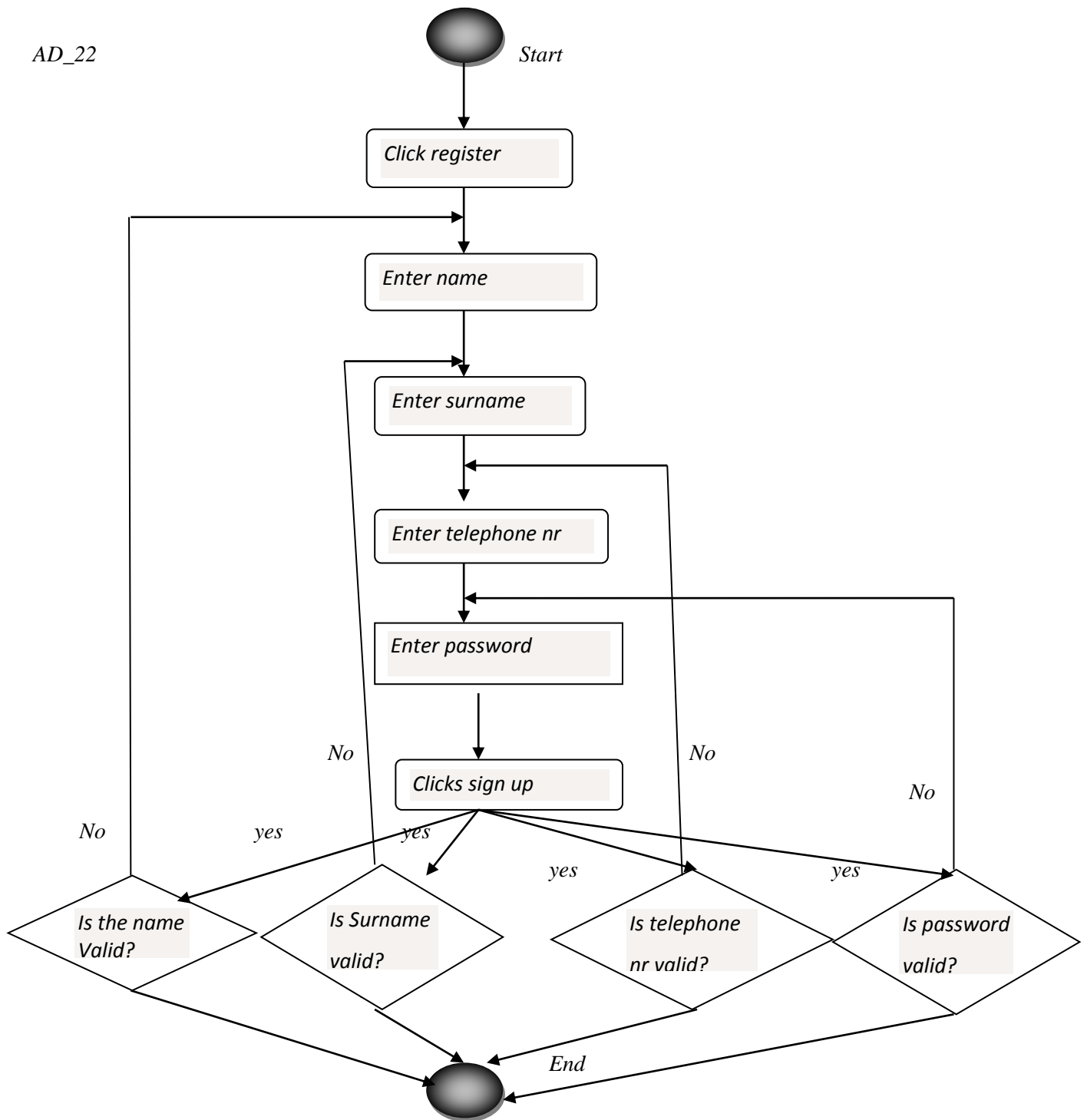


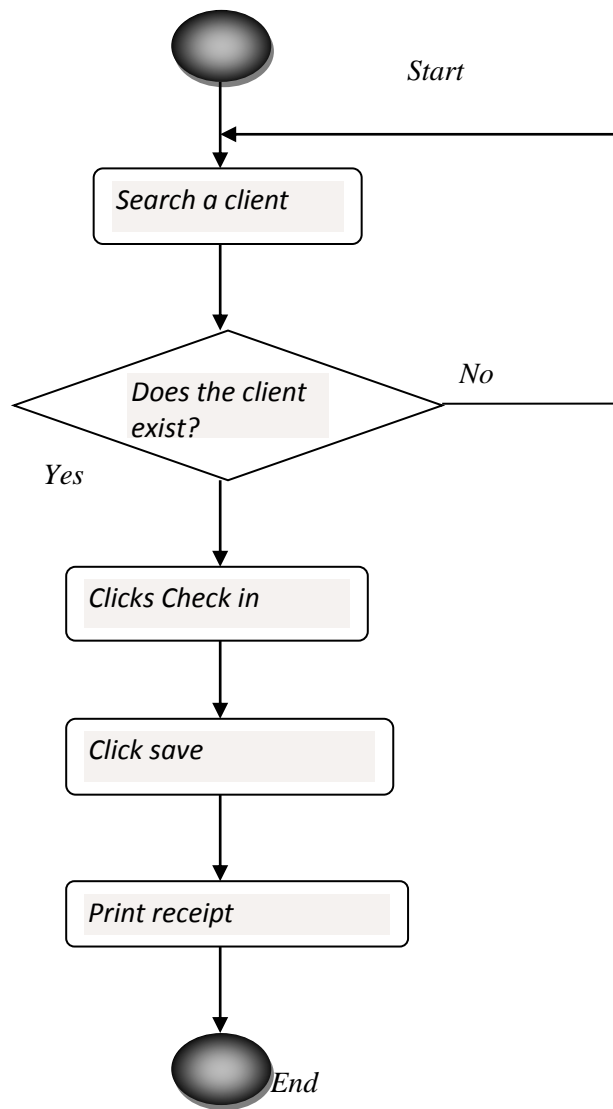


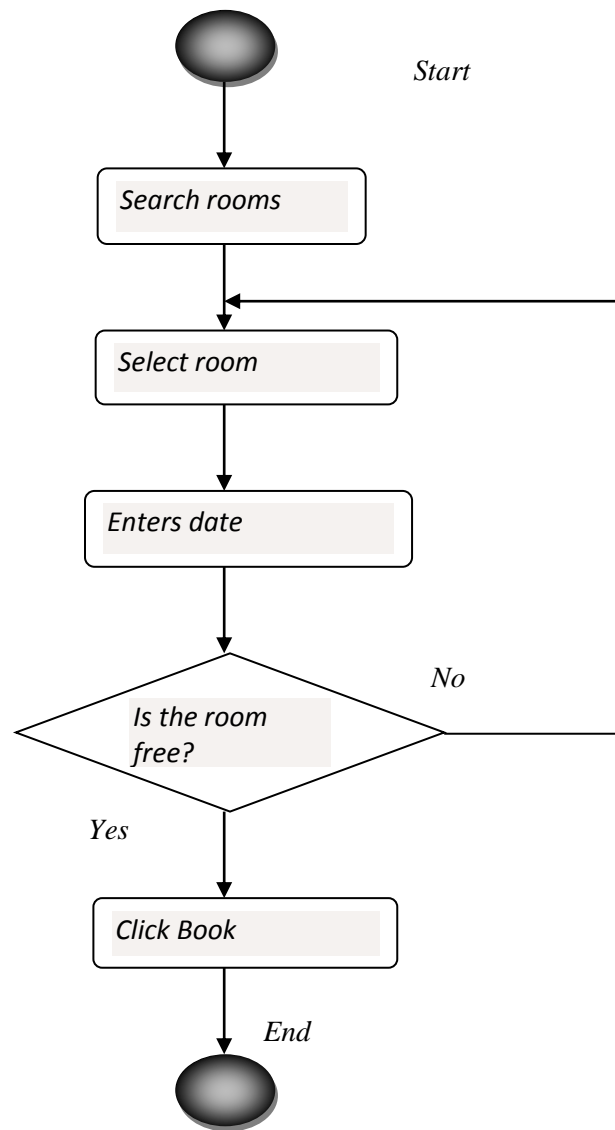


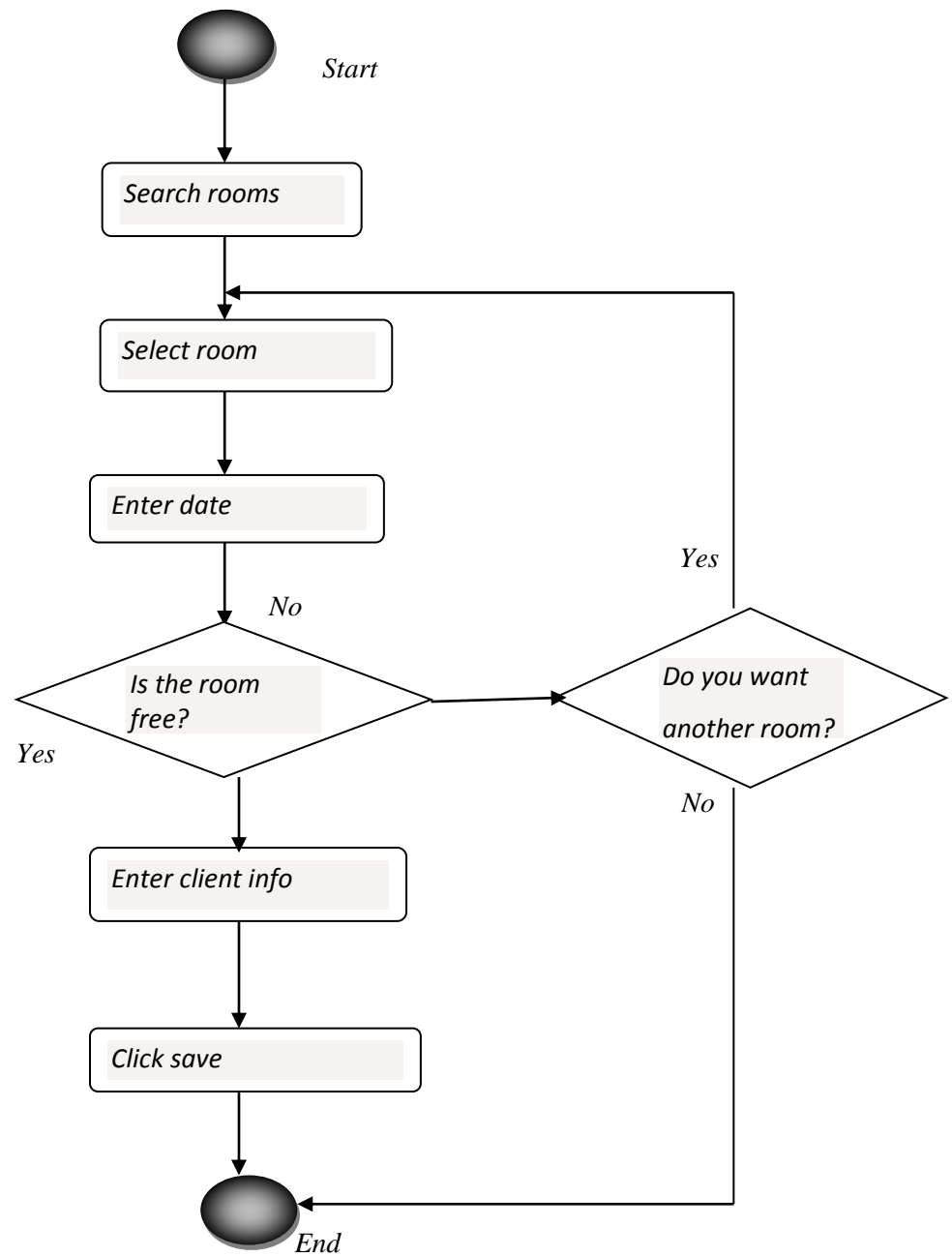




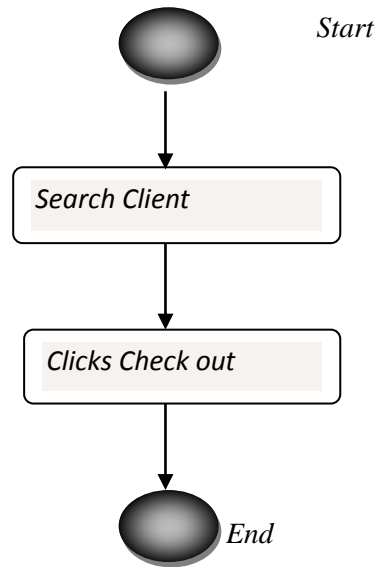






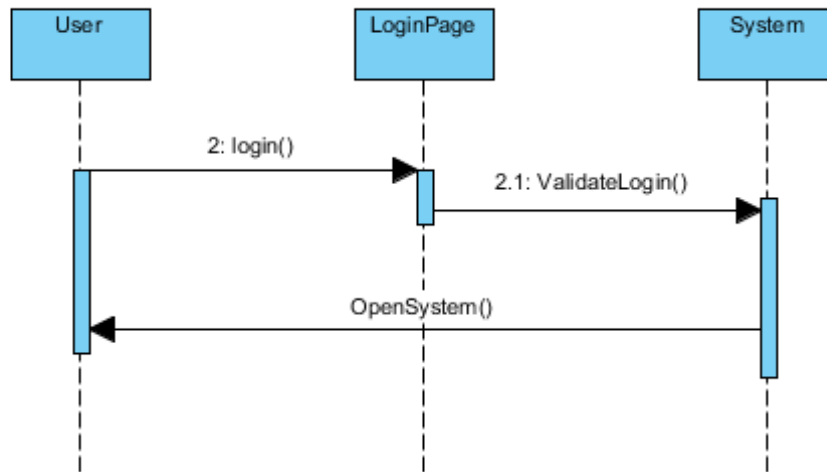


AD_26

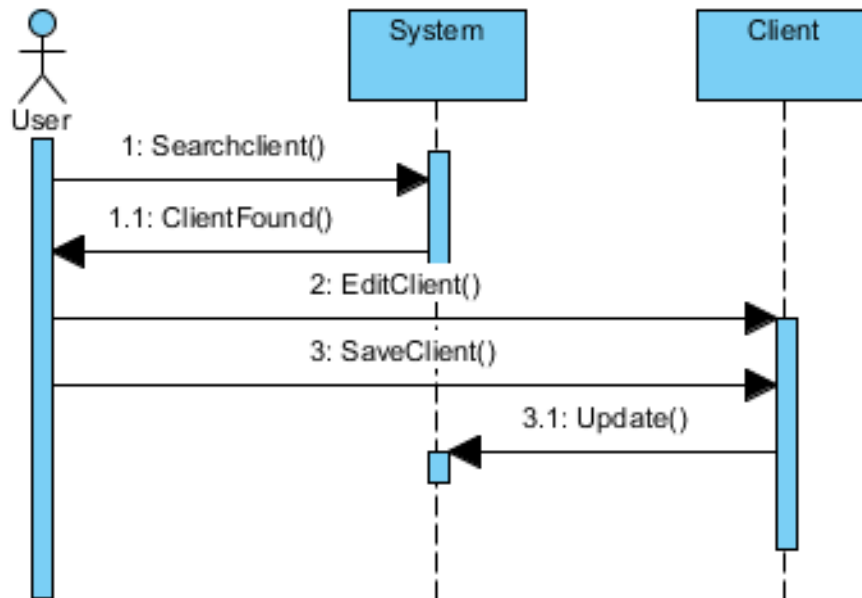


5.3 Sequence Diagrams / (SD_numbers represent the corresponding use cases)

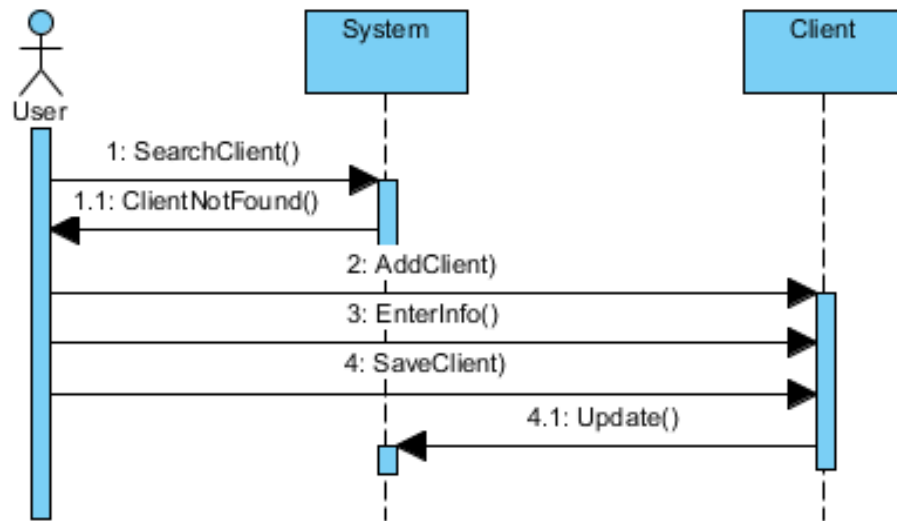
SD_01



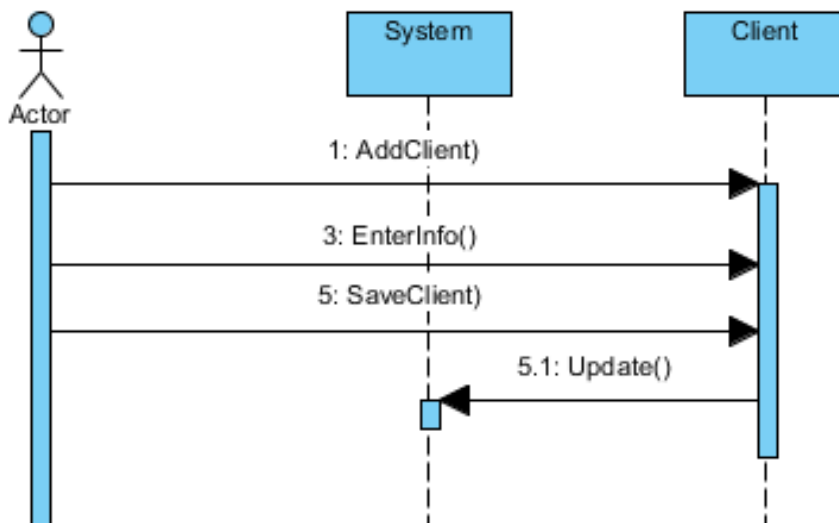
SD_02_a



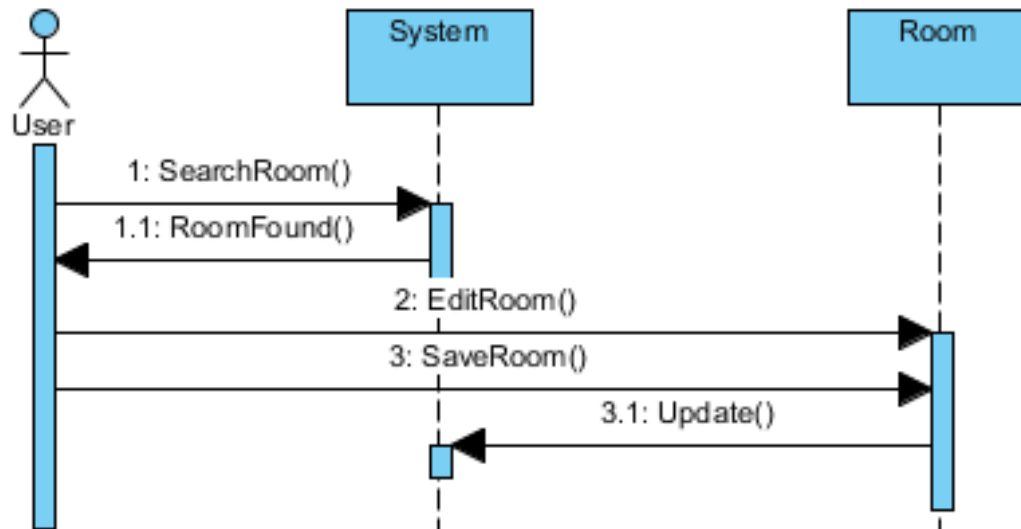
SD_02_b



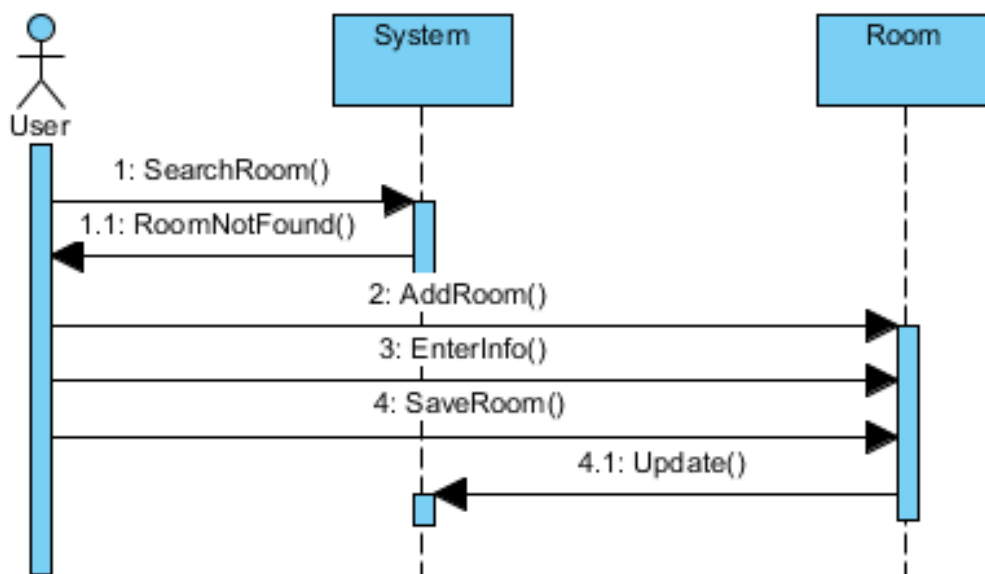
SD_03



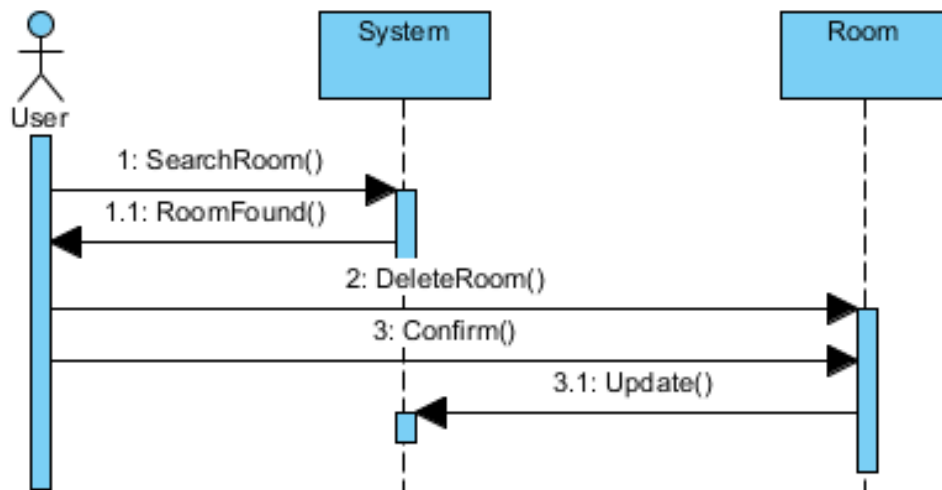
SD_04_a



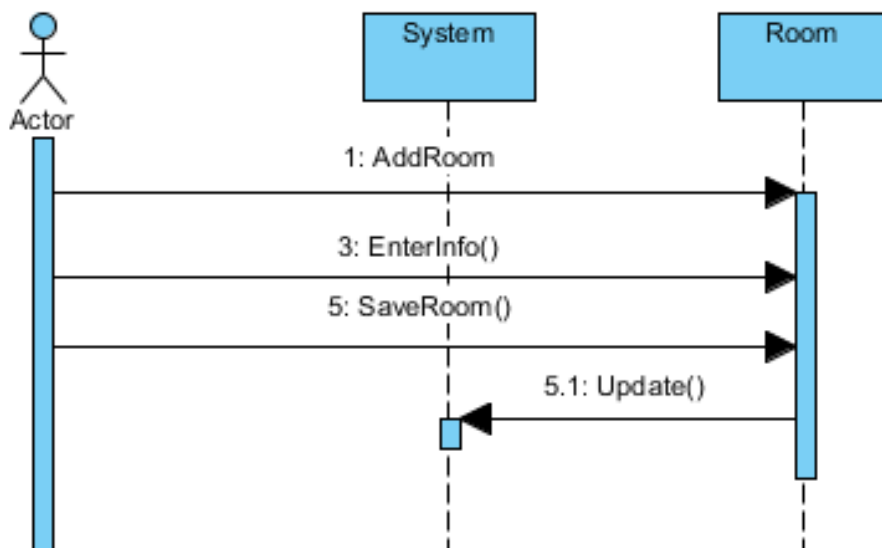
SD_04_b



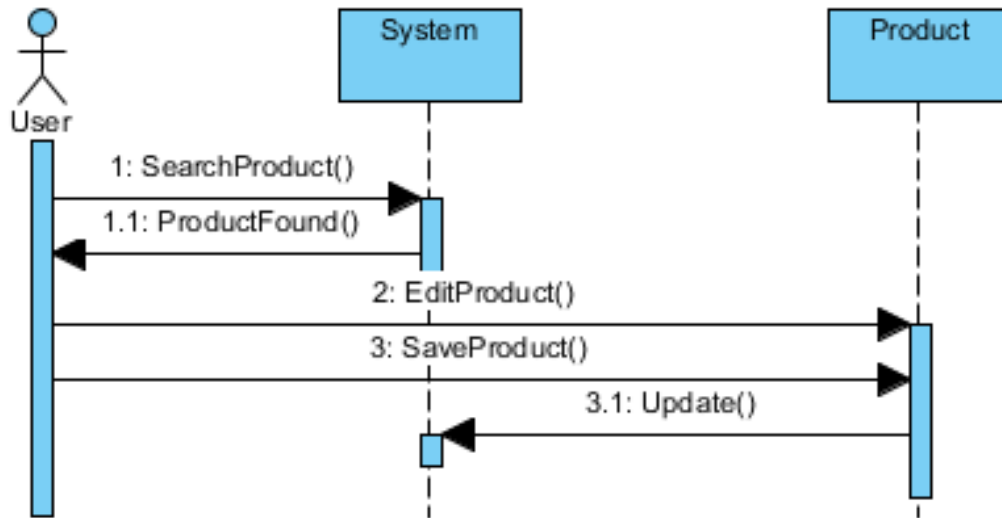
SD_05



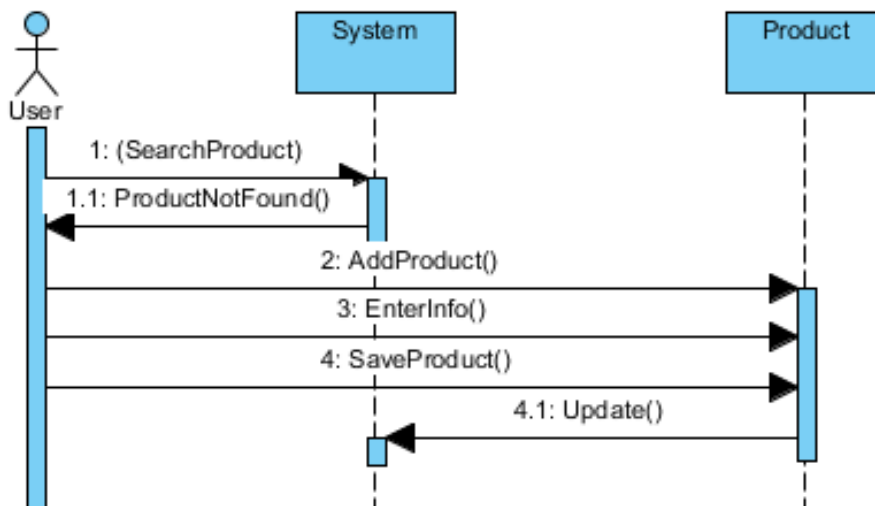
SD_06



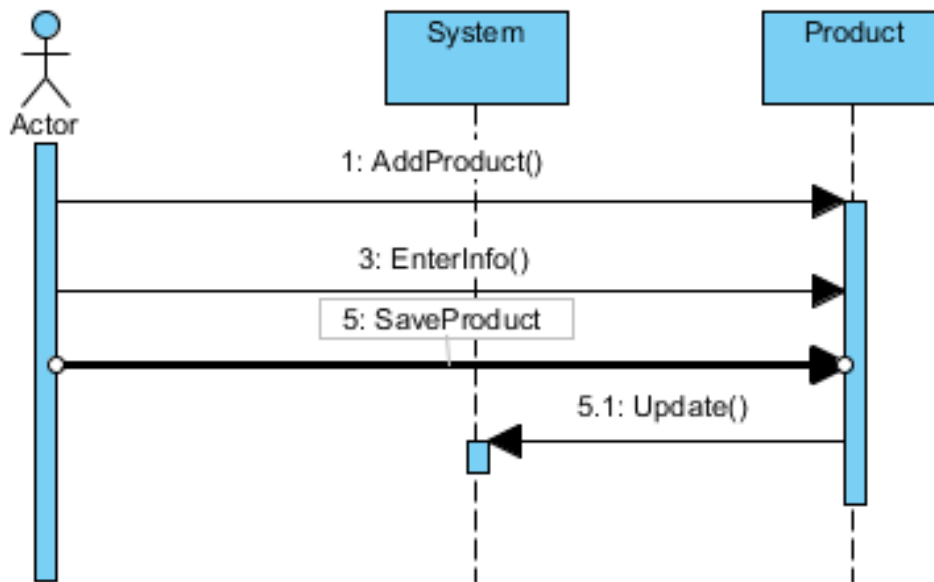
SD_07_a



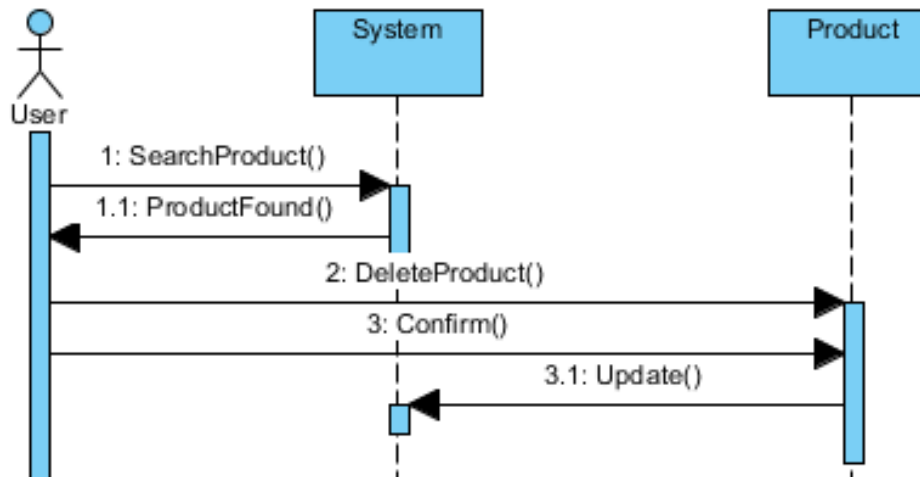
SD_07_b



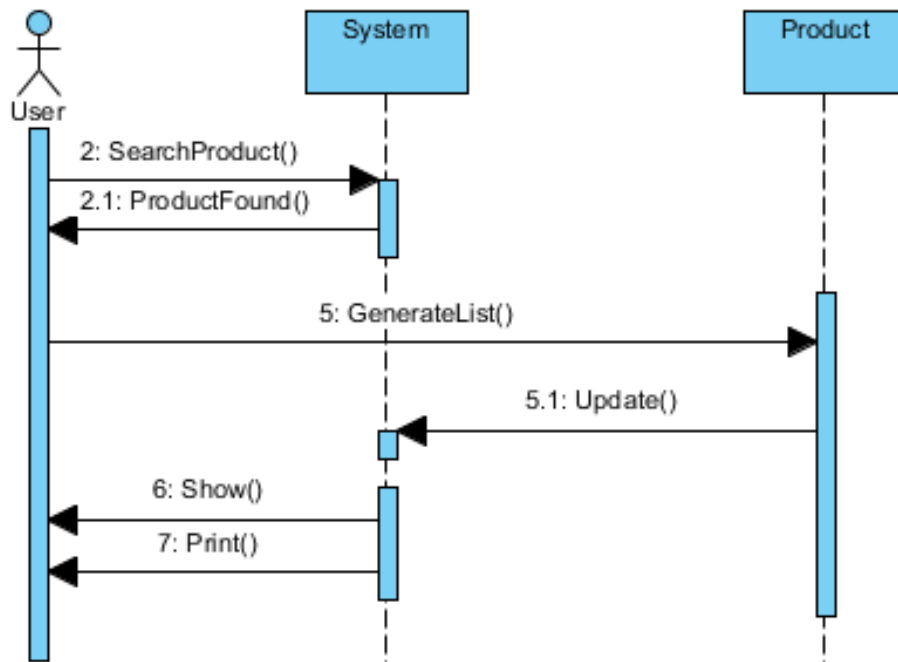
SD_08



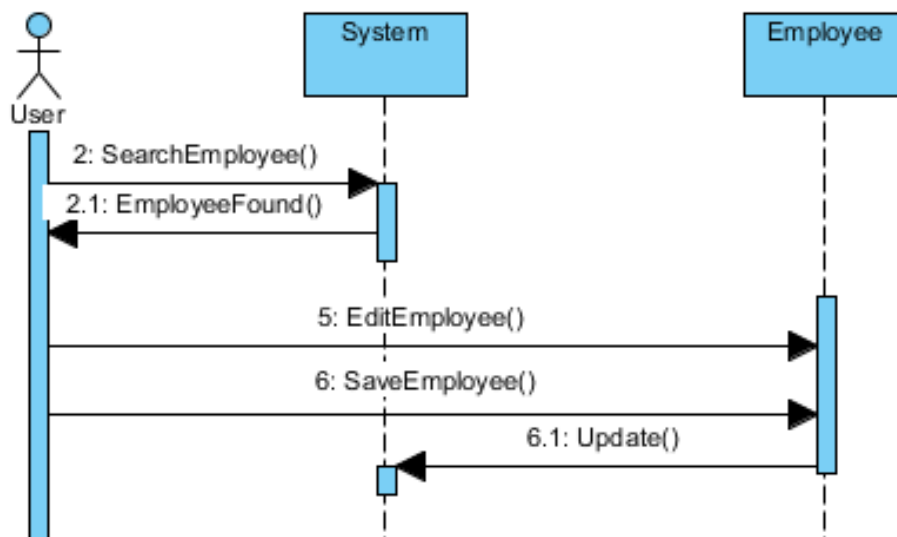
SD_09



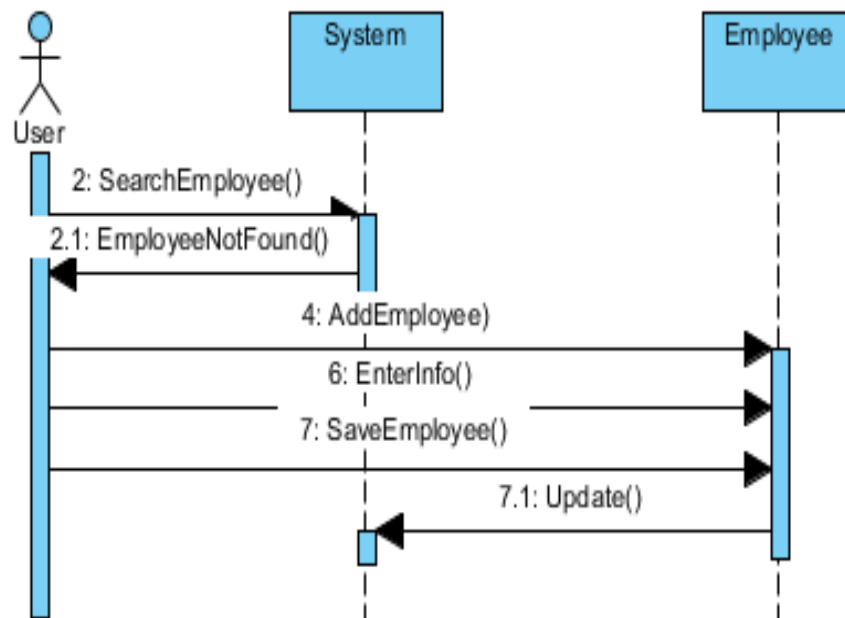
SD_11



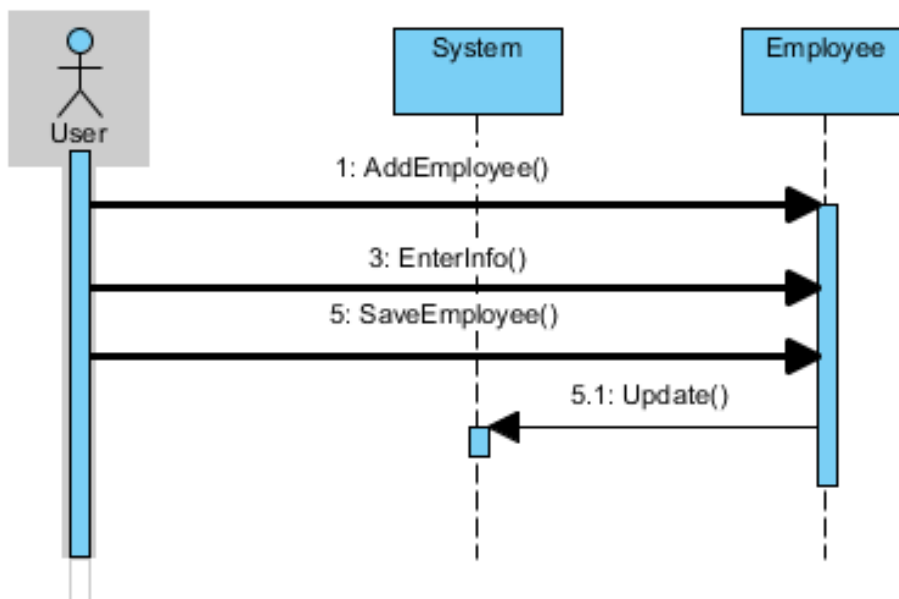
SD_12_a



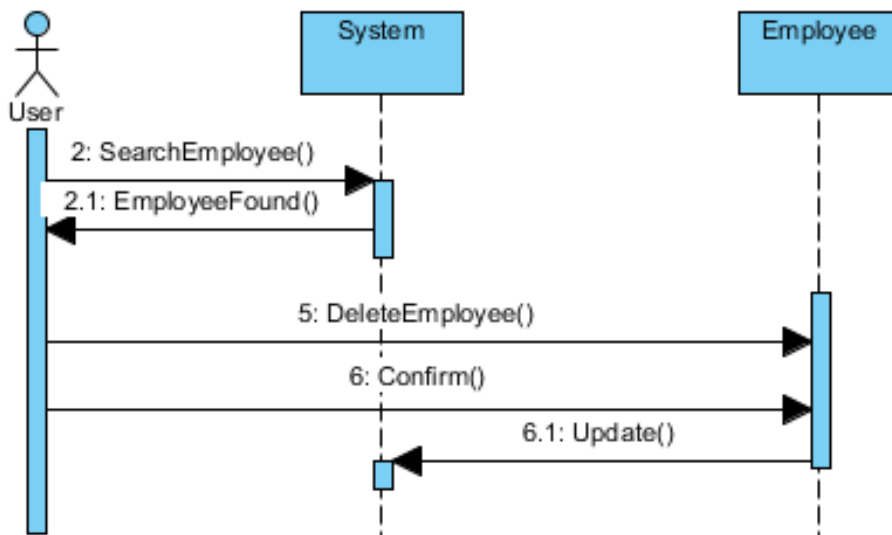
SD_12_b



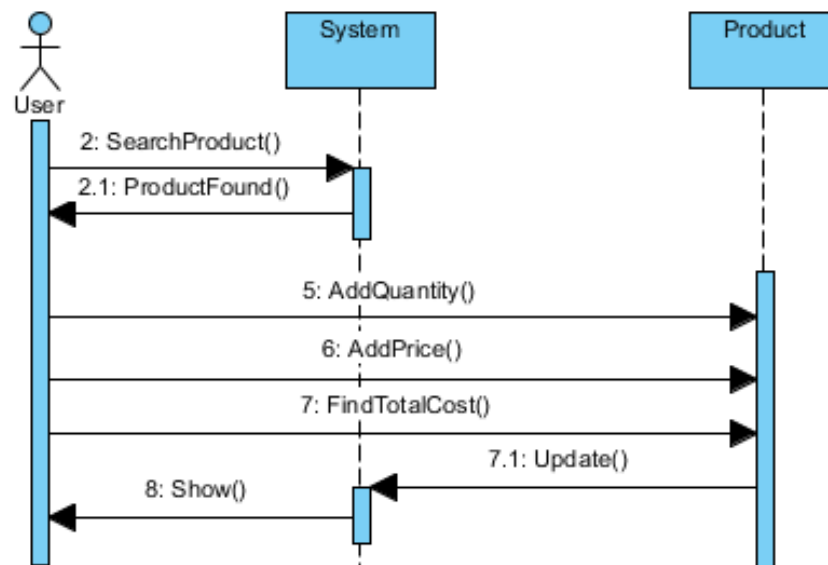
SD_13



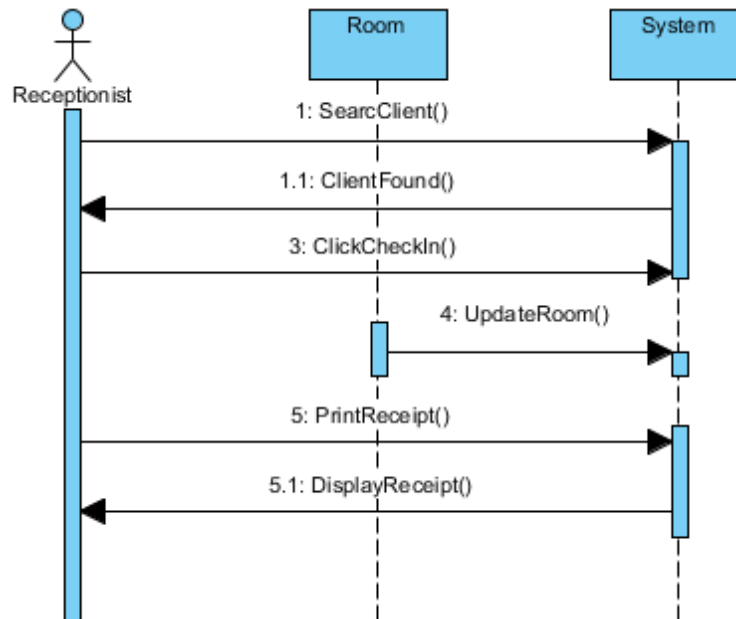
SD_14



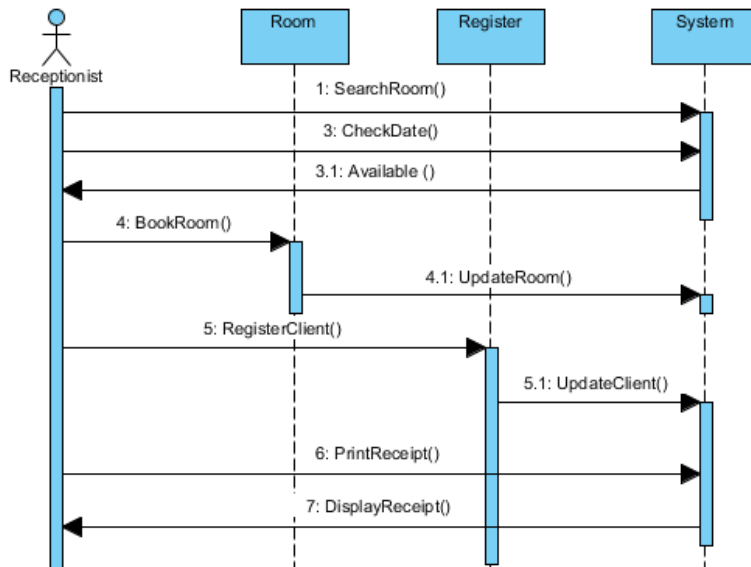
SD_18



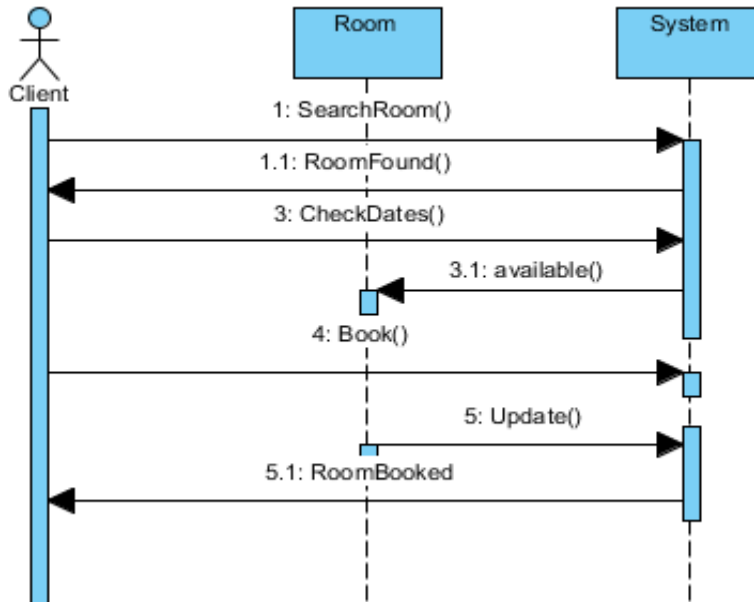
SD_23



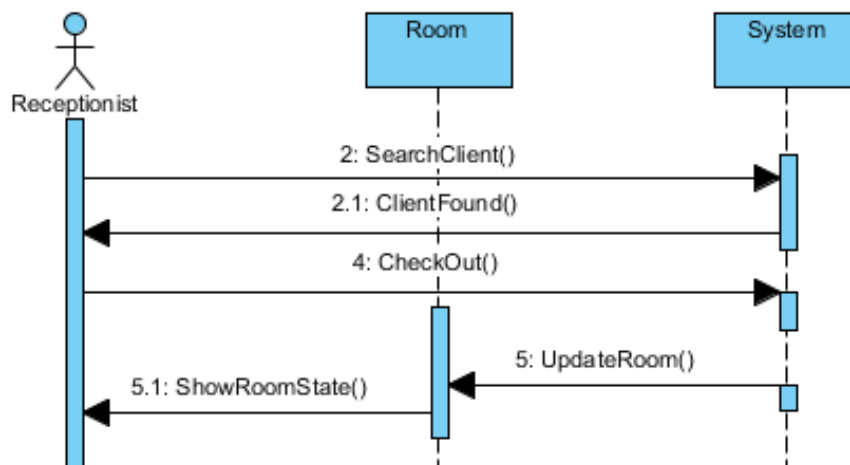
SD_24



SD_25

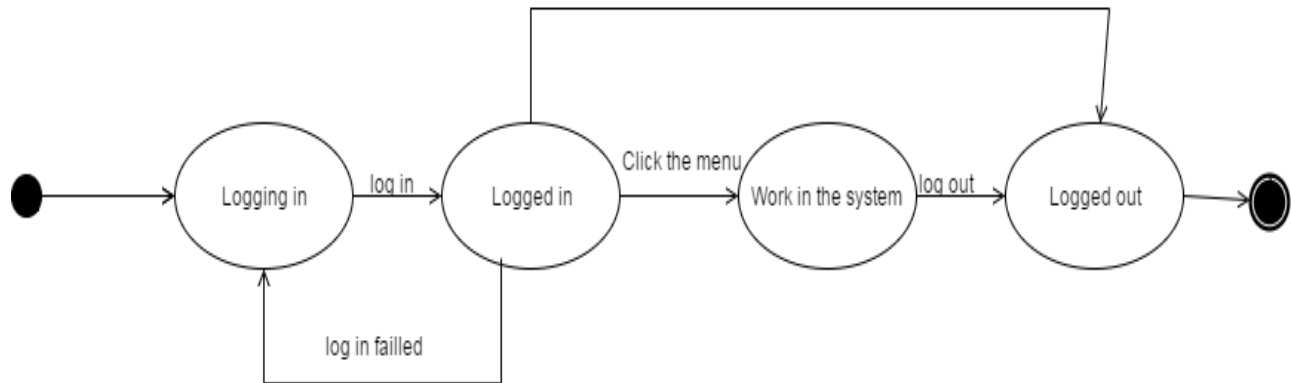


SD_26

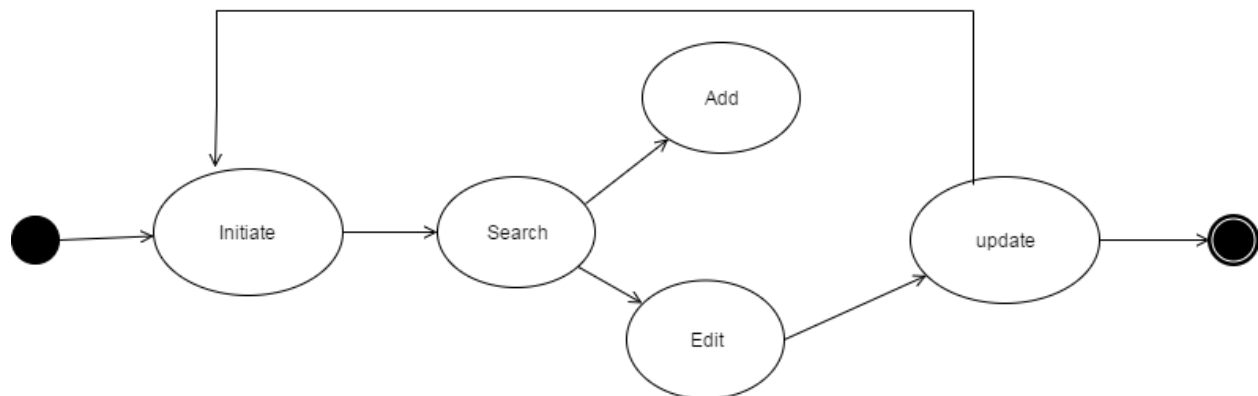


5.4 State diagrams

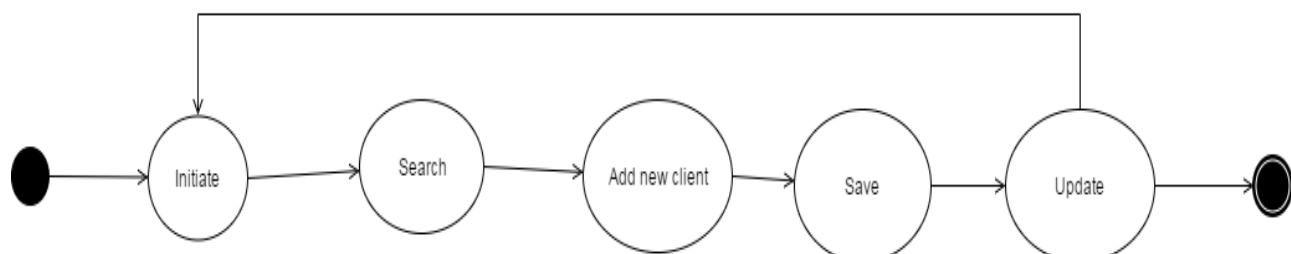
SD-01 / Log in/log out



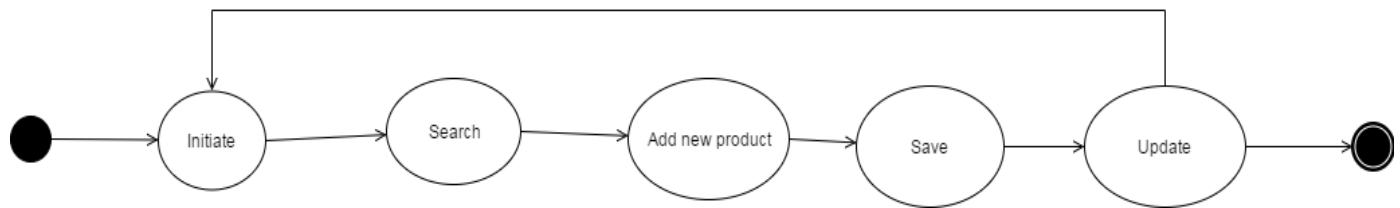
SD- 02 / Add,edit



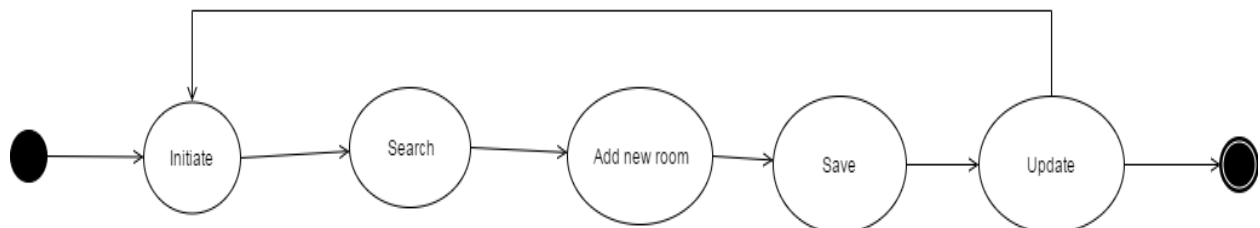
SD 03 / Add new client



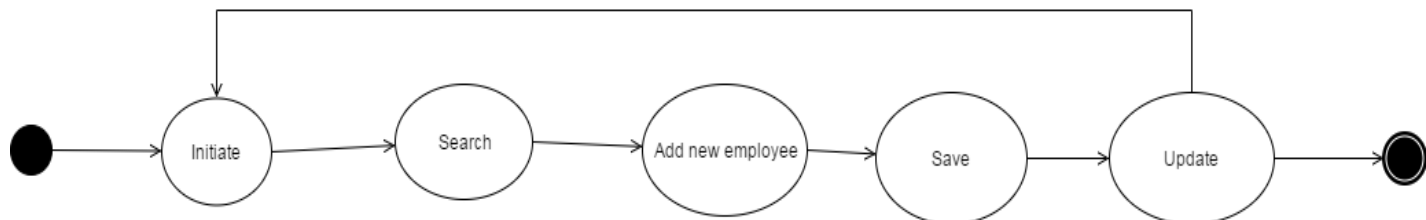
SD- 04 / Add new product



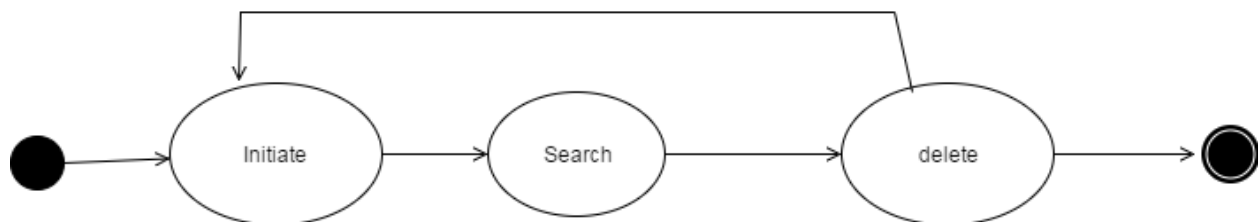
SD-05 / Add new room



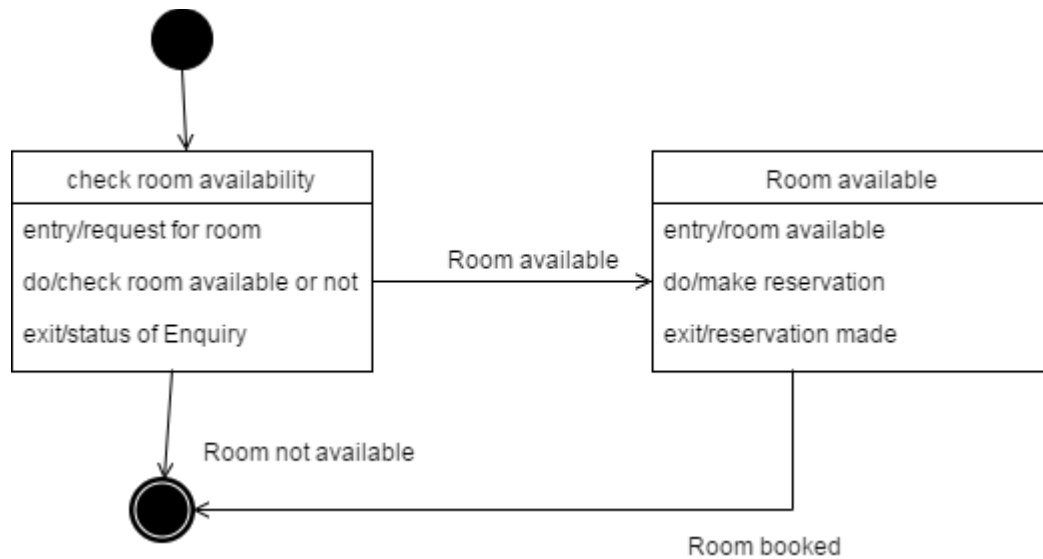
SD-06 / Add new employee



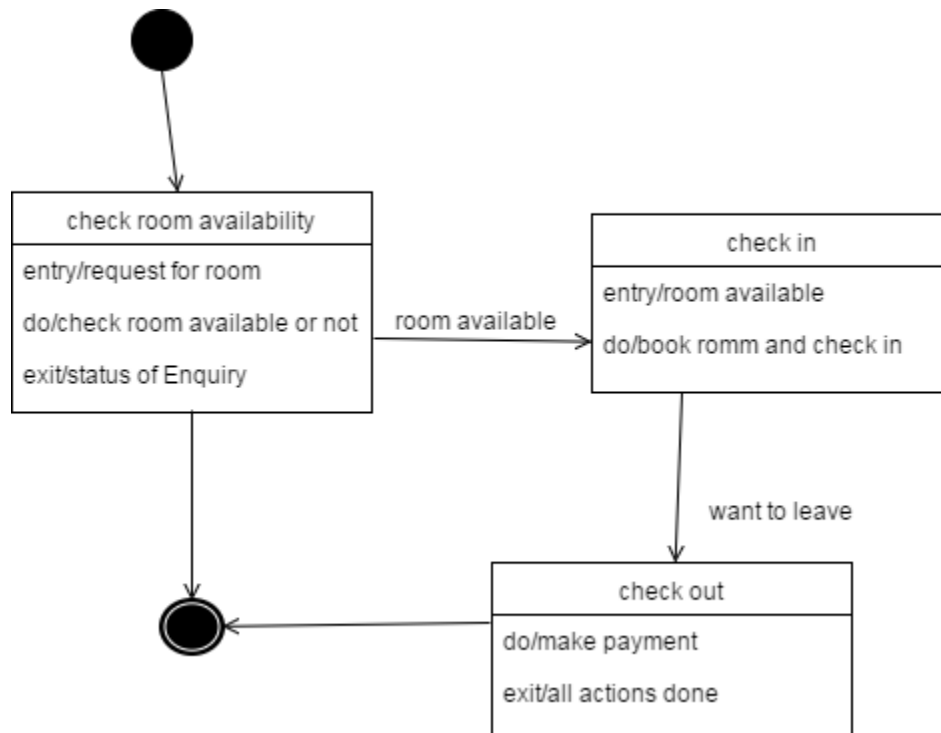
SD-07 / Delete



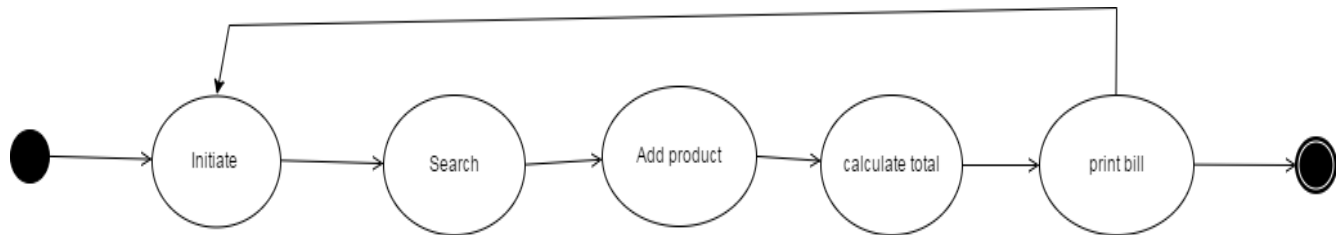
SD-08 / Room object



SD-09 / Client object

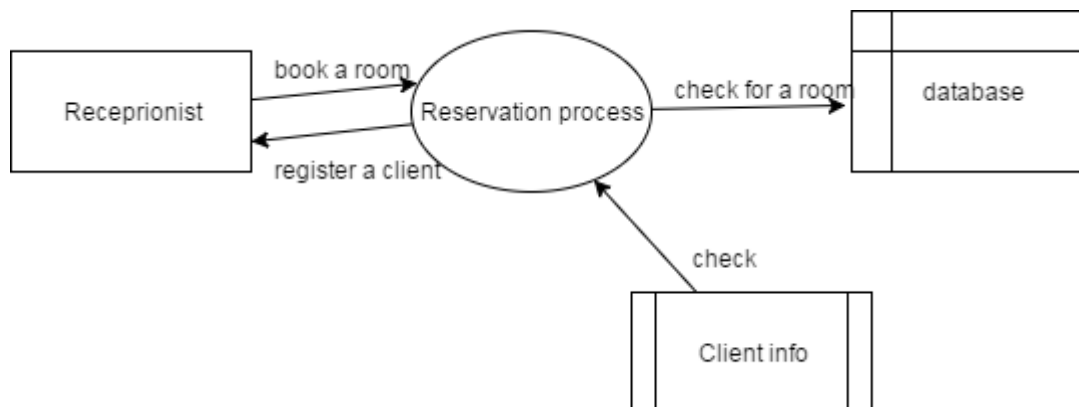


SD-10/ restaurant order

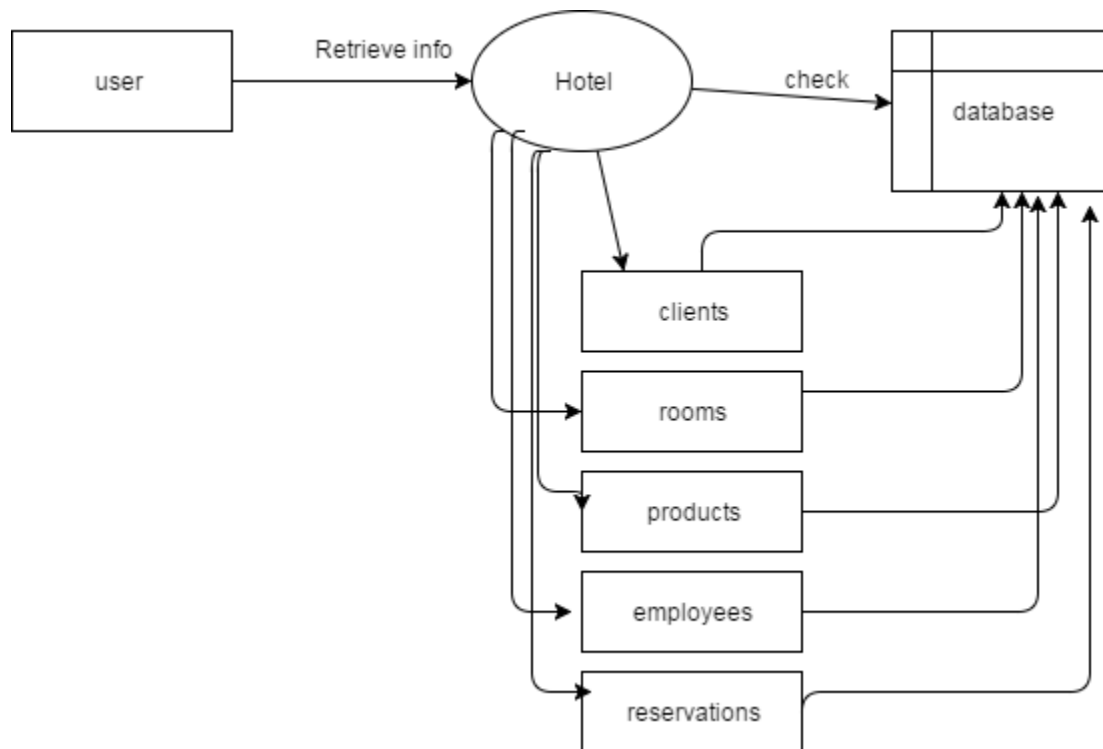


5.5 Data Flow Diagrams

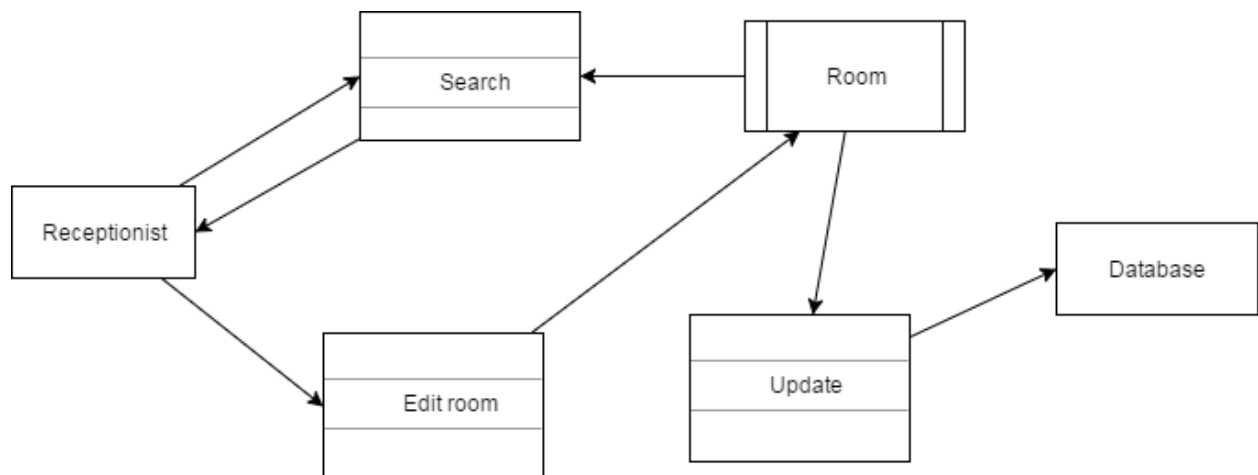
DFD-01 for scenarios 34 ,36,38,39,40



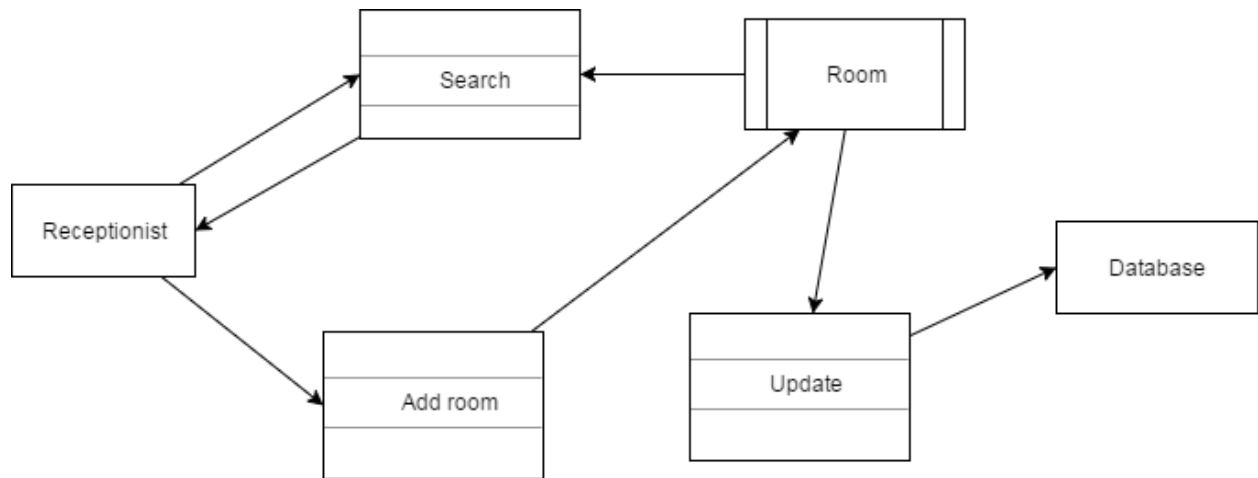
DFD-02



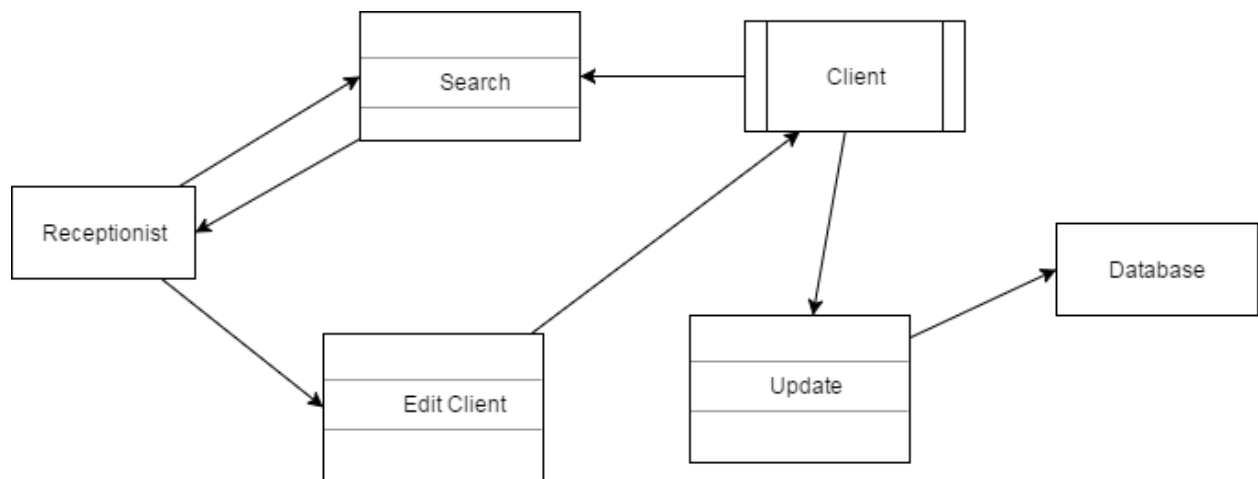
DFD-03 for scenario 6



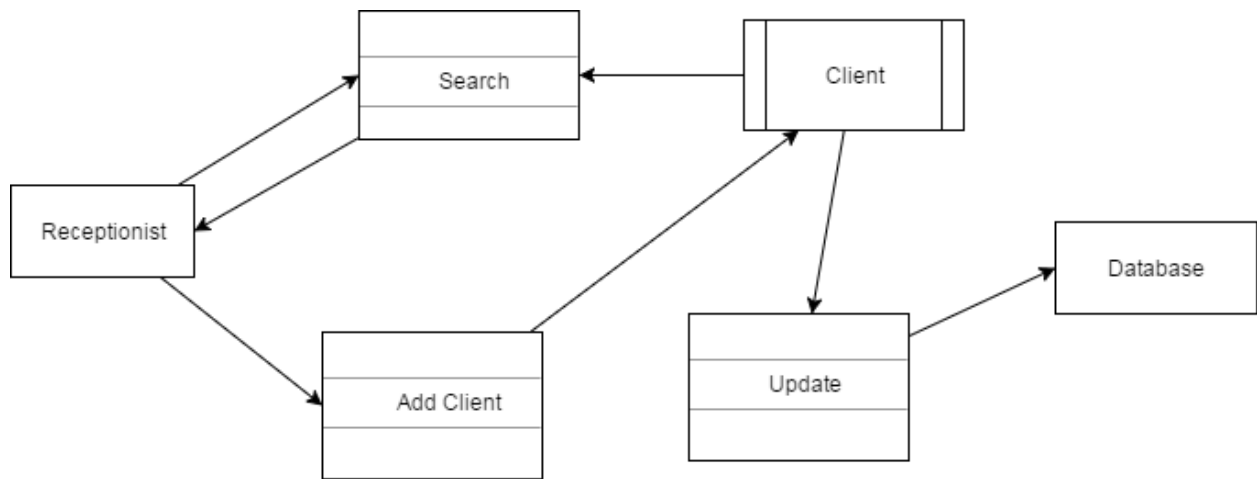
DFD-04 for scenario 4



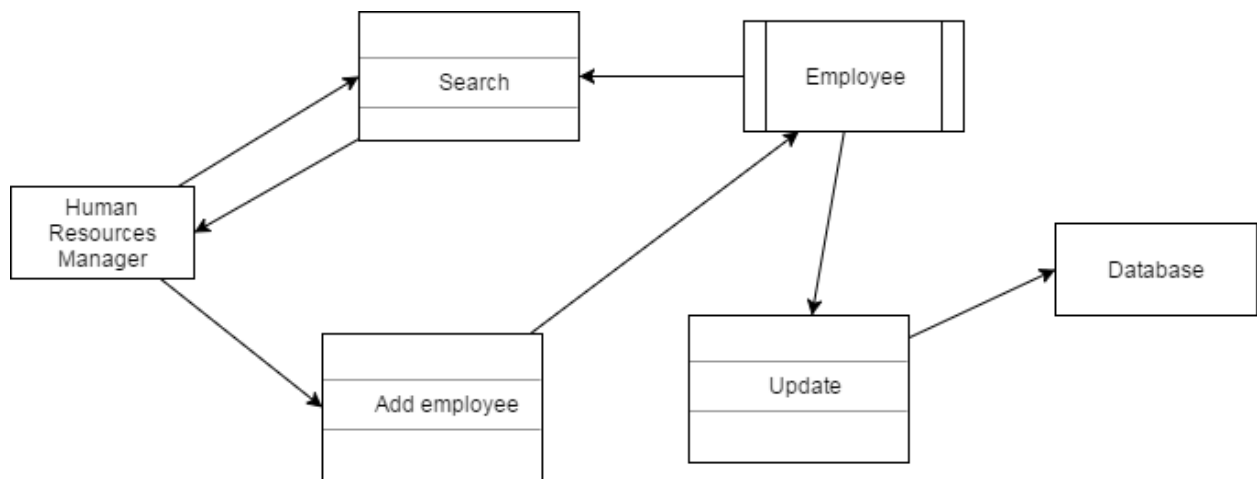
DFD-05 for scenario 2



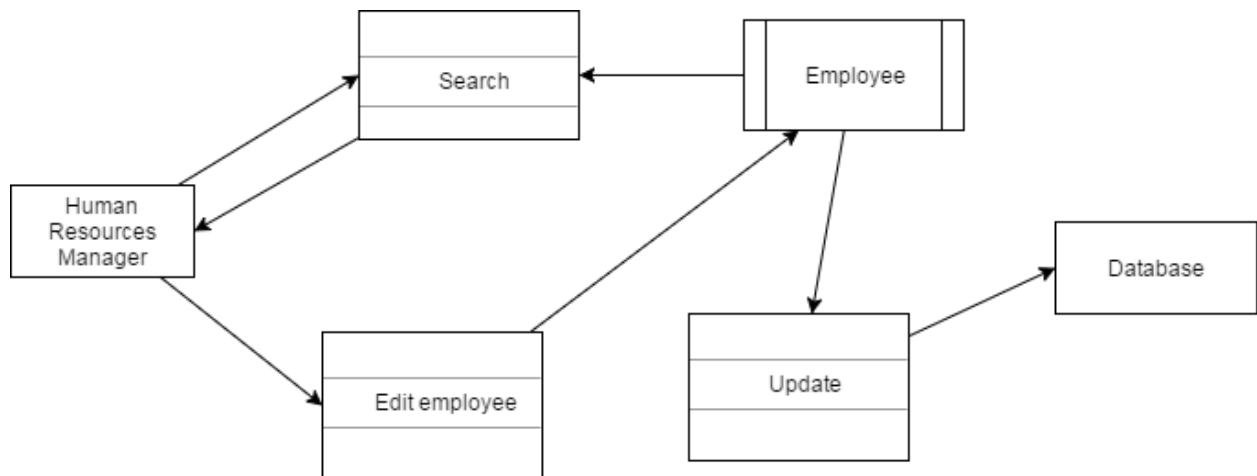
DFD-06 for scenario 1



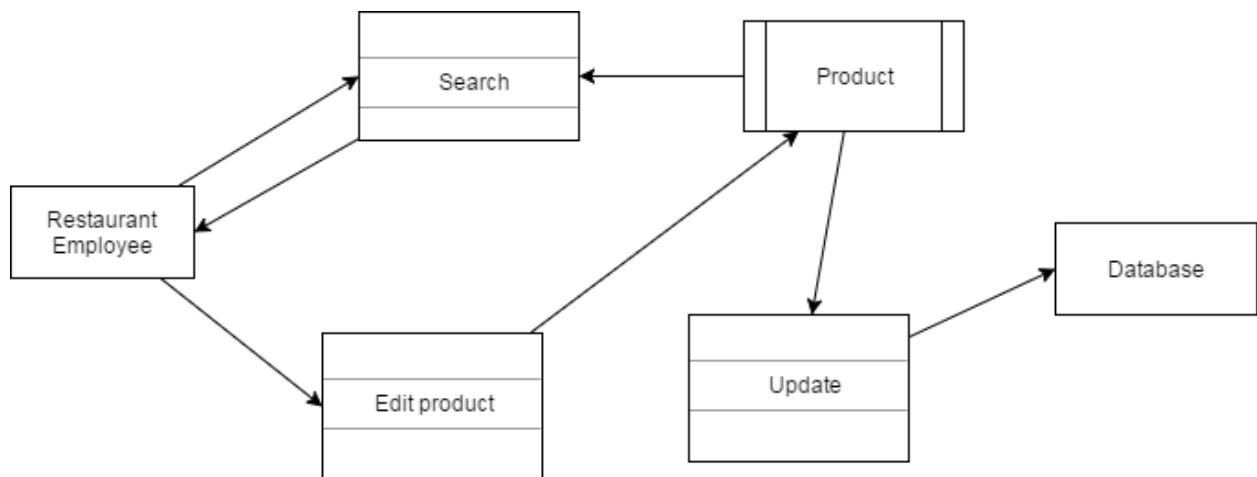
DFD-07 for scenario 25



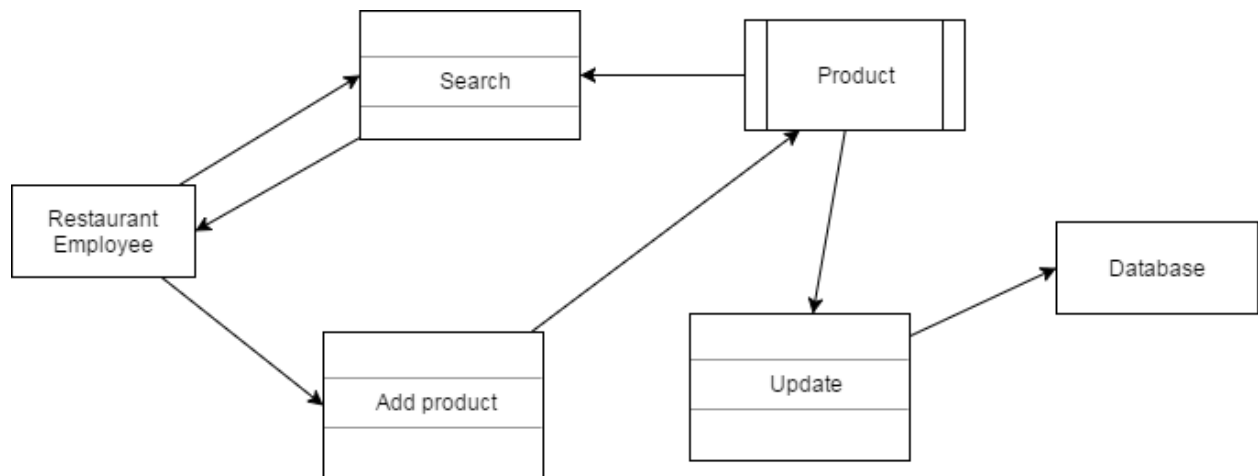
DFD-07 for scenario 29



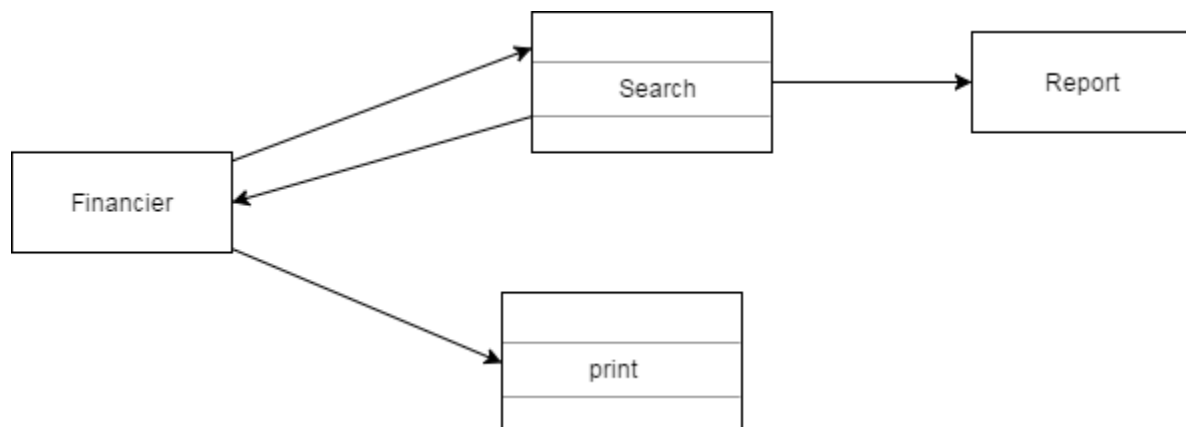
DFD-08 for scenario 9



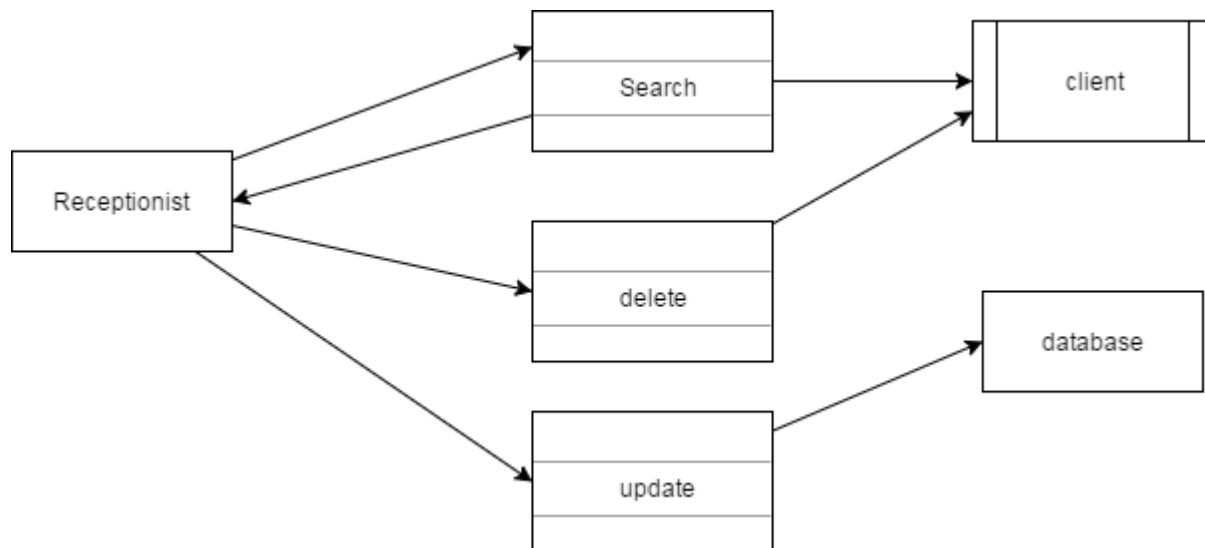
DFD-09 for scenario 7



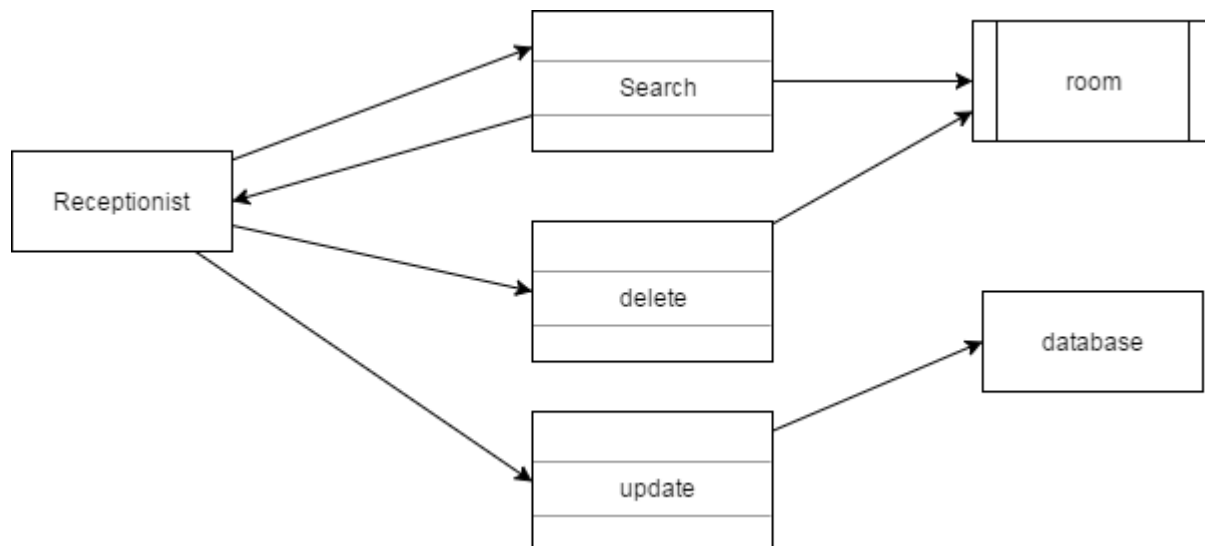
DFD-10 for scenarios 13,14,15,16,17



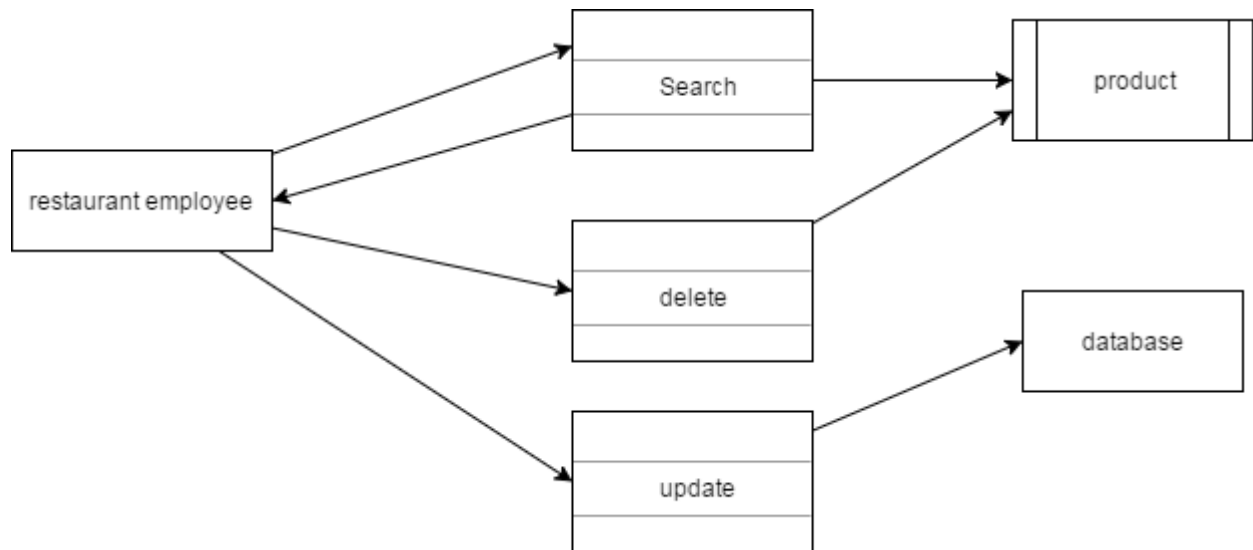
DFD-11 for scenario 5



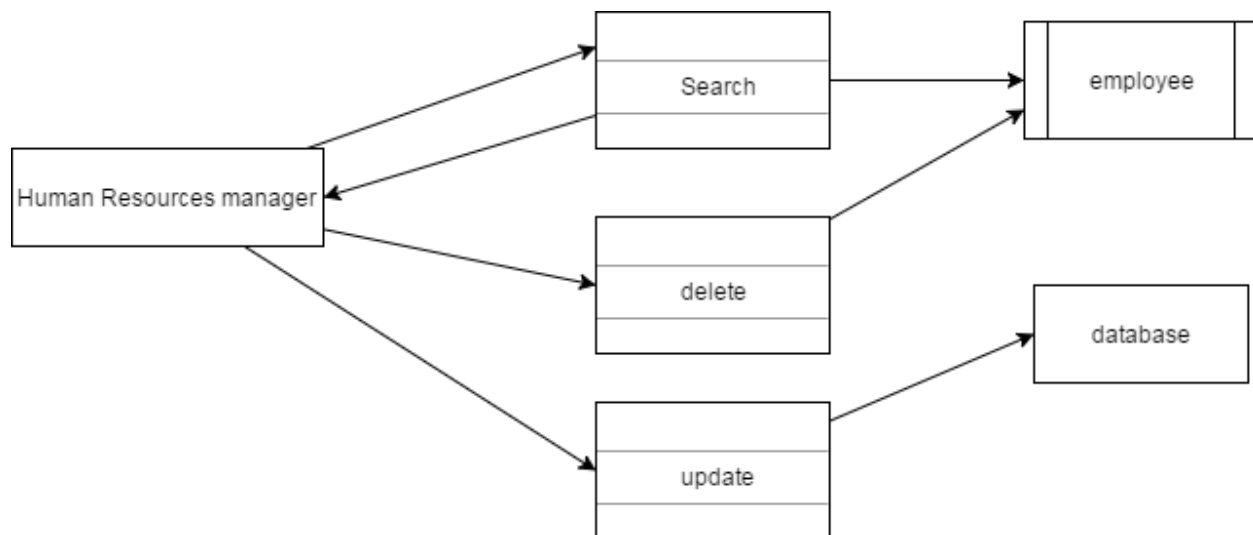
DFD-12 for scenario



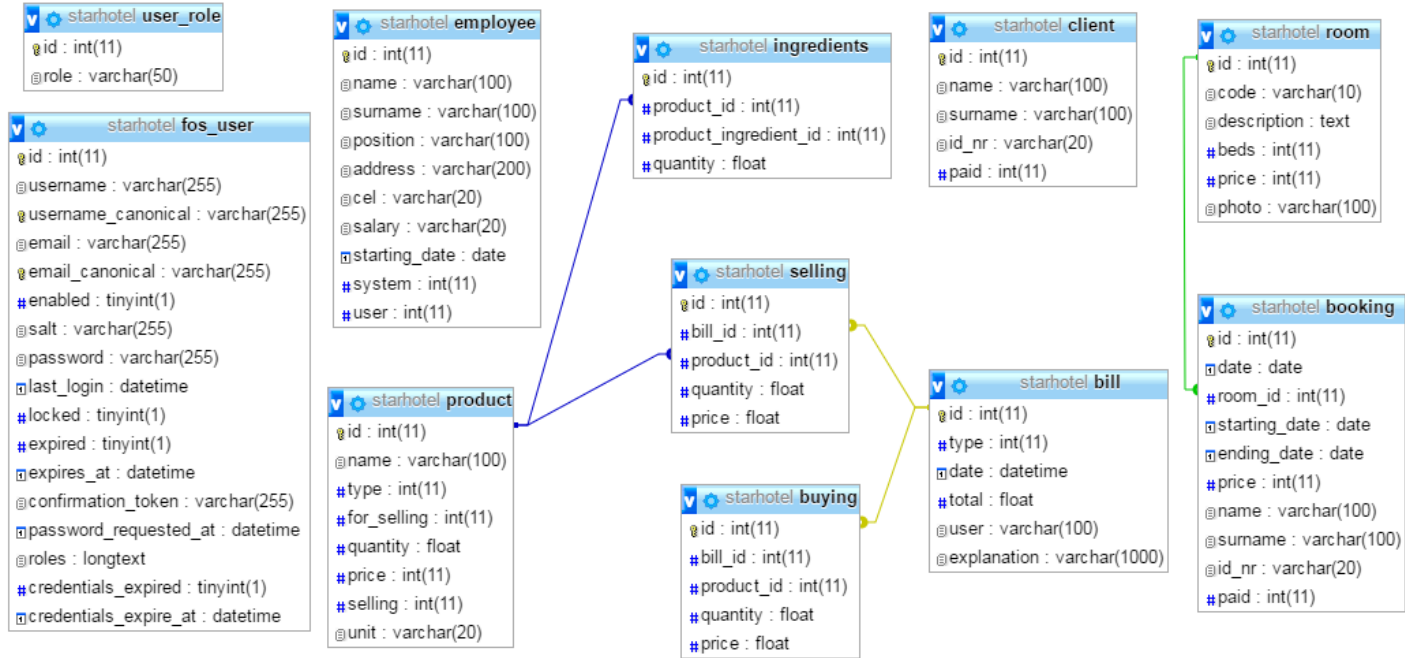
DFD-13 for scenario 8



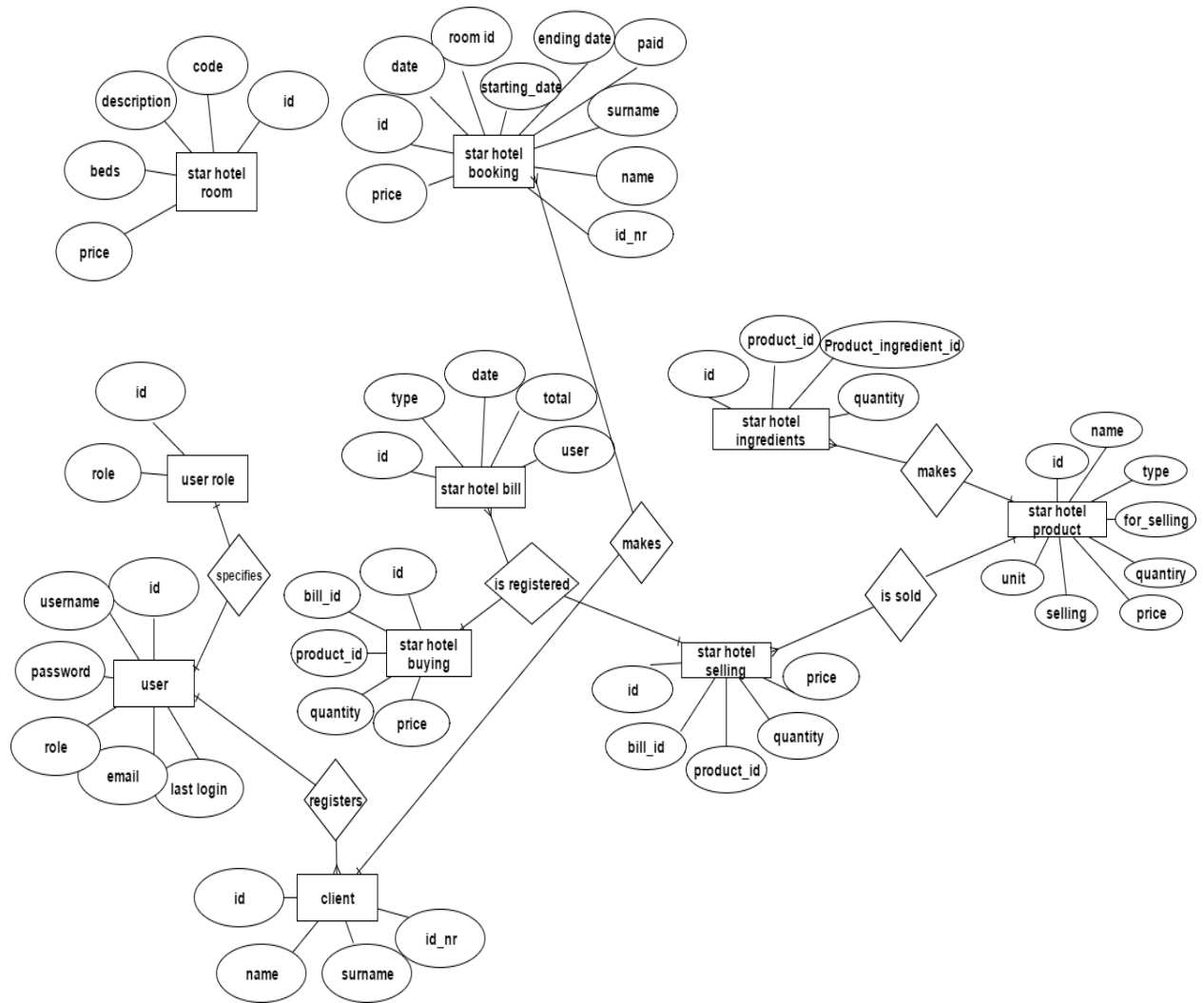
DFD-14 for scenario 26



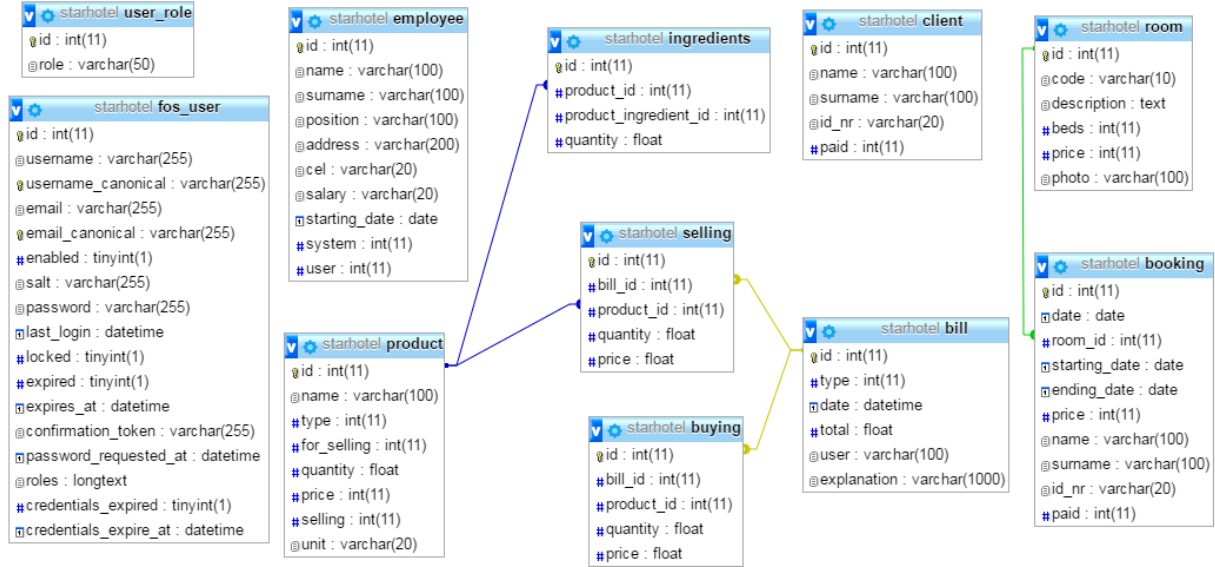
5.6 Database Schema



5.7 ER Diagram

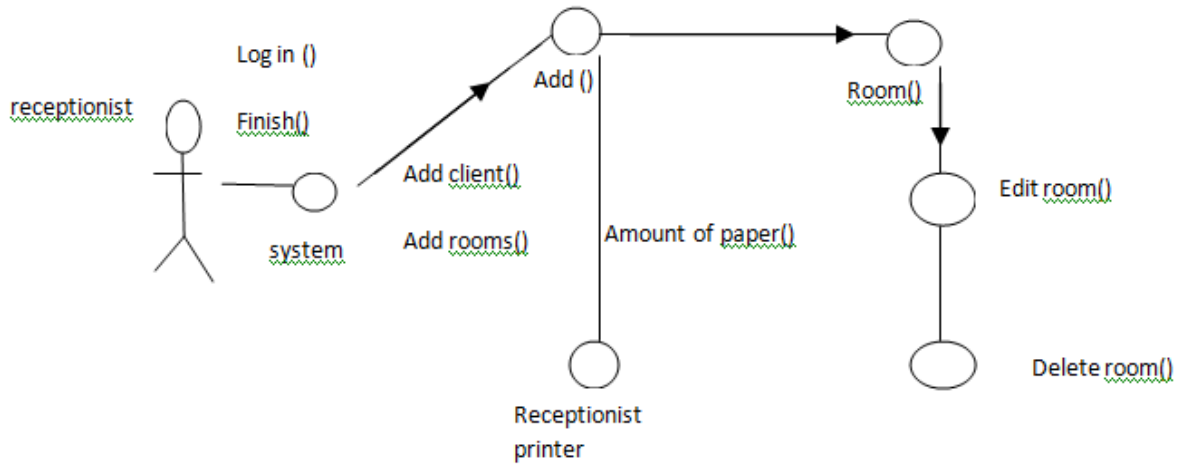


5.8 Class Diagram

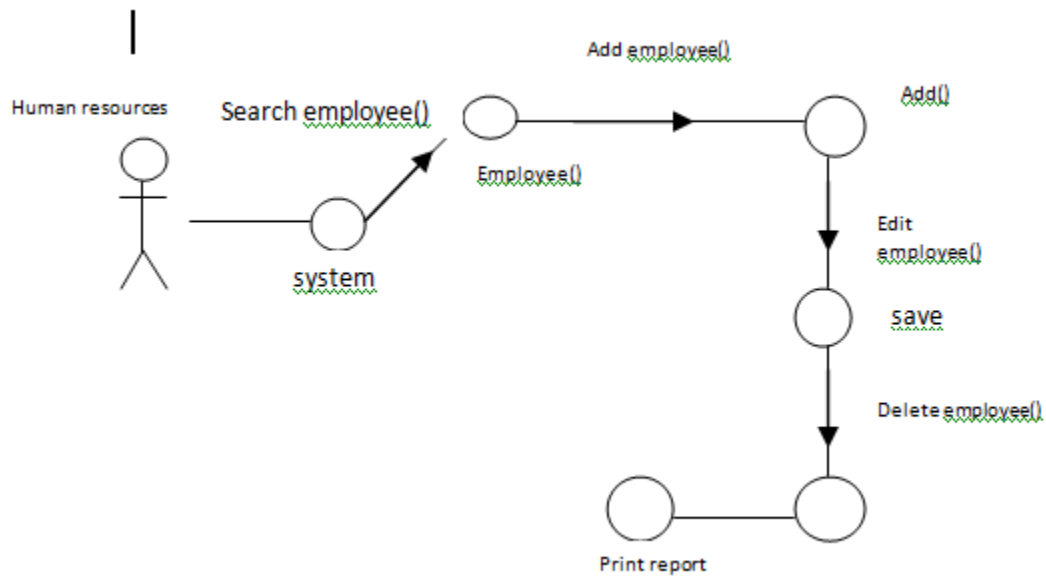


5.9 Collaboration diagrams

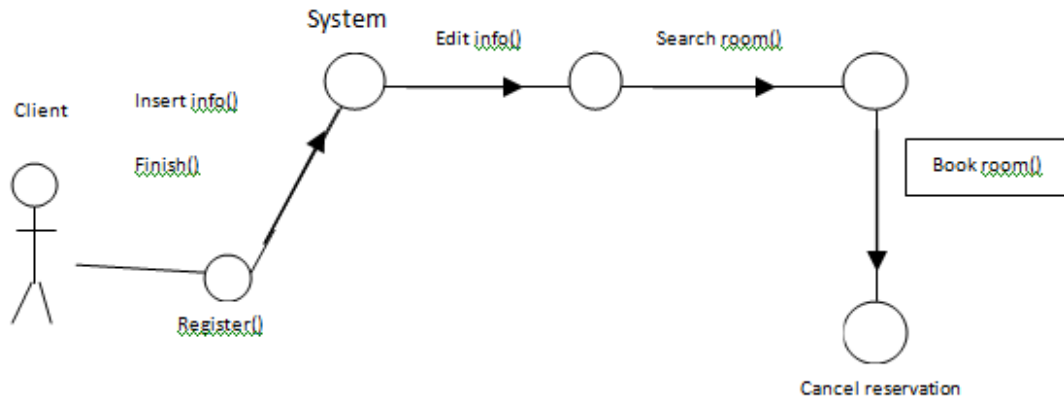
CD-01 for scenarios 1,4,5,6



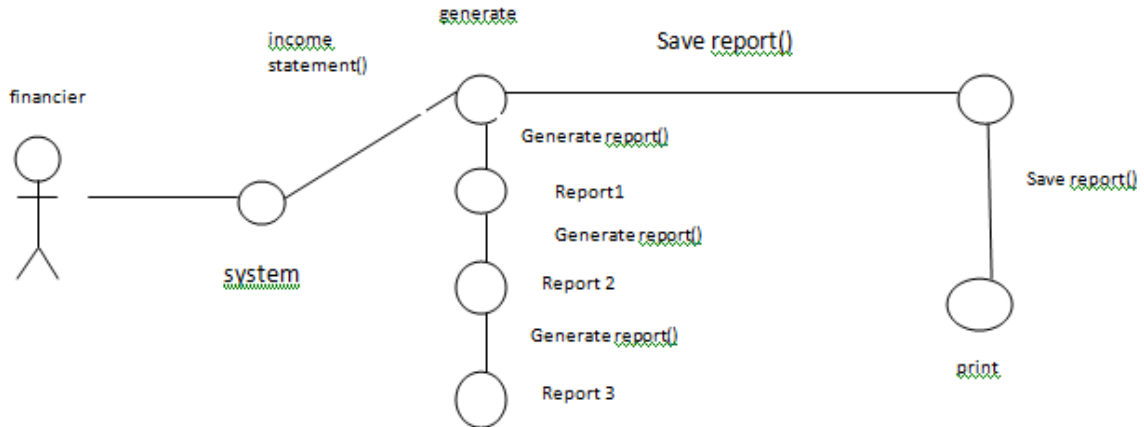
CD-02 for scenarios 25,26,27



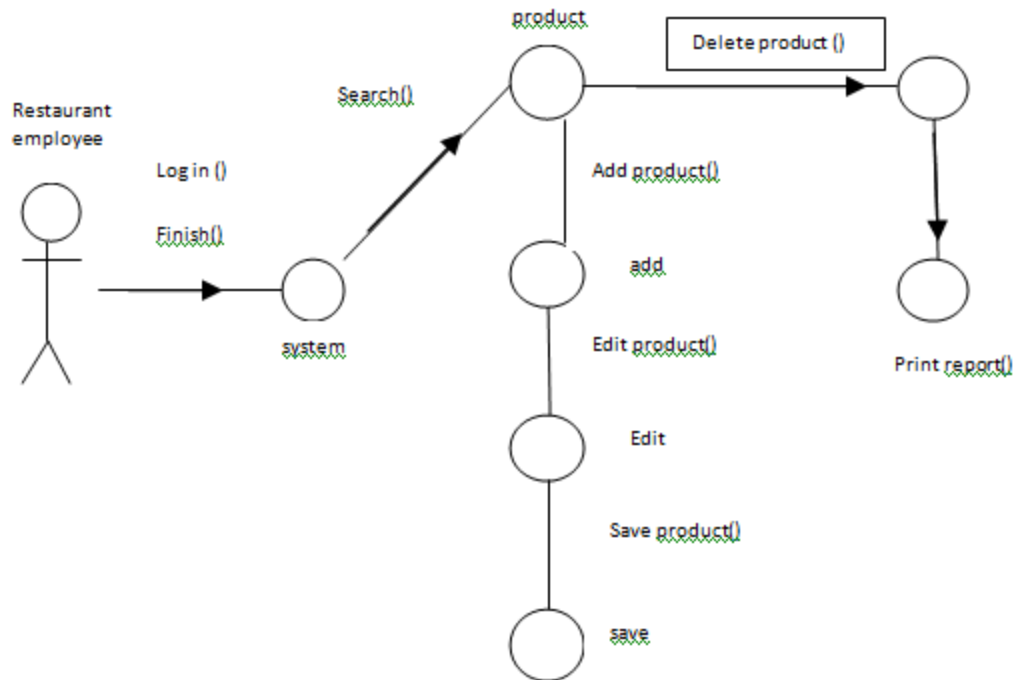
CD-03 for scenarios 33,34,35,36,37



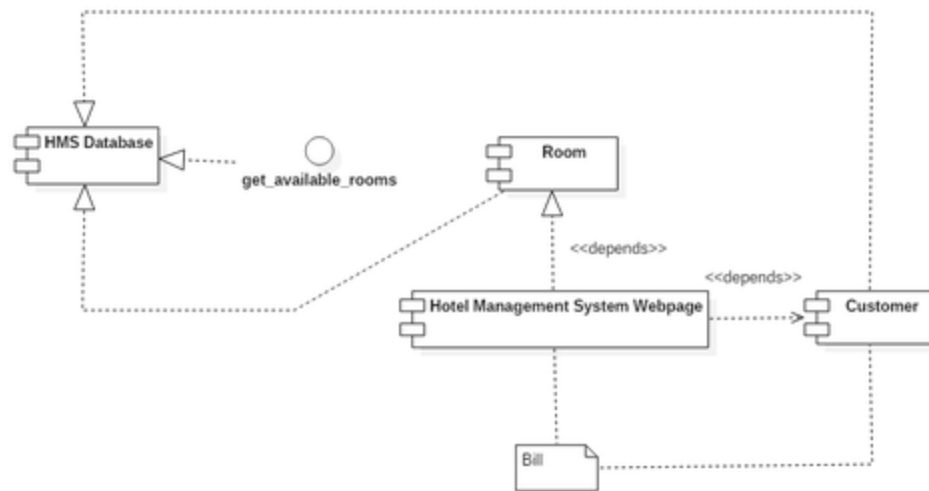
CD-04 for scenarios 30,31



CD-05 for scenarios 7,8,9



5.10 Component diagram



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6.1 Requirements Confirmation/Stakeholder sign-off		
Meeting Date	Attendees (name and role)	Comments
03/ 28/2017	Lorena Sheremeti – Group leader Irida Osmani – Group member Serxhio Mustafaj - Group member Ardit Cepi - Group member	Project idea discussed, git hub accounts created
04/04/2017	Lorena Sheremeti – Group leader Irida Osmani – Group member Serxhio Mustafaj - Group member Ardit Cepi - Group member	Tasks assigned for next week. Project and product description and requirements should be completed
04/11/2017	Lorena Sheremeti – Group leader Irida Osmani – Group member Serxhio Mustafaj - Group member Ardit Cepi - Group member	Serxhio Mustafaj - Project description Ardit Çepi - Product Description Lorena Sheremeti -Requirement (part 1) Irida Osmani - Requirement (part 2)
04/18/2017	Lorena Sheremeti – Group leader Irida Osmani – Group member Serxhio Mustafaj - Group member Ardit Cepi - Group member	Serxhio Mustafaj - Sketching designs Ardit Çepi - Meeting reports Lorena Sheremeti - Non - Functional requirements Irida Osmani - User Stories
04/25/2017	Lorena Sheremeti – Group leader Irida Osmani – Group member Serxhio Mustafaj - Group member Ardit Cepi - Group member	Serxhio Mustafaj -Meeting reports Ardit Çepi - Use cases Lorena Sheremeti - Scenarios part 2 Irida Osmani - Scenarios part 1
05/23/2017	Lorena Sheremeti – Group leader Irida Osmani – Group member Serxhio Mustafaj - Group member Ardit Cepi - Group member	Lorena Sheremeti - remade Use Cases, activity D, sequence D Irida Osmani- Use case Diagrams

		Serxhio – Started the code
05/27/2017	<p>Lorena Sheremeti – Group leader</p> <p>Irida Osmani – Group member</p> <p>Serxhio Mustafaj - Group member</p> <p>Ardit Cepi - Group member</p>	<p>Lorena Sheremeti - Remade use case diagrams , completed sequence diagrams</p> <p>Irida Osmani – working with the application</p> <p>Ardit Cepi – State diagrams</p> <p>Serxhio Mustafaj –Collaboration Diagrams</p>
06/06/2017	<p>Lorena Sheremeti – Group leader</p> <p>Irida Osmani – Group member</p> <p>Serxhio Mustafaj - Group member</p> <p>Ardit Cepi - Group member</p>	<p>Irida Osmani & Lorena Sheremeti – continue to work with the application</p> <p>Ardit Cepi – class Diagrams</p> <p>ERD</p> <p>Serxhio Mustafaj – dfd diagrams</p>
06/11/2017	<p>Lorena Sheremeti – Group leader</p> <p>Irida Osmani – Group member</p> <p>Serxhio Mustafaj - Group member</p> <p>Ardit Cepi - Group member</p>	Everything checked and finished

6.2 Task network Planning and description

Assumptions and Constraints

Before starting this project we made a plan for the time ,budget and skills needed in order to successfully complete the project . According to our assumptions the project would require 3 months; 2 months for the document and 1 month for the code . This project would require a lot of dedication but no budget will be needed. It would also require business and programming skills.

STAR BOOKING

	Task Name	Start Date	End Date	Duration	Predecessors
1	Project Idea decided	03/28/17	03/29/17	2d	Group decision
2	Github account created	03/28/17	03/29/17	2d	
3	Research & Project First part	03/05/17	04/24/17	37d	
4	Meeting with client	03/28/17	03/28/17	1d	group
5	Project Description	03/05/17	03/07/17	3d	Ardit&Serxhio
6	Functional requirements	03/30/17	03/31/17	2d	Lorena&Irida
7	Skeching designs	04/01/17	04/03/17	2d	Serxhio
8	Non Functional requirements	04/15/17	04/18/17	3d	Lorena
9	User Stories	04/14/17	04/18/17	3d	Lorena
10	Use cases	04/20/17	04/24/17	3d	Irida
11	Scenarios	04/21/17	04/24/17	2d	Lorena&Irida
12	Diagrams	04/06/17	06/12/17	48d	
13	Use Case	05/15/17	05/16/17	2d	Irida
14	Sequences	05/17/17	05/19/17	3d	Lorena
15	Activity	05/19/17	05/23/17	3d	Lorena
16	DFD	06/04/17	06/05/17	2d	Ardit
17	Collaboration	04/06/17	04/06/17	1d	Serxhio
18	ERD	05/06/17	05/06/17	1d	Ardit
19	Working with the code	05/17/17	06/12/17	19d	
20	Started with code				Serxhio
21	Working with the code	05/17/17	06/09/17	18d	Lorena& Irida

7. How to use ?

The system can be accessed only by the users that are registered. However, this system can be accessed by external users that can be registered as clients and have limited access.

All the users can login with their credentials (username and password).

A client will be shown only rooms, with their respective information : description and price.

While the employees of the hotel can have other functionalities that the program offers related their roles.

The roles provided will be as following :

- * Manager : will have full access on the system and can act as an admin.
- * Finance : will have access only on Rooms, Products, Reservations and Finance.
- * Waiter: will have access only on sellings.
- * Receptionist: will have access only on Rooms and Reservations.
- * Office: will have access only on Products and Buyings.
- * Client: will have access only on the rooms and reservations, will limited access in each.

– At the Rooms section it will be listed all the rooms of the hotel (showing an image, description, nr. of beds and price per night). If the user has a certain role, he can edit the image of the room under the picture of that room and after choosing the image and clicking OK, the photo will be updated. Moreover one can edit other information of the rooms at the edit icon at the end of the name of the room, as well as delete it, only if found necessary. To add another room you can click at the button +Room at the beginning of the page.

– At the Employees section, you can add employees, edit the information of a certain employee, or delete him/her. Moreover you can decide if you need access in the system and if yes you can add him at the user icon at the end of the row. While adding him at the system you need to define his role. If the user has access to the system and you want to delete it, you can only click at the X button at the end of the row to delete him as a user.

– At the Product section, the user can add a product. When adding a product he/she must enter if the product is for selling, and its price if yes. In addition he/she needs to choose if it is a product from the restaurant, or a raw material, which means that it is not produced in the company, but is used/selled as is bought. For each product you can edit, delete and if it is a product change the quantities of each product that are used for it.

– At the Selling section, the waiters can make bills to register the orders. For each bill the should only choose the product (only products registered for selling will be shown) and the quantity ordered. Immediately in the table will be shown this product and the cost of it. If a product is wrongly added it can

be deleted at the X in the beginning of the row. After all the products are added the waiter should save the bill.

– The Buying section works almost the same as the Selling one. The only difference is that here there will be shown products that are raw materials, since the produced ones are not bought, but produced in the restaurant. Moreover the price of one unit is required when buying products.

If a products is wrongly added it can be deleted at the X in the beginning of the row. After all the products are added the worker should save the bill.

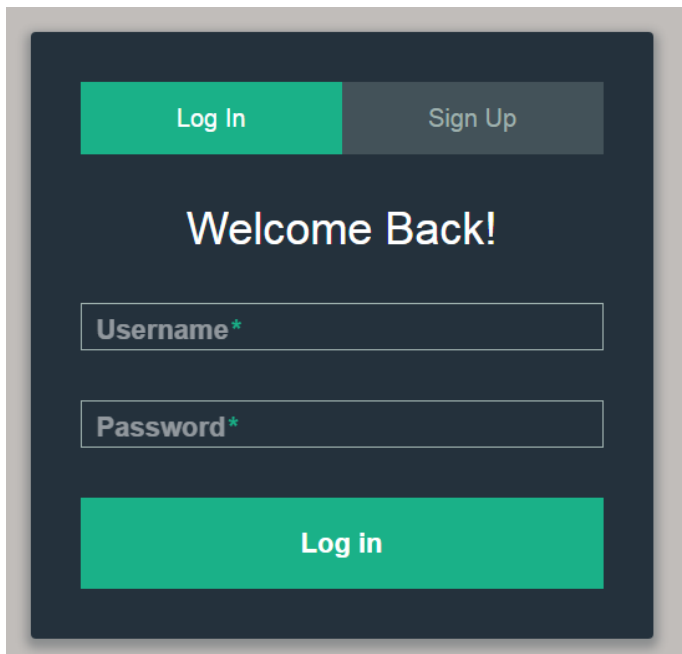
– The reservation section serves more as a searching panel for reservations. In order to make a reservation one should choose the dates he/she wants to stay in the hotel and after checking GO bellow will be listed the rooms and their respective information. A simple client can only see empty rooms, or if none is available he will be notified. On the other hand the receptionist can see even the information of the rooms that are not available. If one has not paid the room the receptionist must confirm the payment for that client. To make the reservation on an empty room the user must click on “Use this room” and add the needed information. A receptionist can also search for the rooms according to their name/code or by the client.

– Finance section shows a summary of the revenues and expenses done for the month from the beginning until the current day. It will show the revenues from the restaurant and those from the hotel. As far as expenses are considered, it will be shown the expenses acquired by the buying of the products. As it is known, there are other expenses done in a business. As a result all these expenses can be added at the button add expense, where the financier has to define the type of the expense and its value.

How to install?

The client will install the program in amazon servers that he actually has . so it is enough for us to send the files and the program can be accessed from the server ip that they have

9. Appendix

A dark-themed login form mockup. At the top, there are two buttons: 'Log In' in green and 'Sign Up' in grey. Below these is the heading 'Welcome Back!'. The form contains two input fields: 'Username*' and 'Password*'. At the bottom is a large green 'Log in' button.

Log In

Sign Up

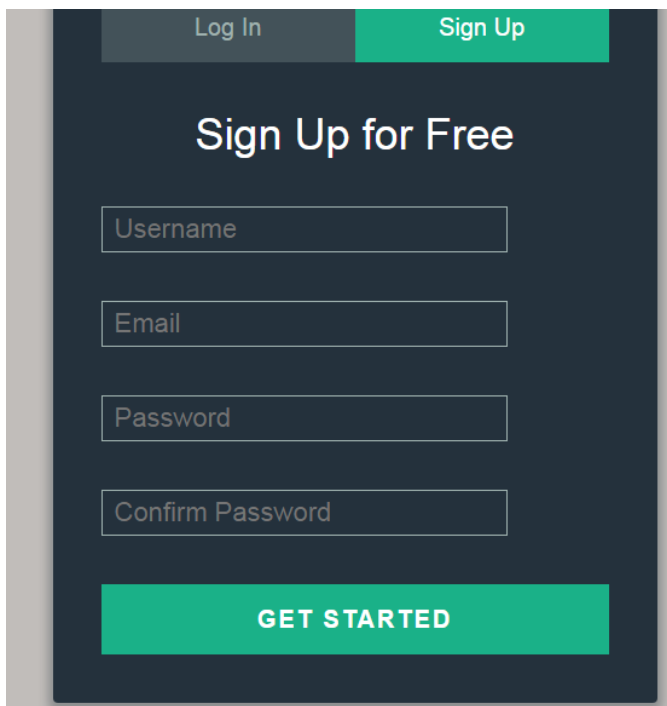
Welcome Back!

Username*

Password*

Log in

Log In

A dark-themed sign up form mockup. At the top, there are two buttons: 'Log In' in grey and 'Sign Up' in green. Below these is the heading 'Sign Up for Free'. The form contains four input fields: 'Username', 'Email', 'Password', and 'Confirm Password'. At the bottom is a large green 'GET STARTED' button.

Log In

Sign Up

Sign Up for Free

Username

Email

Password

Confirm Password

GET STARTED

Sign Up

ROOMS RESERVATIONS

Room

Room Code:

Description:

Nr. of beds:

Price/night (ALL):

Cancel OK

Bed: 2

Price/night: 2500 ALL

Choose File | No file chosen OK

Add room

ROOMS PRODUCTS RESERVATIONS FINANCE

STAR HOTEL Mon Jun 12 2017

Income statement for Star Hotel June 2017

Add an expense

Revenues	
Revenues from the restaurant	4400 ALL
Revenues from the hotel	11200 ALL
<i>Total Revenues</i>	<i>15600 ALL</i>
Expenses	
Purchases	42400 ALL
Energy	2000 ALL
Water Bill	1000 ALL
Other expenses	300 ALL
<i>Total Expenses</i>	<i>45700 ALL</i>
<i>Net Loss</i>	<i>-30100 ALL</i>

Add expenses and generate income statement

×

Add a new Product

Product

☐ For Selling

Type


☒ Raw Material
☐ Product

Quantity


Unit

Add

Add a new product



STAR HOTEL

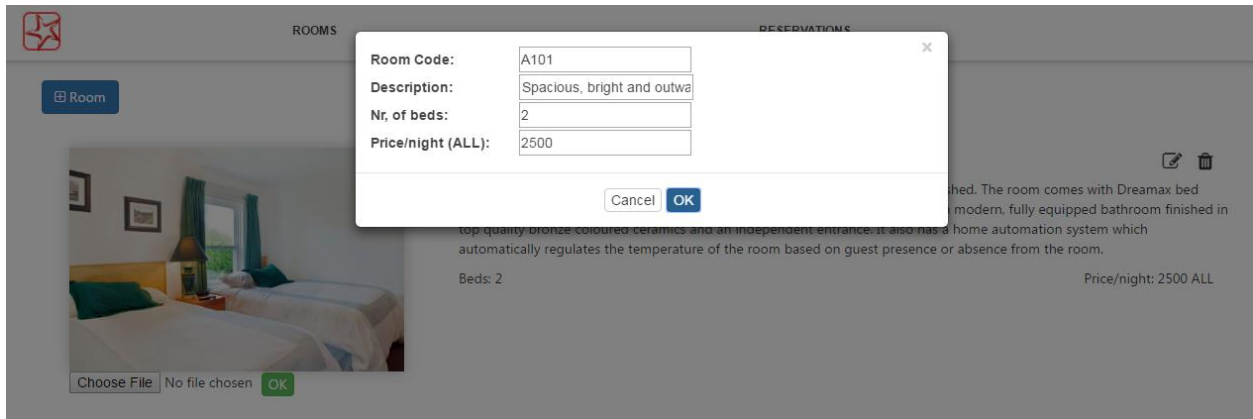
Follow us  @starhotel

Start Date:

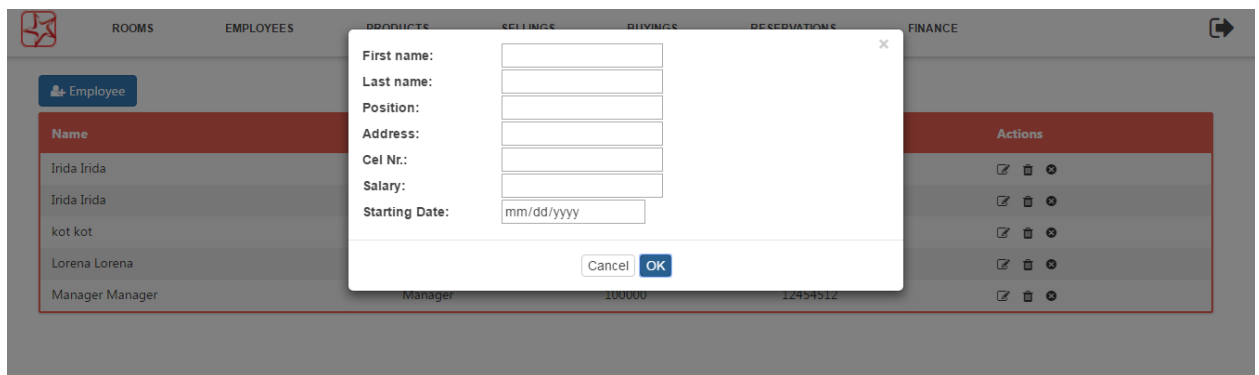
End Date:

Go

Make a reservation



Edit room/ delete room



Add/Edit/Delete employee

DETAILS

Product

Quantity

Price per unit

Add

Nr.	Product	Quantity	Price	Total
✕ 1	Coffee	3	20	60

Save Bill

Total : **60 ALL**

Buy products and save bill

DETAILS

Product

Quantity

Add

Nr.	Product	Quantity	Price	Total
✕ 1	Cafe	2	80	160

Save Bill

Total : **160 ALL**

Sell products and save bill

Contacts

For further information contact one of our team members:

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