**NAMES**: INGABIRE Rosette

**REG NO**:

**PROJECT NAME:** HOTEL MANAGEMENT SYSTEM

**PART 1: SYSTEM ENGENIERING**

**2.Introduction:**

**The Project Hotel Management System** is a web-based application that allows the hotel manager to handle all hotel activities online. Interactive GUI and the ability to manage various hotel bookings and rooms make this system very flexible and convenient. The hotel manager is a very busy person and does not have the time to sit and manage the entire activities manually on paper. This application gives him the power and flexibility to manage the entire system from a single online system. Hotel management project provides room booking, staff management and other necessary hotel management features. The system allows the manager to post available rooms in the system. Customers can view and book rooms online. Admin has the power of either approving or disapproving the customer’s booking request. Other hotel services can also be viewed by the customers and can book them too. The system is hence useful for both customers and managers to portable manage the hotel activities.

**3.Problem description:**

Currently in Rwanda, specifically in Provinces, customers have not the way that they can get information about the Hotels because of not having the online website or mobile applications to help those customers for Booking rooms And other services that Hotel offer.

**4.Solution:**

Customers they would like to have web application or mobile app so that they can easily search for the services that Hotel offer like Booking rooms, Food Delivery and so many services

**5.General Objectives Of Hotel Management System**

Hotel Software systems are sales-revenue-oriented rather than cost-control-oriented and are based on reservation, registration, and guest accounting needs of the property.

* Helps the customers to know the availability of the rooms
* Helps the customers to know the Menu of the Hotels
* Provides the location, address to the customers
* Easy to make Order and get delivery through web-application

**6.Specific Objective Of The Hotel Management System**

* It simplifies the administrative process for you and your staff
* It allows you to collect valuable data about your guests
* It directly improves the guest experience at your property

### **Develop strong relationships with your guests**

### **Increase your online visibility**

### **Accurate daily reports**

### **Prevent double bookings and manual errors**

### **Analyze your customer base**

**7.  FUNDAMENTAL REQUIREMENTS**

The key requirements that need to be offered by the Hotel management system can be classified into **functional and non-functional requirements.**

# 7.1. Functional Requirements for Hotel Management System

1. Reservation/Booking

* record reservations
* record the customer’s first name
* record the customer’s last name
* record the number of occupants
* record the room number
* display the default room rate
* record the customer’s phone number
* display whether or not the room is guaranteed
* generate a unique confirmation number for each
* record the expected check-in date and time
* The system shall record the expected checkout date and time
* The system shall check-in customers
* The system shall allow reservations to be modified without having to reenter all the customer information
* The system shall checkout customers
* The system shall charge the customer for an extra night if they checkout after 11:00 m.The system shall mark guaranteed rooms as “must pay” after 6:00 pm on the check-in date.
* The system shall record customer feedback

 2.  Food

* The system shall track all meals purchased in the hotel (restaurant and room service).
* The system shall record payment and payment type for meals
* The system shall bill the current room if payment is not made at time of service
* The system shall accept reservations for the restaurant and room service

3. Management

* display the hotel occupancy for a specified period of time (days; including past, present, and future dates).
* display projected occupancy for a period of time (days).
* display room revenue for a specified period of time (days).
* display food revenue for a specified period of time (days).
* display an exception report, showing where default room and food prices have been overridden
* allow for the addition of information, regarding rooms, rates, menu items, prices, and user profiles
* allow for the deletion of information, regarding rooms, rates, menu items, prices, and user profiles
* allow for the modification of information, regarding rooms, rates, menu items, prices, and user profiles
* allow managers to assign user passwords

**8. Non-functional Of Hotel Management System**

* Use encryption to avoid bots from booking
* Search results should populate within acceptable time limits
* Users should be helped appropriately to fill in the mandatory fields, in case of invalid input
* System should accept payments via various payment methods
* Easy to use, efficient, and accessible
* Keep track of documentation, activities, and responses

The main point to remember is that this technology enables guests to choose and book their own rooms online via a secure portal. It must be straightforward and safe, but it must also offer you the same convenience and range of use it does your guests. This way, it won’t only make

life is easier but you can use the data it provides to source more revenue and profit for your hotel.

**9.Feasibility Study**

Considering the requirements, a full scale feasibility study was undertaken for testing the possibility of computerisation of the Hotel management system. The feasibility study was carried out under the following three areas :

* Technical Feasibility
* Social Feasibility
* Economic Feasibility

1. **Technical feasibility**

The system may not be complicated to install either in taking much space/ storage to the computer or and to use, the system can be running in the many computers that may not lead to too much cost.

This shows that technically it is possible to get the required hardware, software and a person having complete understanding of the requirements to develop the software package.

Before starting developing software we must first make sure that the software we are going to build will work in the library’s computer

**2. Social Feasibility**

Generally computerisation brings fear of unemployment among the existing staff. The automation of Hotels  will not create unemployment problems but it will create new job positions, like system manager, system analyst, programmers and programme maintenance staff, data entry and problems they have in the existing system. At the time of implementation, each employee will be consulted and accordingly, in-house education and training programmes will be arranged for the existing staff member of the Hotels for 8-1 0 days duration. However, staff members who are about to retire within 1-2 years, may be reluctant to undergo training in computer use of computers due to ignorance, fear and hostility, such persons can be utilized for manual professional activities, as an alternative to avoid redundancy payment.

**3.  Economic Feasibility**

The economic feasibility study was carried out under following areas:

* Cost of operations of existing system
* Cost of operations of the proposed system
* Cost of development of the proposed system
* Benefits of the proposed system.

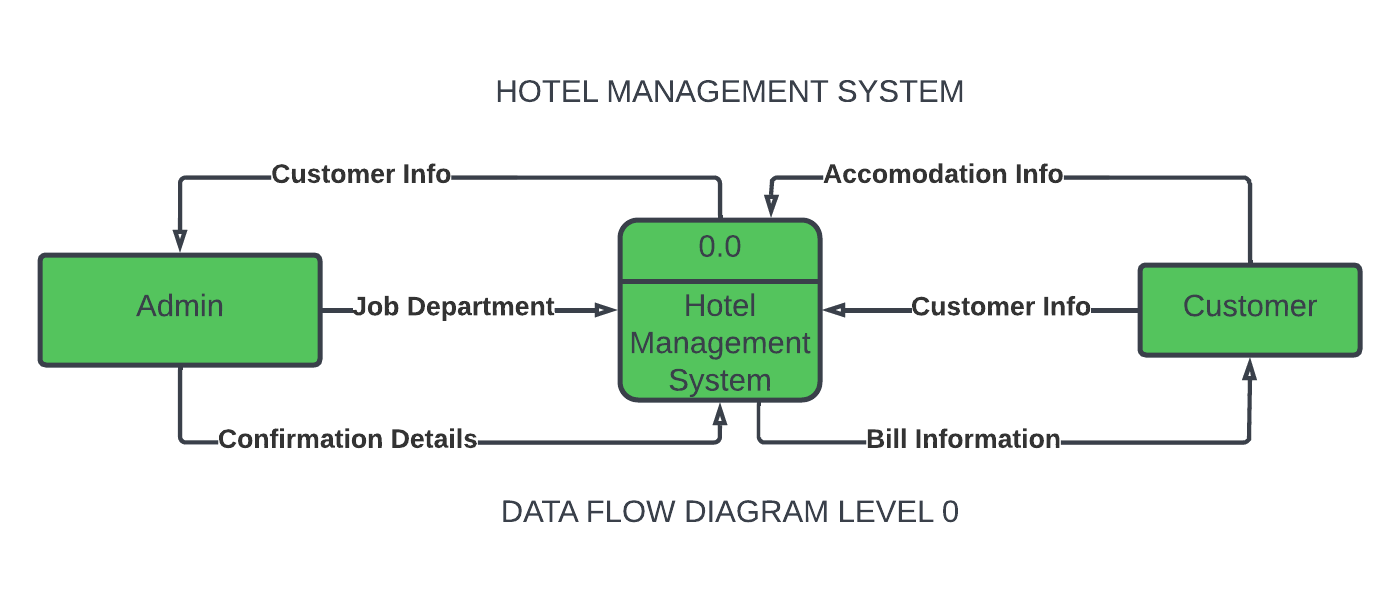
Cost of operations of the existing system : Financial records, like annual budget, payrolls, etc. were scrutinized and the librarian and each section incharge in BAMUL was interviewed to determine the manpower cost, material cost, operating cost, equipment cost, overhead cost, etc. for calculation of unit cost of each operations in Hotel.

The total operational expenditure of the Hotels on manpower, material overhead, etc

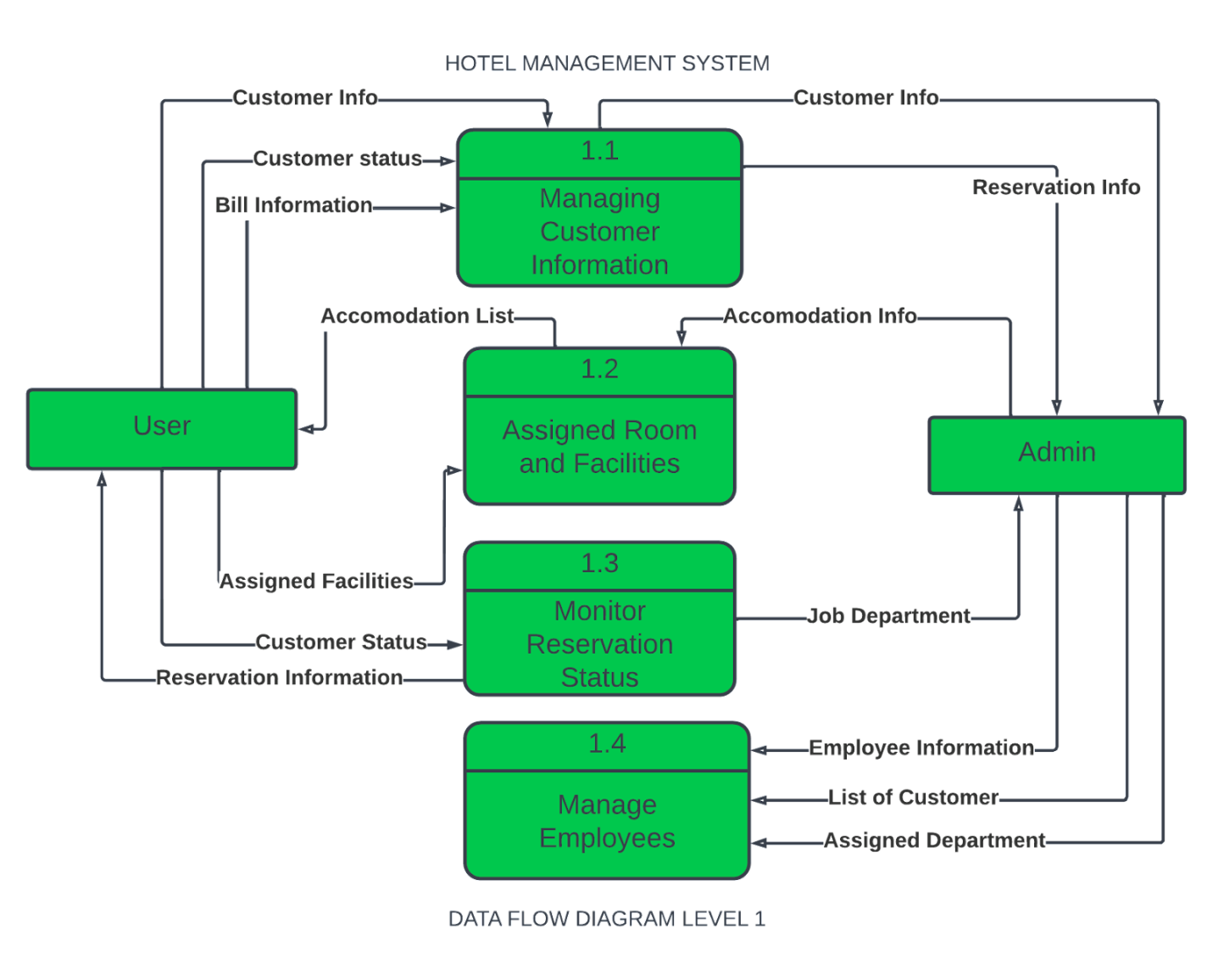
Cost of operation of the proposed system: The computerized Hotel management system requires manpower, materials, equipment, overhead cost, etc. Also, it requires data preparation and conversion cost, maintenance cost, site preparation cost, etc

**10. DATA FLOW DIAGRAM OF HOTEL MANAGEMENT SYSTEM**

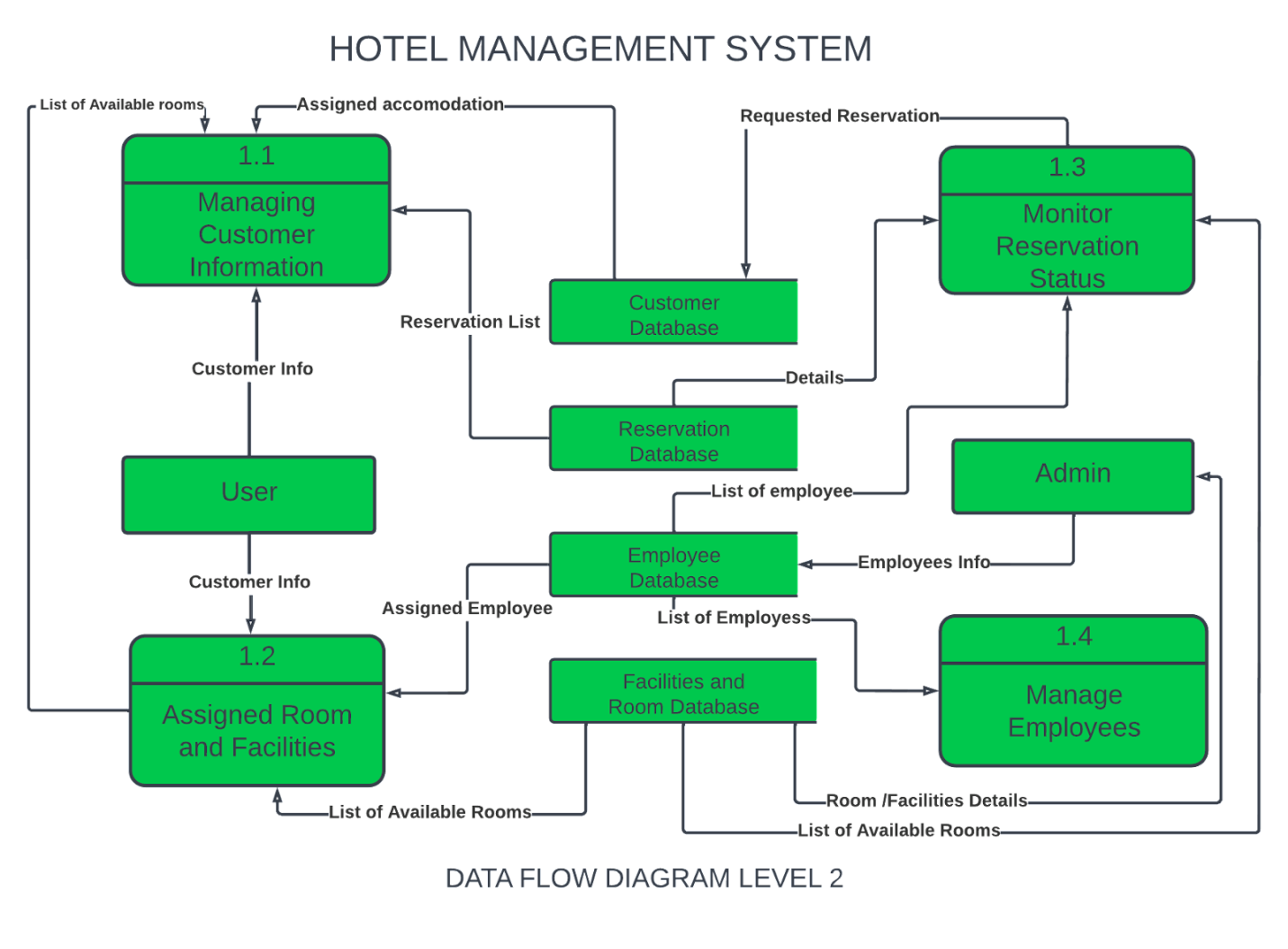
**10.1 Data Flow Diagram Level 0**

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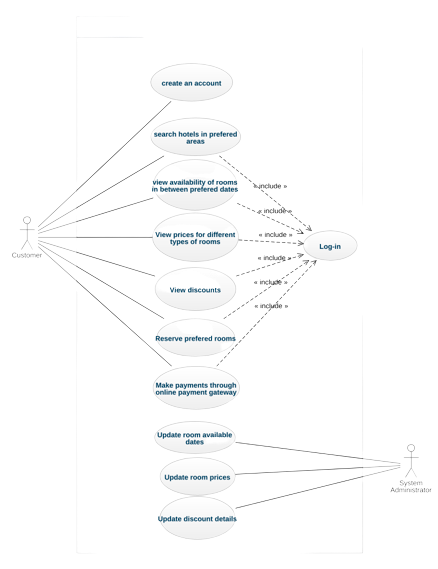
**10.2 DFD for Hotel Management System Level 1**

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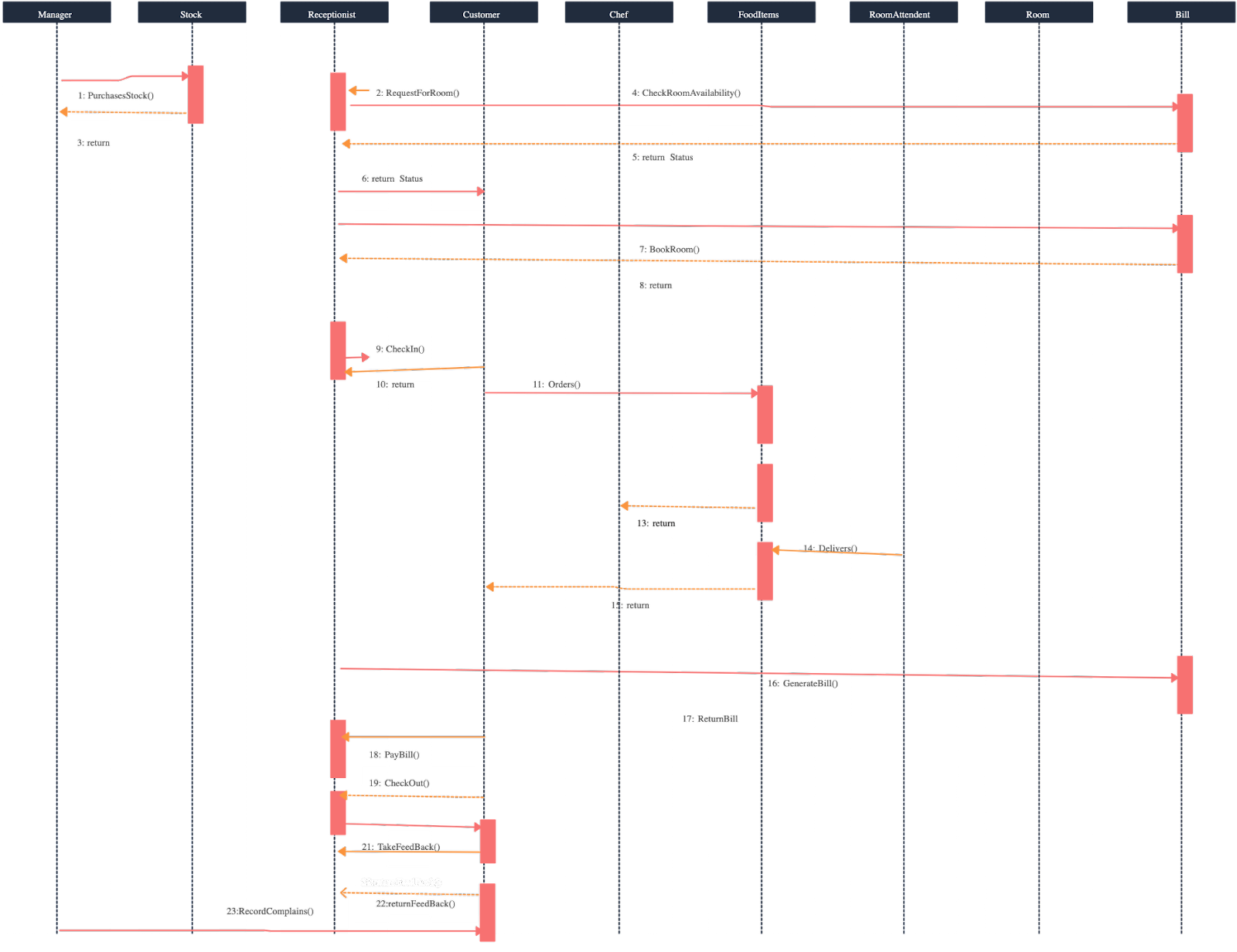
**10.3 DFD for Hotel Management System Level 2**

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**11. User Case Diagram**

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**12.Sequence Diagram**



**PART 2: DATABASE**

**Section I**

1. Describe all the entities and their corresponding attributes that are in your database.

* Customer table
* Room table
* Reservation Table
* Room class table
* Payment table
* Employee table
* Transaction table
* Reports table

3. Create a LDM of your entities

Table name: **customerTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| cust\_Id PK | Customer ID | int | 11 |
| custFname | Customer firstname | varchar | 255 |
| custLname | Customer lastname | varchar | 255 |
| reservation | reservation | varchar | 255 |
| address | Customer address | varchar | 255 |
| status | Customer stutas | varchar | 255 |
| contact\_address | Customer contact | int | 11 |

Table name: **roomTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| room\_Id PK | Room ID | int | 11 |
| room\_type | Room type | varchar | 255 |
| price | Room price | int | 11 |
| room\_sample | Room sample | varchar | 255 |
| description | Room description | varchar | 255 |

Table Name: **reservationTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| reservation\_Id PK | reservation ID | int | 11 |
| customer\_ID FK | Customer ID | int | 11 |
| room\_ID FK | Room ID | int | 11 |
| reservation\_date | Date of reservation | date |  |
| date\_in | Date of comming in | date |  |
| date\_out | Date of comming out | date |  |
| days\_range | Range of days | int | 11 |

**Table name : RoomClassTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| class\_Id PK | Room class ID | int | 11 |
| name | Room name | varchar | 255 |
| price | Room price | int | 11 |

Table name: **PaymentTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| payment\_Id PK | payment ID | int | 11 |
| customer\_ID FK | Customer ID | int | 11 |
| payment\_amount | Payment amount | int | 11 |
| type | Payment type | varchar | 255 |
| payment\_date | Date of payment | date |  |

Table name: **EmployeesTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| employee\_Id PK | employee ID | int | 11 |
| fname | firstname | varchar | 255 |
| lname | lastname | varchar | 255 |
| job\_department | Job department | varchar | 255 |
| address | address | text |  |
| contact\_address | Contact address | int | 11 |
| username | username | varchar | 255 |
| password | password | varchar | 255 |

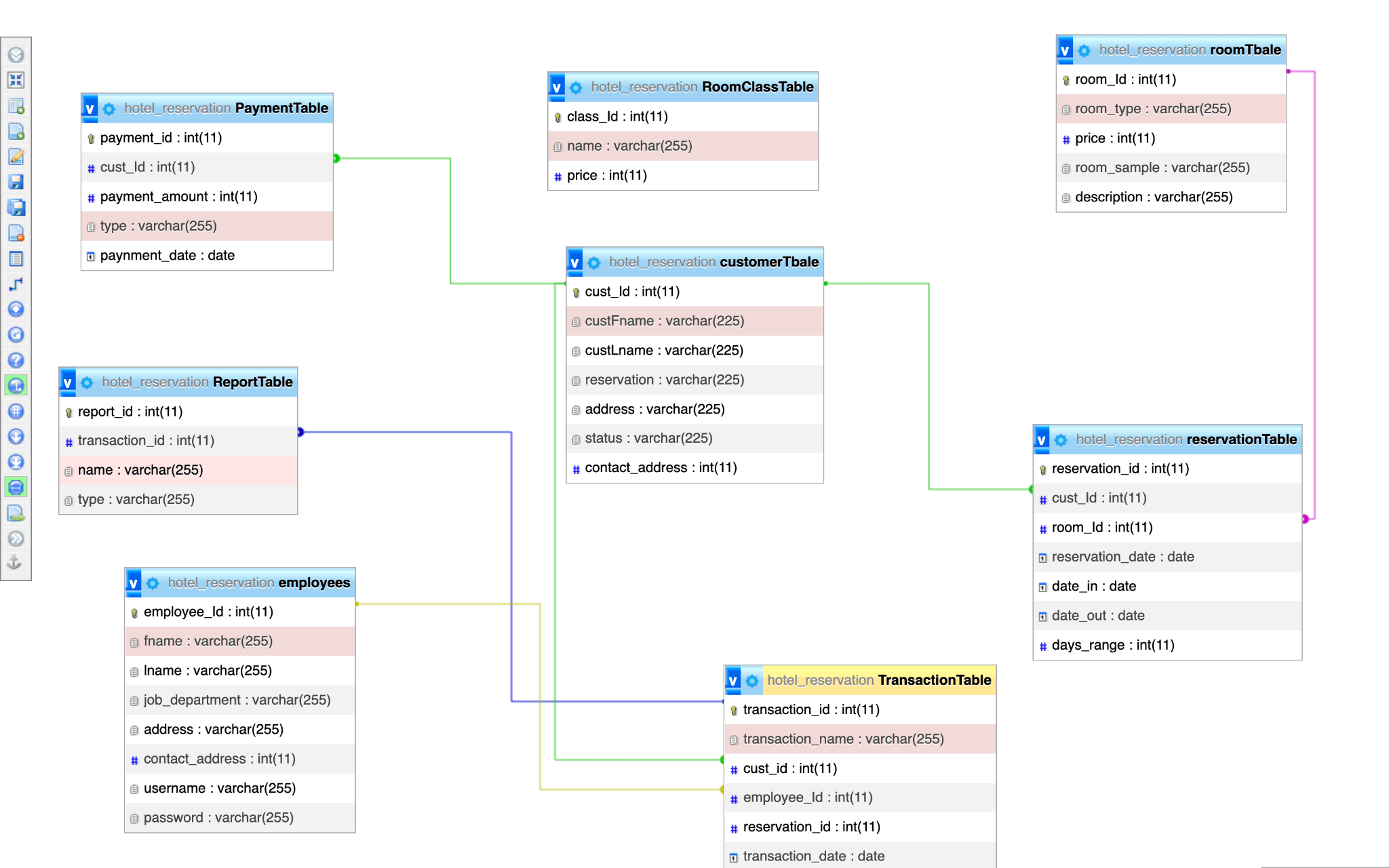
Table name: **TransactionTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| transaction\_Id PK | transaction ID | int | 11 |
| transaction\_name | Transaction name | varchar | 255 |
| customer\_ID FK | Customer id | int | 11 |
| employee\_ID FK | Employee id | int | 11 |
| reservation\_ID FK | Reservation id | int | 11 |
| transaction\_date | Transaction date | date |  |

**Table name: ReportTable**

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Length |
| report\_Id PK | Report ID | int | 11 |
| transaction\_ID FK | Transaction ID | int | 11 |
| name | Report name | varchar | 255 |
| type | Report type | varchar | 255 |

4. Create an ERD

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**Section II SQL**

1. Create the database of your system

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-database.html) [DATABASE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-database.html) hotel\_reservation;

2. Write queries to create all the tables and relationship of your system

// create customer table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) customerTbale (cust\_Id int (11) PRIMARY KEY, custFname varchar (225), custLname varchar (225), reservation varchar (225), address varchar (225), status varchar (225), contact\_address int (11) );

//create roomTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) roomTbale (room\_Id int (11) PRIMARY KEY, room\_type varchar (255), room\_sample varchar (255), description varchar (255) );

//create Employees

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) employees(employee\_Id int(11) PRIMARY KEY,fname varchar(255),lname varchar(255),job\_department varchar(255),address varchar(255),contact\_address int(11),username varchar(255),[password](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/encryption-functions.html%23function_password) varchar(255));

//create roomClassTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) RoomClassTable (class\_Id int (11) PRIMARY KEY, name varchar (255), price int (11) );

//create paymentTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) PaymentTable (payment\_id int (11) , cust\_Id int (11), type varchar(255), paynment\_date date, PRIMARY KEY (payment\_id), FOREIGN KEY (cust\_Id) REFERENCES customerTbale(cust\_Id) );

//create reservationTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) reservationTable (reservation\_id int (11) , cust\_Id int (11), room\_Id int (11), reservation\_date date, date\_in date, date\_out date, days\_range int (11), PRIMARY KEY (reservation\_id), FOREIGN KEY (cust\_Id) REFERENCES customerTbale(cust\_Id) );

//add constraint

[ALTER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/alter-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/alter-table.html) reservationTable ADD CONSTRAINT FK\_reservationRoom FOREIGN KEY (room\_Id) REFERENCES roomTbale (room\_Id);

//create transactionTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) TransactionTable (transaction\_id int (11), transaction\_name varchar (255), cust\_id int (11), employee\_Id int (11), reservation\_id int (11), transaction\_date date, PRIMARY KEY (transaction\_id), FOREIGN KEY (cust\_id) REFERENCES customerTbale (cust\_id) );

//add constraint

[ALTER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/alter-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/alter-table.html) TransactionTable ADD CONSTRAINT FK\_transactionEmp FOREIGN KEY (employee\_Id) REFERENCES employees (employee\_Id);

//create ReportTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) [TABLE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-table.html) ReportTable (report\_id int (11), transaction\_id int (11), name varchar (255), type varchar (255), PRIMARY KEY (report\_id), FOREIGN KEY (transaction\_id) REFERENCES TransactionTable ( transaction\_id) );

3. write queries to insert data into your tables.

//insert into customerTable

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO customerTbale [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 'Ingabire Rosette', 'Rosette', 'Booking room', 'Kigali kicukiro', 'single', 987654321);

//insert into employees table

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO employees [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 'IRADUKUNDA ', 'Benjamin', 'Reception', 'Kigali', 987654321, 'BenIraa', 'kigali123');

//insert into paymentTable

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO PaymentTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 1, 2343, 'Booking Room', 2022-07-20);

//insert into roomTable

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO `roomTbale` [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 'Single room', 'one person', 'This room we allow you to sleep alone'),

(2, 'vip', 'include Toilet and washing room', 'this room we allow you to sleep with someone else only');

//insert into roomclassTable

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO RoomClassTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 'VVIP', 12345);

//insert into transactionTable

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO TransactionTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 'booking vvip room', 1, 1, 1, 2022-07-17);

//insert into reservation room

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO reservationTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 2, 1, 2022-07-22, 2022-07-23, 2022-07-25, 3);

//insert into reportTable

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO ReportTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1, 1, 'Nshuti blaise Booked room 1’, 'single room');

4. Write queries to display all the information in your tables.

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM customerTbale;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM employees;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM PaymentTable;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM ReportTable;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM reservationTable;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM RoomClassTable;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM roomTbale;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM TransactionTable;

5. Write a query to update information in any of the two tables of your system.

//update roomTable

[UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html) roomTbale [SET](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/set.html) price = '4321' WHERE roomTbale.room\_Id = 1;

//update reservationTable

[UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html) ReportTable [SET](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/set.html) name = 'Nshuti blaise Booked vvip room 1' WHERE ReportTable.report\_id = 1;

**Section III**

1. Create view to insert data into your tables

//Create View CustomerTable View

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) customerTbaleView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM customerTbale;

//Insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO customerTbaleView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (12, 'IKIREZI ', 'Eunice', 'Booking single room', 'Huye', 'single', 987654321);

//Create Employees View

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) employeesView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM employees;

//insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO employeesView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (1212, 'Nyombayire', 'assoumpta', 'Reservation ', 'I TUMBA', 987654321, 'Nyomba', 987654321);

//Create Payment Table view

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) PaymentTableView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM PaymentTable;

//Insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO PaymentTableView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (34, 1, 2343, 'Single room', 2022-07-24);

//Create ReportTable View

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) ReportTableView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM ReportTable;

//Insert

I[NSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO ReportTableView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) ('2', '1', 'Booking single room', 'single room');

//Create Reservation Table view

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) reservationTableView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM reservationTable;

//Insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO reservationTableView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (122, 12, 1, 2022-07-22, 2022-07-23, 2022-07-25, 3);

//Create RoomClassTable

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) RoomClassTableView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM RoomClassTable;

//Insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO RoomClassTableView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (323, 'Maried room', 12345);

Create RoomTable View

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) roomTbaleView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM roomTbale;

//Insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO roomTbaleView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) ('121', 'couple room', '11222', 'For couples', 'Allow you to come with your partner');

//Create TransactionTable View

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) TransactionTableView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM TransactionTable;

//Insert

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO TransactionTableView [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) (33, 'Booking Room', 1, 1, 122, 2022-07-17);

2. Create a view to display all the information in your tables.

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM customerTbaleView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM employeesView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM PaymentTableView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM ReportTableView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM reservationTableView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM RoomClassTableView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM roomTbaleView;

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM TransactionTableView;

3. Create a view to update information in any of the two tables of your system.

//UPDATE roomClassTable

[UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html) RoomClassTableView [SET](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/set.html) class\_Id = 2 WHERE RoomClassTableView.class\_Id = 323;

//UPDATE reservationTableView

[UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html) reservationTableView [SET](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/set.html) reservation\_id = 2 WHERE reservationTableView.reservation\_id = 122;

4. Create a view to delete data in any two of your tables according to any simple condition of your choice.

//Report Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) ReportTableView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM ReportTable;

//Delete

DELETE FROM ReportTableView WHERE ReportTableView.report\_id = 2;

//Employee Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) employeesView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM employees;

//Delete

DELETE FROM employeesView WHERE `employeesView`.`employee\_Id` = 1

5. In your database, create one view of your choice that considers sub-query.

//create

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) [VIEW](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-view.html) customerTbaleView AS [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM customerTbale;

//SubQuery

[SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) \* FROM customerTbaleView WHERE cust\_Id [IN](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/comparison-operators.html%23function_in) ( [SELECT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/select.html) [MIN](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/aggregate-functions.html%23function_min)(cust\_Id) );

**Section IV**

1. Create a stored procedure to insert data into your tables.

CREATE PROCEDURE `DisplayReport`(IN `report\_id` INT, IN `trans\_id` INT, IN `book\_id` INT, IN `bk\_title` INT, IN `ReturnedCopies` INT, IN `ReportPenality` INT) NOT DETERMINISTIC CONTAINS SQL SQL SECURITY DEFINER SELECT \* from report;

CREATE PROCEDURE `paymentProcedure`(IN `payment\_id` INT(11), IN `cust\_id` INT(11), IN `payment\_name` VARCHAR(11), IN `type` VARCHAR(11)) NOT DETERMINISTIC CONTAINS SQL SQL SECURITY DEFINER INSERT into paymenttable VALUES (001,0001,'auhsa','single room');

**Section V**

1. Create after insert triggers for any two tables of your choice

// Customer Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) customerTbaleTriggers

AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON customerTbale FOR EACH ROW

BEGIN

[INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO customerTbale [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.cust\_Id, NEW.custFname, New.custLname, NEW.reservation, NEW.address, NEW.status, NEW.contact\_address, NOW()); END;

//Employee Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) employeesTriggers AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON employees FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO employees [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.employee\_Id, New.fname, NEW.lname, NEW.job\_department, NEW.address, NEW.contact\_address, NEW.username, NEW.password, NOW()); END;;

//Payment Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) PaymentTabletrigger AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON PaymentTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO PaymentTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.payment\_id, New.cust\_ID, NEW.payment\_amount, NEW.type, NEW.paynment\_date, NOW()); END;

//Transaction Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) ReportTableTrigger AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON ReportTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO ReportTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.report\_id, New.transaction\_id, NEW.name, NEW.type, NOW()); END;

//Reservation Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) reservationTableTrigger AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON reservationTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO reservationTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.reservation\_id, New.cust\_Id, NEW.room\_Id, NEW.reservation\_date, NEW.date\_in, NEW.date\_out, NEW.days\_range, NOW()); END;

//RoomClass Tabele

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) RoomClassTableTrigger AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON RoomClassTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO RoomClassTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.class\_id, NEW.name, New.price, NOW()); END;

//Room Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) roomTbaleTrigger AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON roomTbale FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO roomTbale [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.room\_Id, NEW.room\_type, New.price, New.room\_sample, New.description, NOW()); END;

//Transaction Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) TransactionTableTrigger AFTER [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON TransactionTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) INTO TransactionTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values)(NEW.transaction\_Id, NEW.transaction\_name, New.cust\_Id, New.employee\_Id, New.reservation\_id, New.transaction\_date, NOW()); END;

2. Create after update triggers for any two tables of your choice.

//Room class Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) RoomClassTableUPDATE AFTER [UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html) ON RoomClassTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) into RoomClassTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) ([user](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user)(), CONCAT('Update Room Class Table Record ', OLD.price,' 89,333 :',OLD.class\_id,3, NEW.name)); END;

//Report Table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) ReportTableUPDATE AFTER [UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html) ON ReportTable FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) into ReportTable [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) ([user](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user)(), CONCAT('Update Report Record ', OLD.name,' 89,333 :',OLD.type,'vvip', NEW.transaction\_id)); END;

3. Create after delete triggers for any two tables of your choice.

//Employee

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) employeesDelete AFTER [DELETE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/delete.html) ON employees FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) into Student [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) ([user](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user)(), CONCAT('Delete Student Record ', OLD.employee\_Id,' Name :',OLD.fname, '-> Deleted on ', NOW())); END;

**//**room table

[CREATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) [TRIGGER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/create-trigger.html) rooomTbaleDelete AFTER [DELETE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/delete.html) ON roomTbale FOR EACH ROW BEGIN [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) into roomTbale [VALUES](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/miscellaneous-functions.html%23function_values) ([user](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user)(), CONCAT('Delete Student Record ', OLD.room\_id,' id :',OLD.price, '-> Deleted on ', NOW())); END;

**Section VI**

1. Create a user with your names as username and your student number as password and grantee all privileges to the created user.

CREATE [USER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user) 'rosetteINGABIRE'@'localhost' IDENTIFIED BY '221023464';

2. Create a user with your "names\_semi" as username and your student number as password and give him insert, update and delete privileges to the created user.

//creating user

CREATE [USER](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/information-functions.html%23function_user) 'INGABIRE\_semi'@'localhost' IDENTIFIED BY '221023464';

//Grant Privileges

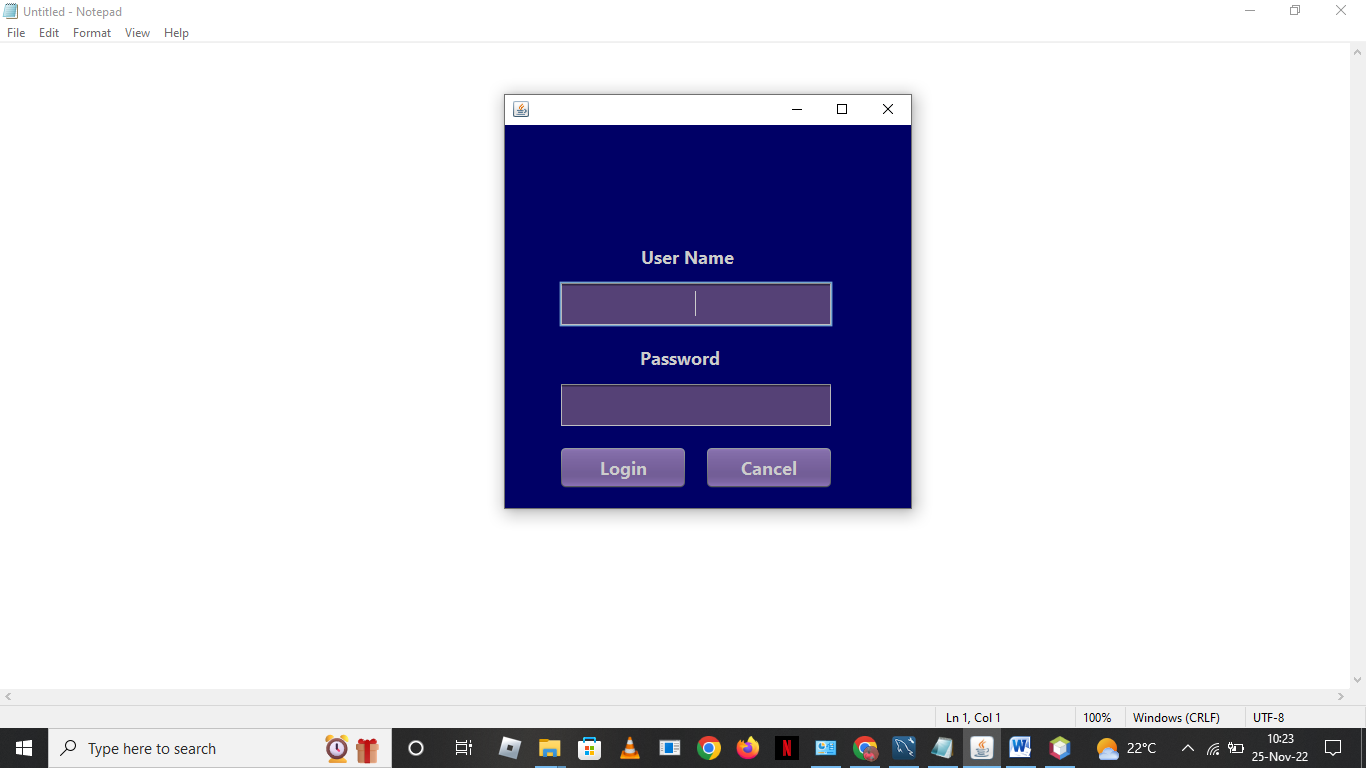
GRANT [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html), [UPDATE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/update.html), [DELETE](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/delete.html) ON \*.\* TO 'INGABIRE\_semi'@'localhost';

3. Revoke insert privileges to the last user you created.

REVOKE [INSERT](http://localhost:8080/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/8.0/en/insert.html) ON \*.\* FROM 'INGABIRE\_semi'@'localhost';

**SCREENSHOOTS: [VIEW, TRIGGERS, PROCEDOURES]**

**PART 3: JAVA APPLICATION (SCREENSHOOT)**



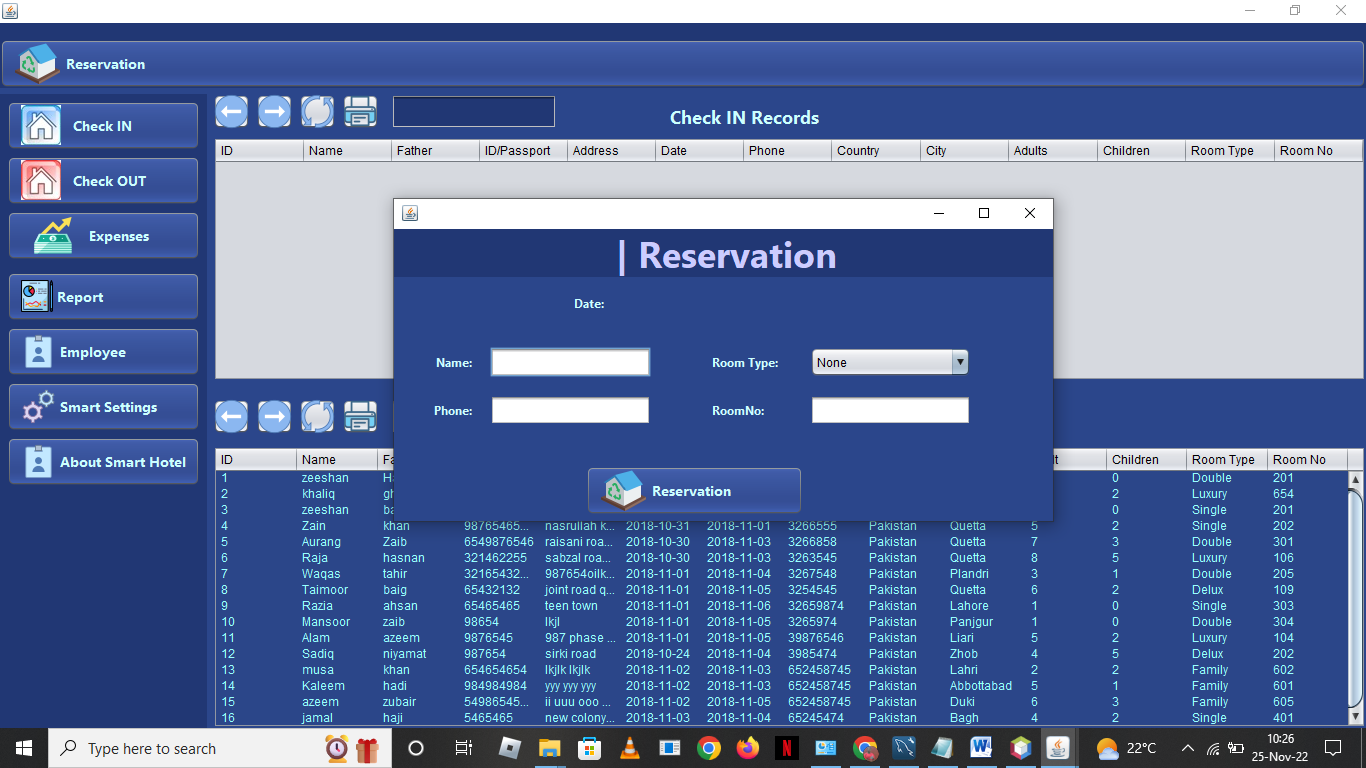
**Login page**: only admin should login with credential from database (his/her information stored in database), you can’t be logged in without stored in the database

**Login** **credentials** **stored in database**: username: **Rosette** Password: **1234**

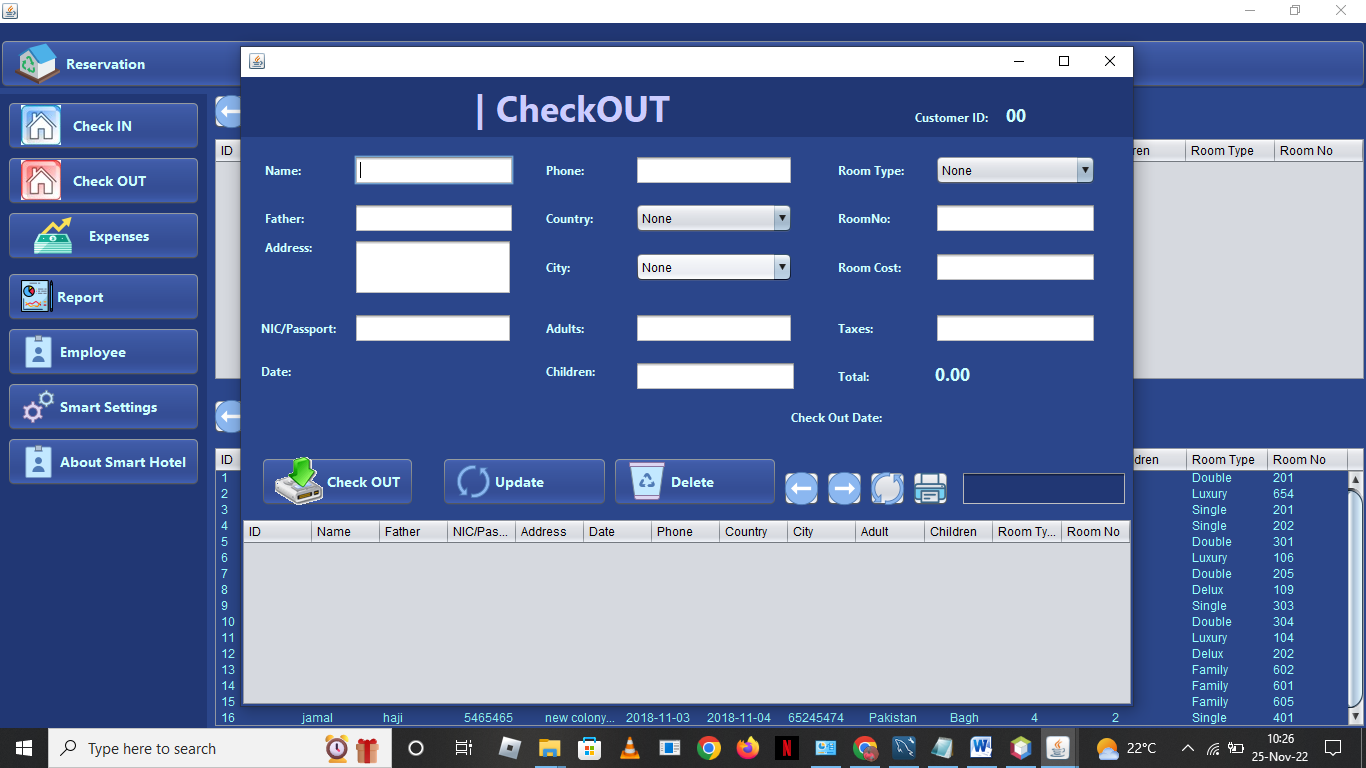


**Landing page:** Includes 8 menu on the side bar which have full functionalities of this project

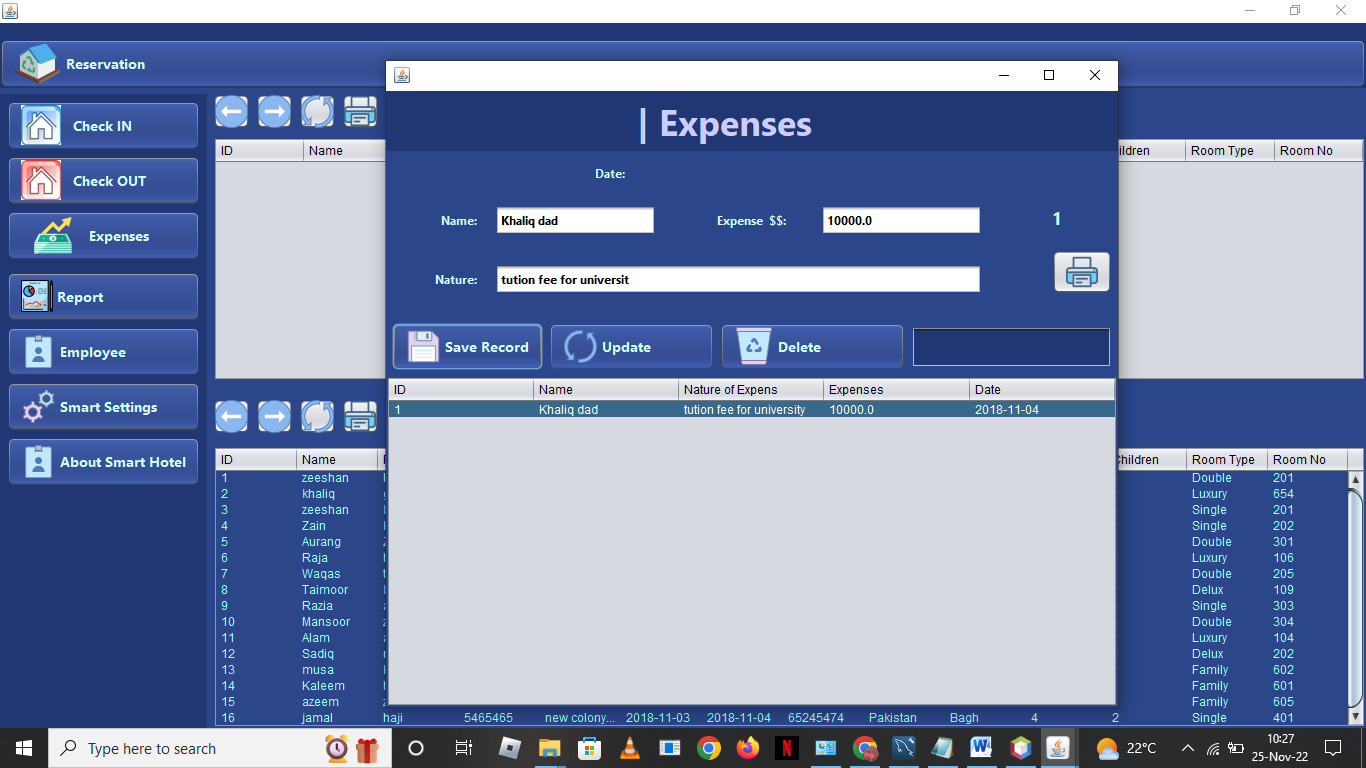
As attached bellow:



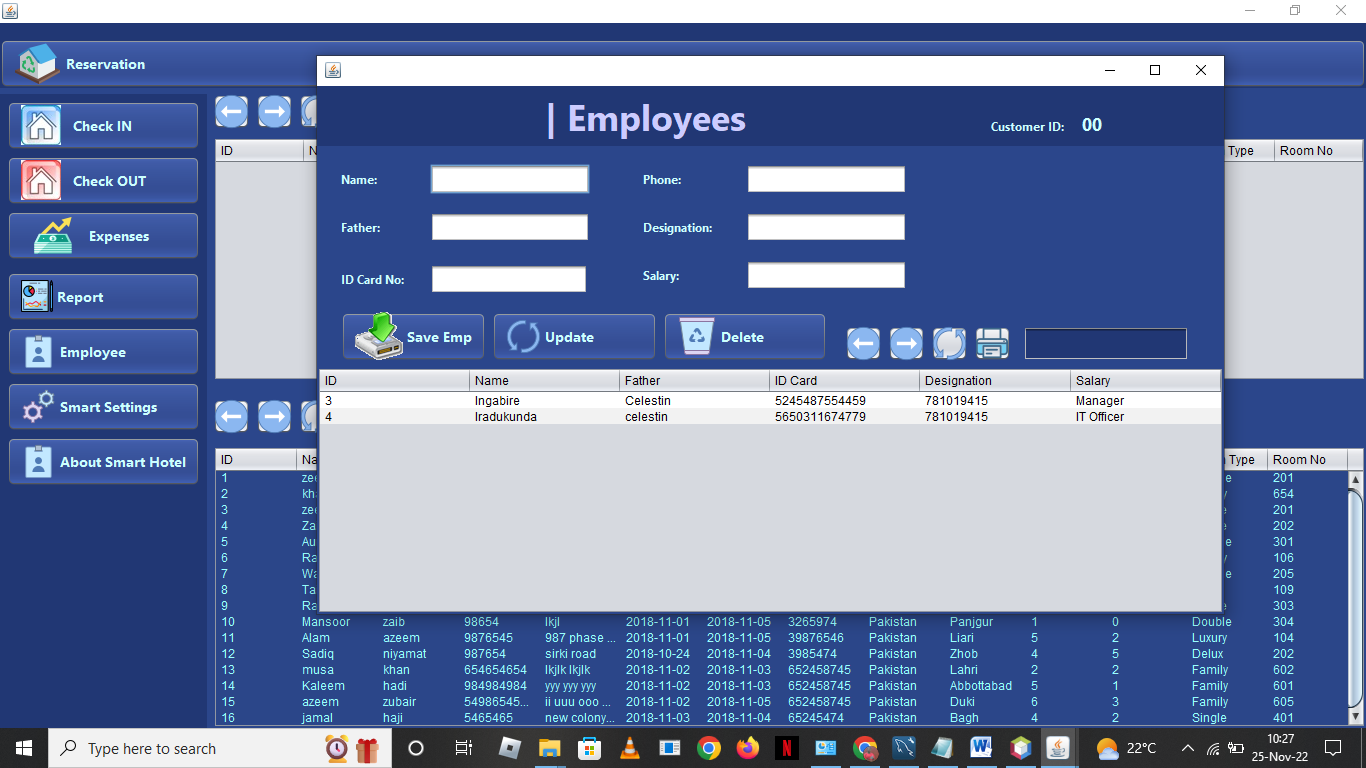
* 1. **Reservation modal:** Which allows the admin to add new Reserved room for the client and that room to be highlighted as booked room in our tables



* 1. **Check in And Check out Modals:** Allows admin to add the customers in the list of customers which has given the rooms in the Hotel, and For the checkout is to mark the customers which is out of the hotel and the cost to be charged

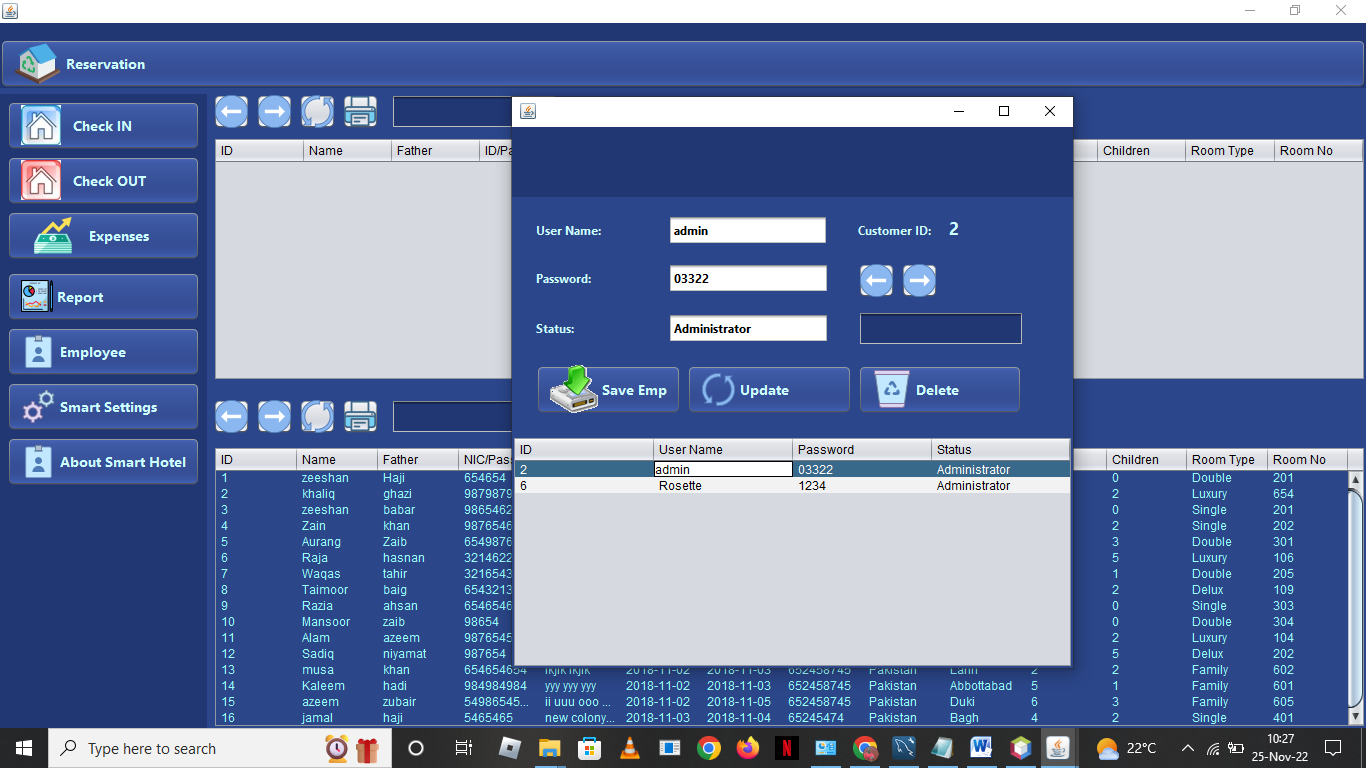


* 1. **Expenses modal:** Allow admin to store the transactions that made within the Hotel
* **CRUD:** Onlyadmin can manipulates all functions.

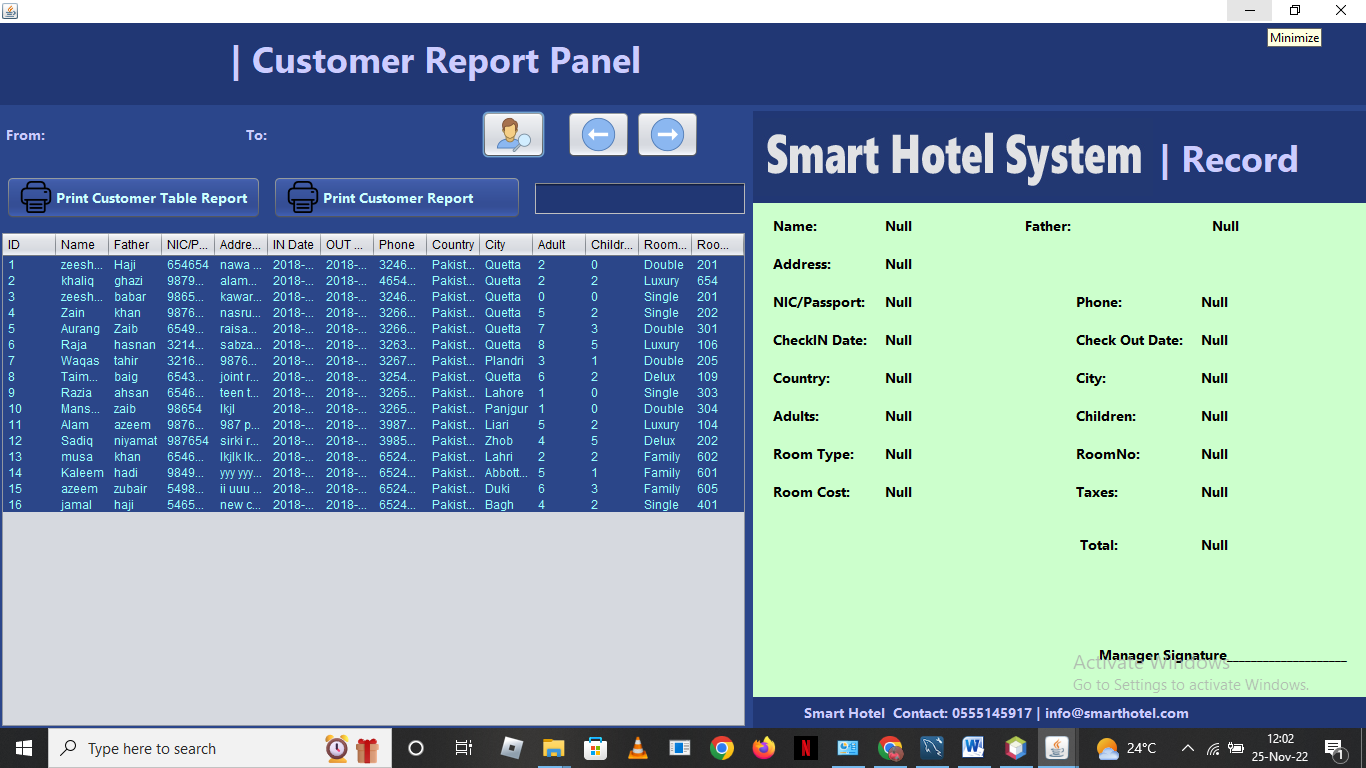


* 1. **Employees:** Allows admin to add the employees and their salaries to help in managements of expense and manage employees

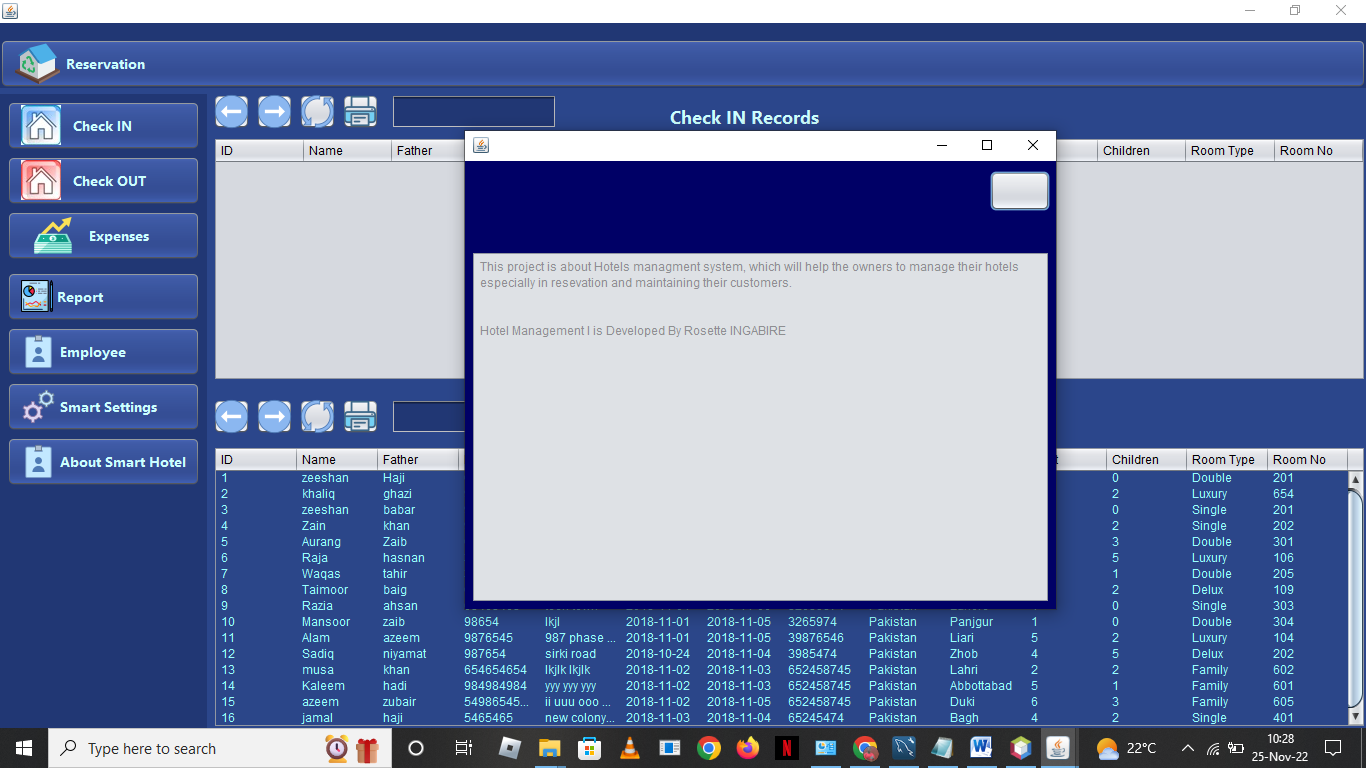
**Only admin can modify, delete or add Employee**



* 1. **Smart Setting:** Where we can add new admin and CRUD functionalities



* 1. **Customer reports :** Admin can be able to view all list of marked as out of the hotel and system provide the customer receipt that will help in payments



* 1. **About modal :** The short description of the hotel management system

**Conclusion:**