Guest House : -

Guest House service project is mainly implemented using three entities that are customer, room and food. The Customer table keeps the record of all guests that have registered and living in guest house. Rooms table keeps the record of all rooms and their status whether it is occupied or not. And the food table keeps the record of food menu available for order for the guest. The Description of these entities are as follow :-

1.Customer Table

Fields	Type	Size
cid (PRIMARY KEY)	varchar	30
password	varchar	150
name	varchar	30
email	varchar	30
mobile	varchar	15
rtype	int	---
amount (default 0)	int	---
paid (default 0)	int	---
checkin	date	---
type	int	---

cid is the customer id and this is unique for all the customers. Name is the name of the customer and password is the hashed password entered by the user at the time of registration. Email and mobile are the email and phone no. of user respectively. Rtype is the type of room user selected at the time of registration. There are three types of room that are Gold, Platinum and Diamond having value 1,2 and 3 respectively. Amount keeps track of total bill of the user and paid is the total amount that user has paid till. Checkin is the date when user checks in or registered. Last attribute type defines the user type. For all the customers it is zero and for admin it is 1.

2.Room Table

Fields	Type	Size
rid	varchar	30
rtype	int	--
status	int	--

rid is the room ID which is unique and the primary key. rtype is the room type which can take 3 values that is 1,2 and 3 that means Gold, Platinum and Diamond respectively. And the last attribute status keeps the record of occupancy. If status is 1 it means that room is occupied otherwise it is unoccupied.

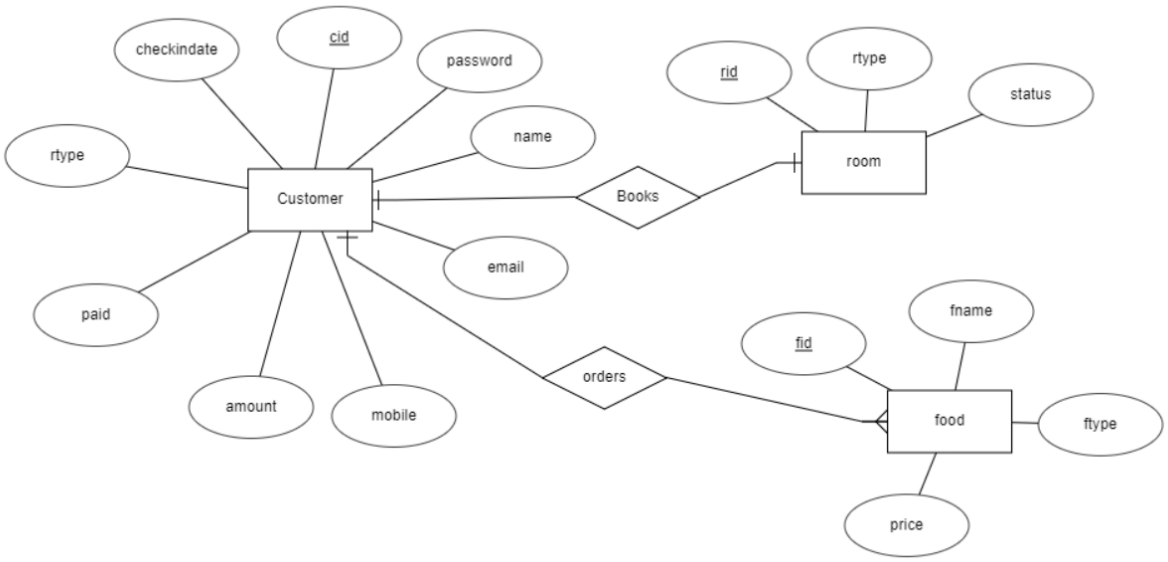
3.Food Table

Fields	Type	Size
fid	varchar	30
fname	varchar	30
ftype	int	---
price	int	---

fid is the Food ID which is unique and is the primary key. Fname is the name of food. Ftype is the food type. It takes three values 1,2 and 3 means it is for Breakfast, Lunch and Dinner. Price is the price of the food.

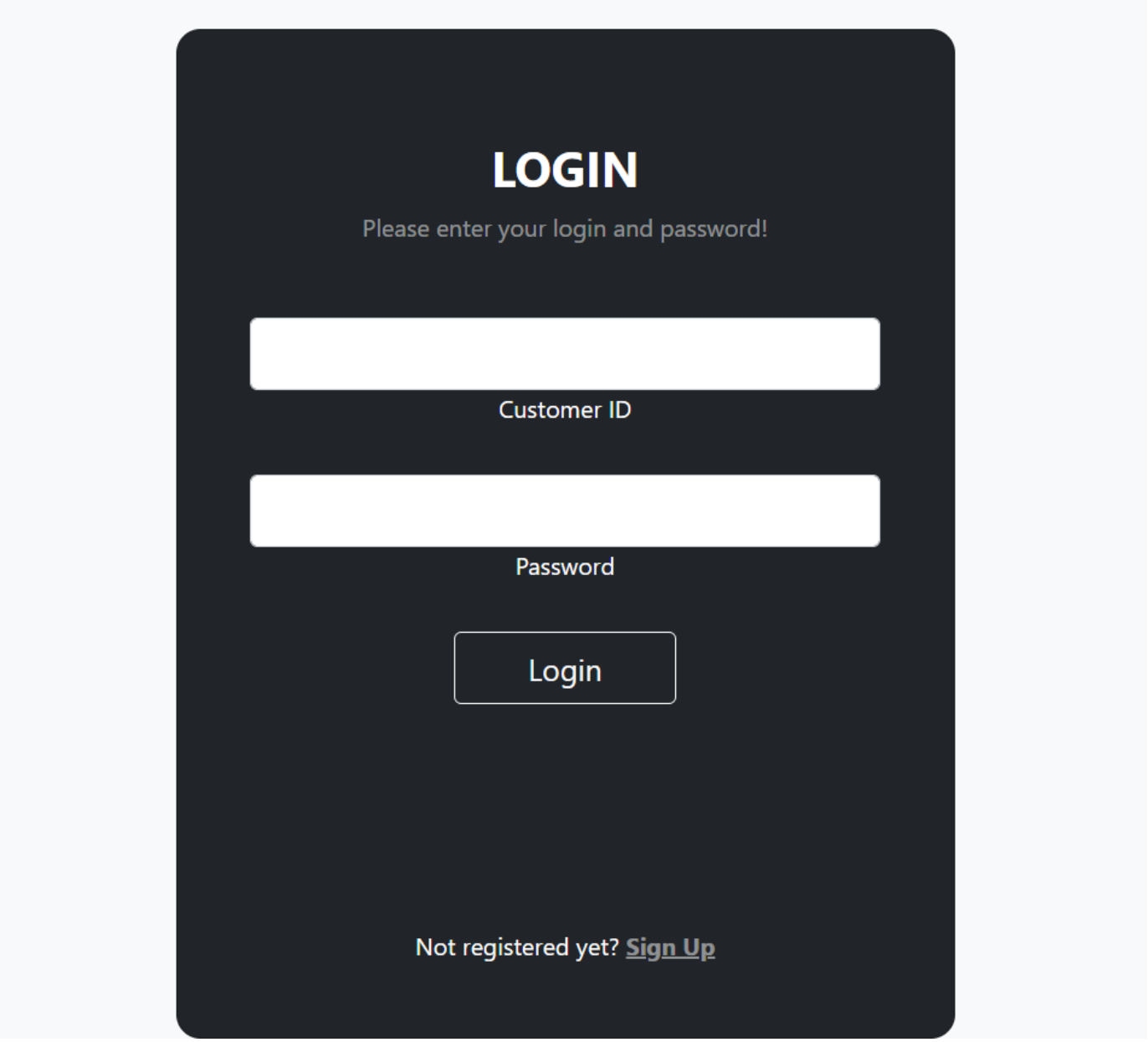
ER diagram

Based on the above-mentioned tables and relations used in implementation is given here-



Working :-

After starting the server and go to the link https://localhost:4000/ it leads to the login page. Snap shot attached below



If user has not registered before or has to book the guest house the he hast to register first.

To register one can click on register or go to link https://localhost:4000/register

User has to fill the required fields. After clicking on register, If there is a vacant room of selected type then that room will be allocated to the user otherwise registration will fail.

If the registration is successful then it will show the customer id that will be used for login.

When user logins successfully then it directs the user to the user details page. In that page user can see his details. It also has an option to order food. First he has to choose type that is Breakfast, Lunch and Dinner. After that it will show the menu. Now user has to check the items that he wants to order and then he need to click on order button. The bill for the ordered food will be added into amount of user details page. Now user also has pay bill button from there he can pay the bills. There are some snapshots of pages-

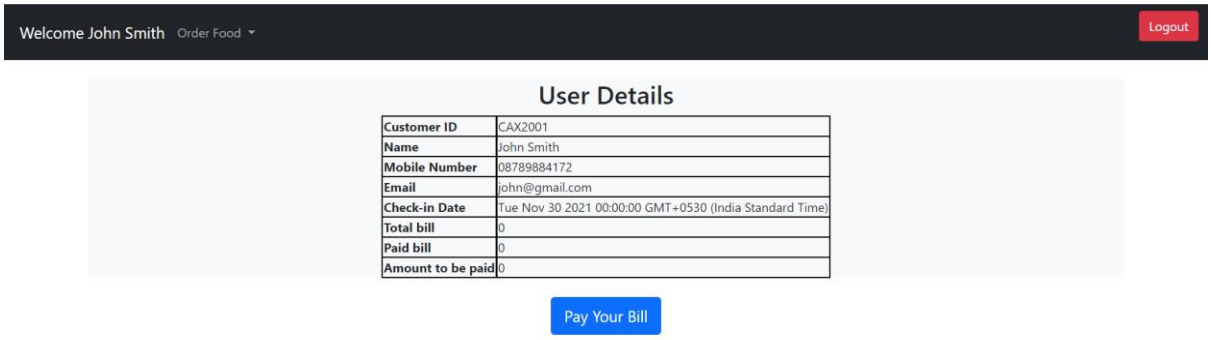


Fig. User Details page

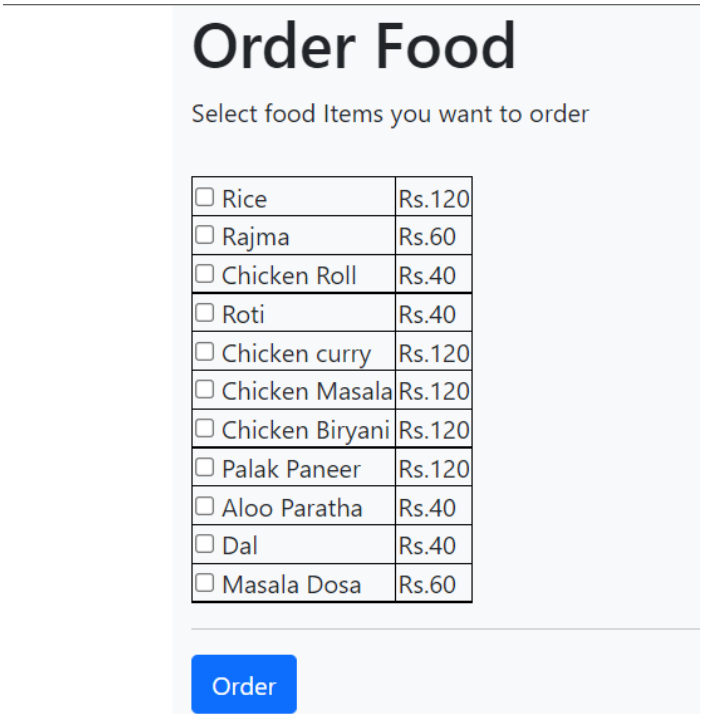
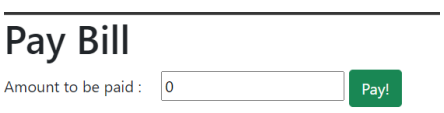


Fig. Order food page

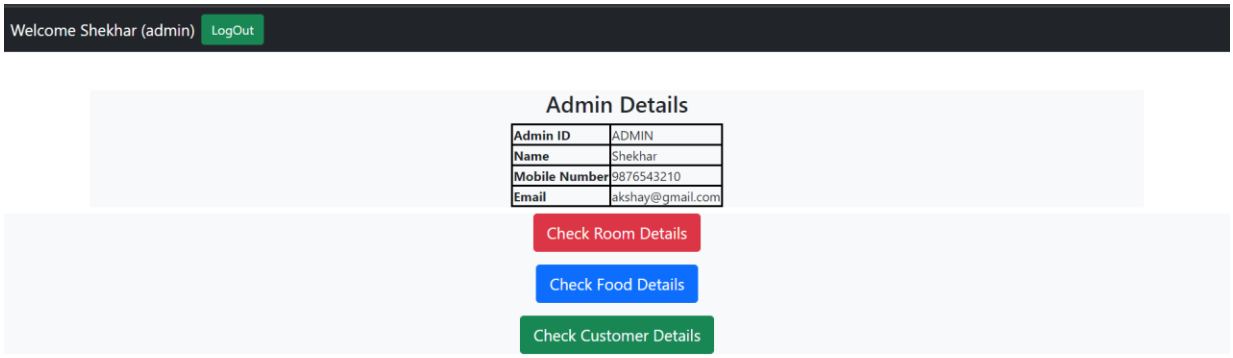


Fig, Bill pay page

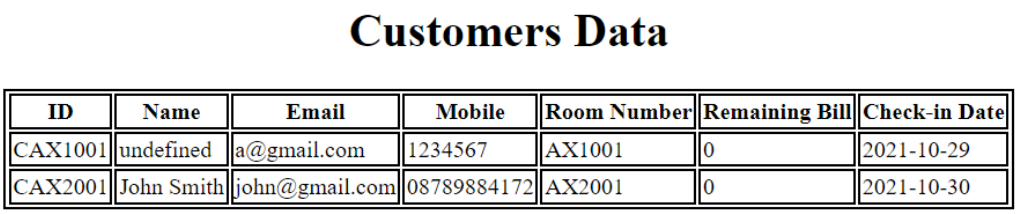
Admin control

First admin has to login using admin credentials. After successful login it will redirect it to admin dashboard page. This page shows the details of the admin and has three options of checking the details of customer, checking status of room and checking the menu and the food item where admin also can add new food. Some snapshots are also attached below-

Admin Detail page-



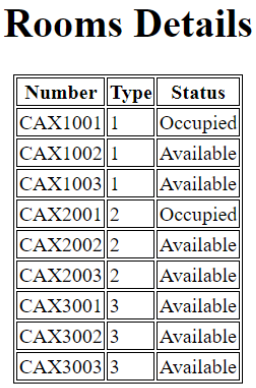
Customer Details Page



Customers Data

ID	Name	Email	Mobile	Room Number	Remaining Bill	Check-in Date
CAX1001	undefined	a@gmail.com	1234567	AX1001	0	2021-10-29
CAX2001	John Smith	john@gmail.com	08789884172	AX2001	0	2021-10-30

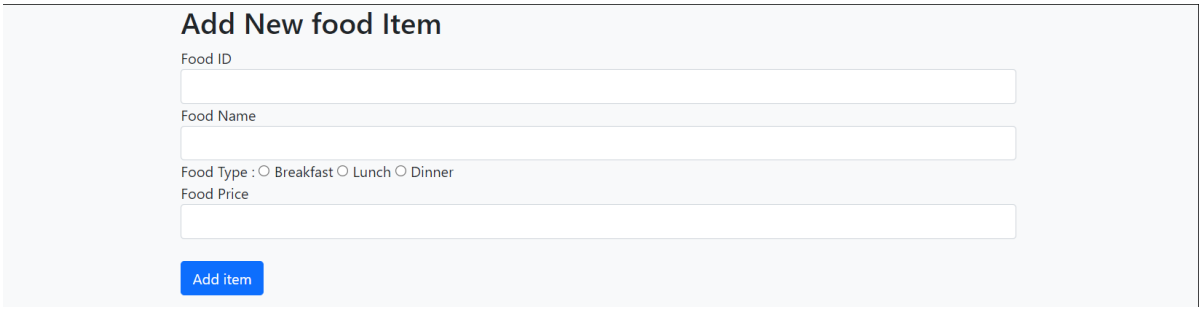
Room Details Page –



Rooms Details

Number	Type	Status
CAX1001	1	Occupied
CAX1002	1	Available
CAX1003	1	Available
CAX2001	2	Occupied
CAX2002	2	Available
CAX2003	2	Available
CAX3001	3	Available
CAX3002	3	Available
CAX3003	3	Available

New food item adding page-



Query Used :=

```
Queries used :-

--Creating database
create database GuestHouse;
.....
----Creating Table Customer
create table customer(
    cid varchar(30) PRIMARY KEY,
    password varchar(150),
    name varchar(30),
    mobile varchar(15),
    email varchar(30),
    rtype int,
    amount int default 0,
    paid int default 0,
    checkin date,
    type int
);
.....
----Creating Table Food and
----Food Type : 1,2,3 (Breakfast,Lunch,Dinner)

create table food(
    fid varchar(30) PRIMARY KEY,
    fname varchar(30),
    ftype int,
    price int
)
.....
---Creating Table Room and
---Room Type : 1,2,3 (Gold,Platinum,Diamond)

create table room(
    rid varchar(30) PRIMARY KEY,
    rtype int,
    status int
);
```

```
After making these table insert a row in customer table whoose username password will be used as ADMIN credential.
Fo ex.
-----For inserting the row for ADMIN credential-
  mysql> insert into customer values('ADMIN','1234','Admin_Name','0000','admin@gmail.com',0,0,0,'0000-00-00',1);
.....

--Choosing the first vacant user selected room
select rid from room where rtype={choosen_rid} and status=0 limit 1
.....
---changing the status of room while allocating the room
update room set status=1 where rid={given_rid}
.....

--updating the amount column of customer while after ordering food and bill generated;
update customer set amount=amount+${price} where cid='${req.session.passport.user}

.....

--updating paid column of customer after bill payement
update customer set paid=paid+${amount}

.....
```

All queries are written in query.txt file uploaded in the google drive. Also the working demo is shown in video.