Project documentation

Software Engineering 2

Cover Sheet

Project Title: Restaurant Reservation system

Project Description:

Reservation system helps customer to reserve table online , customer can view the menu to see what he can order at the restaurant
Admin of the system can add/update/delete another admin
He can add/update/delete meal
He can confirm reservation

Main functions:

- MakeReservation(): The customer can make the reservation and waits the approval from the admin.

- UpdateReservation(): customer can update his reservation data .

- addEvent() : the customer can win in restaurant a special code that customer can with it make a special event like birthday party ,he could enter his code and description of the event with reservation data to reserve the event .

-ViewMenu(): Customer can see the menu of the restaurant .

-ConfirmReservation(): admin can confirm reservation which the customer has made.

-AddMeal(): Admin can add new meal to the menu.

-AddAdmin():Admin can add another admin to the system to control it.

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Requirement	points	
Backend project with RESTful APIs	6	
DB architecture (schema and data)	2	
SOLID principles	3	
Clean Code	2	
UML diagrams	5	
OCL constraints	2	
Total	20	

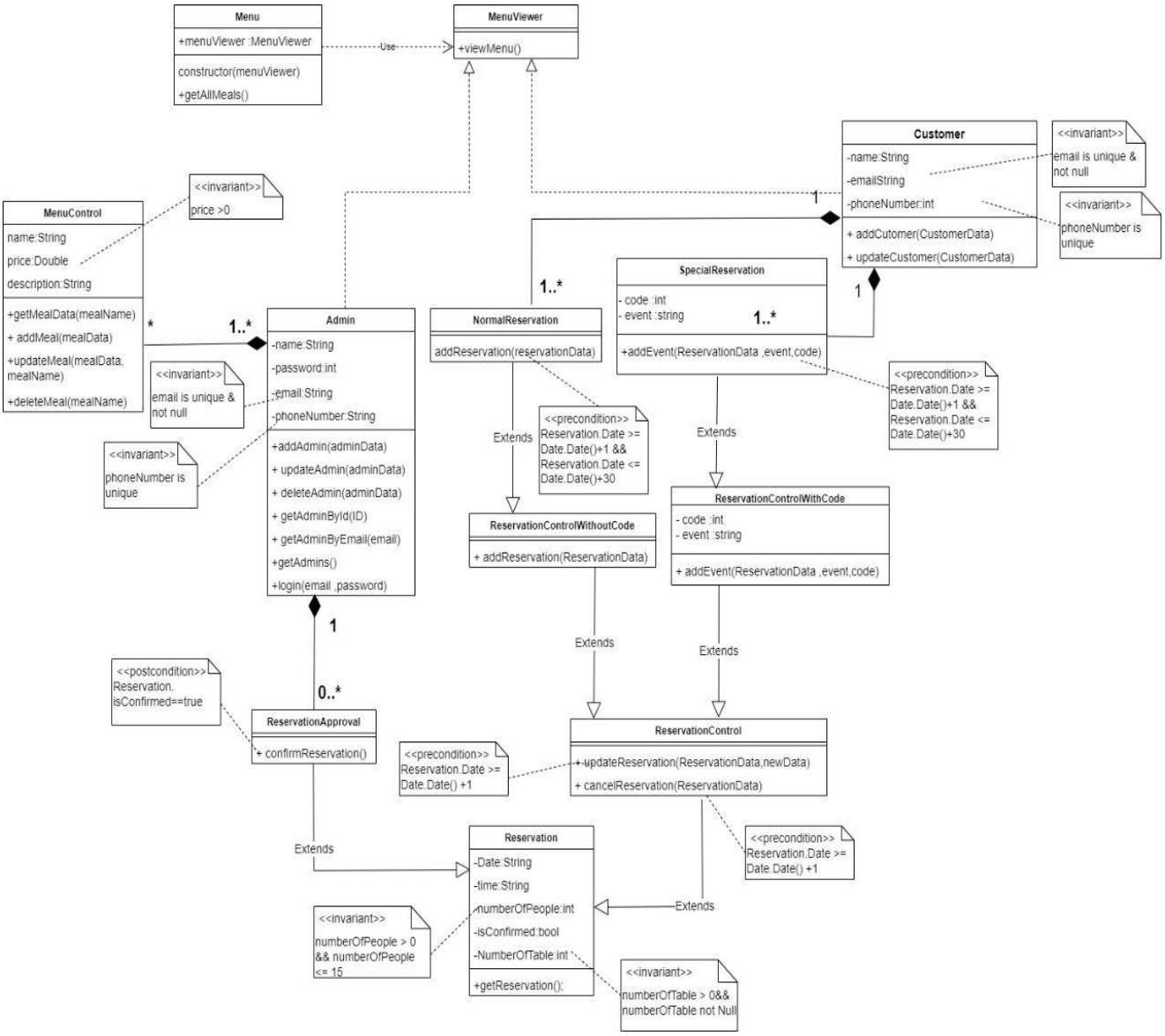
Solid principles :

Principles have been applied in our project:

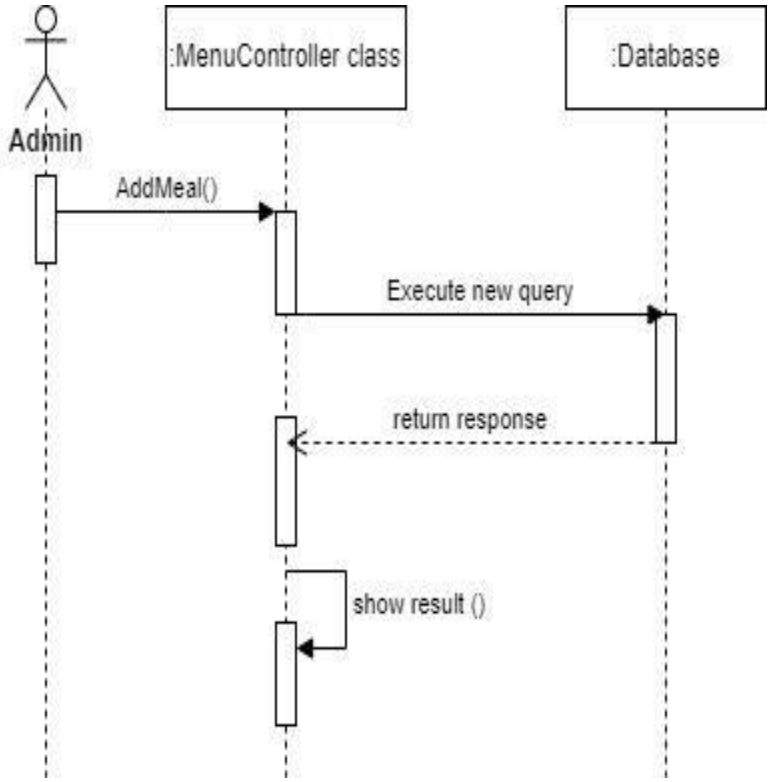
1- Single Responsibility Principle
2- Open Closed Principle
3- Liskov Substitution Principle
4- Dependency Inversion Principle

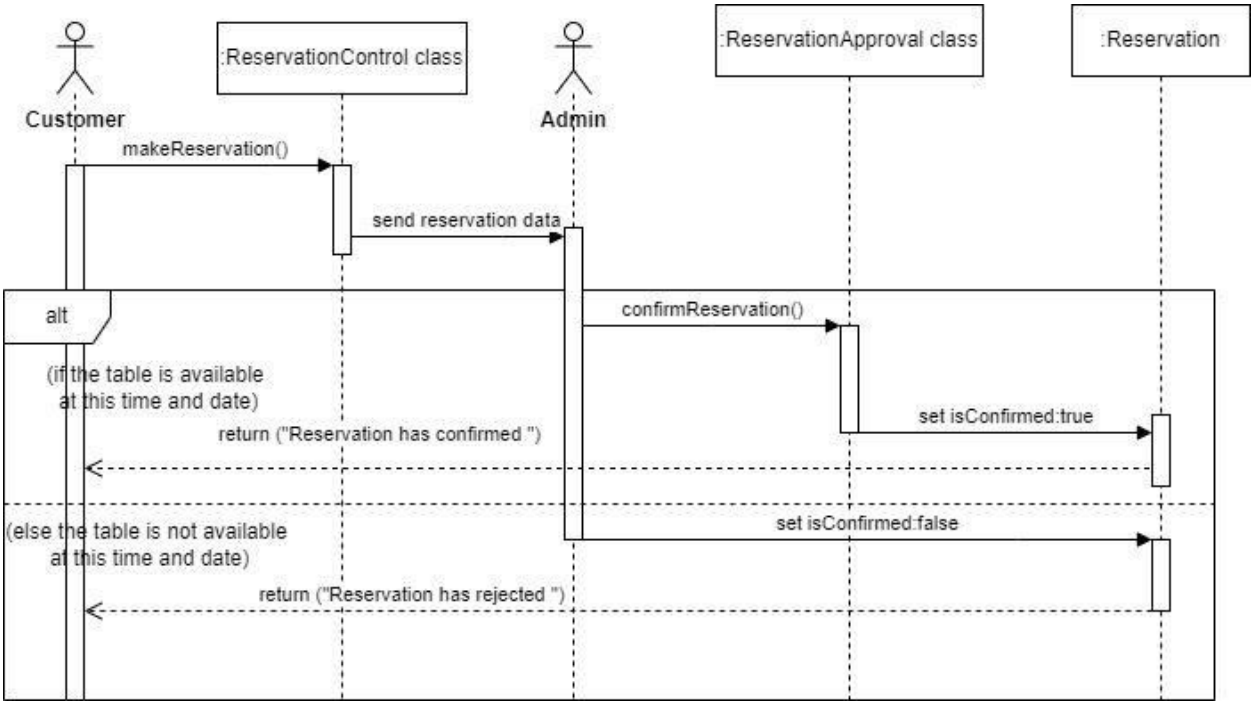
UML Diagrams

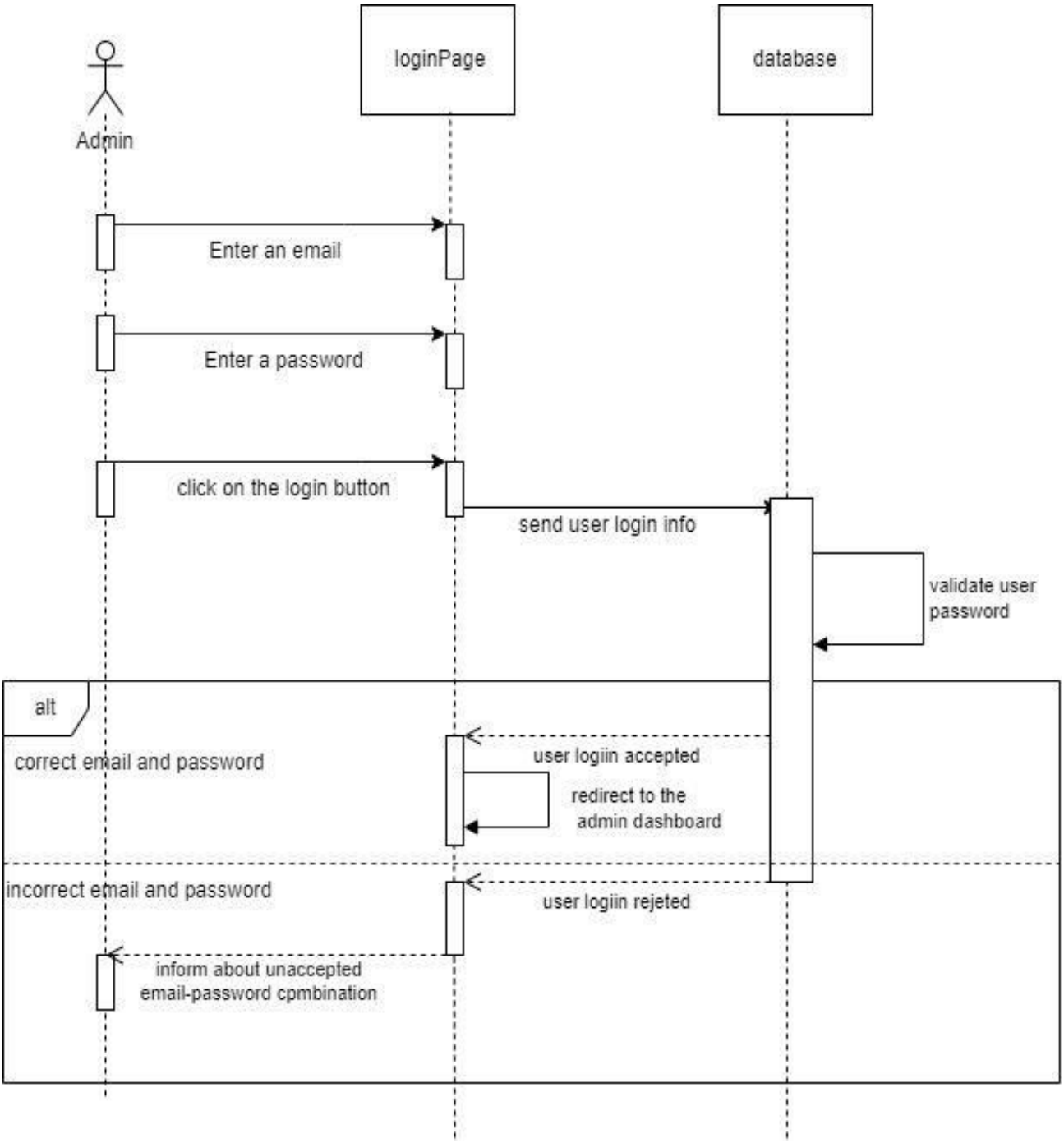
1-class diagram:



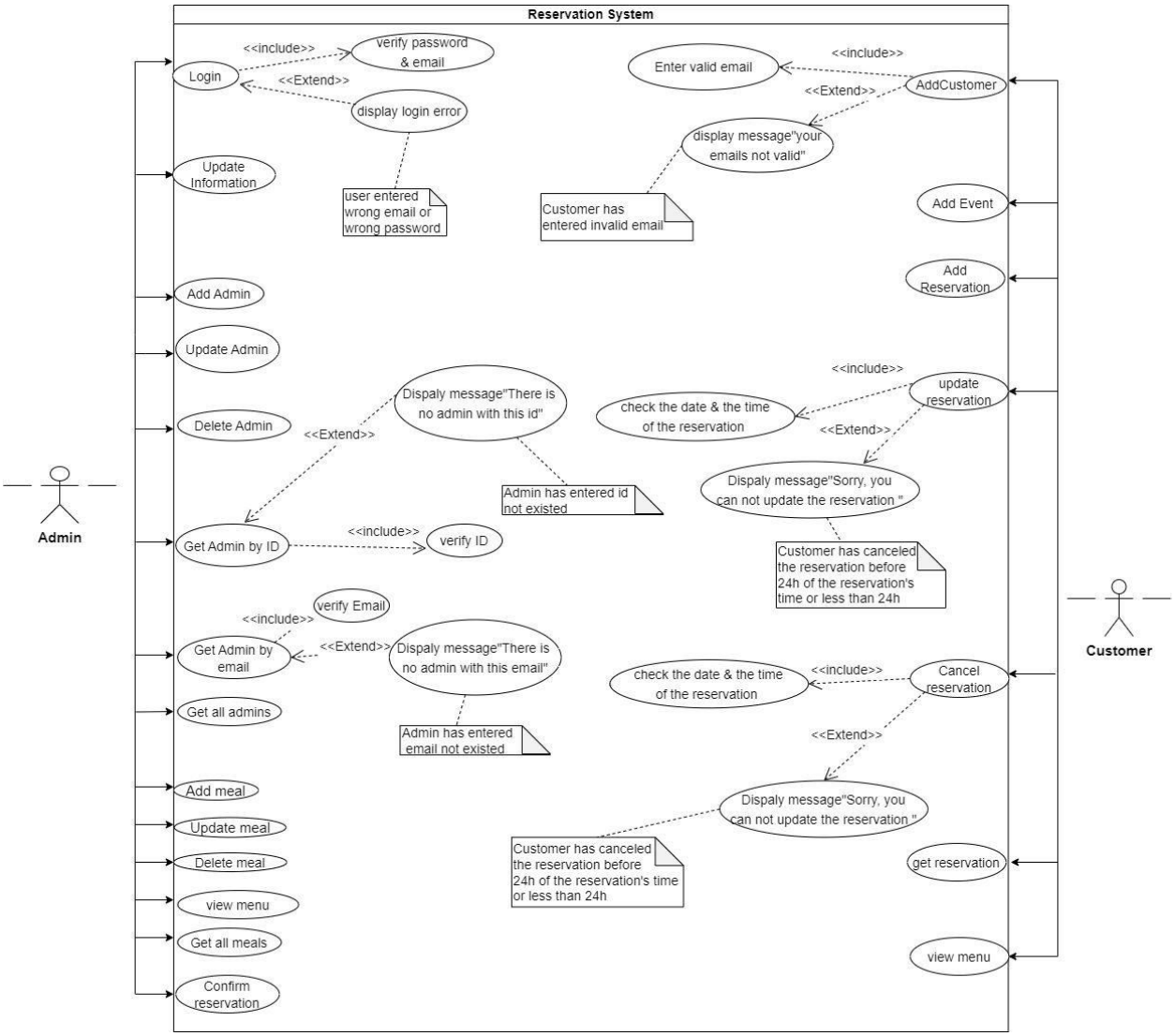
2-sequence diagram:


Admin
:MenuController class
:Database
AddMeal()
Execute new query
return response
show result ()

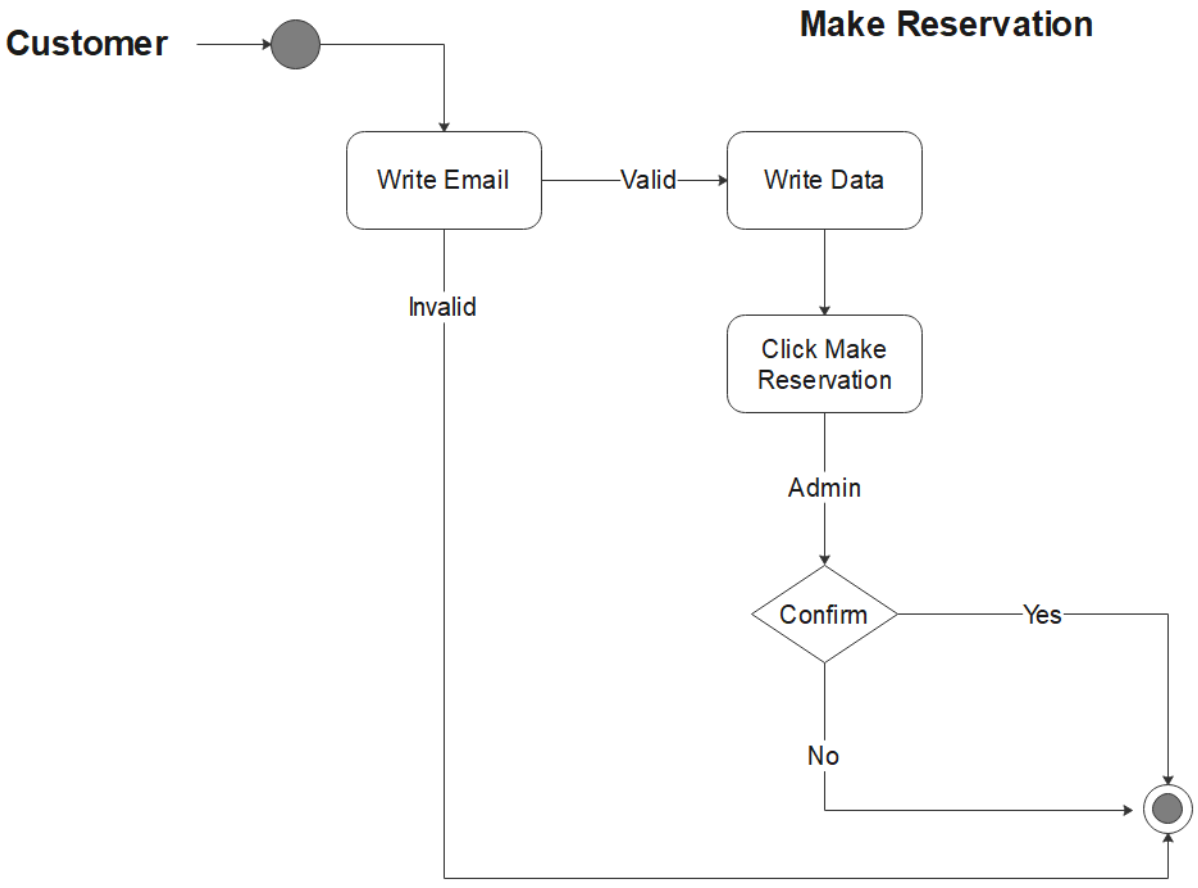

Custpmer
:ReservationControl class
Admin
:ReservationApproval class
:Reservation
makeReservation()
send reservation data
alt
confirmReservation()
(if the table is available
at this time and date)
set isConfirmed:true
return ("Reservation has confirmed ")
(else the table is not available
at this time and date)
set isConfirmed:false
return ("Reservation has rejected ")

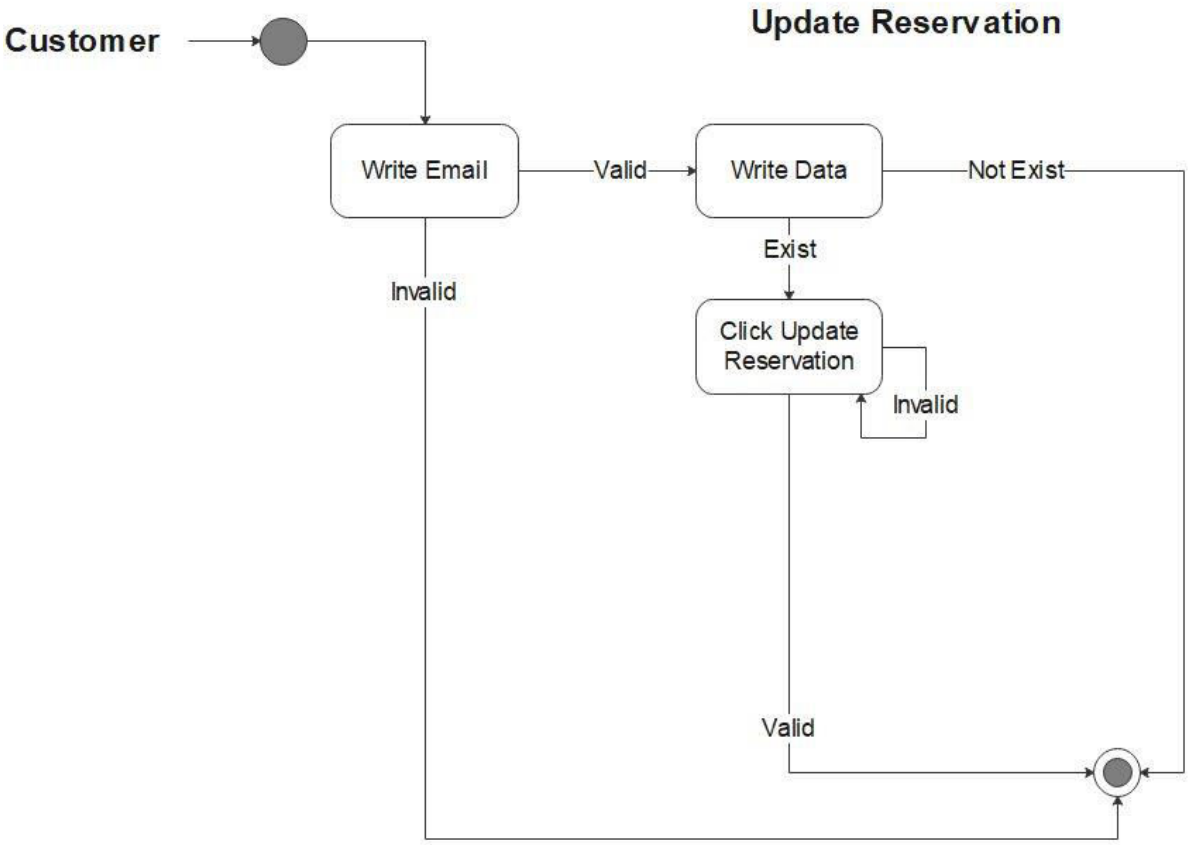


3-useCase diagram:

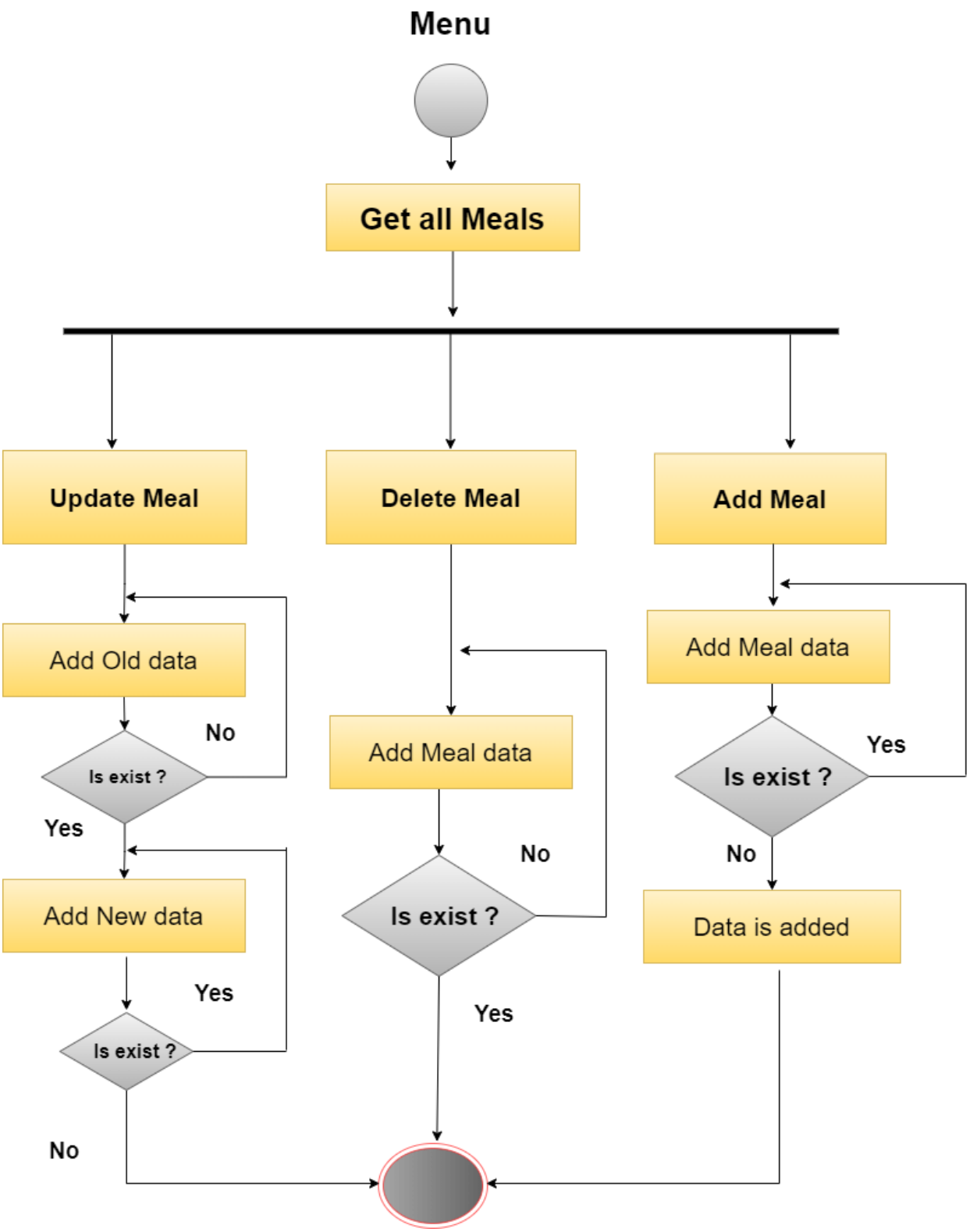


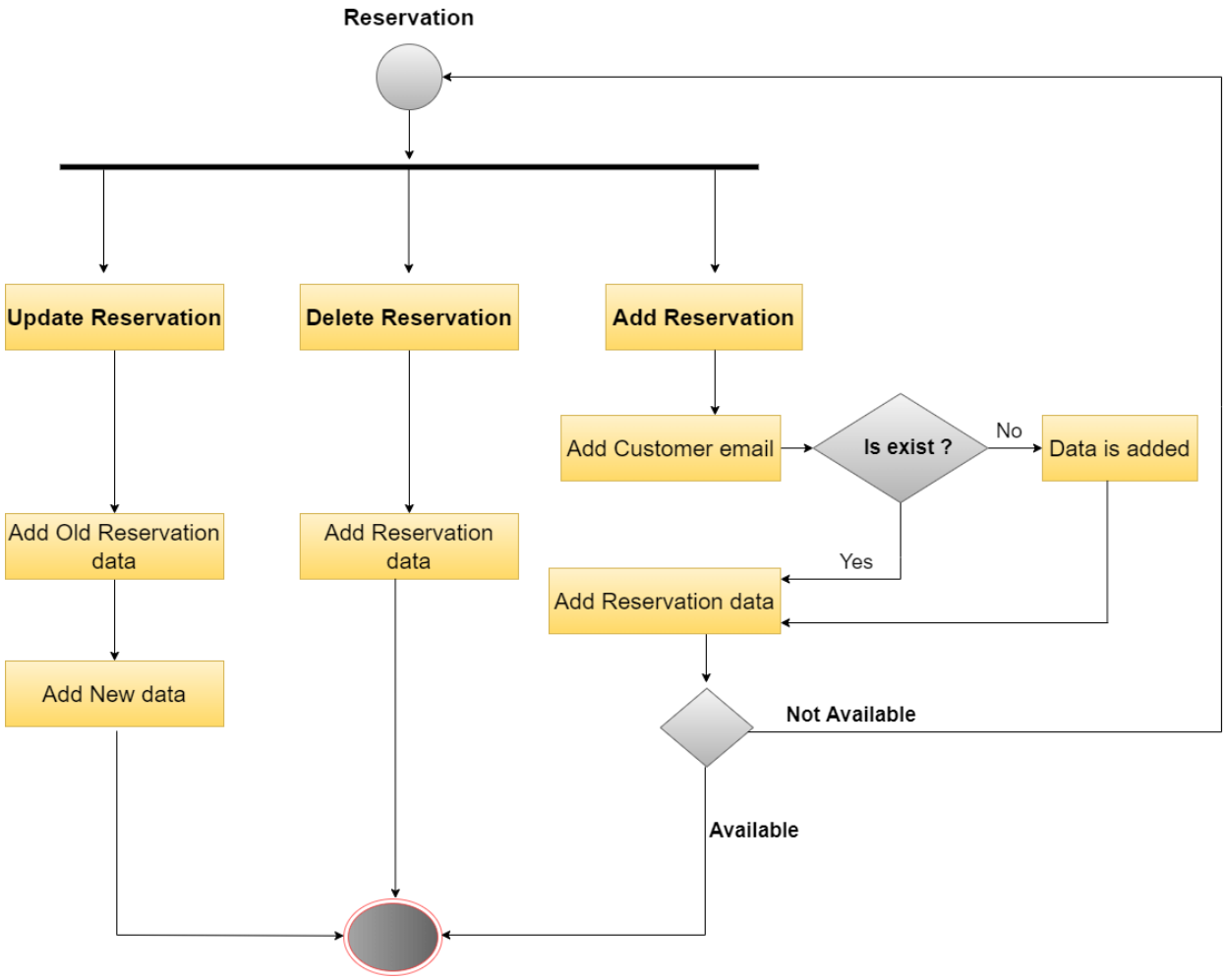
4-state diagram

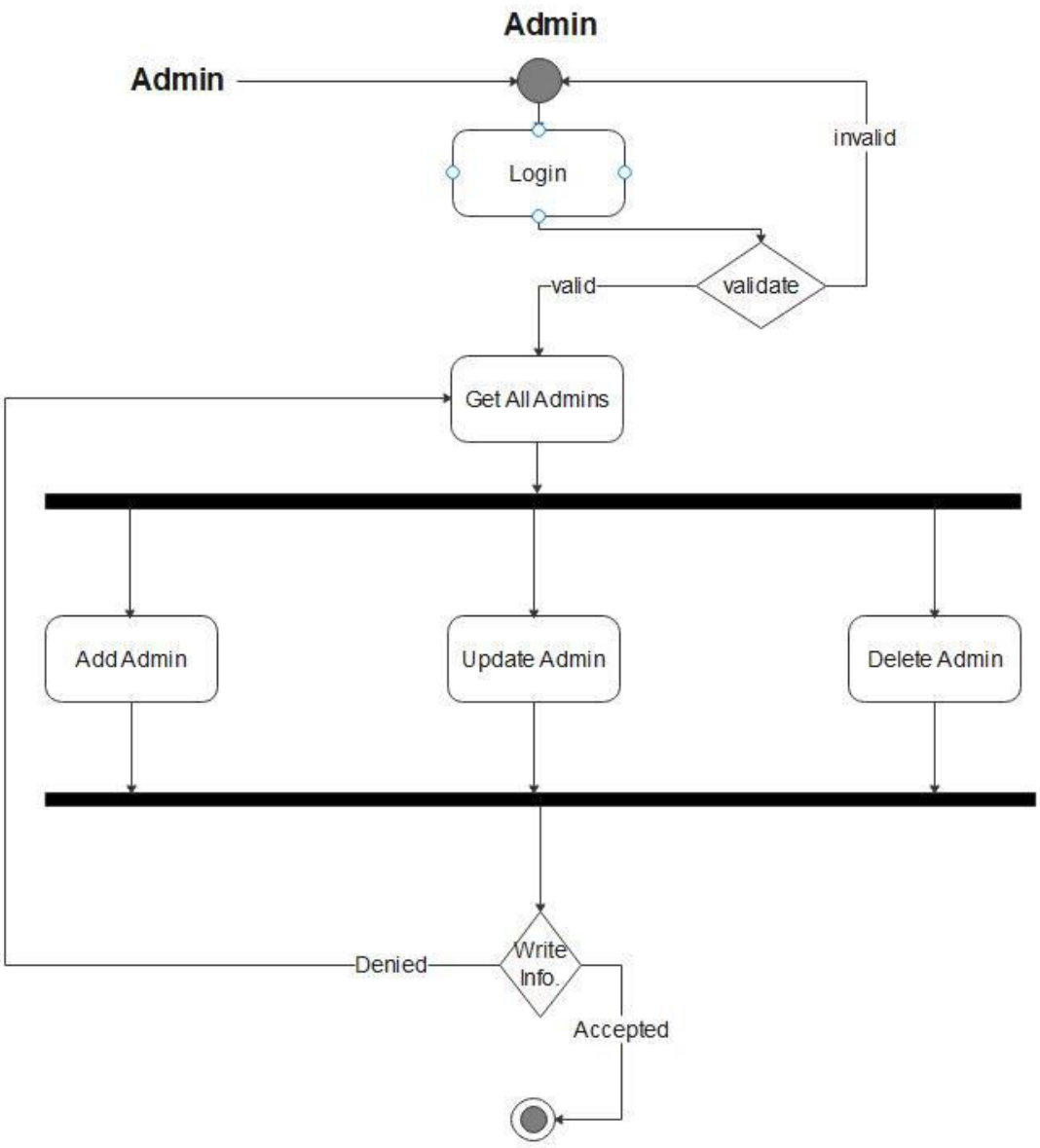

Customer
Make Reservation
Write Email
Valid
Write Data
Invalid
Click Make Reservation
Admin
Confirm
Yes
No



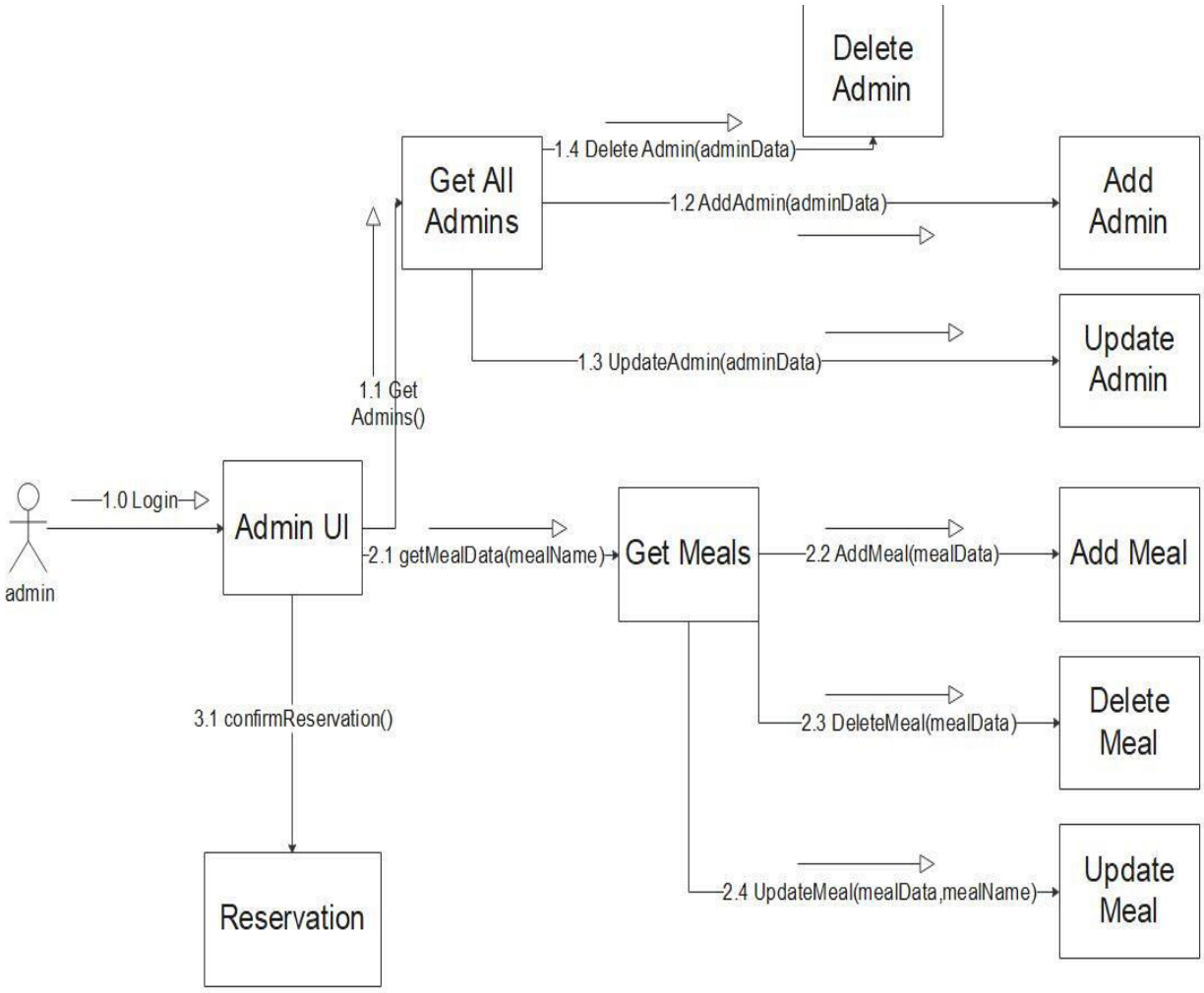
5-Activity Diagram:

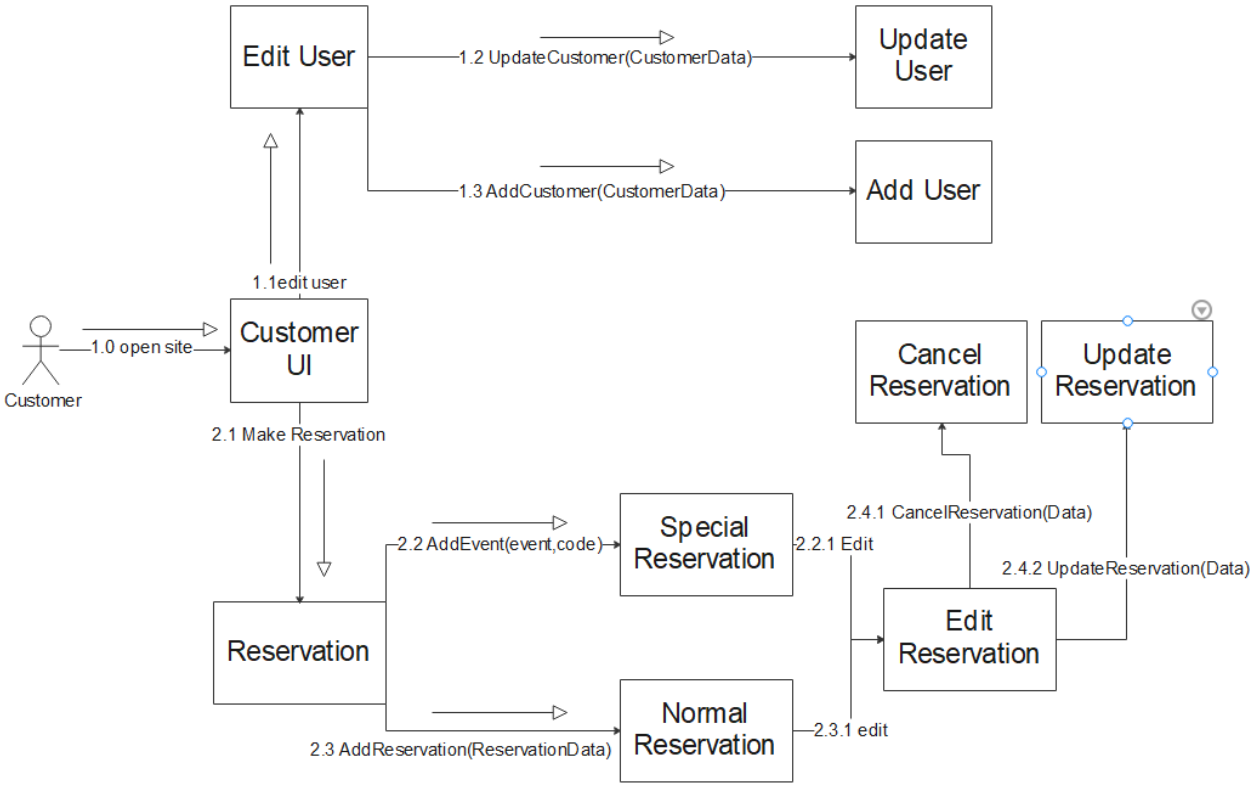
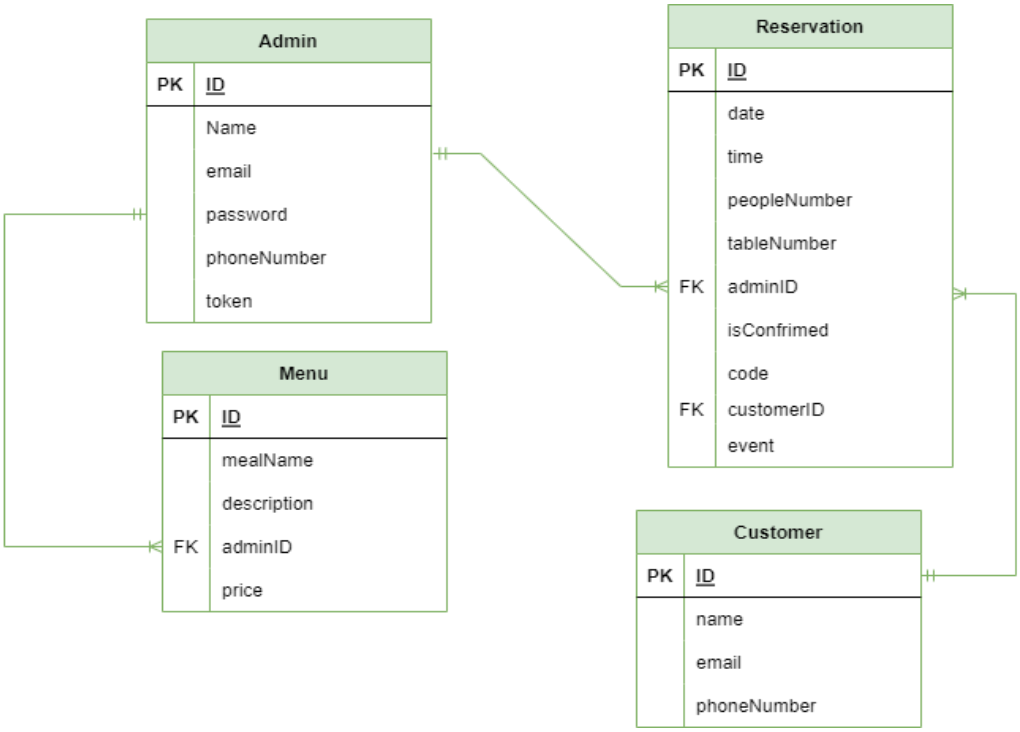

Menu
Get all Meals
Update Meal
Delete Meal
Add Meal
Add Old data
Add Meal data
Add Meal data
No
Is exist ?
Yes
Yes
Is exist ?
No
Yes
Add New data
No
Is exist ?
Data is added
Yes
Is exist ?
Yes
No


Reservation
Update Reservation
Delete Reservation
Add Reservation
Add Customer email
Is exist ?
No
Data is added
Yes
Add Old Reservation data
Add Reservation data
Add Reservation data
Add New data
Not Available
Available


Admin
Admin
Login
invalid
validate
valid
Get All Admins
Add Admin
Update Admin
Delete Admin
Write Info.
Denied
Accepted

6-communication diagram





7-dataBase schema (diagram)