TRƯỜNG ĐẠI HỌC FPT
LẬP TRÌNH VIÊN QUỐC TẾ
FPT-APTECH

Centre: FAT3 – 131 No Trang Long street, Bình Thạnh District, HCMC

“Hotel Management System”

Faculty: Le Mong Thuy

Batch No: F3-13-1312-T0

Group No: Group 4

Members:

Full Name	Roll No.
Tran Hoang Van (Leader)	Student765840
Nguyen Cong Tuan	Student767254
Huynh Phuoc Tan	Student767233
Trinh Hoang Thong	Student765876
Nguyen Tan Loi	Student773559

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Review 1

I. **Problem definition**:

You've just had a new hotel? You've just been transferring a new hotel? And now you have become a boss of the hotel, of course, the management jobs of it is not easy.

It is very difficult for your staff to take your customer to each room and introduce about it, as well as having to run around to check hotel room service, count the number of rooms available. And what will happen when the notes about customer information and rooms has been set are lost?

Do not worry about it! Our software will resolve all for you!

The software has user-friendly interface, simple tools so your employees can quickly gather customer information, reservation, room management and room service. With our software, your hotel becomes more advanced, more modern and more satisfied customers!

II. Purpose:

- Reducing cost of managements.
- Helping a lot on reservation, checking in and checking out.
- Showing clear detailed bill for payment.
- Easily on manage employees, customers and services.

III. Objects:

1. Staff:
   - Add, modify and delete customer details.
   - Add, modify and delete reservation details.
   - Add, modify and delete check in, check out information of customers.
   - Add, modify and delete services, foods and drinks orders from customers.
   - The bill is generated by the combining both bills (stay bill and room/food services bill).
   - This subsystem will also generate reports on their uses.
2. Admin:
   - Add, modify and delete room information.
   - Add, modify and delete services system.
   - Add, modify and delete foods and drinks.
   - Add, modify and delete employee profiles.
   - Add, modify and delete staff, admin accounts.

IV. Analyse requirements:

1. For staff:
   - Input:
     - Login information.
     - Information of customers.
     - View and look up a suitable room according to customer's requirements. Then reservation information.
     - Check in information of customer.
     - View and look up services, foods and drinks according to customer's according.

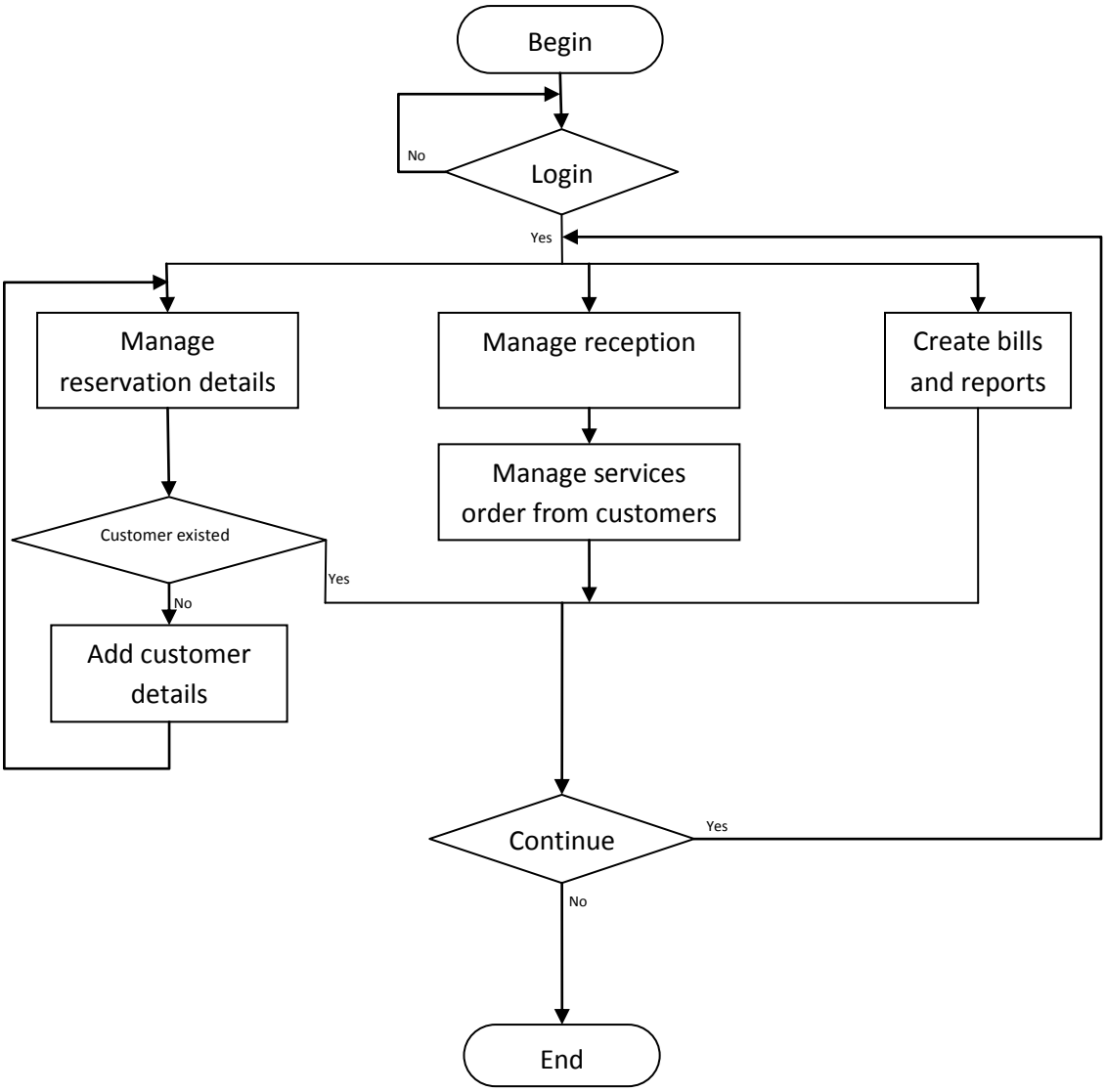
- Check out information of customer.

- Process:
  - Validate the value.
  - Query database, if information of customer not existed: insert new customer.
  - Query database, insert – modify – delete reservation.
  - Query database, insert – modify check in information.
  - Query database, insert – modify - delete services, foods and drinks according to customer's requirements.
  - Query database, insert – modify check out information.
- Output:
  - Show notification if login completed or failed.
  - Show information of customer if it existed.
  - Show all details (reservation, services, foods and drinks, check in/out) of the room.
  - Show a bill for the full amount of services, rooms, foods and drinks cost.

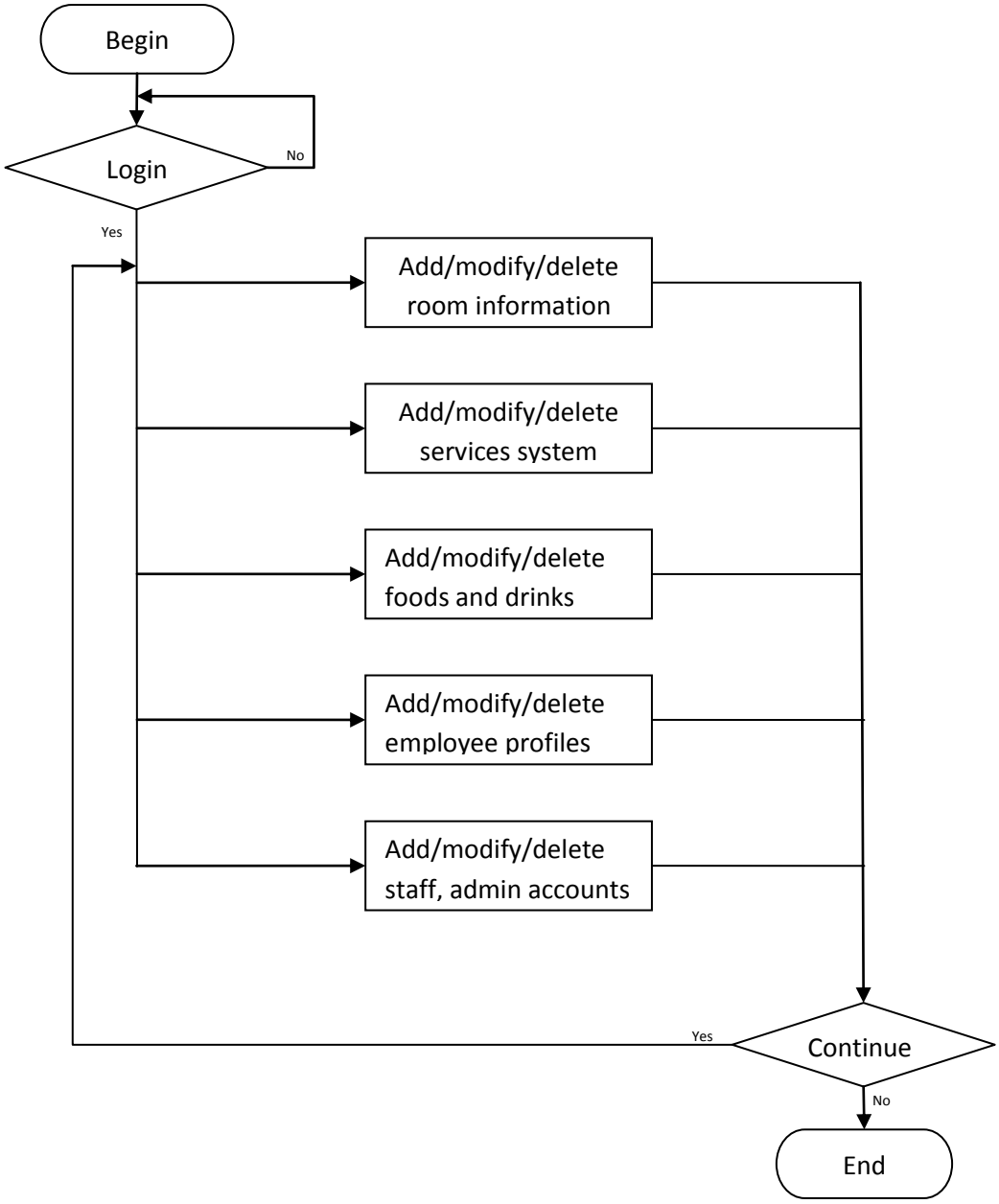
2. <u>For admin:</u>
   - Input:
     - Login information.
     - Room information.
     - Services, foods and drinks information.
     - Employee profiles.
     - Staff, admin accounts.
   - Process:
     - Validate the value.
     - Query database, insert – modify – delete room information.
     - Query database, insert – modify – delete services, foods and drinks information.
     - Query database, insert – modify – delete employee profiles.
     - Query database, insert – modify – delete staff, admin accounts.
   - Output:
     - Show notification if login completed or failed.
     - Show the list and details of room information.
     - Show the list and details of services, foods and drinks information..
     - Show the list and details of employee profiles.
     - Show the list and details of staff, admin accounts.

V. Functional diagram:

1. Staff:



2. Admin:


Begin
Login
No
Yes
Add/modify/delete room information
Add/modify/delete services system
Add/modify/delete foods and drinks
Add/modify/delete employee profiles
Add/modify/delete staff, admin accounts
Yes
Continue
No
End

VI. System requirements:

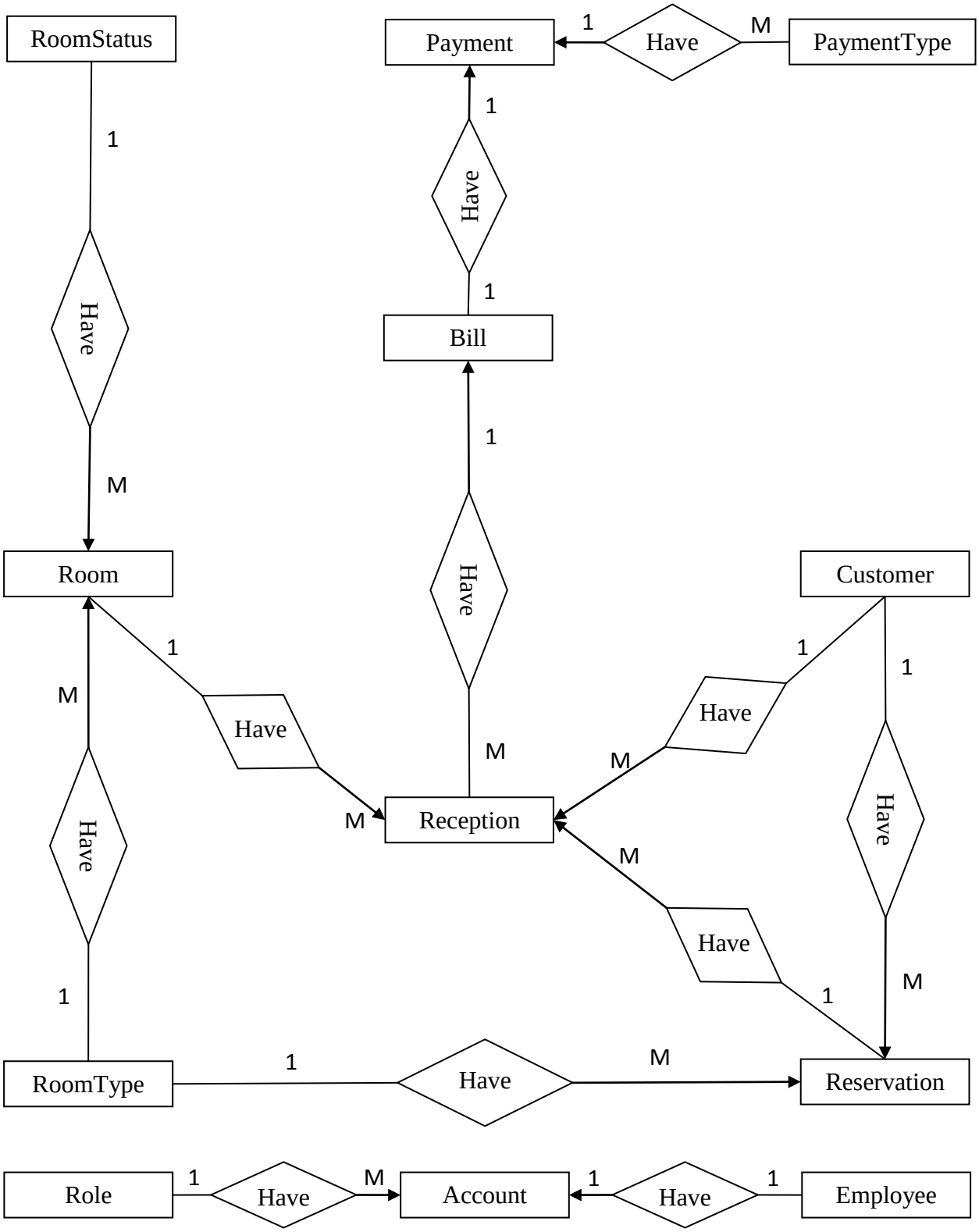
1. Hardware requirements:
   - Processor 1.5Ghz Celeron or higher.
   - 256MB RAM or higher.
2. Software requirements:
   - Java Virtual Machine
   - Notepad/Java editor
   - j2sdk1.4.1_02 (or later).
   - SQL Server 2005 (or newer).

VII. **Task sheet Review 1:**

Member Group		Date Preparation of Activites Plan			
No	**Name**		**Start**	**End**	**Status**
1	Tran Hoang Van (Leader)	Together	06/08/2014	11/08/2014	Complete
2	Nguyen Cong Tuan		06/08/2014	11/08/2014	Complete
3	Huynh Phuoc Tan		06/08/2014	11/08/2014	Complete
4	Trinh Hoang Thong		06/08/2014	11/08/2014	Complete
5	Nguyen Tan Loi		06/08/2014	11/08/2014	Complete
Teacher			**Teamleader**		
Le Mong Thuy			**Tran Hoang Van**		

Review 2

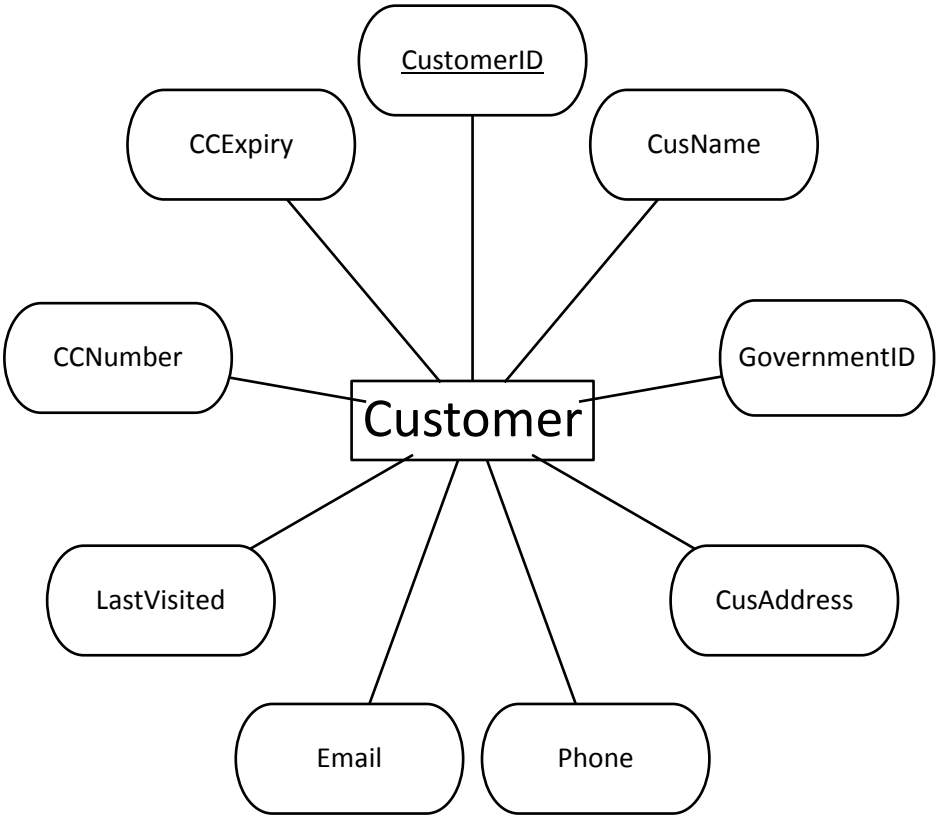
VIII. Entity-relationship model:



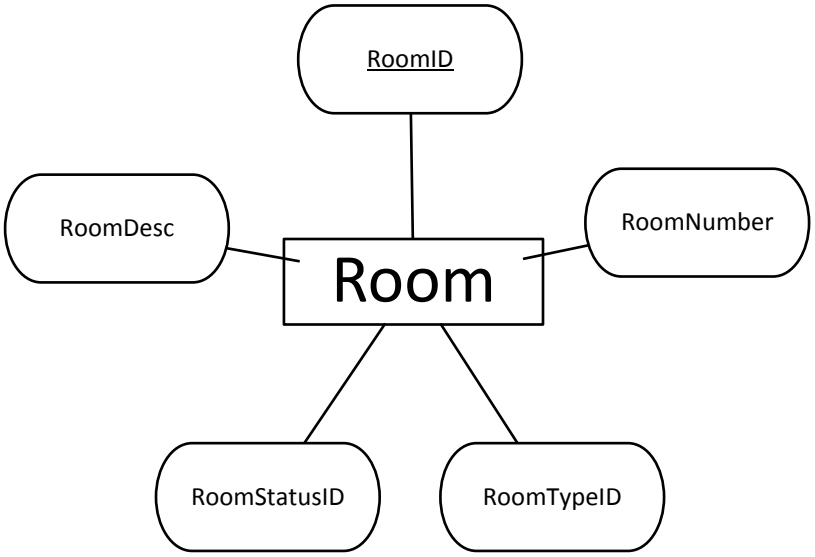
IX. Entities-Attributes:

	Prepare by group 4	Approved by Mrs.Thuy
Date:		

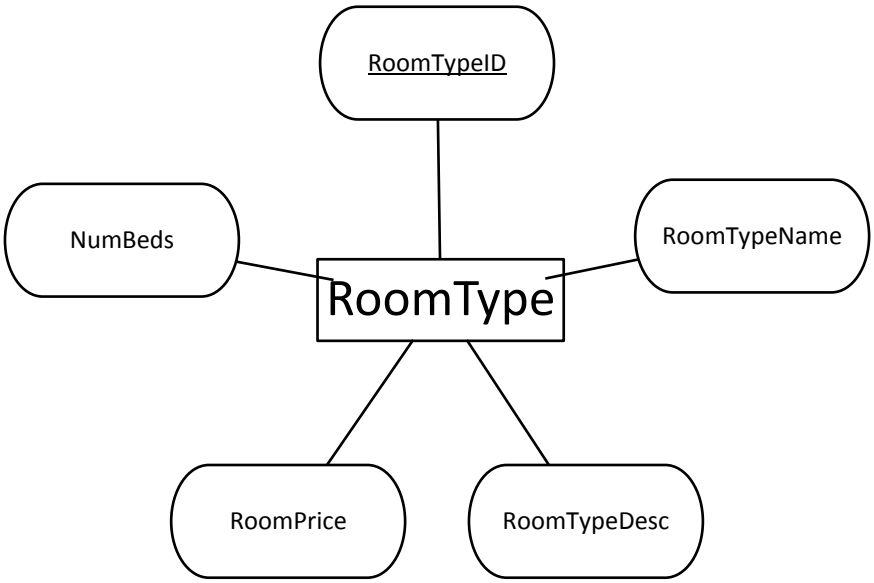
1. Customer:



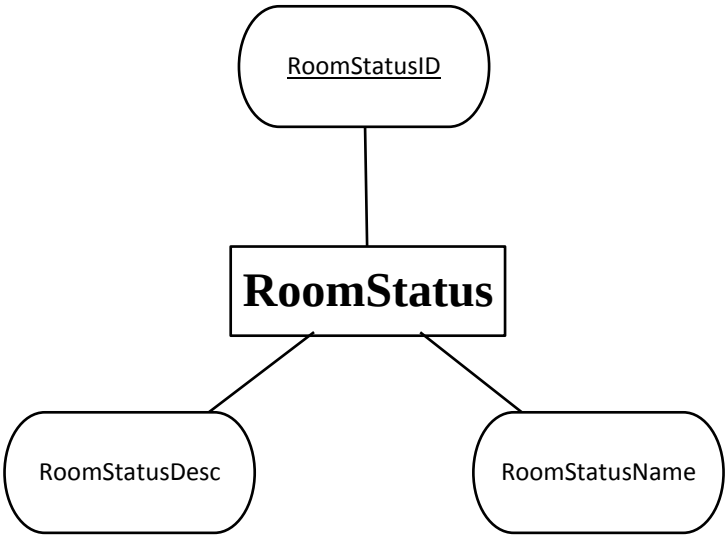
2. Room:



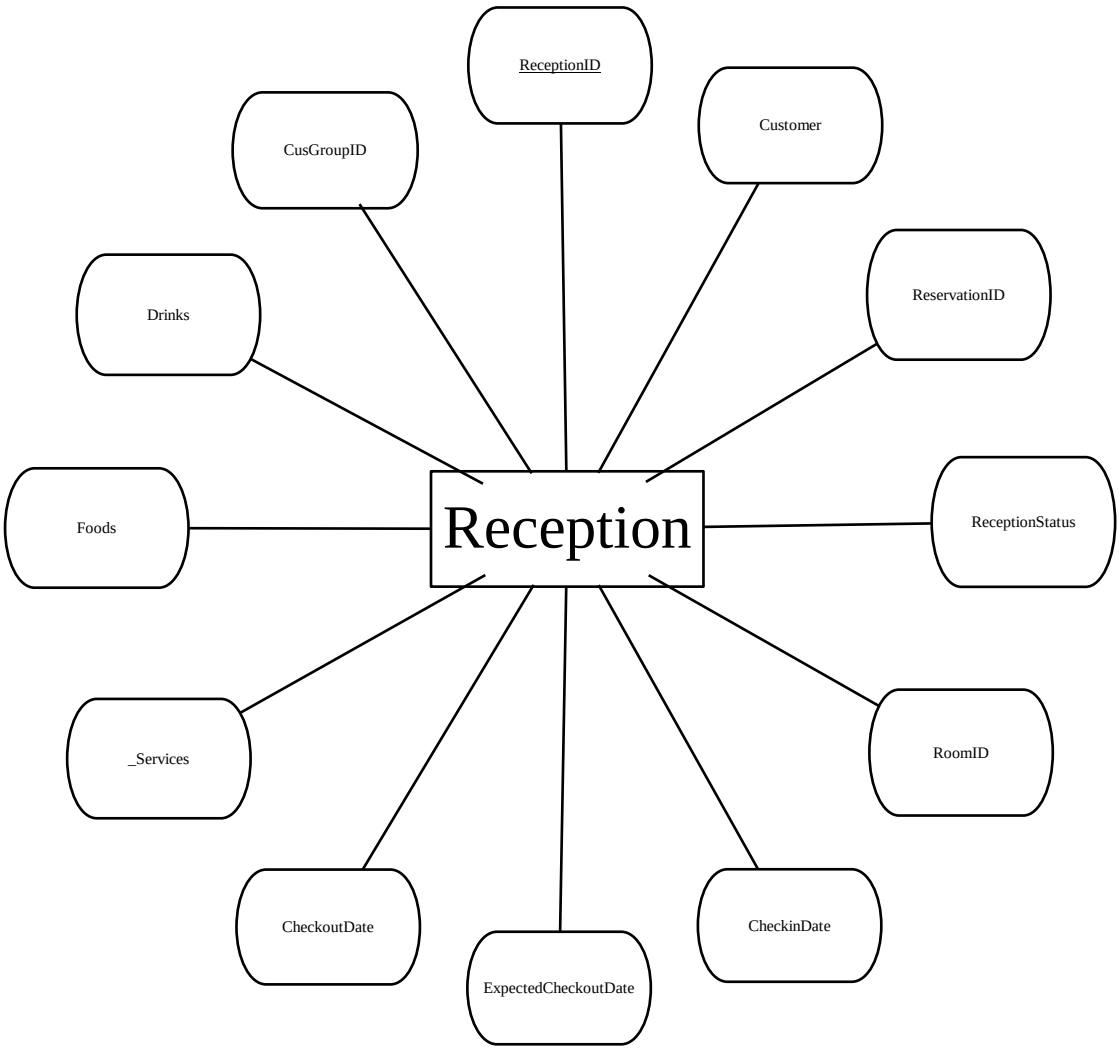
3. RoomType:



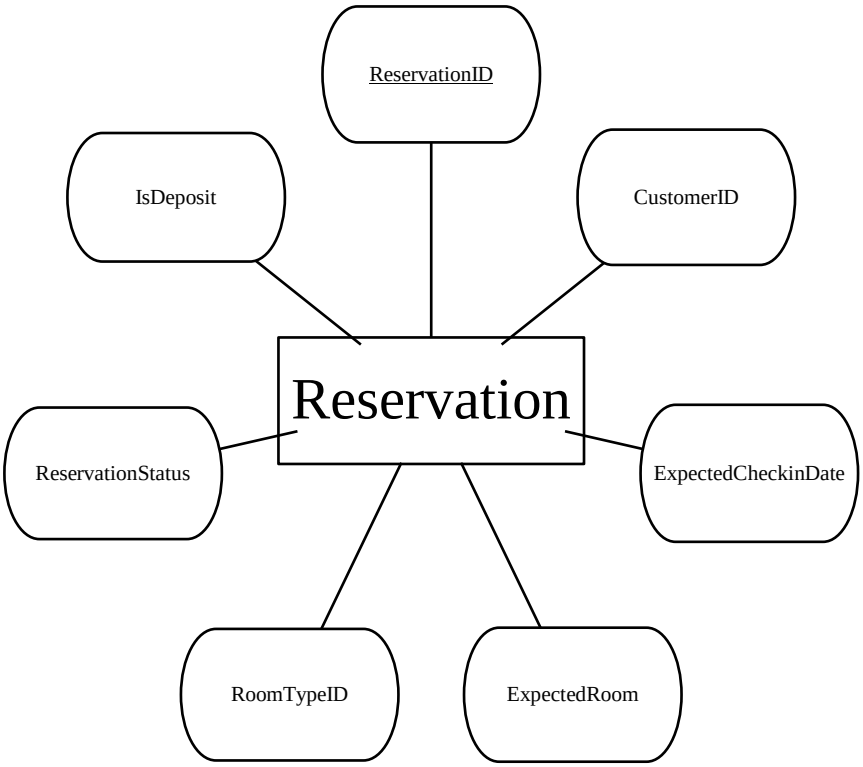
4. RoomStatus:



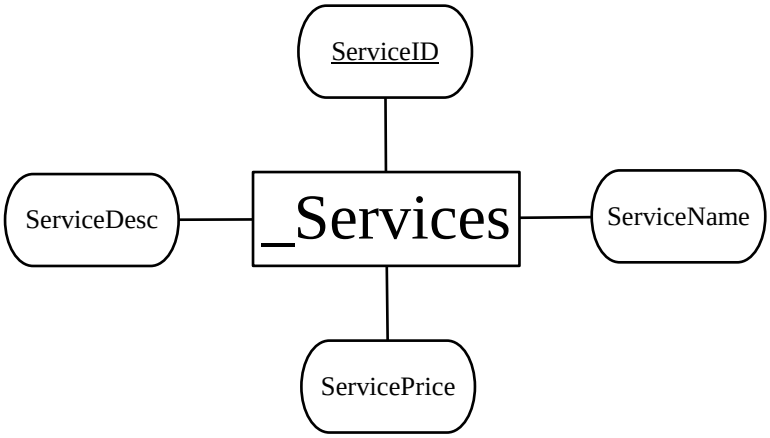
5. Reception:


ReceptionID
CusGroupID
Customer
Drinks
ReservationID
Foods
Reception
ReceptionStatus
_Services
RoomID
CheckoutDate
CheckinDate
ExpectedCheckoutDate

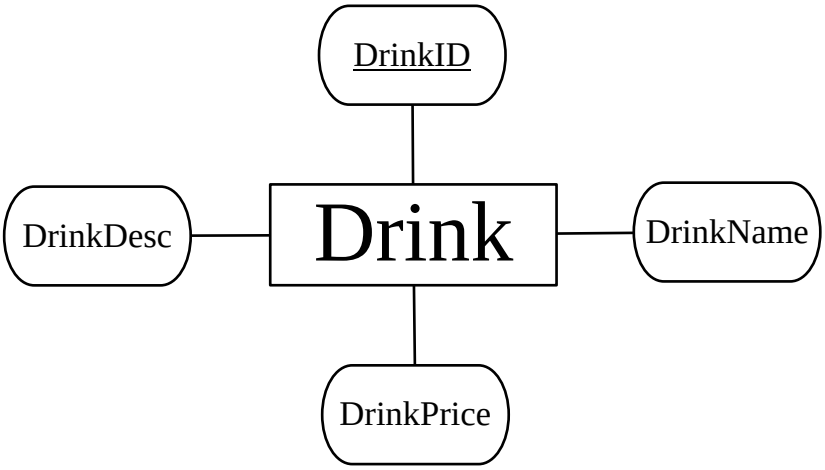
6. Reservation:



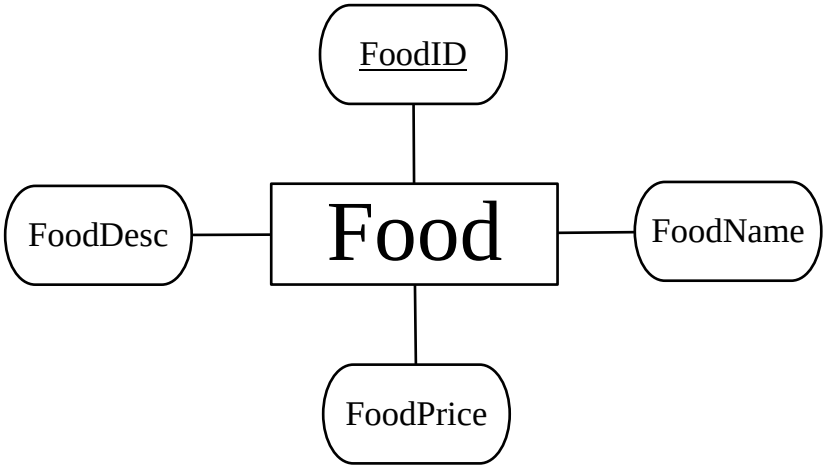
7. _Services:



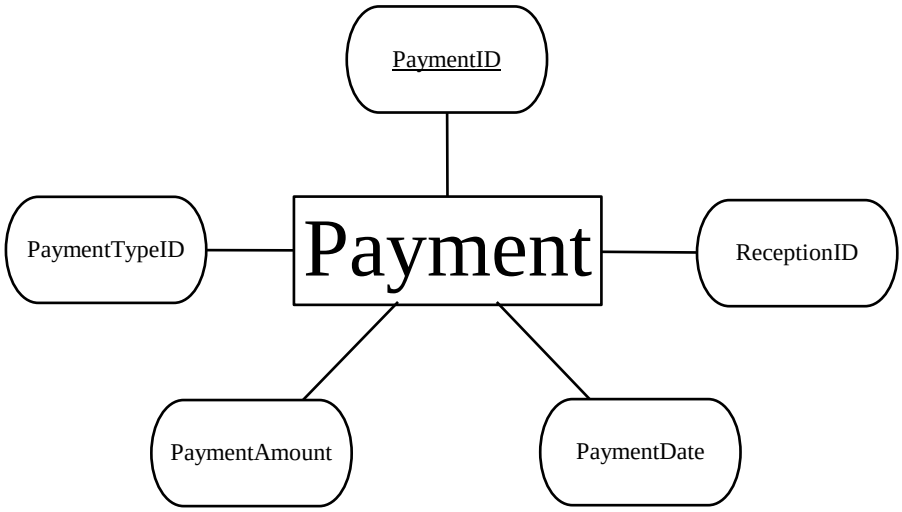
8. Drink:



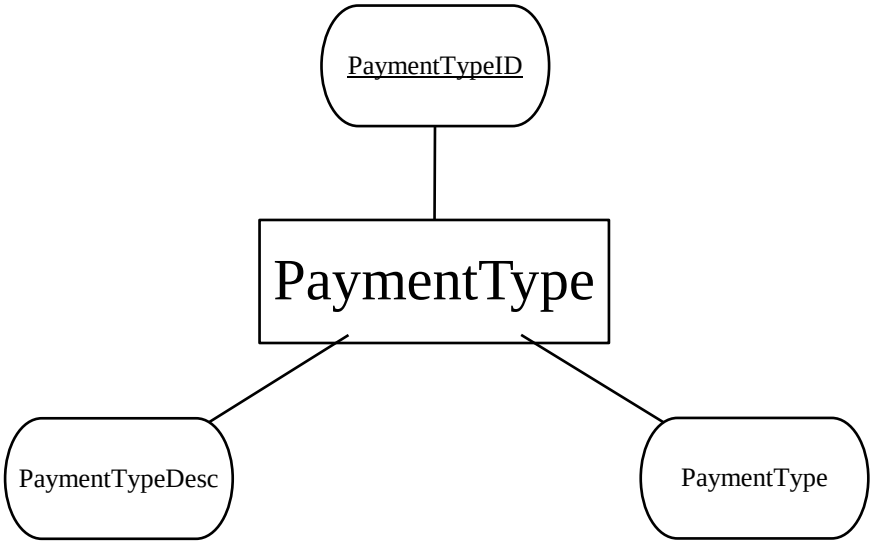
9. Food:



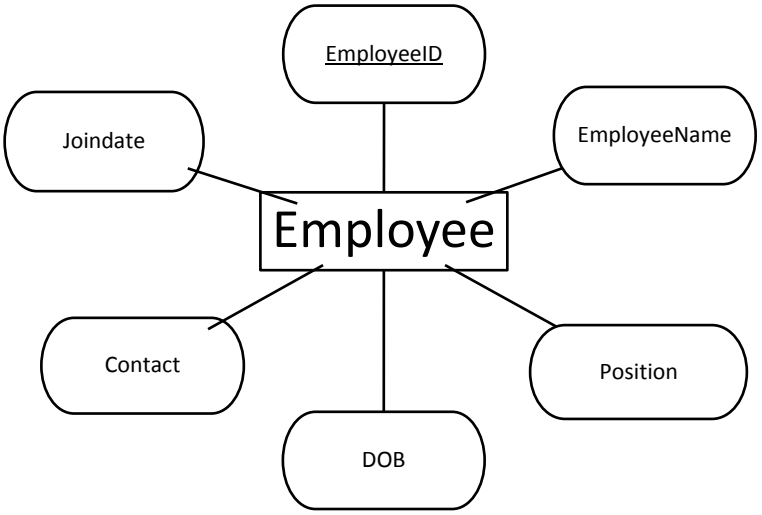
10. Payment:



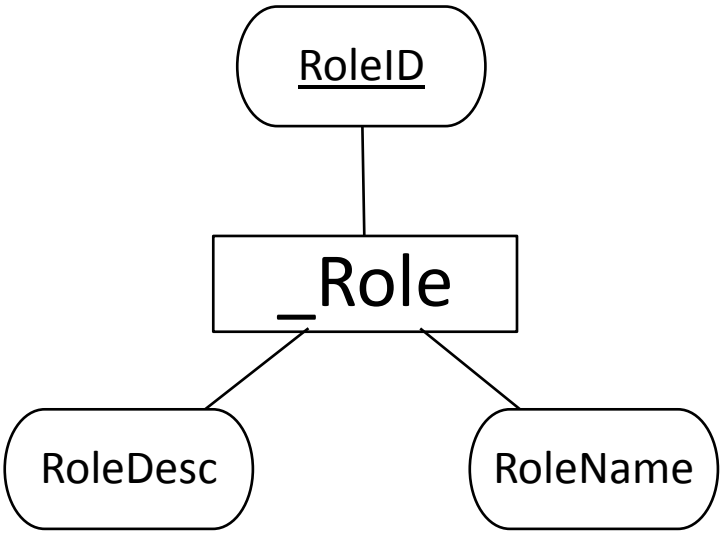
11. PaymentType:



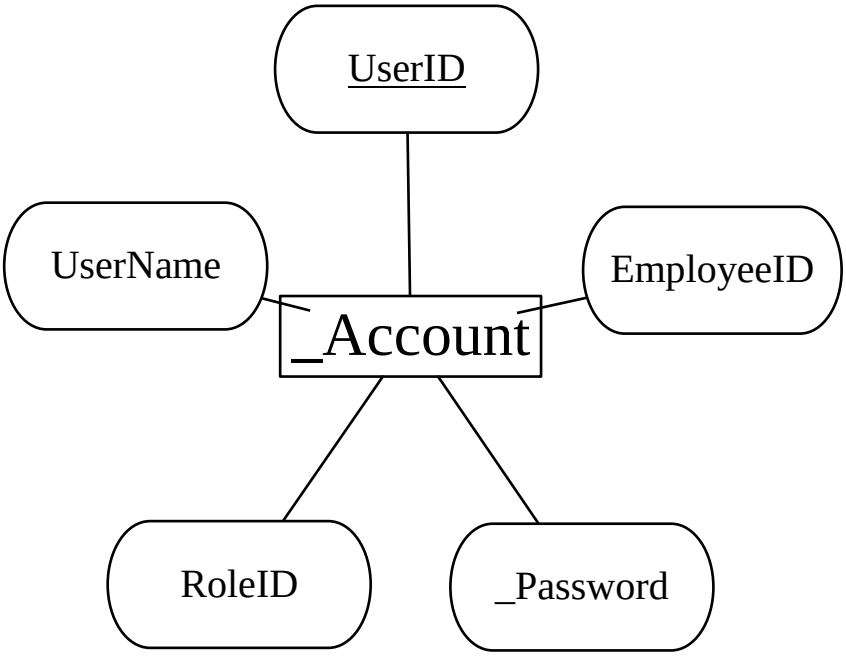
12. Employee:



13. _Role:



14. _Account:



X. Structured entities:

Table name: Payment			
Column	Description	Data type	Feature
PaymentID	Payment ID	Int	PK, identity
PaymentTypeID	Payment type ID	Int	References PaymentType(PaymentTypeID)
ReceptionID	Room master ID	Int	References Reception(ReceptionID)
PaymentAmount	Payment amount	Int	Not null
PaymentDate	Date making payment	Date	Default getdate()

Table name: PaymentType			
Column	Description	Data type	Feature
PaymentTypeID	Payment type ID	Int	PK, identity
PaymentType	Name of the type	Varchar(20)	Not null
PaymentTypeDesc	Description of the payment type	Varchar(200)	Not null

Table name: Reservation			
Column	Description	Data type	Feature
ReservationID	Reservation ID	Int	PK, identity
CustomerID	Customer ID	Int	References Customer (CustomerID)
ExpectedCheckinDate	Expected check in date	Date	Default getDate()
ExpectedRoom	Expected room	Varchar(30)	Not null
IsDeposit	To check the room is deposited or not	Varchar(10)	Not null
RoomTypeID	Room type ID	Int	References Room(RoomTypeID)
ReservationStatus	To check the room is recepted or not	Varchar(10)	Not null

Table name: Reception			
Column	Description	Data type	Feature
ReceptionID	Room master ID	Int	PK, identity
CusGroupID		Int	References Customer(CustomerID)
Customer	Customer	Varchar(30)	Not null
ReservationID	Reservation ID	Int	References Reservation(ReservationID)
RoomID	Room ID	Int	References Room(RoomID)
CheckinDate	Check in date	Date	Default getdate()
ExpectedCheckoutDate	Expected Check out date	Date	Not null
CheckOutDate	Check out date	Date	
_Services	List of services customers order	Varchar(500)	
Foods	List of foods customers order	Varchar(500)	
Drinks	List of drinks customers order	Varchar(500)	
ReceptionStatus	Status of the room	Varchar(10)	Not null

Table name: _Services			
Column	Description	Data type	Feature
ServiceID	Service ID	Int	PK, identity
ServiceName	Name of the service	Varchar(30)	Not null
ServicePrice	Price of the service	Int	Not null
ServiceDesc	Description of the service	Varchar(200)	Not null

Table name: Food			
Column	Description	Data type	Feature
FoodID	Food ID	Int	PK, identity
FoodName	Name of the food	Varchar(30)	Not null
FoodPrice	Price of the food	Int	Not null
FoodDesc	Description of the food	Varchar(200)	Not null

Table name: Drink			
Column	Description	Data type	Feature
DrinkID	Drink ID	Int	PK, identity
DrinkName	Name of the drink	Varchar(30)	Not null
DrinkPrice	Price of the drink	Int	Not null
DrinkDesc	Description of the drink	Varchar(200)	Not null

Table name: Customer			
Column	Description	Data type	Feature
CustomerID	Customer ID	Int	PK, identity
CusName	Name of the customer	Varchar(30)	Not null
GovernmentID	Government id of the customer	Varchar(20)	Not null
CusAddress	Address of the customer	Varchar(100)	Not null
Phone	Phone of the customer	Varchar(15)	Not null
Email	Email of the customer	Varchar(30)	
LastVisited	Last time the customer visited	Date	
CCNumber	Credit card number	Varchar(20)	
CCExpiry	Credit card expiry	Date	

Table name: Room			
Column	Description	Data type	Feature
RoomID	Room ID	Int	PK, identity
RoomNumber	Number of the room	Int	Not null
RoomTypeID	Room type ID	Int	References RoomType(RoomTypeID)
RoomStatusID	Room status ID	Int	References RoomStatus(RoomStatusID)
RoomDesc	Description of the room	Varchar(500)	Not null

Table name: RoomType			
Column	Description	Data type	Feature
RoomTypeID	Room type ID	Int	PK, identity
RoomTypeName	Name of the type	Varchar(20)	Not null
RoomTypeDesc	Description of the type	Varchar(200)	Not null
RoomPrice	Price of the room	Int	Not null
NumBeds	Number of beds in the room	Int	Not null

Table name: RoomStatus			
Column	Description	Data type	Feature
RoomStatusID	Room status ID	Int	PK, identity
RoomStatusName	Name of the room status	Varchar(20)	Not null
RoomStatusDesc	Description of the room status	Varchar(200)	Not null

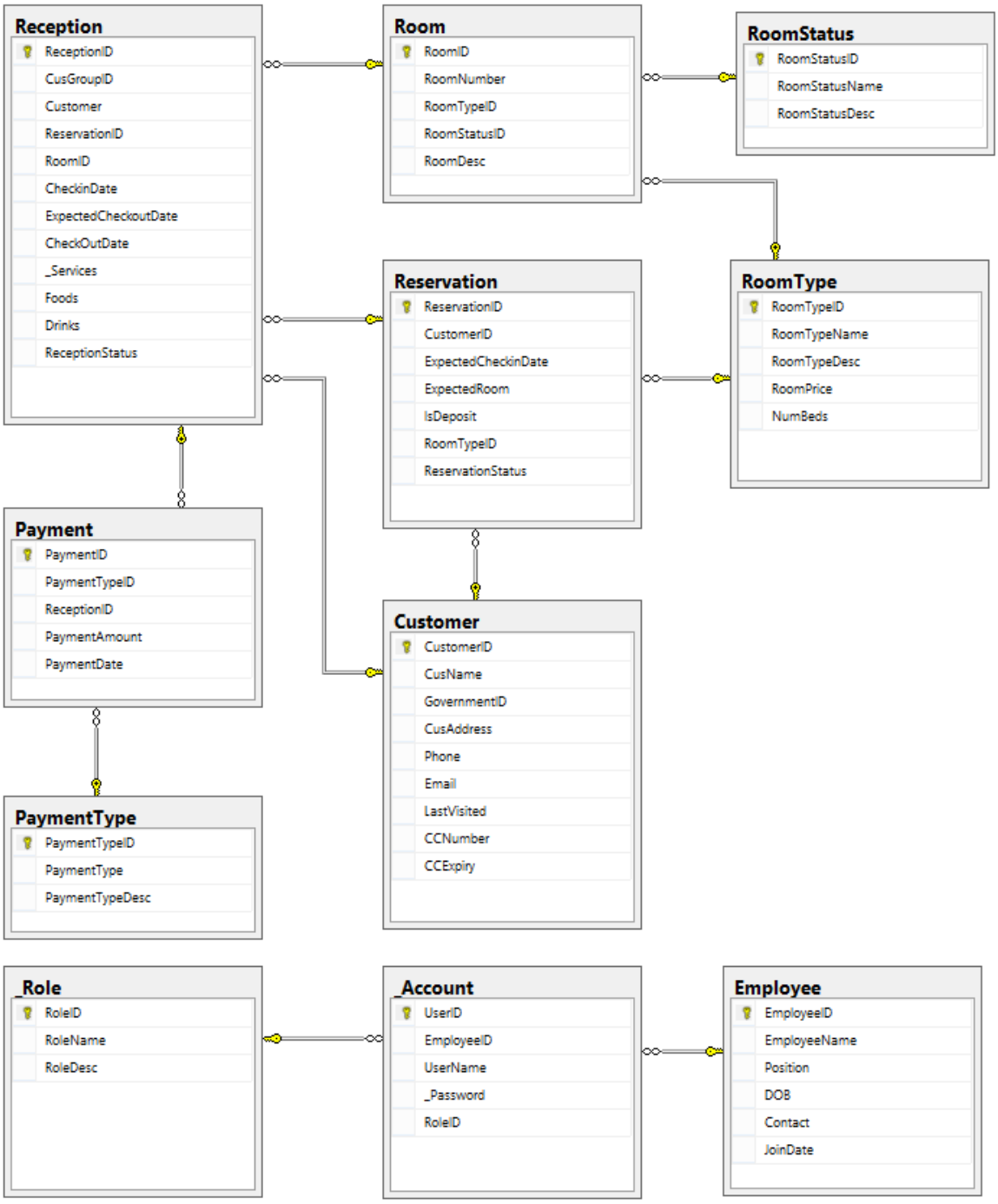
Table name: Employee			
Columns	Description	Data type	Feature
EmployeeID	Employee ID	Int	PK, identity
EmployeeName	Name's employee	Varchar(30)	Not null
Position	Postion	Varchar(20)	Not null
DOB	Day of birth	Date	Not null
Contact	Phone number's Employee	Varchar(20)	Not null
JoinDate	Join date	Date	Not null

Table name: _Role			
Column	Description	Data type	Feature
RoleID	Role ID	Int	PK, identity
RoleName	Name of the role	Varchar(10)	Not null
RoleDesc	Description of the role	Varchar(200)	Not null

Table name: _Account			
Columns	Description	Data type	Feature
UserID	User ID	Int	PK, identity
UserName	Name of the user	Varchar(20)	Not null
_Password	Password	Varchar(40)	Not null
EmployeeID	Employee ID	Int	References Employee (EmployeeID)
RoleID	Role ID	Int	References _Role (RoleID)

	Prepare by group 4	Approved by Mrs.Thuy
Date:		

XI. Relationships:



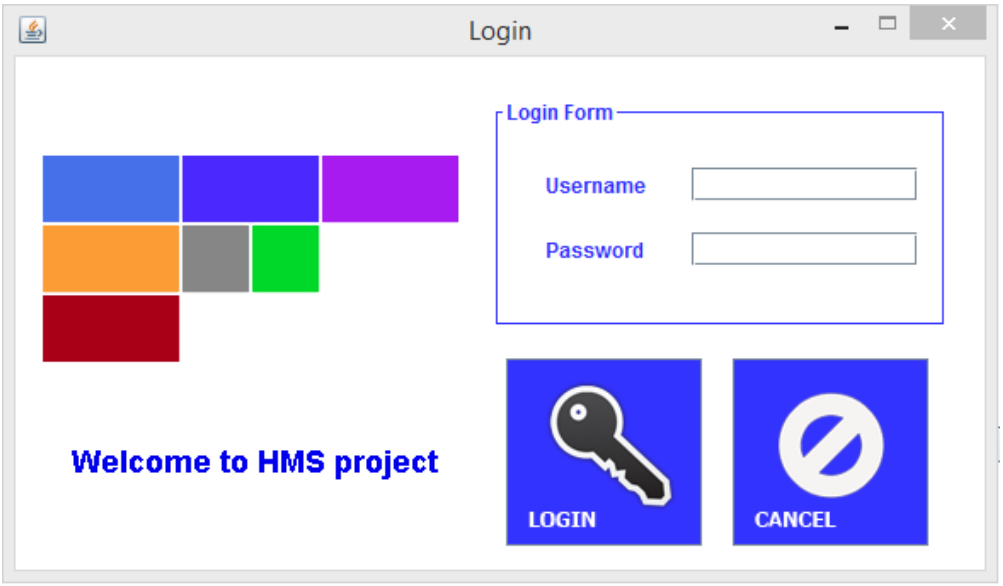
XII. Task sheet Review 2:

Member Group		Date Preparation of Activites Plan			
No	**Name**		**Start**	**End**	**Status**
1	Tran Hoang Van (Leader)	Together	11/08/2014	13/08/2014	Complete
2	Nguyen Cong Tuan		11/08/2014	13/08/2014	Complete
3	Huynh Phuoc Tan		11/08/2014	13/08/2014	Complete
4	Trinh Hoang Thong		11/08/2014	13/08/2014	Complete
5	Nguyen Tan Loi		11/08/2014	13/08/2014	Complete
Teacher			**Teamleader**		
Le Mong Thuy			**Tran Hoang Van**		

Review 3

XIII. Form:

1. Login:

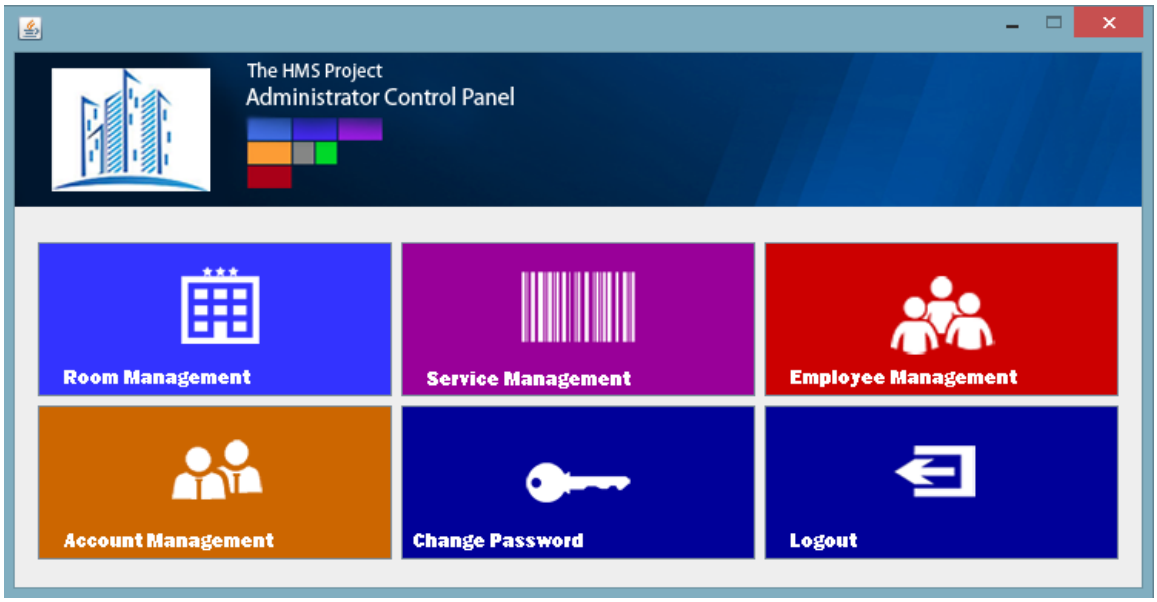


Description: This form allow staff or admin login.

Validation:

- Username:
  - + Can't be left blank.
  - + Must be non-space character.
- Password:
  - + Can't be left blank.
  - + Must be non-space character.

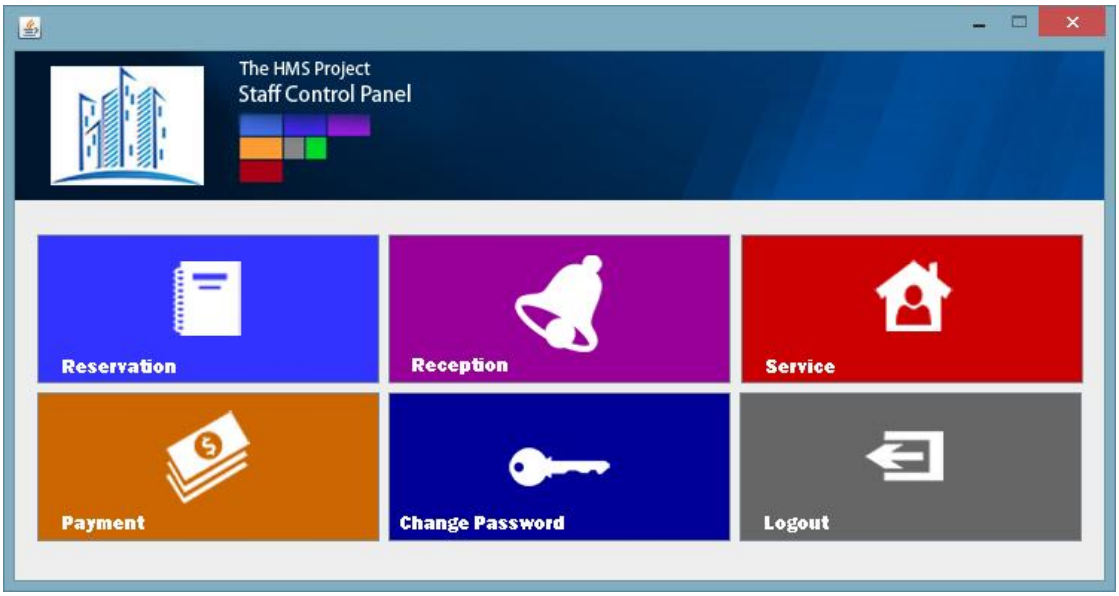
2. Administration Control Panel:



Description: Allow admin manage information of room, service, employee, account and change password and logout.

Open from : Login form.

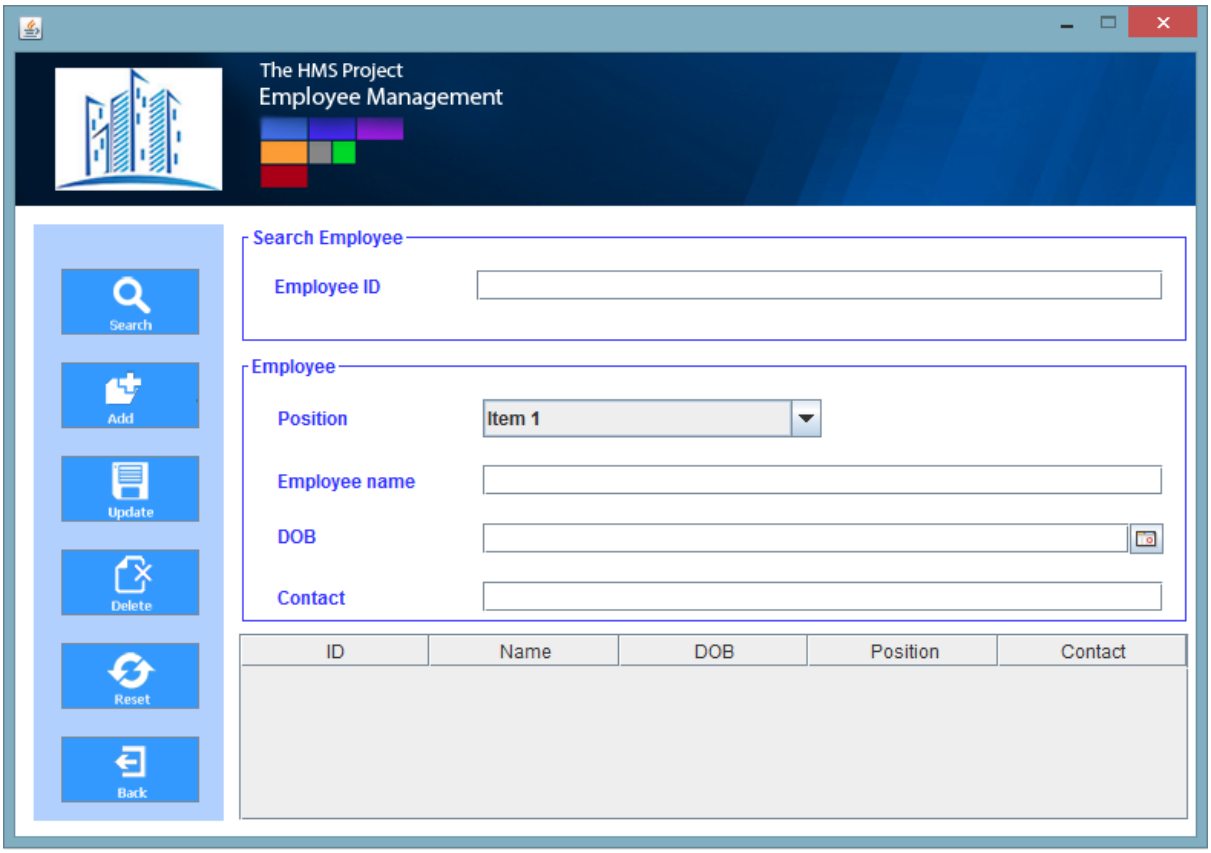
3. Staff Control Panel:



Description: This form allow staffs choosing task to perform.

Open from: Login form.

4. Employee Management:



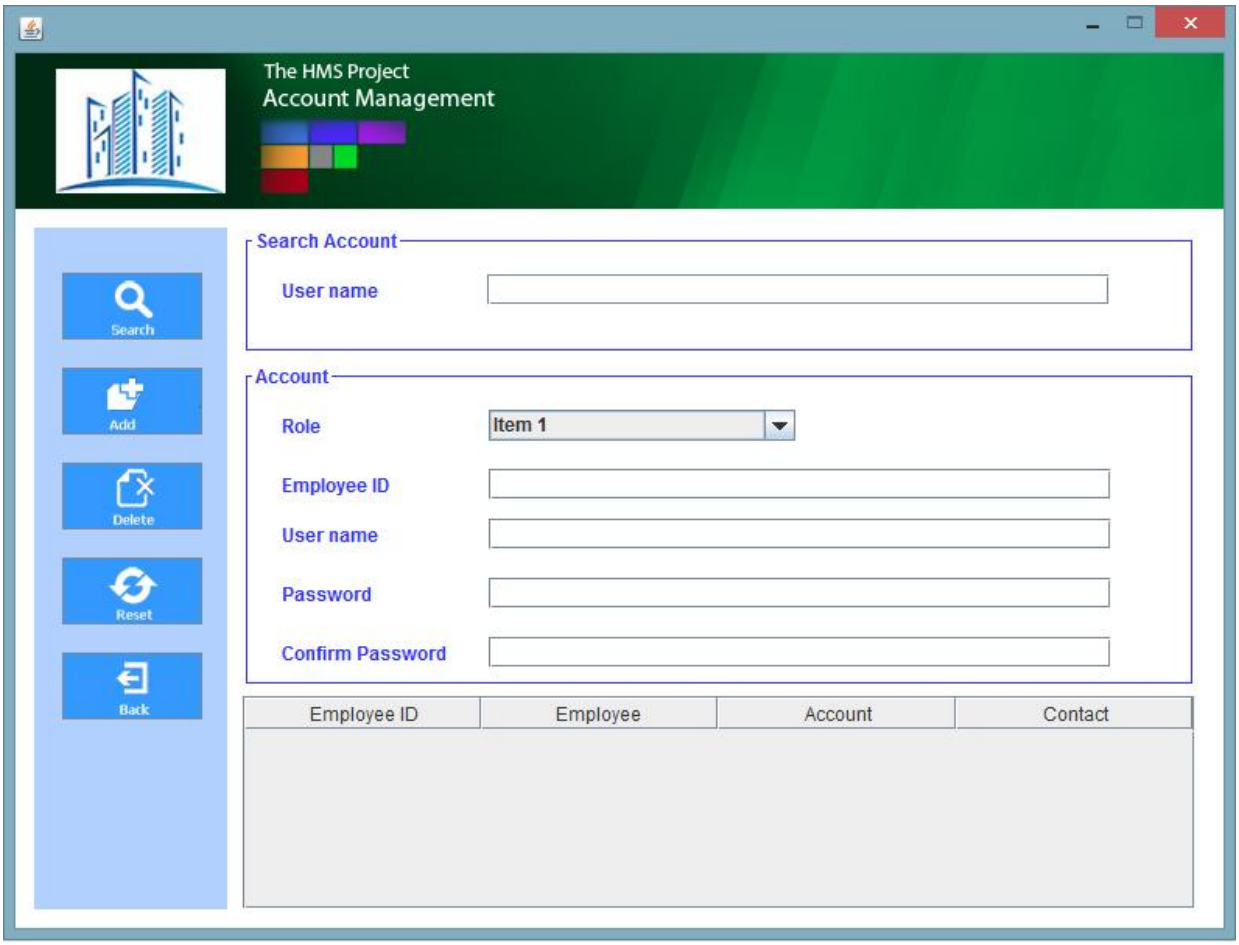
Description : Allow admin manage employee about : search, add, update,delete.

Open from : Administration Control Panel.

Validation:

- Employee ID:
  - + Can't be left blank.
  - + Must be numeric character.
  - + Can't just have spaces.
- Employee Name:
  - + Can't be left blank.
  - + Must be alphabetic character or space.
  - + Can't just have spaces.
- Contact:
  - + Can't be left blank.
  - + Must be numeric character.
  - + Can't just have spaces.

5. Account Management:



Description: Allow admin manage employee's account about : search , add , delete.

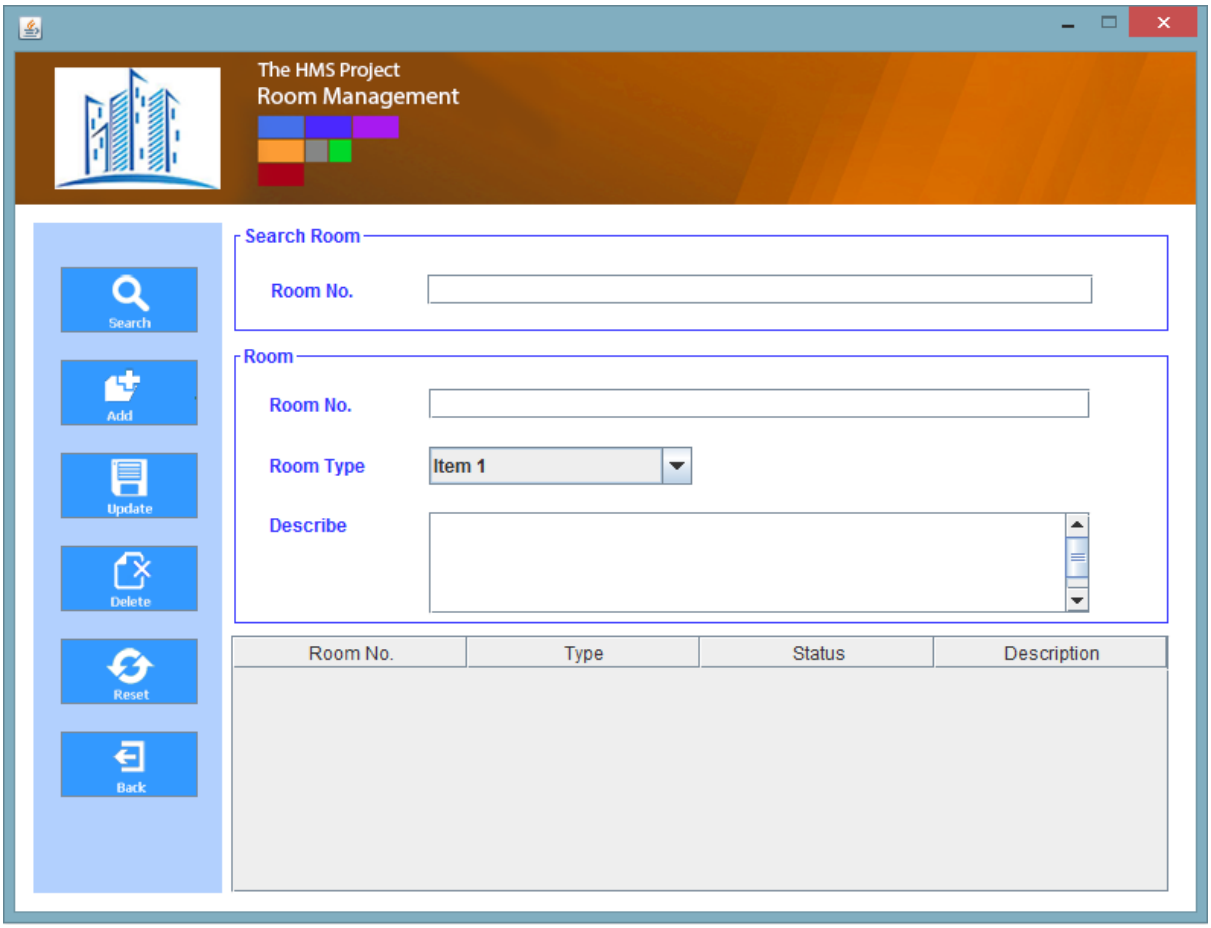
Open from: Administration Control Panel.

Validation:

- User name:
  - + Can't be left blank.
  - + Must be alphabetic character or space.
  - + Can't just have spaces.
- Employee ID:
  - + Can't be left blank.
  - + Must be numeric character.
  - + Can't just have spaces.
- Password:
  - + Can't be left blank.
  - + Must be character or space.
  - + Can't just have spaces.

- Confirm Password:
  - + Can’t be left blank.
  - + Must be character or space.
  - + Must be same as Password field
  - + Can’t just have spaces.

6. Room Management:



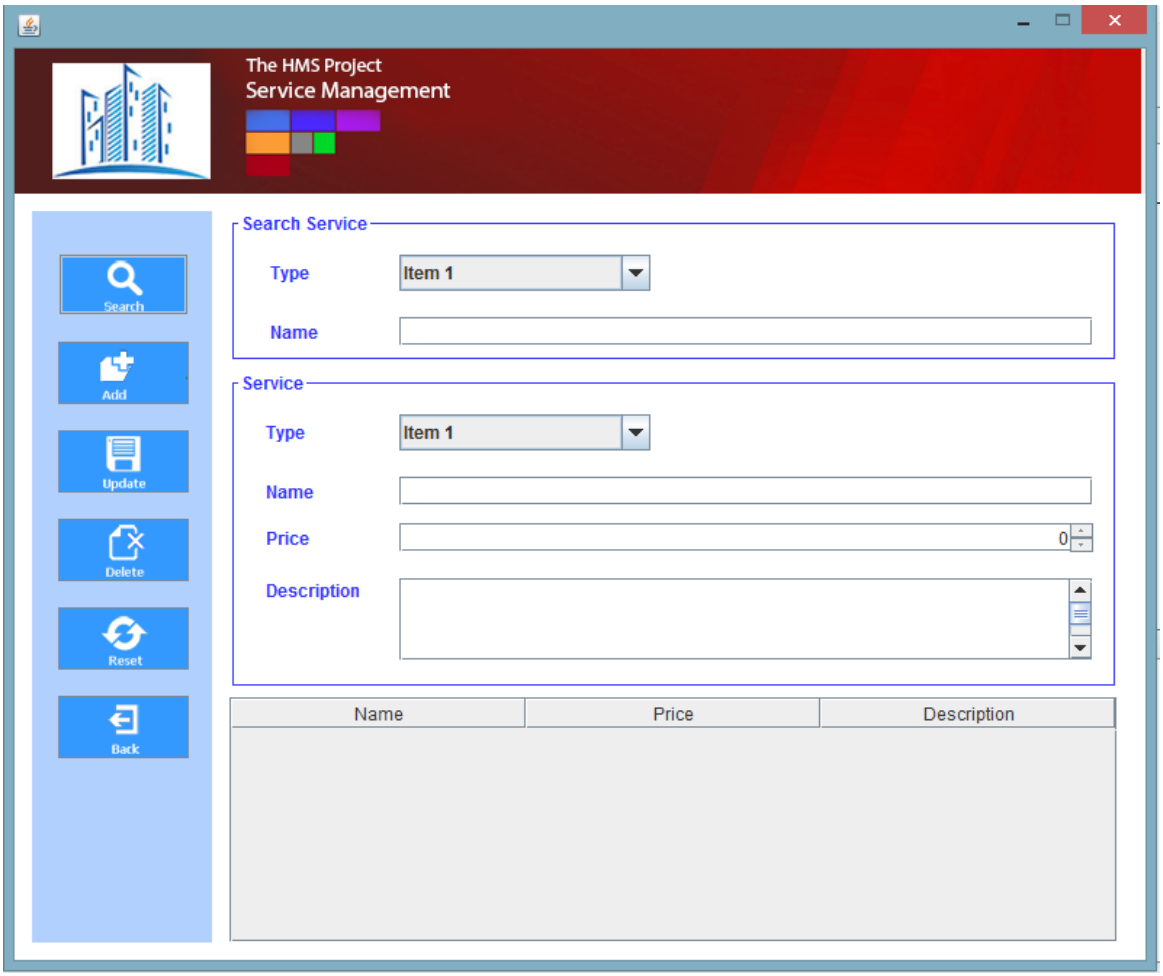
Description: Allow admin manage room's information about : search, add, update, delete.

Open from: Administration Control Panel.

Validation:

- Room No.:
  - + Can't be left blank.
  - + Must be numeric character.
  - + Can't just have spaces.
- Description:
  - + Can't be left blank.
  - + Must be character or spaces.
  - + Can't just have spaces.

7. Service Management:



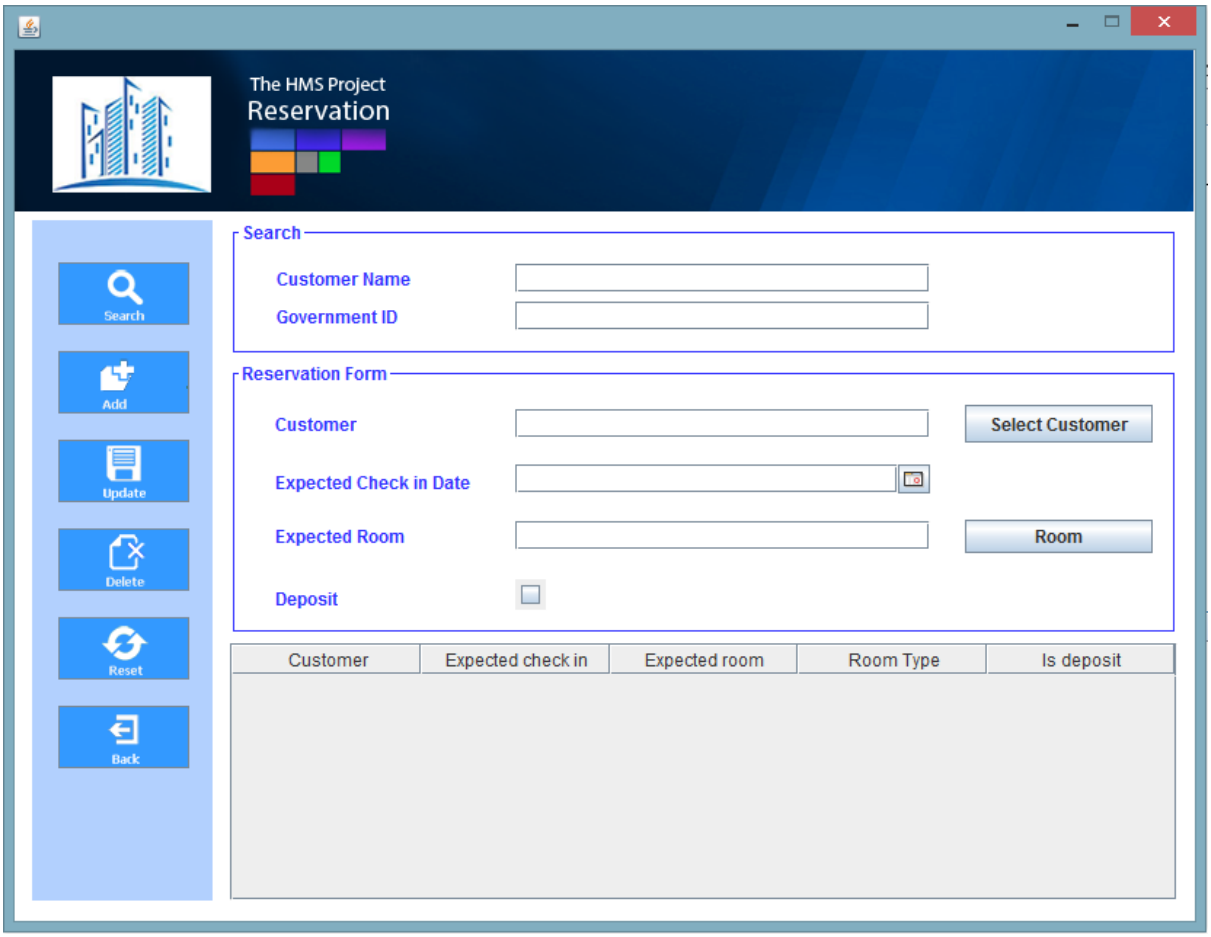
Description: Allow admin manage services about: add, search, update.

Open from : Administration Control Panel.

Validation:

- Name:
  - + Can't be left blank.
  - + Must be alphabetic character or spaces.
  - + Can't just have spaces.
- Price:
  - + Can't be left blank.
  - + Must be numeric character.
  - + Can't just have spaces.
- Description:
  - + Can't be left blank.
  - + Must be character or spaces.
  - + Can't just have spaces.

8. Reservation:



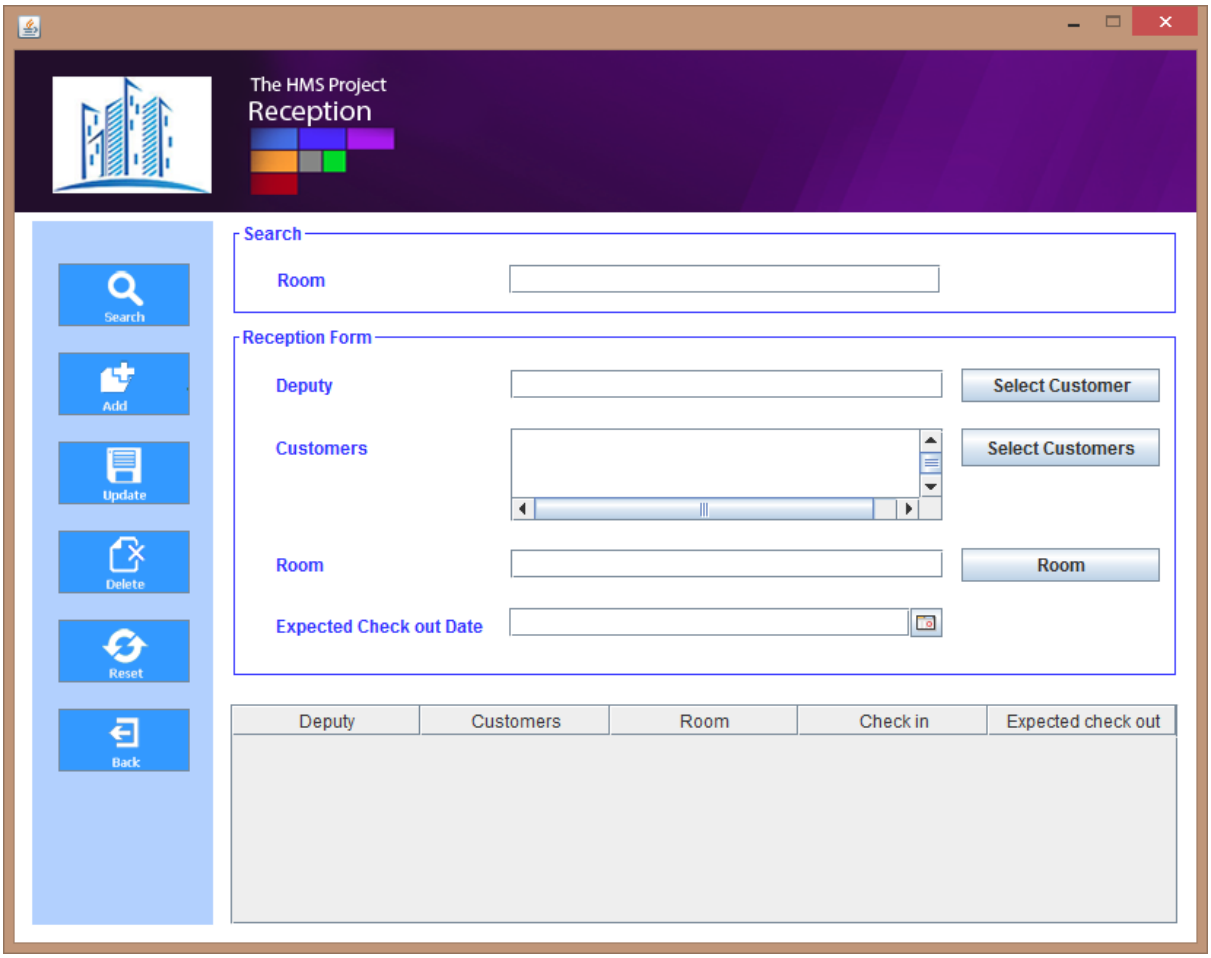
Description: This form allow staffs creating, modifying, deleting a reservation.

Open from: Staff Control Panel.

Validation:

- Customer Name:
  - + Can't be left blank.
  - + Must be alphabetic character or space.
  - + Can't just have spaces.
- Government ID:
  - + Can't be left blank.
  - + Must be digital character.
  - + Can't just have spaces.

9. Reception:



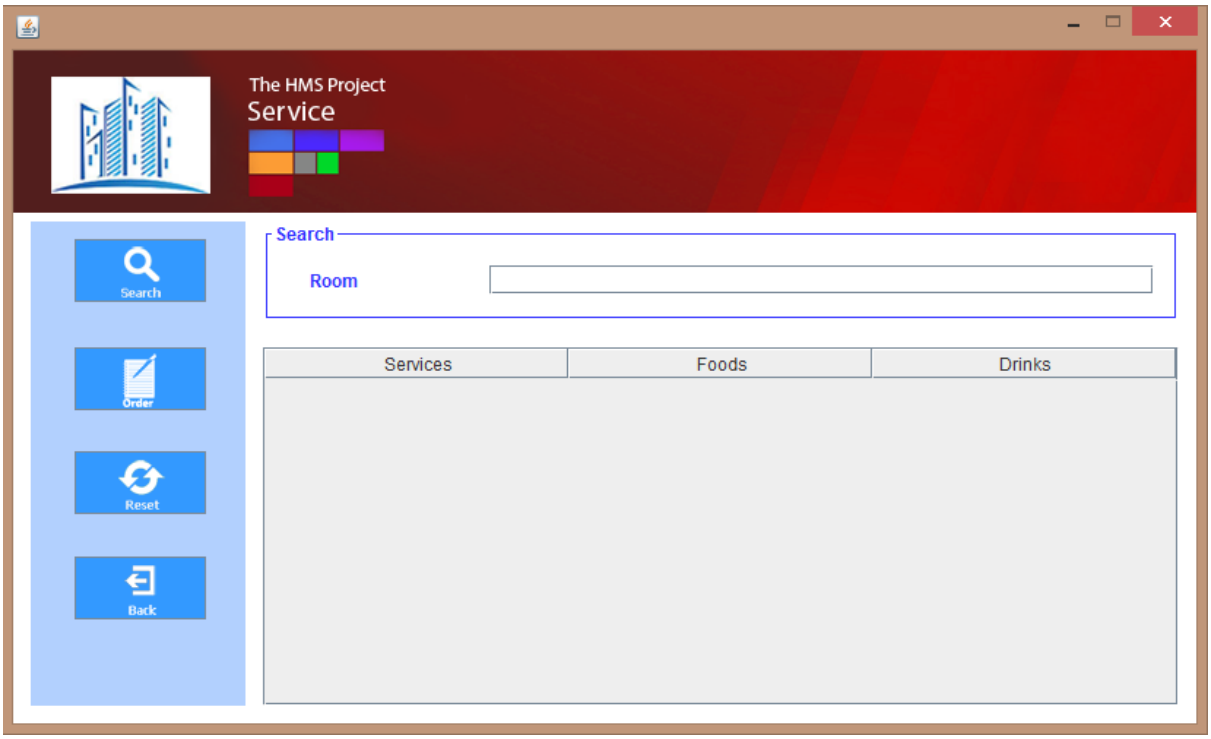
Description: This form allow staffs creating, modifying, deleting a reception.

Open from: FAdmin.

Validation:

- Room:
  - + Can't be left blank.
  - + Must be non-space character.

10. Services:



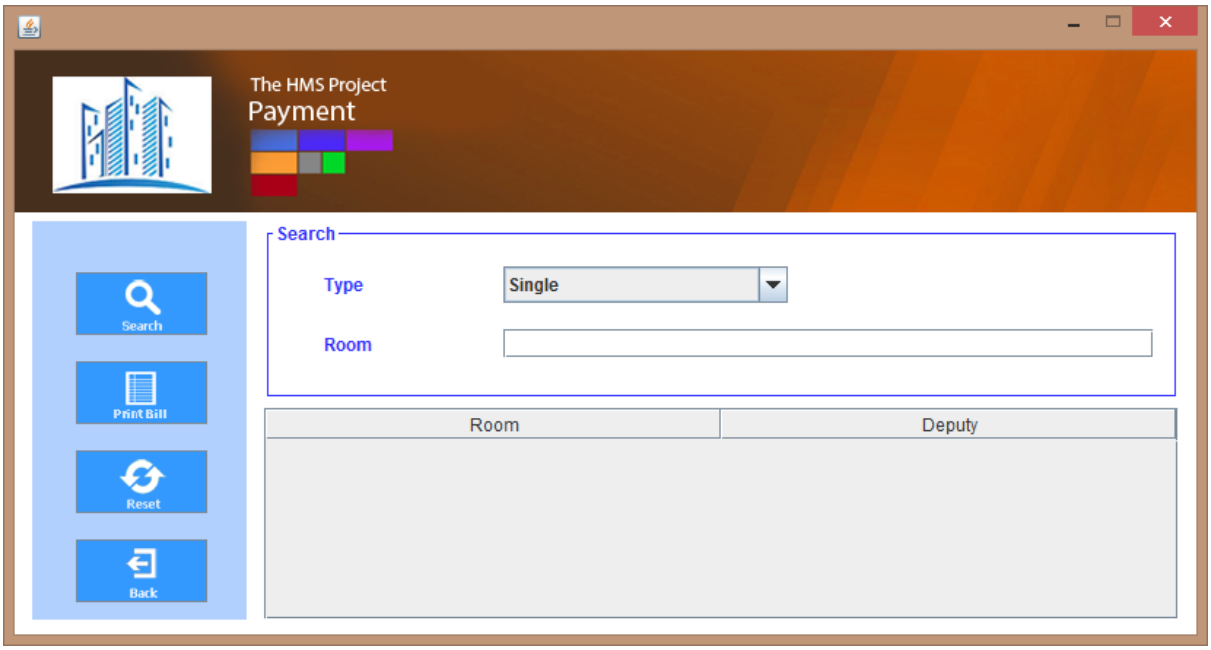
Description: This form allow staffs selecting room to add services

Open from: FAdmin.

Validation:

- Room:
  - + Can't be left blank.
  - + Must be non-space character.

11. Payment:



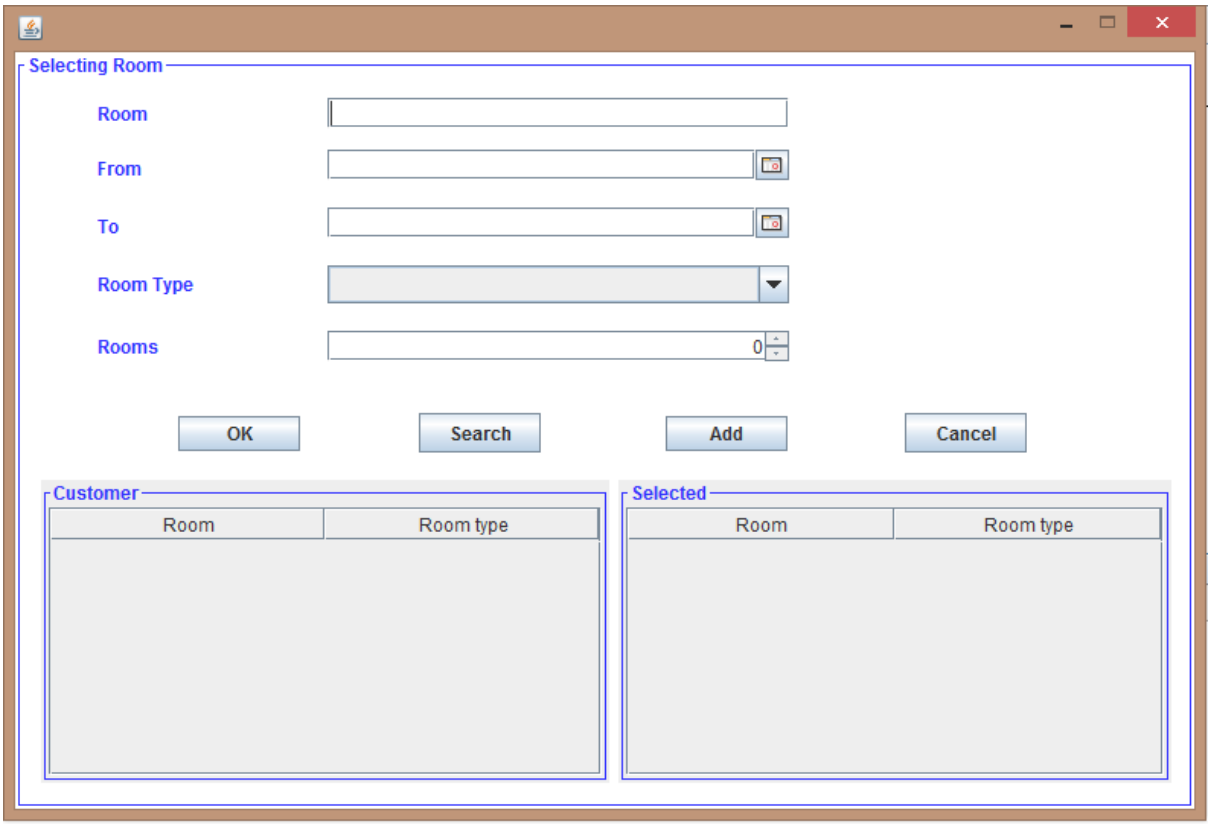
Description: This form allow staffs searching room or group to payment.

Open from: Staff Control Panel.

Validation:

- Room:
  - + Can't be left blank.
  - + Must be non-space character.

12. Select Room:



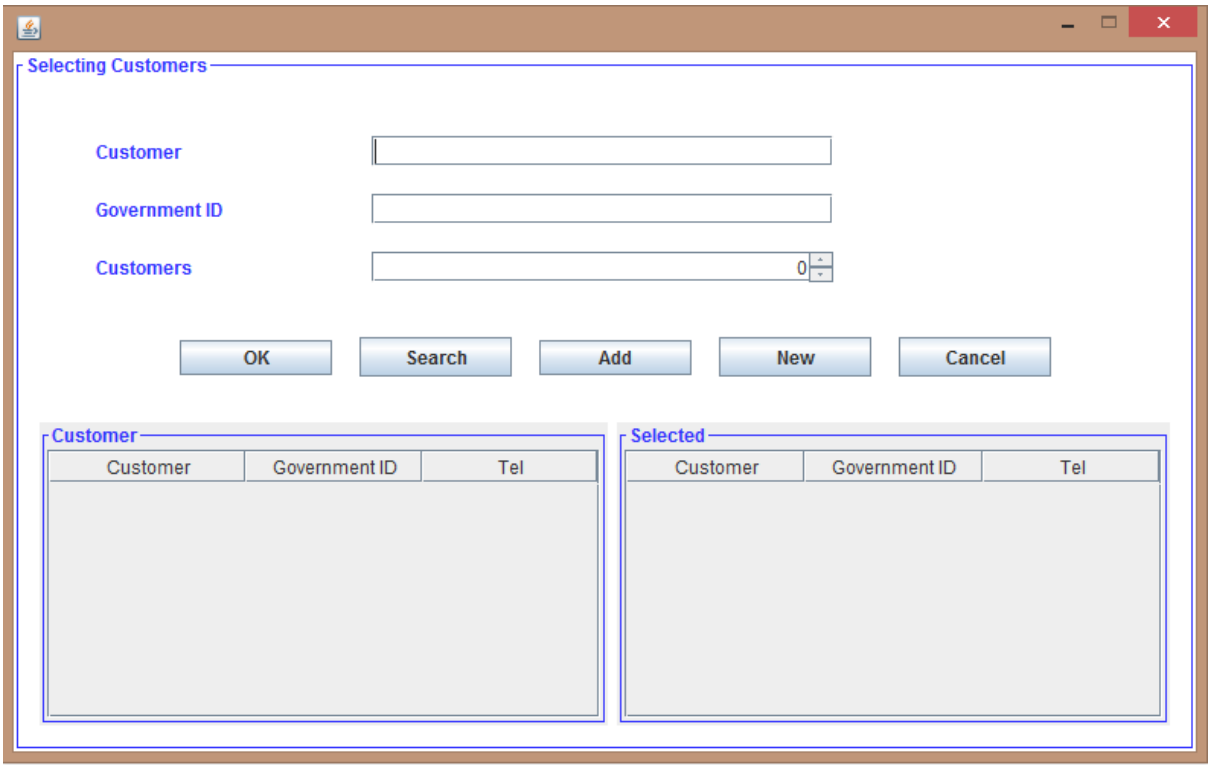
Description: This form allow staffs selecting or searching rooms.

Open from: Reservation form, Reception form.

Validation:

- Room:
  - + Can't be left blank.
  - + Must be non-space character.

13. Select Customer:



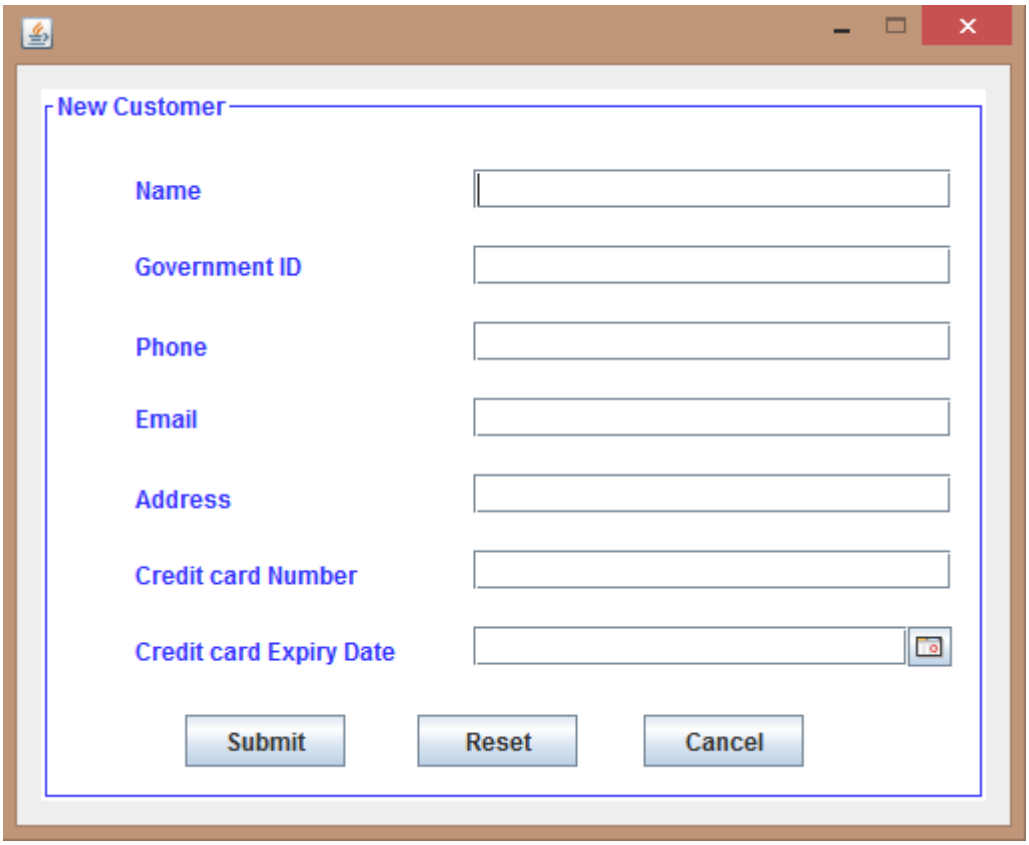
Description: This form allow staffs selecting, searching or creating customers.

Open from: Reception form, Reservation form.

Validation:

- Customer Name:
  - + Can't be left blank.
  - + Must be alphabetic character or space.
  - + Can't just have spaces.
- Government ID:
  - + Can't be left blank.
  - + Must be digital character.
  - + Can't just have spaces.

14. Add Customer:



Description: This form allow staffs add new customer.

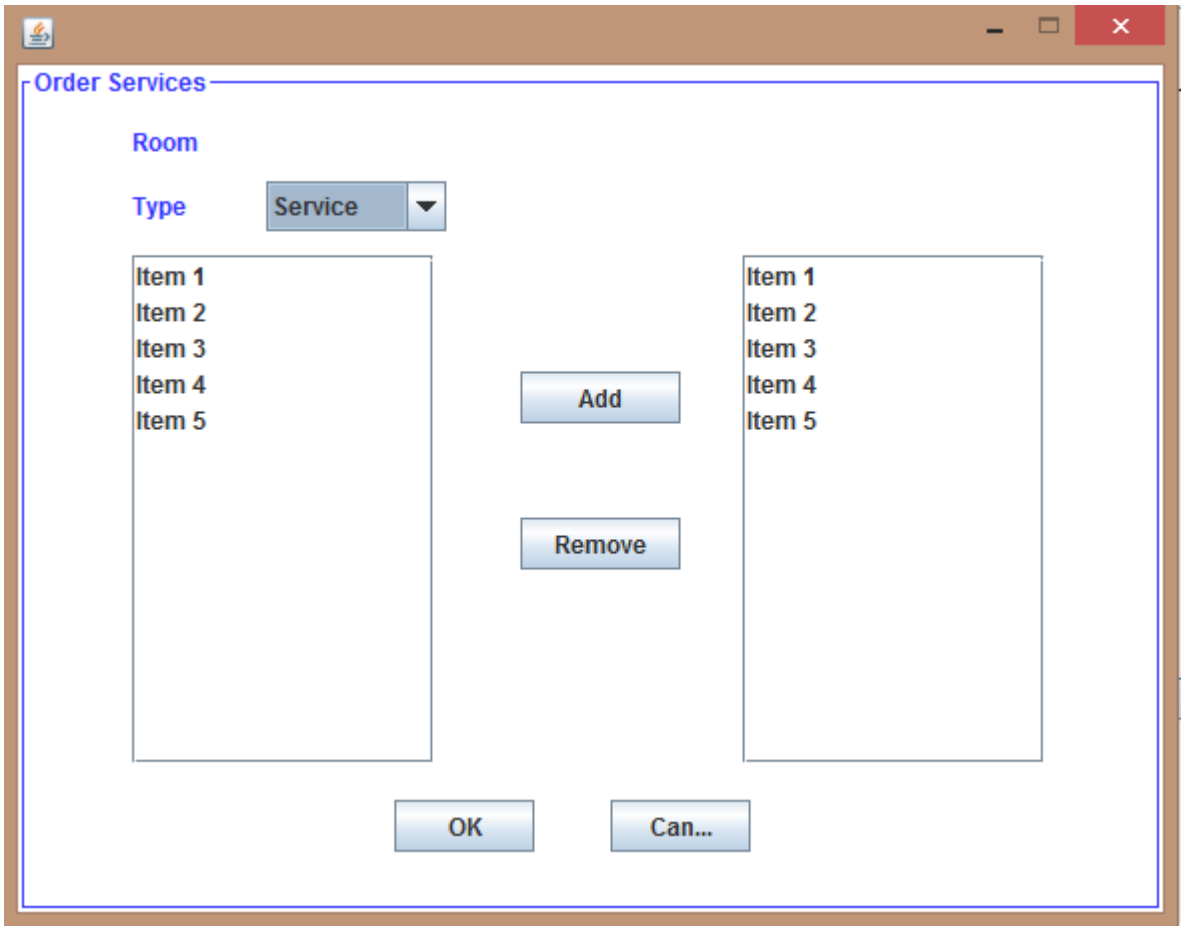
Open from: Select Customer form.

Validation:

- Name:
  - + Can't be left blank.
  - + Must be alphabetic character or space.
  - + Can't just have spaces.
- Government ID:
  - + Can't be left blank.
  - + Must be digital character.
  - + Can't just have spaces.
- Phone:
  - + Can't be left blank.
  - + Must be digital character.
  - + Can't just have spaces.
- Email:
  - + Can't be left blank.
  - + Must be non-space character.
  - + Must have @ + address.

- Address:
  - + Can’t be left blank.
  - + Can’t just have spaces.
- Credit card Number:
  - + Can’t be left blank.
  - + Must be digital character.
  - + Can’t just have spaces.

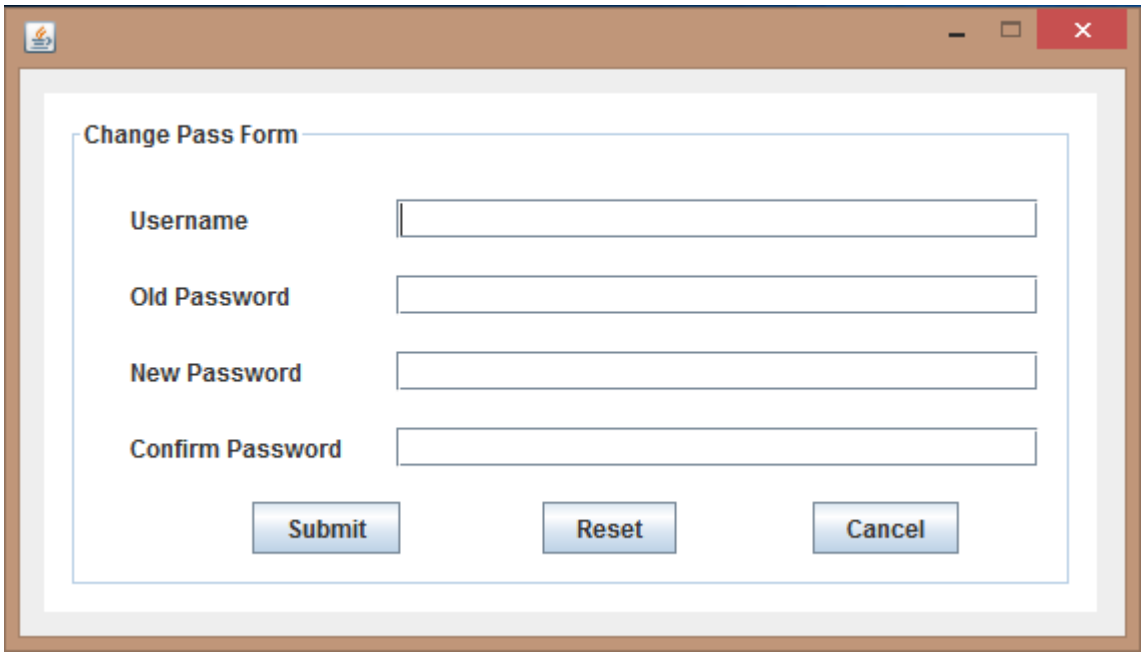
15. Order Service:



Description: This form allow staffs adding services to a certain room.

Open from: Service form.

16. Change Password:



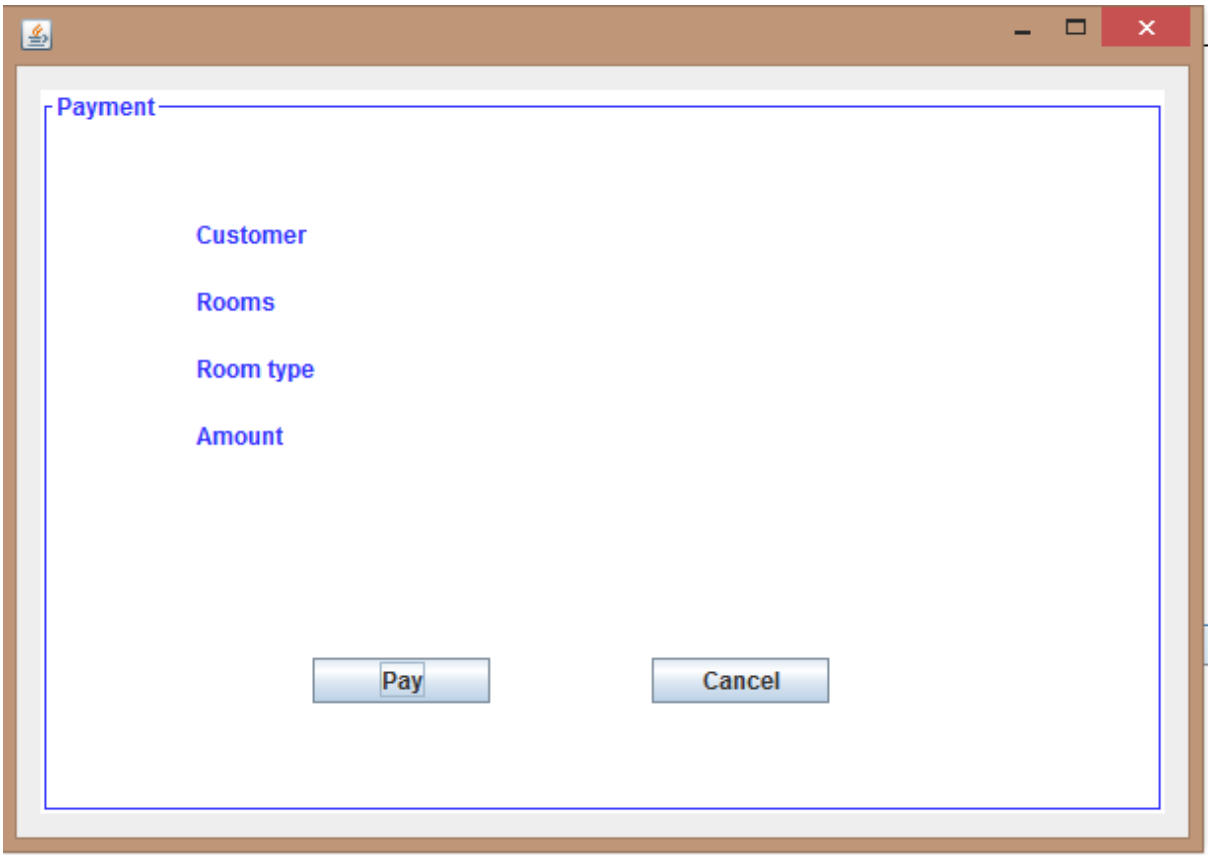
Description: Allow staff or admin change password .

Open from : Administration Control Panel, Staff Control Panel.

Validation:

- Username:
  - + Can't be left blank.
  - + Must be alphabetic character or spaces.
  - + Can't just have spaces.
- Old Password:
  - + Can't be left blank.
  - + Must be character or space.
  - + Must be same as current password
  - + Can't just have spaces.
- New Password:
  - + Can't be left blank.
  - + Must be character or space.
  - + Mustn't be same as current password
  - + Can't just have spaces.
- Confirm Password:
  - + Can't be left blank.
  - + Must be character or space.
  - + Must be same as new password
  - + Can't just have spaces.

17. Payment Detail:



Description: This form allow staffs viewing and creating payment.

Open from: Payment form.

XIV. **Task sheet Review 3:**

Member Group		Date Preparation of Activites Plan			
No.	**Name**	**Desc Task**	**Start**	**End**	**Status**
1	Tran Hoang Van (Leader**)**	Gui standards. Implementing and building the application. FSReceptionMenu.java FSSelectRoom.java FARoom.java And all related functions.	**13/08/2014**	**24/08/2014**	Complete
2	Trinh Hoang Thong	FSServiceMenu.java FSServices.java FChangepass.java And all related functions.			Complete
3	Nguyen Tan Loi	FAEmployee.java FAAccount.java And all related functions.			Complete
4	Huynh Phuoc Tan	FSPaymentMenu.java FSPayment.java FSAddCustomer.java FAService.java And all related functions.			Complete
5	Nguyen Cong Tuan	FSReservationMenu.java FSSelectCustomer.java FSLogin.java And all related functions.			Complete
Teacher			**Teamleader**		
Le Mong Thuy			**Tran Hoang Van**		

XV. **Final checklist:**

S.No	Aspect tested	Suggestions/ Remarks
1.	Have all the modules been properly integrated and are they completely functional?	
2.	Does each unit meet its objective and purpose? Are all the validations happening as specified in Process Design?	
3.	Have all Design and Coding standards been followed and implemented?	
4.	Is the GUI design consistent all over?	
5.	Are the codes working as per the specification?	
6.	Does the application's functionality resolve the client problem, and satisfy his needs completely?	
7.	Have the hardware and software been correctly chosen?	
8.	Additional features and utilities that give value addition to the entire project.	