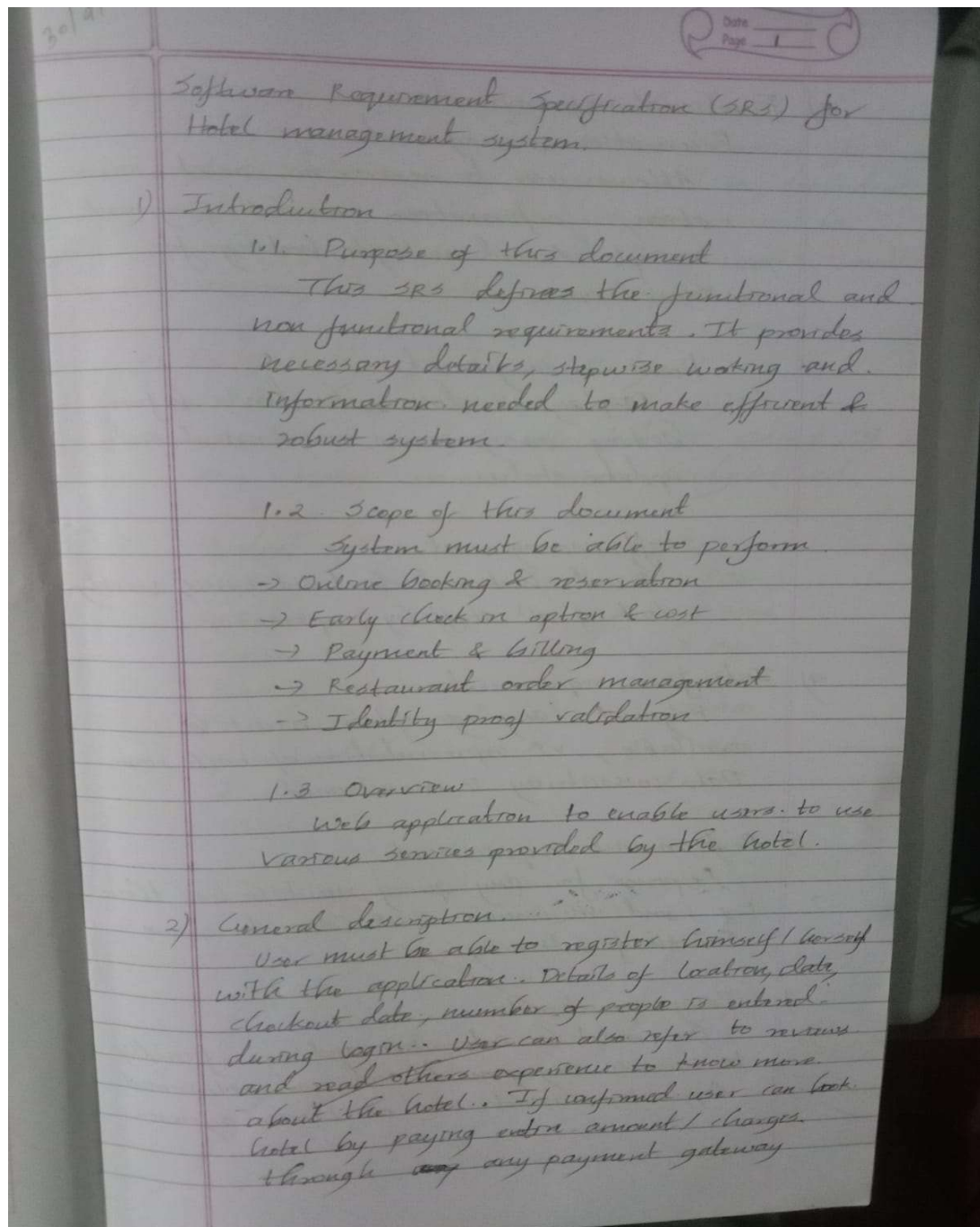


Hotel Management System

a. SRS Document



3) Functional requirements

Reservation management

Allows user to reserve or cancel reservation, confirmation email & payment receipt. Avoid multiple booking for same room.

Room management

Display all do's and don'ts before booking assign rooms on arrival and update status.

Staff management

Record check in & check out times, weekly check of all staff by supervisor.

4) Interface requirement

Regional language option must be available, VR representation of each room. Data consistency is maintained.

5) Performance requirement

Response for any query must be less than 1 s and minimum 8GB RAM to ensure smooth functioning.

6) Design constraints

UI must be interactive and user friendly to increase engagement and user retention. Application cannot run on LINUX systems.

7) Non functional requirements.

System must use RSA 2048 hashing for data security & must not be dependent on one architecture. System must be able to process & handle 10000 users simultaneously if needed must scale up.

8) Preliminary schedule & Budget.

Project must be completed within 6 months & Budget allocated is \$9600. If any changes made reserve budget used.

Budget split.

Software development	\$3840
Hardware	\$ 1920
Licenses	\$ 960
Quality assurance	\$ 960
Project management	\$ 480
Documentation	\$ 480
Maintenance	\$ 960
Total	\$9600

a. Advanced Class Diagram:

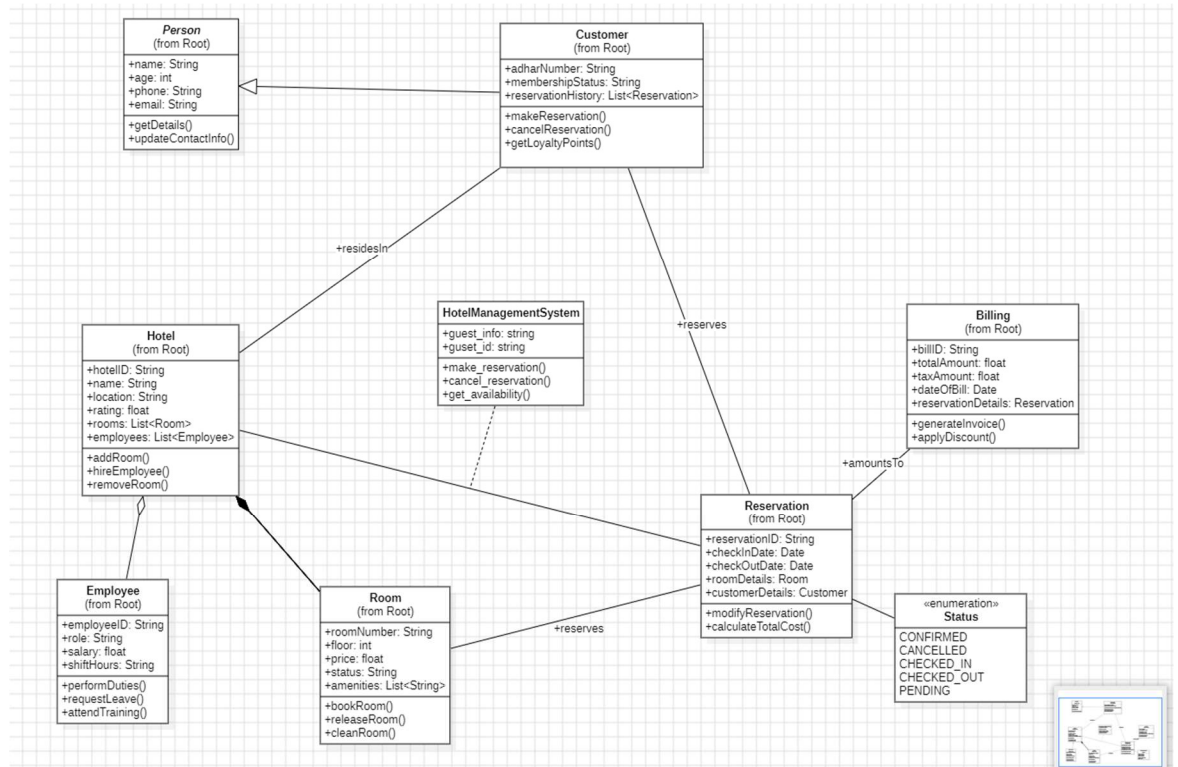
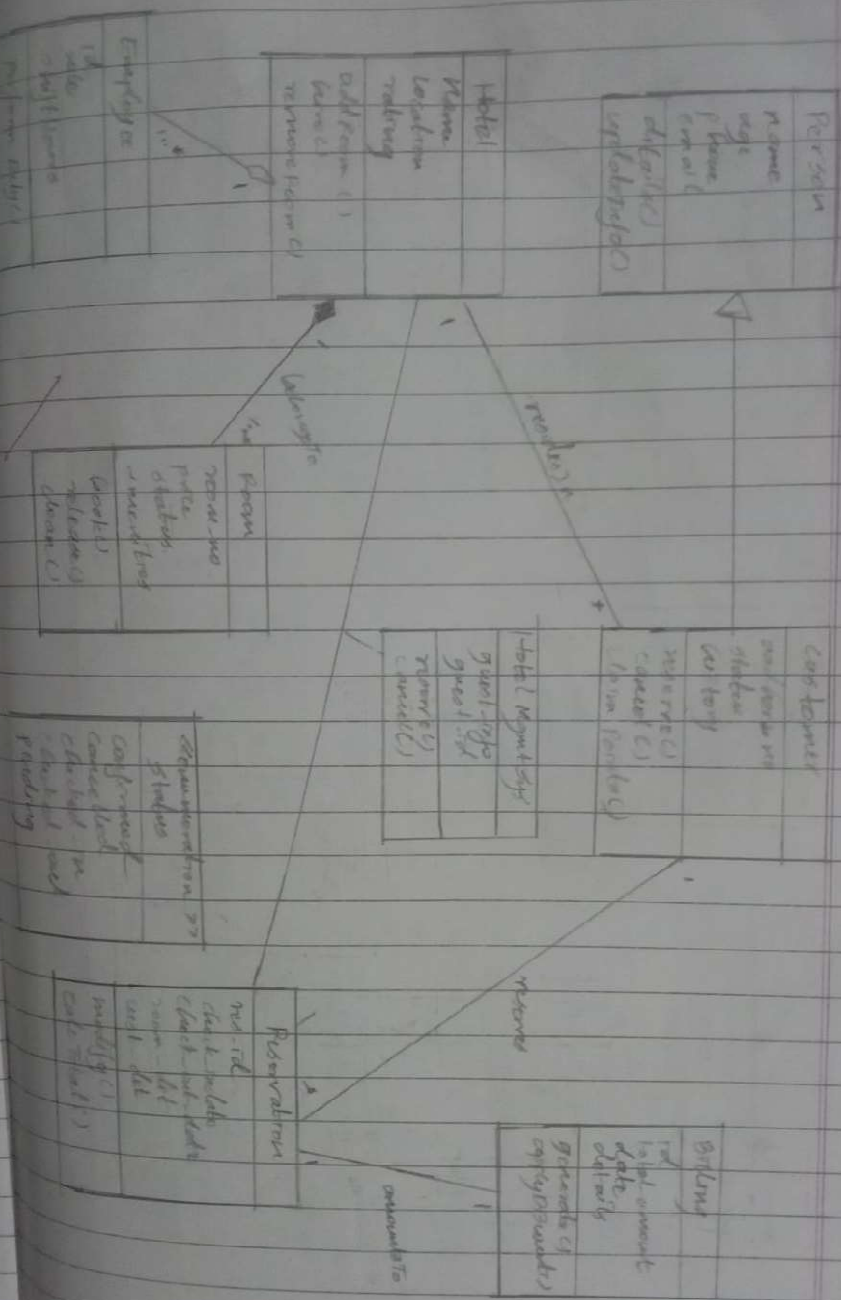


Fig 1.2 : Advanced Class Diagram for hotel management system

- **Person and Customer:** The Person class serves as a base for Customer, which includes details like membership and reservation history. Customers can make and cancel reservations.
- **Hotel:** The central entity managing Rooms and Employees. It includes methods to add or remove rooms and hire staff.
- **Room:** Represents individual rooms in the hotel, with details like room number, price, status, and amenities. Rooms can be booked, released, or cleaned.
- **Employee:** Represents hotel staff, with details like role, salary, and methods to perform duties or request leave.
- **Reservation and Billing:** The Reservation class handles booking details like check-in/check-out dates, room, and customer information. The Billing class generates invoices and applies discounts for reservations.
- **Hotel Management System:** Manages reservations, cancellations, and room availability, acting as the core system.

Hotel Management System



b. Advanced State Diagram:

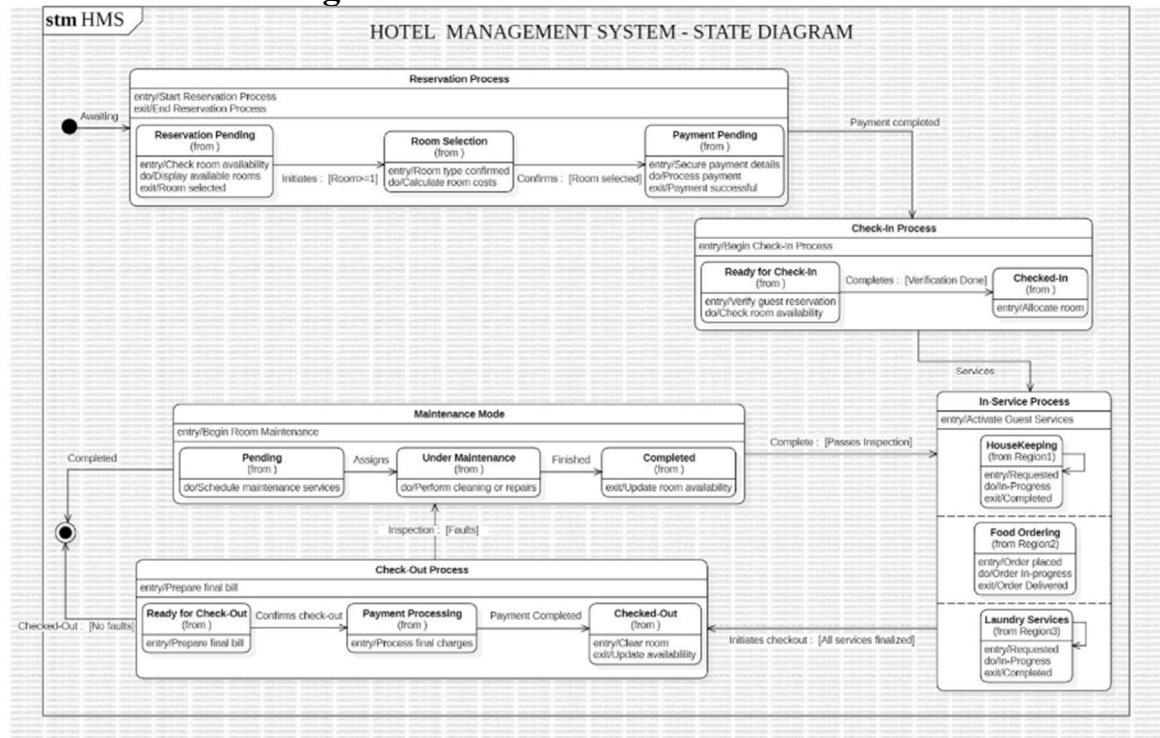
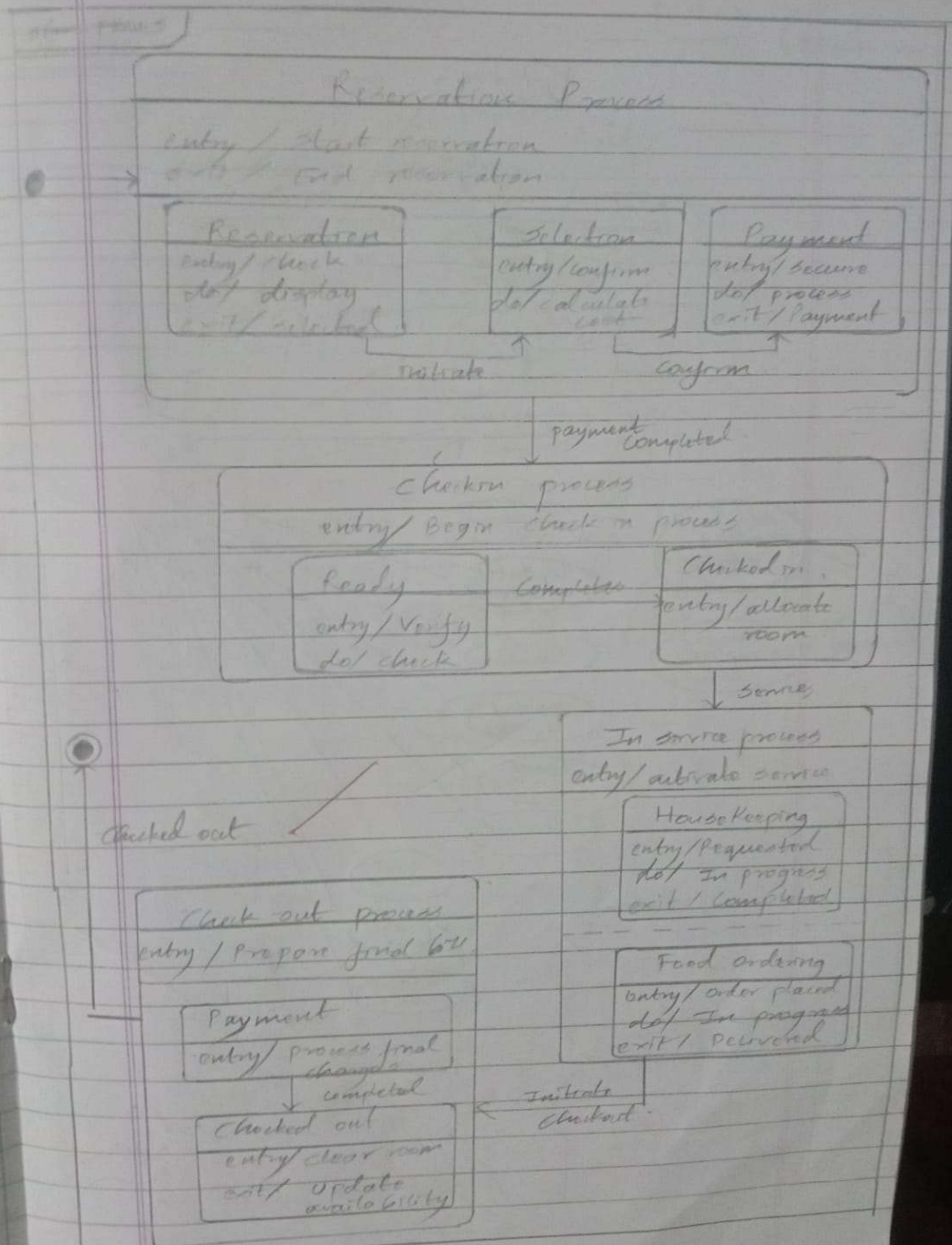


Fig 1.3

Advanced state hotel management



c. Use Case Diagram

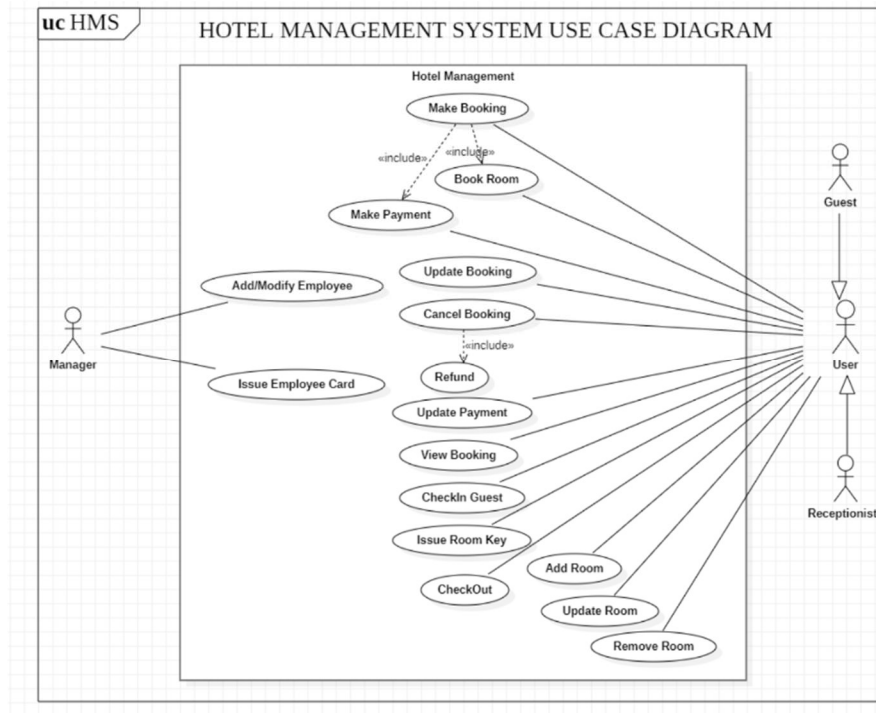
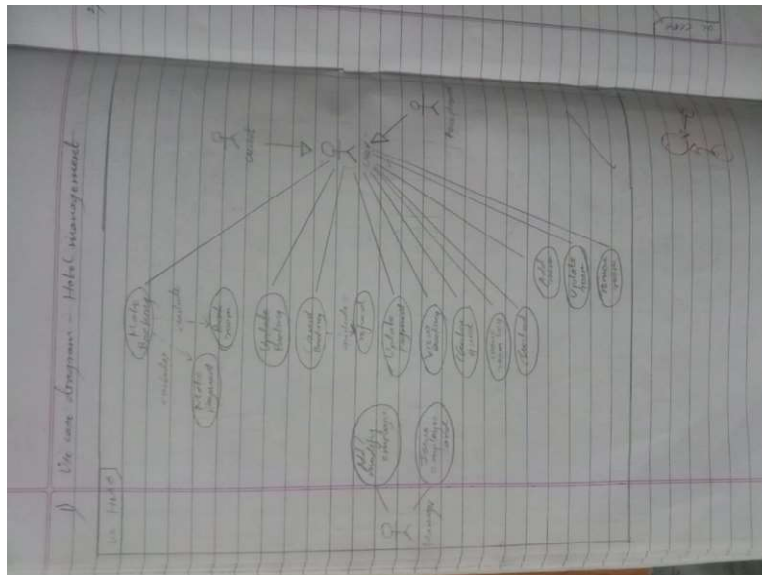


Fig 1.4



d. Sequence Diagram

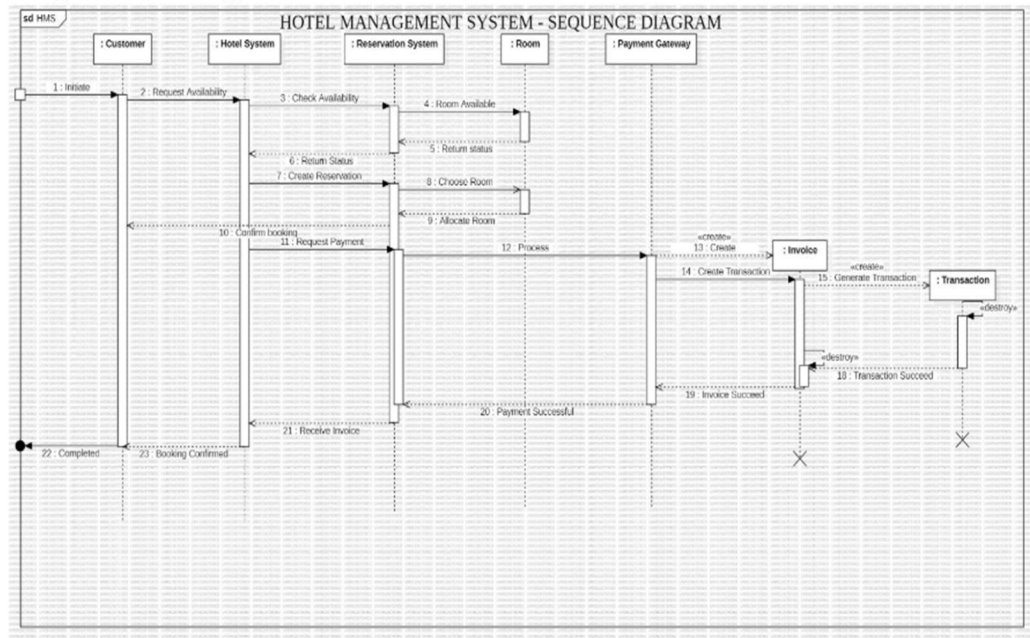
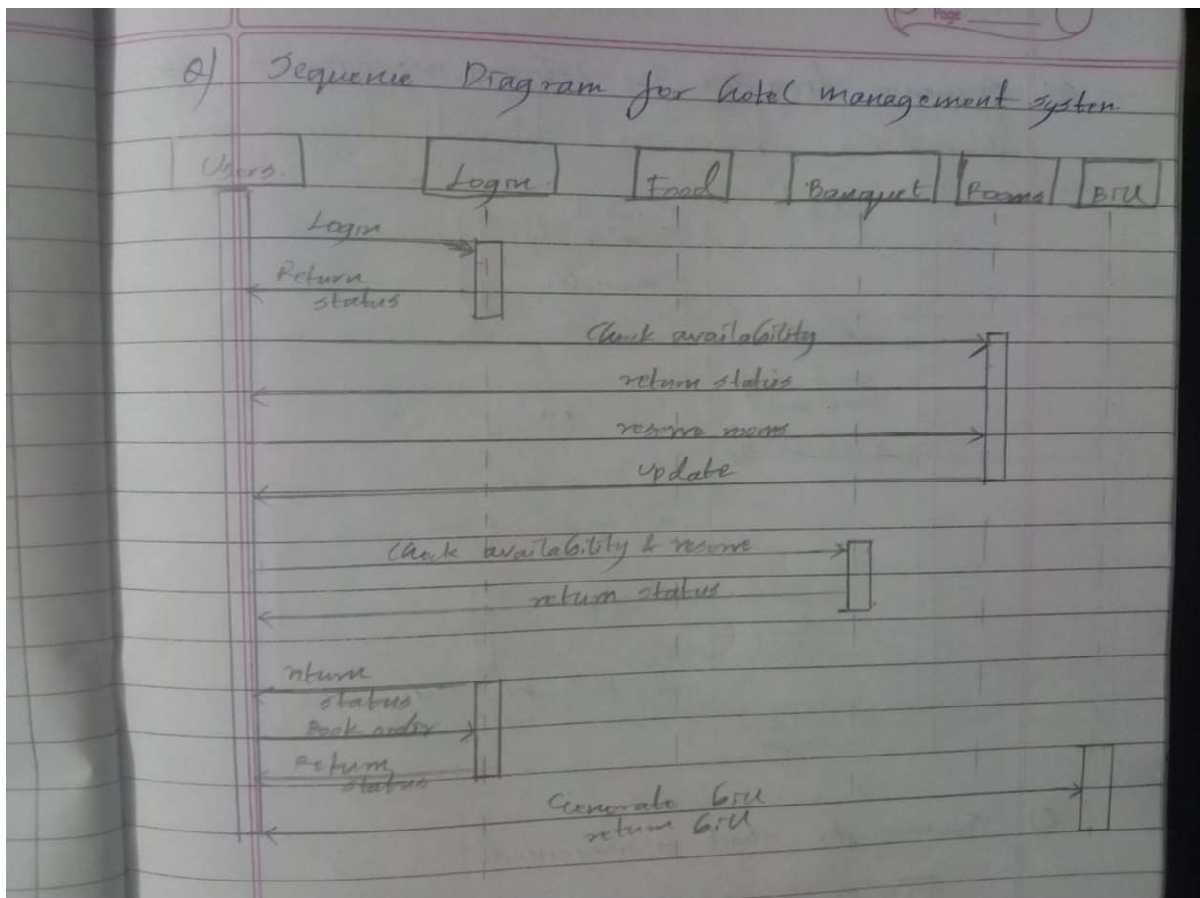


Fig 1.5



e. Activity Diagram:

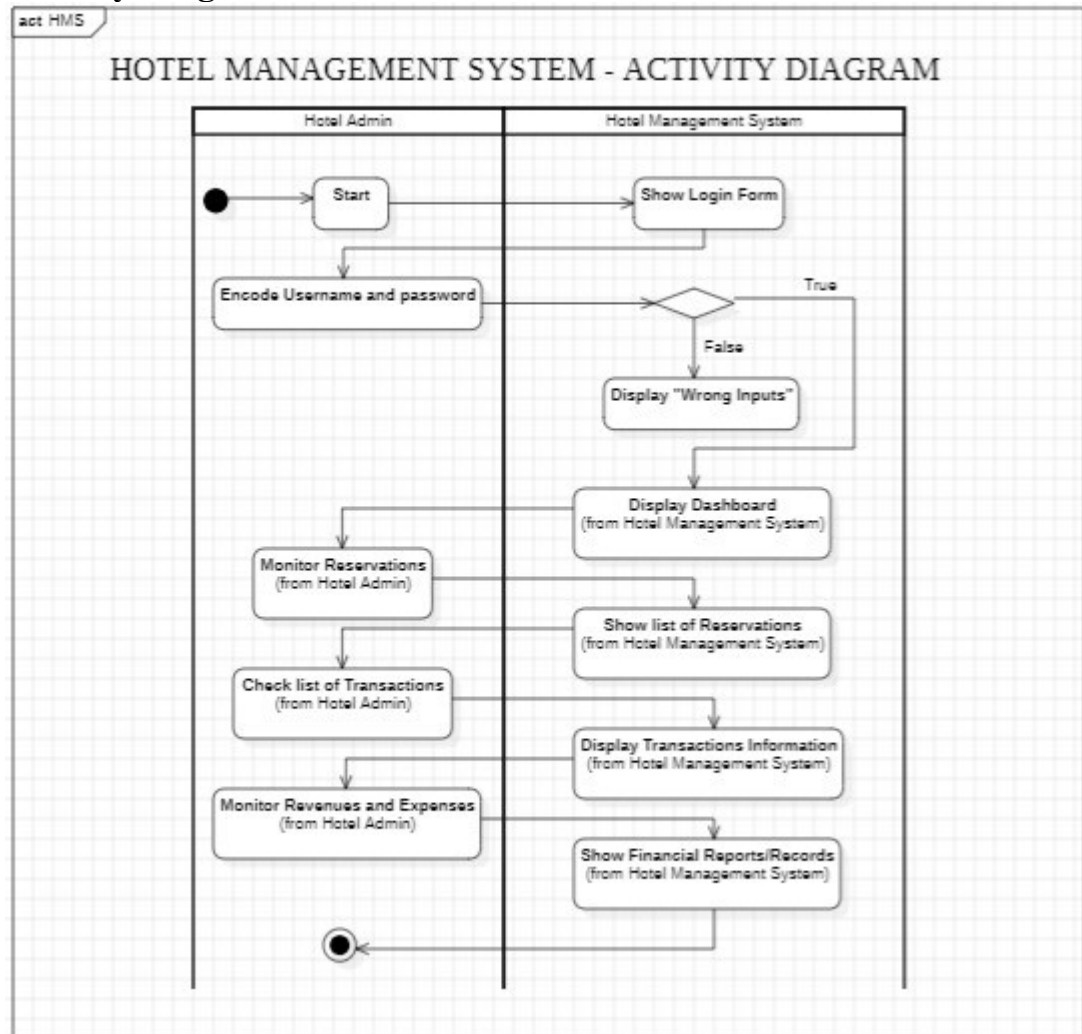


Fig 1.6

6) Hotel management activity

