**Use Case Diagram – Case Studies**

**Case 1:**

The use case starts when the customer inserts his credit card into the system. The system requests the user PIN. The system validates the PIN. If the validation succeeded, the customer can choose the withdraw operation. The customer enters the amount of cash to withdraw. The system checks the amount of cash in the user account, its credit limit. If the withdraw amount in the range between the current amount and credit limit, the system dispense the cash and prints a withdraw receipt and eject the card.

Actor –1. customer 2. System

Operators---

Customer ---insert credit card, choose withdraw, cash amount,

System---request pin, validates pin, check cash amount, credit limit, dispense cash, print receipt, eject card

**Case 2:**

In a hotel management system a guest can rent rooms. Hotel receptionist uses the system to assist in the renting. A guest can also book a room for future renting with the help of the receptionist, but he has to check if the room has prior booking or not. A Guest pays for the rooms at the time they check out. He can pay by cash, check or credit card. Receptionists has to logon to the system before they can use it, but to logon he has go through username/password verification.

Actor---1. Guest 2. Receptionist 3. System

Operations---

Guest---rent room, book room, pay (cash, check, credit card)

Receptionist---assist, renting, check room, check out, logon,

System---verify

**Case 3:**

In a hospital management system a patient's medical history is created by a doctor. A patient may be referred by a doctor to be admitted in the hospital. A patient can rent hospital facilities. An administrative officer deals with the renting. The system automatically checks whether the patient is referred by a doctor before he can rent any hospital facility. The types of facilities are rooms, beds or ICUs. Admitted patients are regularly visited by doctors and a nurse updates patient medical history after each visit. A doctor writes the discharge note of the patient when he leaves which is also included in the patient's medical history. An account clerk prepares the bill. The bill is calculated from the elements written in the medical history, i.e. number of doctor's visit, prescribed medication, tests. When the nurse updates the medical history she writes either the date-time of doctor's visit or prescribed medication or test. The patient may pay by cash or card when the bill is prepared.

Actor---1. Patient 2. Doctor 3. Administrative officer 4. system 5. Admitted patient 6. Nurse 7. Account clerk

Operation---

Patient---medical history, rent facilities, (rooms, beds, ICU) , pay (cash, card)

Doctor ---referred, discharge, (prescribed, medication, tests)

Administrative officer---deals,

System---check referred,

Admitted patient---

Nurse---update history,

Account clerk---prepares bill,

**Case 4:**

ABCD Records is a mail order company that distributes CDs and tapes at discount prices to record club members.  A member fills up an order form and sends it to the order processing clerk. When the order processing clerk receives an order form, she verifies that the sender is a club member by checking the member file. She also checks the status of the member whether he is a royal class member or regular class member.  If the sender is not a member, the clerk returns the order along with a membership application form.  If the customer is a member, the clerk verifies the order item data by checking the item file.  Then the clerk enters the order data and saves it to the daily records file. At the same time the clerk also prints an invoice and shipping list for each order, which are forwarded to the collection department clerk for processing there. If the items are not available they are ordered if the member is a royal class member. Royal club members also get discounts. The members can pay by cash, check or bank draft.

Actor--- 1. Members 2. Order processing clerk 3. Collection department clerk

Operation---

Members---fills up order form, pay (cash, check, bank draft),

Order processing clerk---receives order, verify/checking member, check status, (riyal member, regular), return order, verifies order, enter order data, saves, print invoice, shipping list,

Collection department clerk---order item,

Royal class member---get discount,