**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 chooses 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 is in the range between the current amount and credit limit, the system dispense the cash and prints a withdraw receipt and eject the 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 when he checks out. He can pay by cash, cheque, or credit card. Receptionists has to logon to the system before they can use it, but to logon they have to go through username/password verification.

**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 and an administrative officer deal 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’s medical history after each visit. When the nurse updates the medical history, she writes either the date-time of doctor's visit or prescribed medication or test. A doctor also writes the discharge note of the patient when he leaves which is also updated 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. The patient may pay by cash or card when the bill is prepared.

**Case 4:**

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