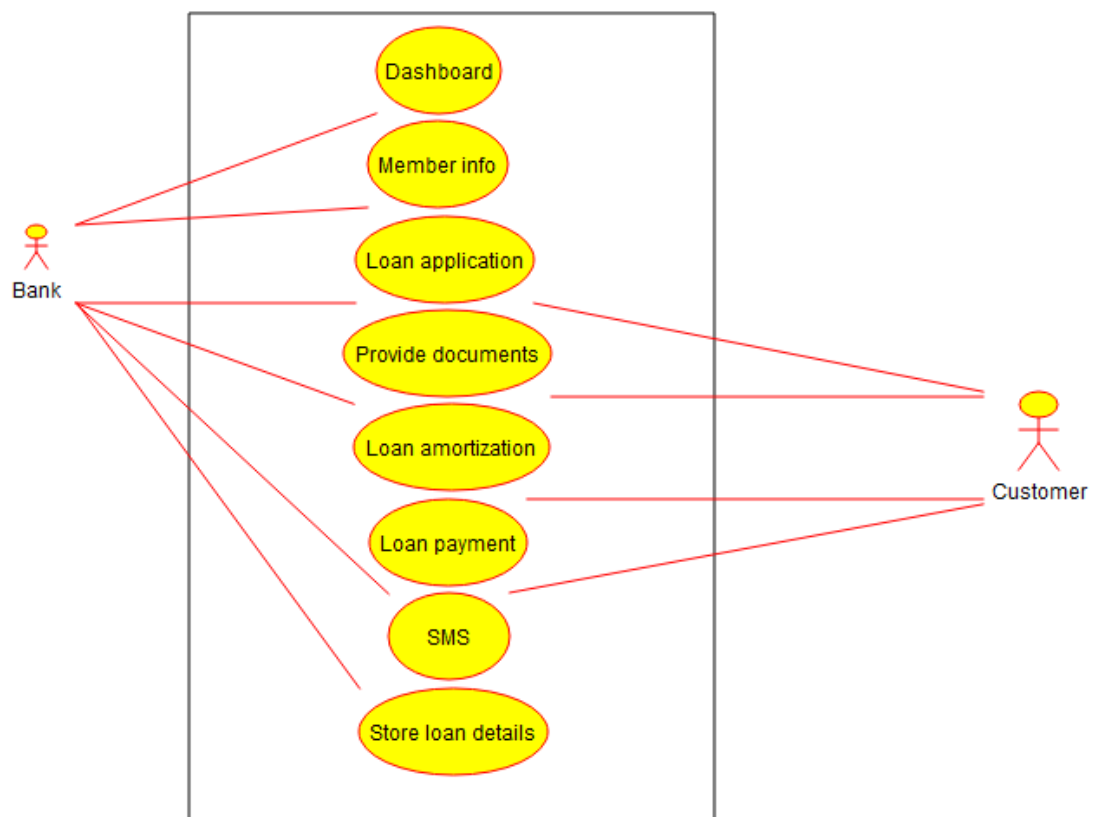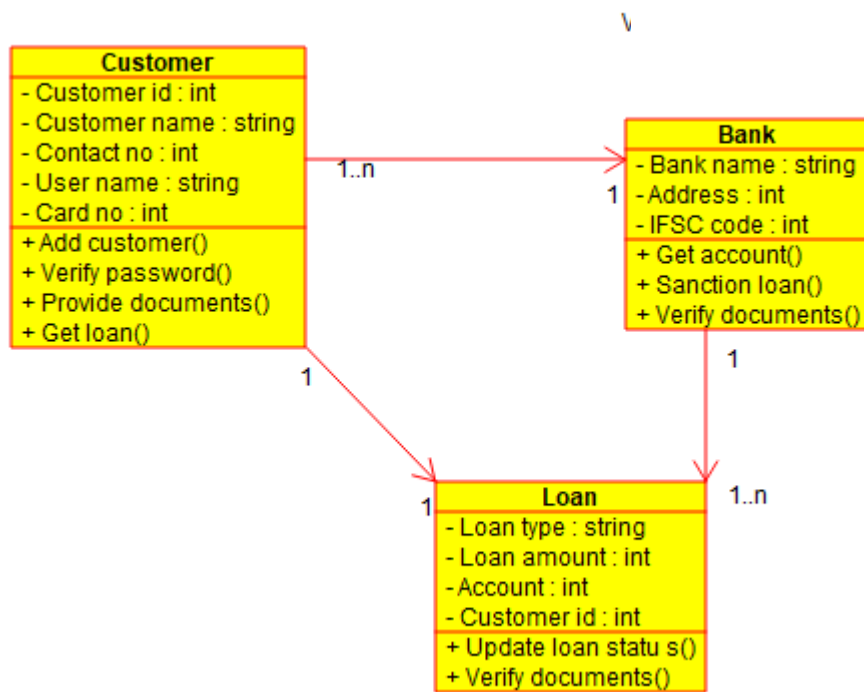1) Develop a system using UML for Personal Loan Management System. The admin should add new customers and view the customer's records. The admin should check the defaulters. The customer can see his/her account detail and apply for a new loan by providing the required documents, and payslip. The admin should verify the document submitted and approve the loan after verifying the payback potential of the customer.

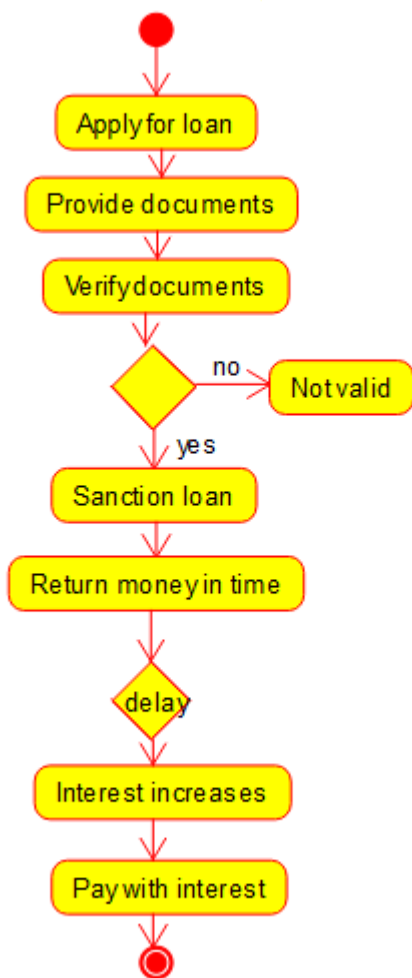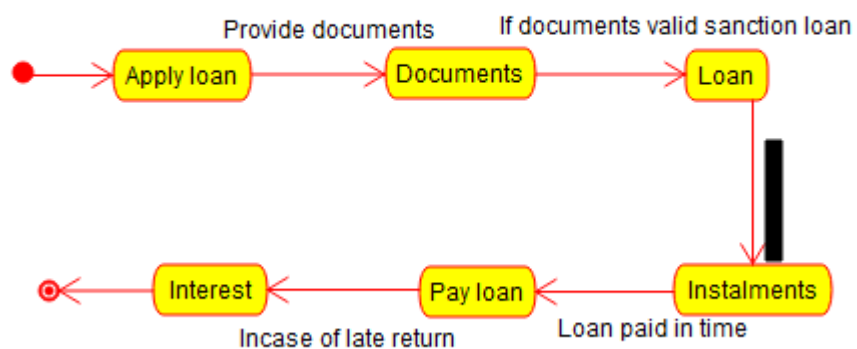**AIM:** To draw an UML diagrams for Loan Management System using Umbrello software.
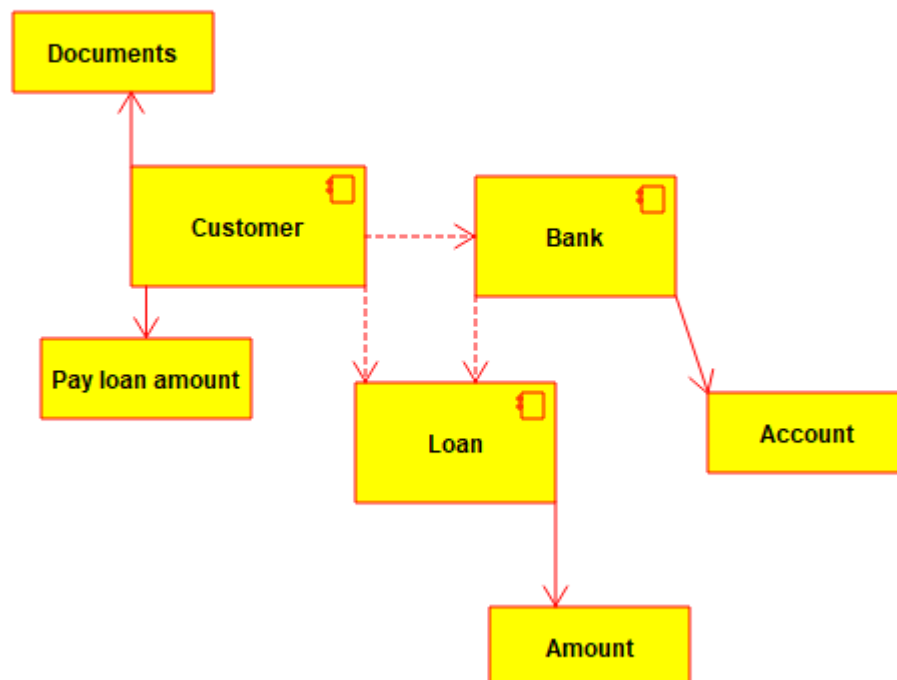
**USE CASE:**

**CLASS DIAGRAM:**

| Customer |
|---|
| - Customer id : int |
| - Customer name : string |
| - Contact no : int |
| - User name : string |
| - Card no : int |
| + Add customer() |
| + Verify password() |
| + Provide documents() |
| + Get loan() |

| Bank |
|---|
| - Bank name : string |
| - Address : int |
| - IFSC code : int |
| + Get account() |
| + Sanction loan() |
| + Verify documents() |

1..n

1

1

1..n

1

1

| Loan |
|---|
| - Loan type : string |
| - Loan amount : int |
| - Account : int |
| - Customer id : int |
| + Update loan statu s() |
| + Verify documents() |

**ACTIVITY DIAGRAM:**

**STATE CHART DIAGRAM:**

Provide documents     If documents valid sanction loan

```
● → [Apply loan] → [Documents] → [Loan]
                                    │
                                    ▼
◉ ← [Interest] ← [Pay loan] ← [Instalments]
```

Incase of late return     Loan paid in time

**COMPONENT DIAGRAM:**

```
[Documents]
    ↑
    │
[Customer] ⤑ [Bank]
    │              │
    ▼              ▼
[Pay loan amount]  [Account]
          [Loan]
            │
            ▼
         [Amount]
```
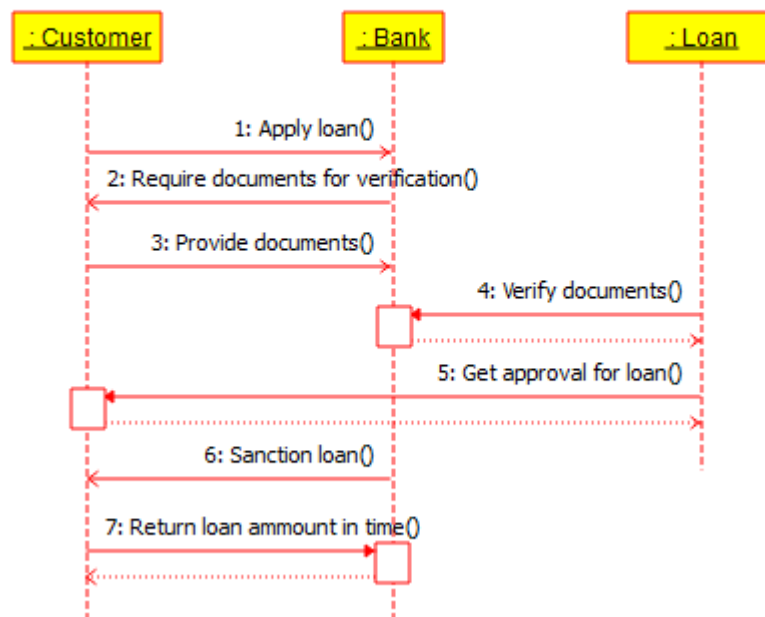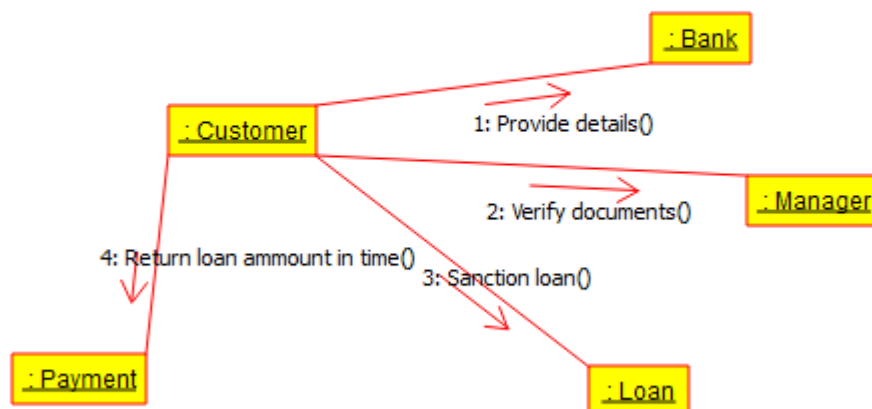
**DEPLOYMENT DIAGRAM:**
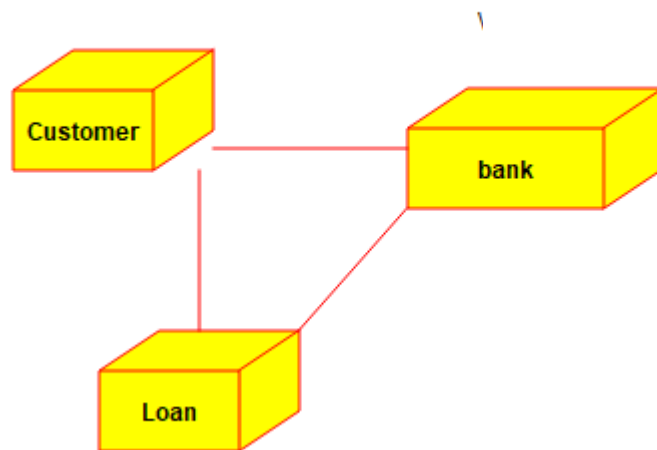


**SEQUENCE DIAGRAM:**

**COMMUNICATION DAIGRAM:**



**ENTITY RELATIONSHIP DIAGRAM:**

**RESULT:** Thus an UML diagrams for Loan Management System has been drawn successfully by using Umbrello software.