

## WEEK-4

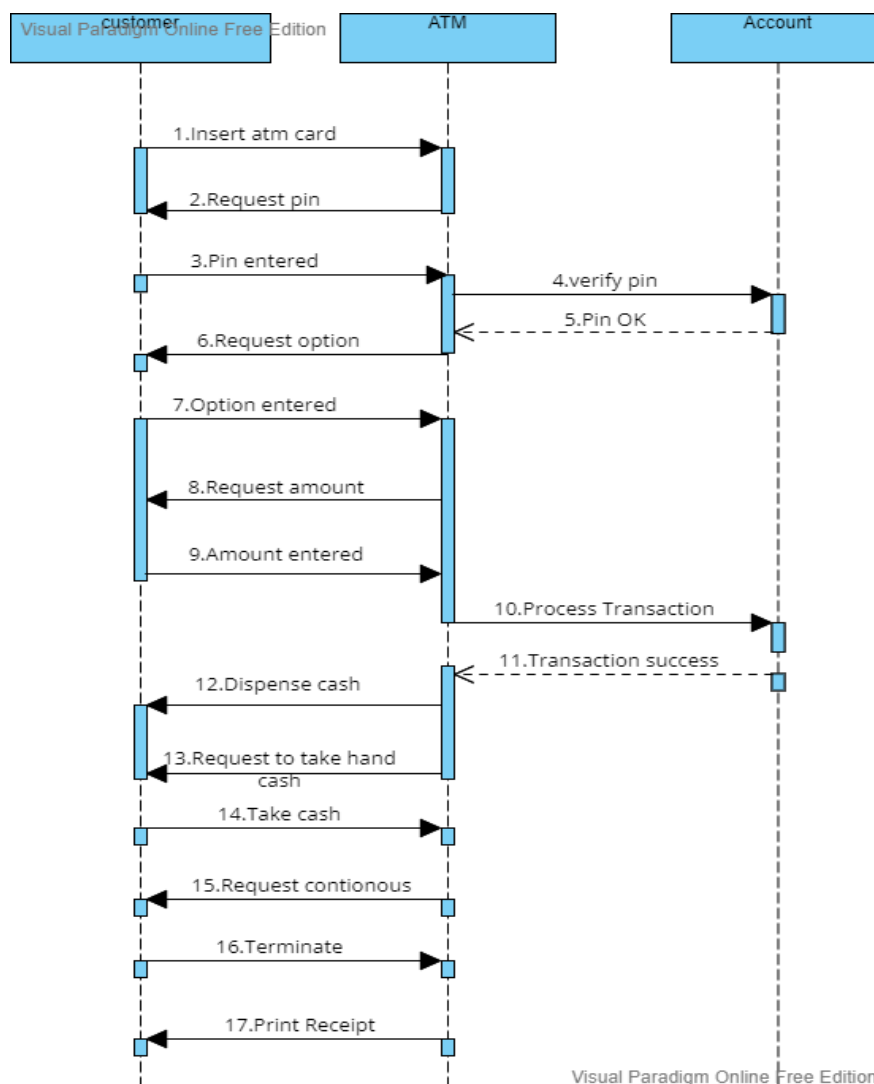
**Aim:** Model Sequence diagrams for a chosen project.

**ATM:**

**Case Study:**

Automated Teller Machine (ATM) is banking system allows customers or users to have access to financial transactions. These transactions can be done in public space without any need for a clerk, cashier, or bank teller. The user is authenticated when enters the ATM card in a Bank ATM. Then enters the user name and PIN (Personal Identification Number). User checks the bank balance as well as also demands the mini statement about the bank balance if they want. Then the user withdraws the money as per their need. If they want to deposit some money, they can do it. After the system successfully executes a transaction, it should return to the main menu so that the user can perform additional transactions. If the user exits the system, the screen should display a thank you message, then display the welcome message for the next user.

**Sequence Diagram for ATM:**



## SOFTWARE MODELLING LAB

### Library Management System:

#### Case Study:

The library system is a web-based application which is employed for automating a library

It allows the librarian to maintain the information about

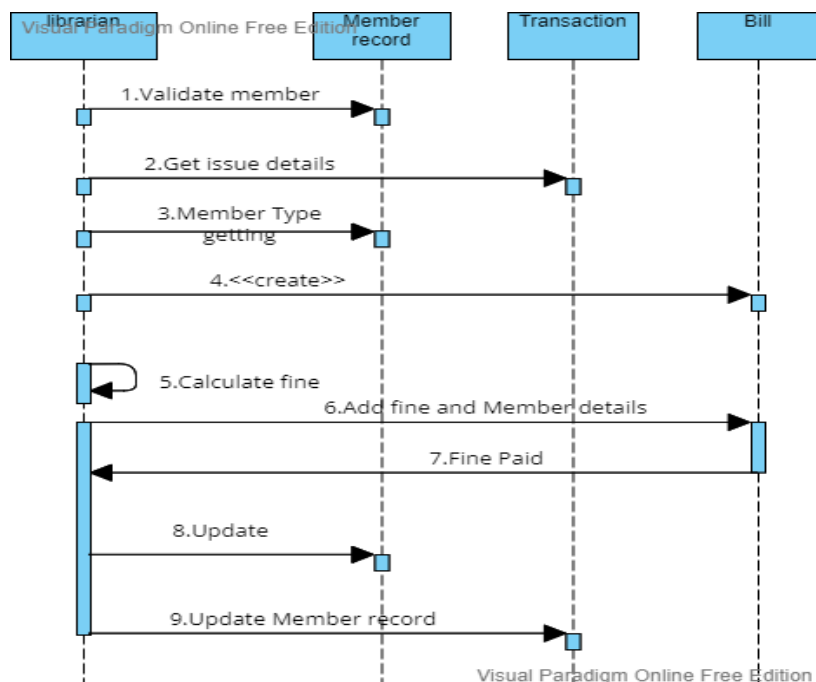
- books
- Magazines
- CDs
- Its Users

Furthermore, it provides the following facilities to its users

- Search for items
- Browse
- Checkout items, Return items, Make reservation etc;

For borrowing the item from the library, any user must get registered in the system initially the users can search for any item in the library by using the 'search option' If the user finds the item he/she is searching for in the library, he/she can checkout the item from the library If the study material is not available in the library at the moment, the user can make reservation for that item The moment the item is available, the user who first reserved for that item is notified first If the user checks out the item from the library, the reservation gets cancelled automatically. The reservation can also be cancelled through an explicit cancellation procedure The librarian is an employee of the library who interacts with the borrowers whose work is supported by the system .The system allows the librarian to perform following functions with a lot of ease Create, Update, Delete information about titles, Borrowers Items and reservations in the system.

#### Sequence diagram for Library Management System:



## SOFTWARE MODELLING LAB

### Railway Reservation System:

#### Case Study:

A railway reservation system is a useful service which enables people book railway tickets online saving their time, energy and money. Today, nearly every railway company in the world offers a special reservation system in order to make the life of their passengers easier. Railways are still considered to be the most popular means of transportation, that is why more and more people take advantage of it every year. It is obvious that it is difficult and unpleasant to spend long hours at the booking office in a long queue in order to purchase a ticket. A client is required to log in the system and there he can find all the necessary information about the tickets, their price, terms, discounts and all possible routes and types of trains. The system provides clients with information and enables them book tickets online and pay with the help of a credit card, so that there is no need to go to a booking office any more. This service saves time, money (it is possible to find a cheap route or class of a train) and nerves of a customer.

#### Sequence diagram for Railway Reservation System:

