EX NO: 1

DATE:

ATM and Banking SYSTEM

AIM:

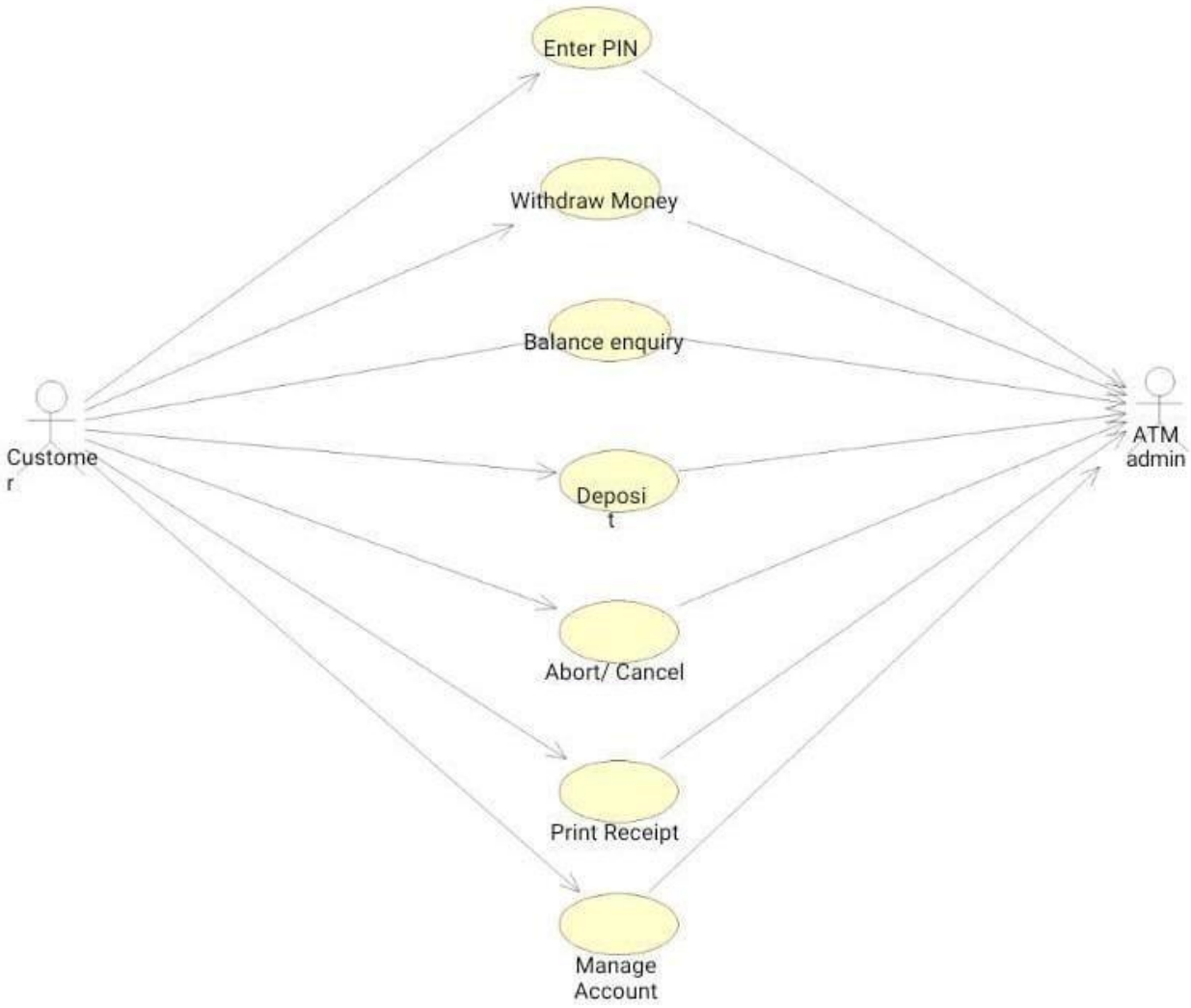
To study the problem statement, SRS document and draw all the UML diagrams of ATM System.

PROBLEM STATEMENT:

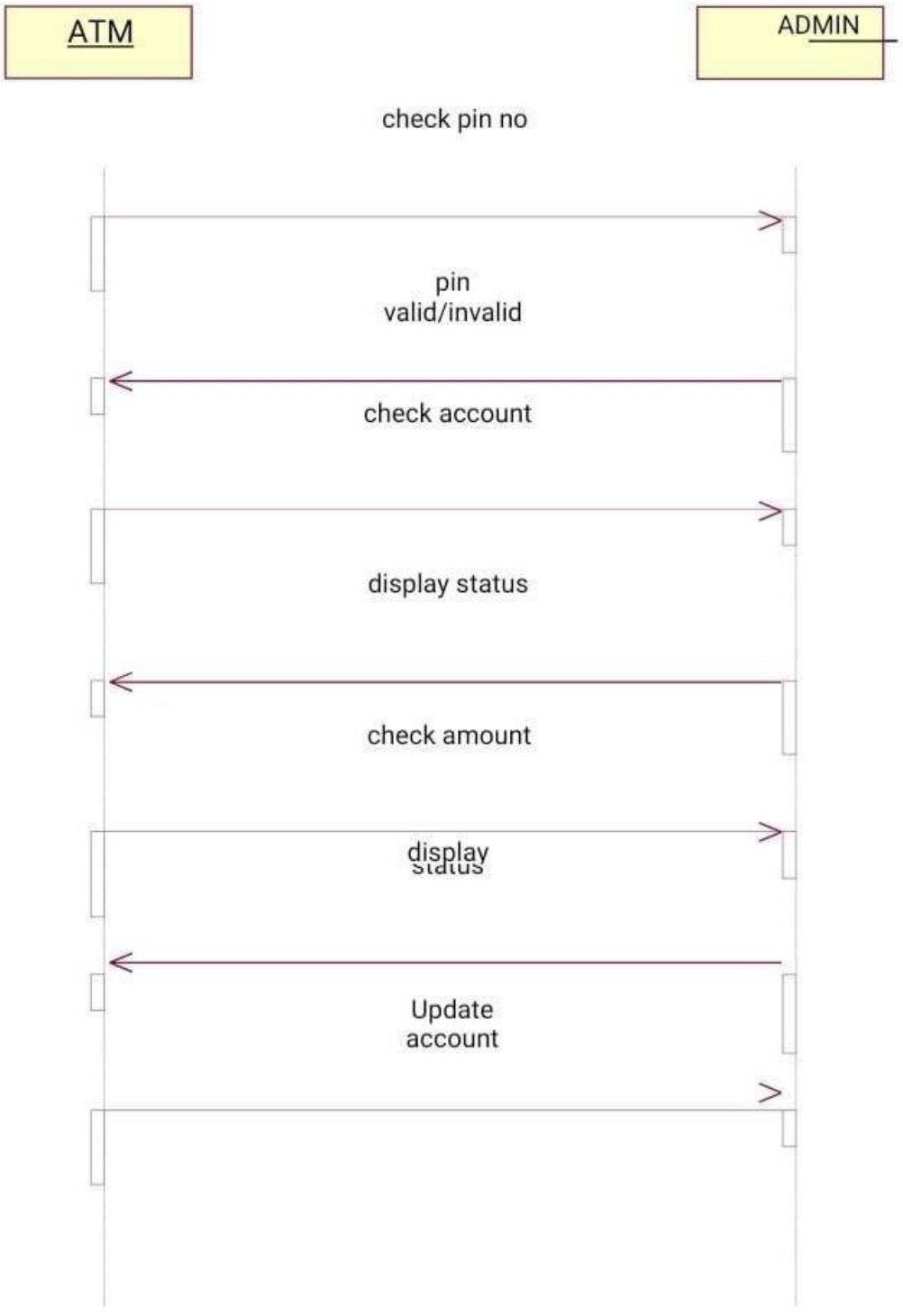
To create ATM System software that will meet the needs of the applicant and help them to withdraw money,deposit.

UML DIAGRAMS:

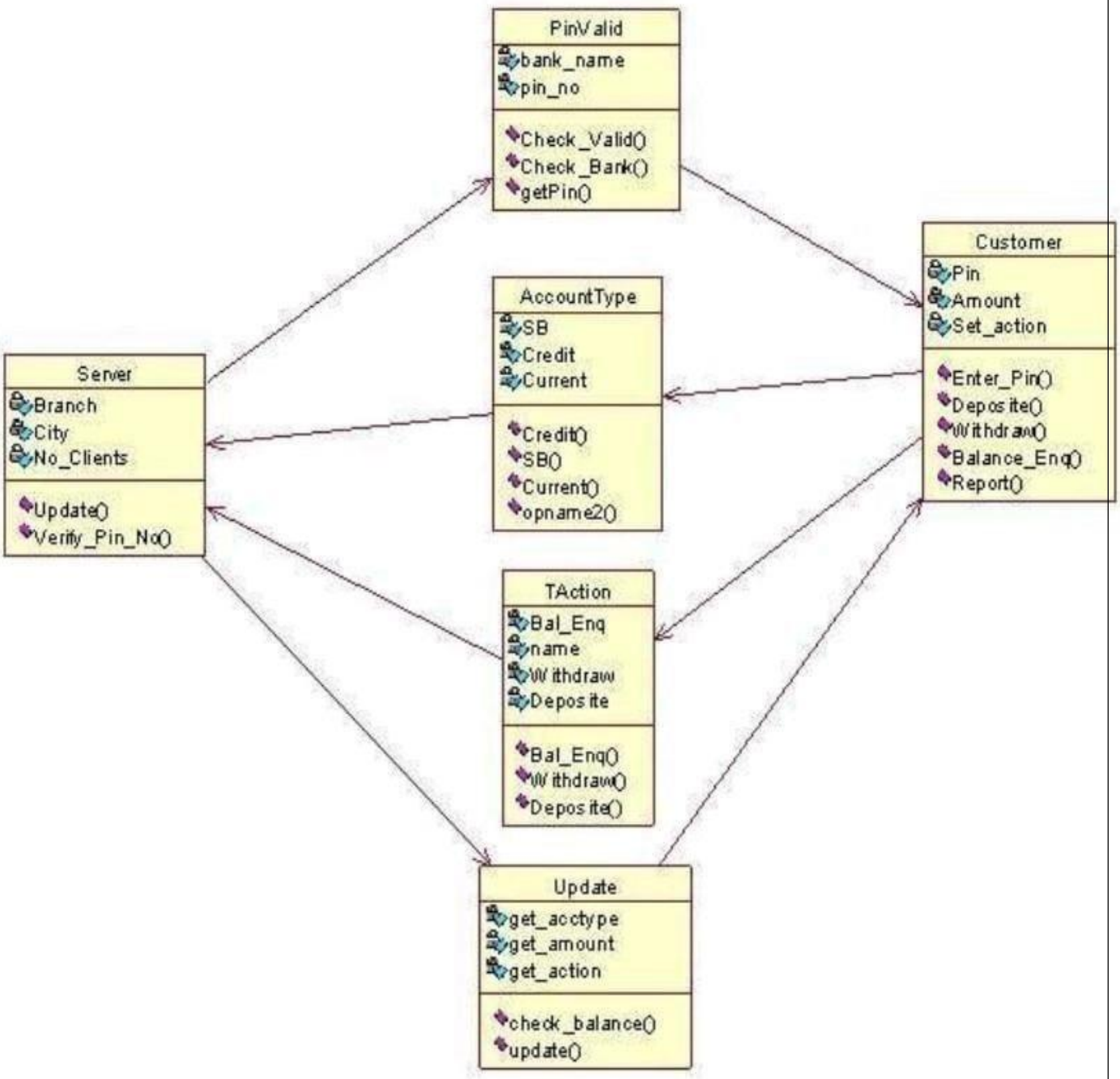
USE CASE:



SEQUENCE DIAGRAM:

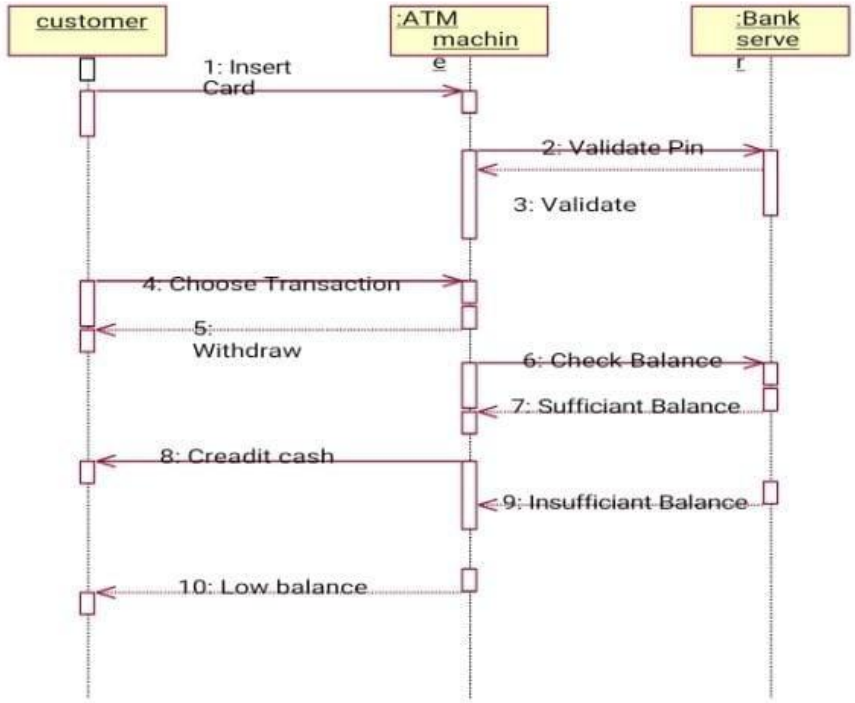


CLASS DIAGRAM:

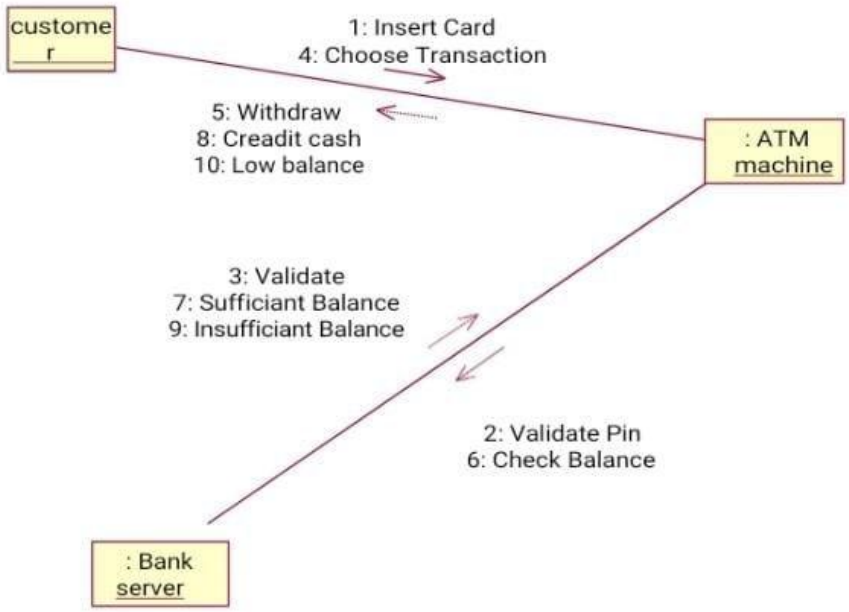


WITHDRAWUseCase:

SEQUENCE DIAGRAM

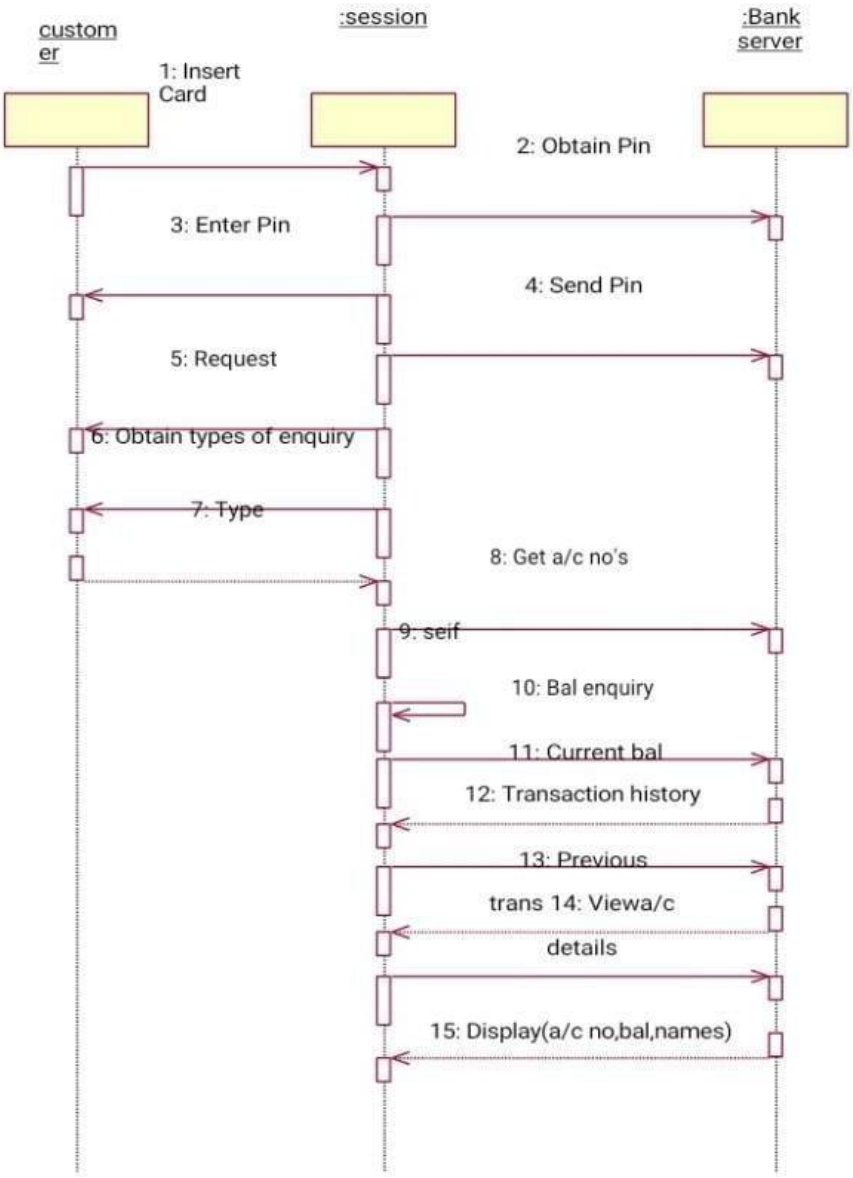


COLLABORATION DIAGRAM

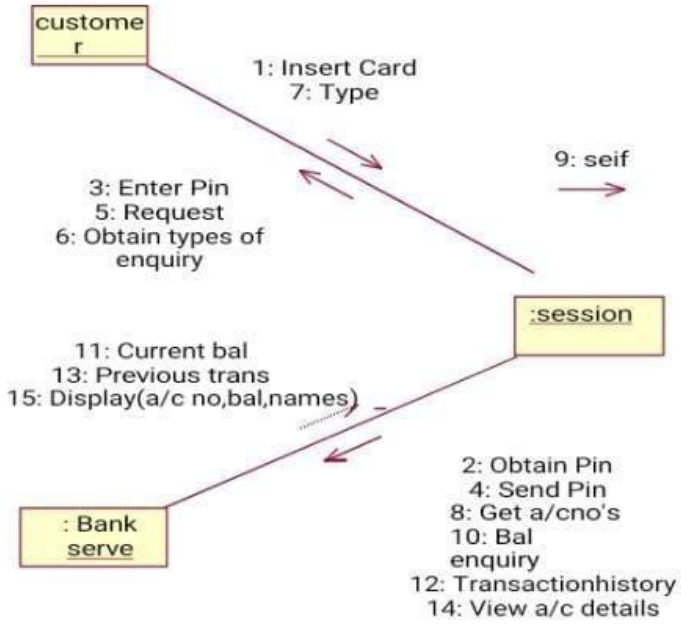


ENQUIRYUseCase:

SEQUENCE DIAGRAM:

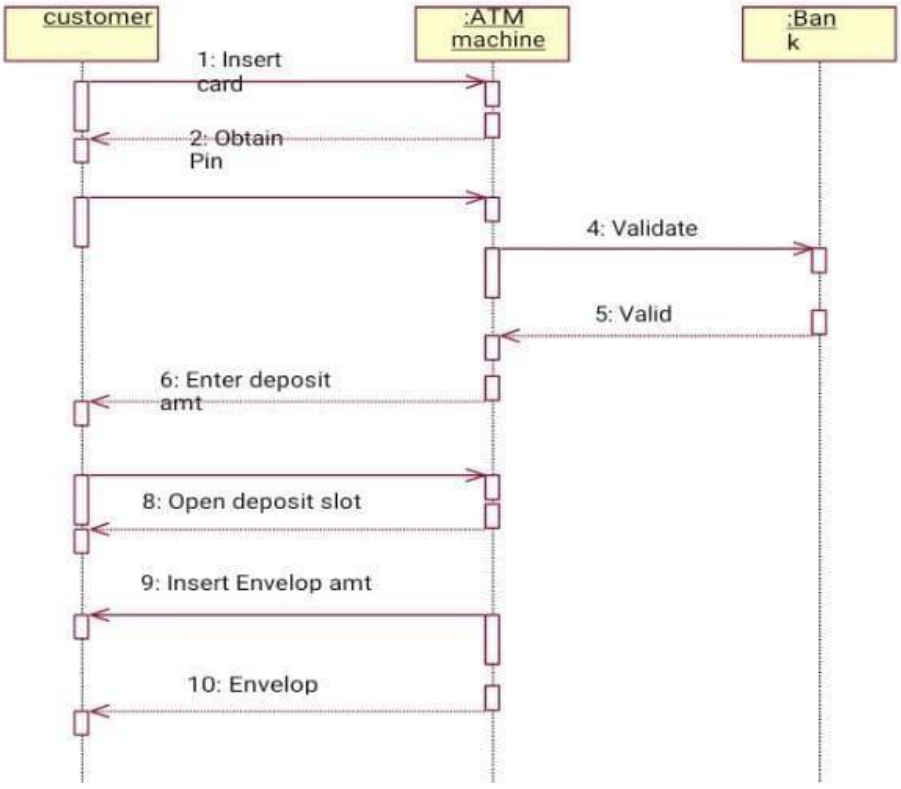


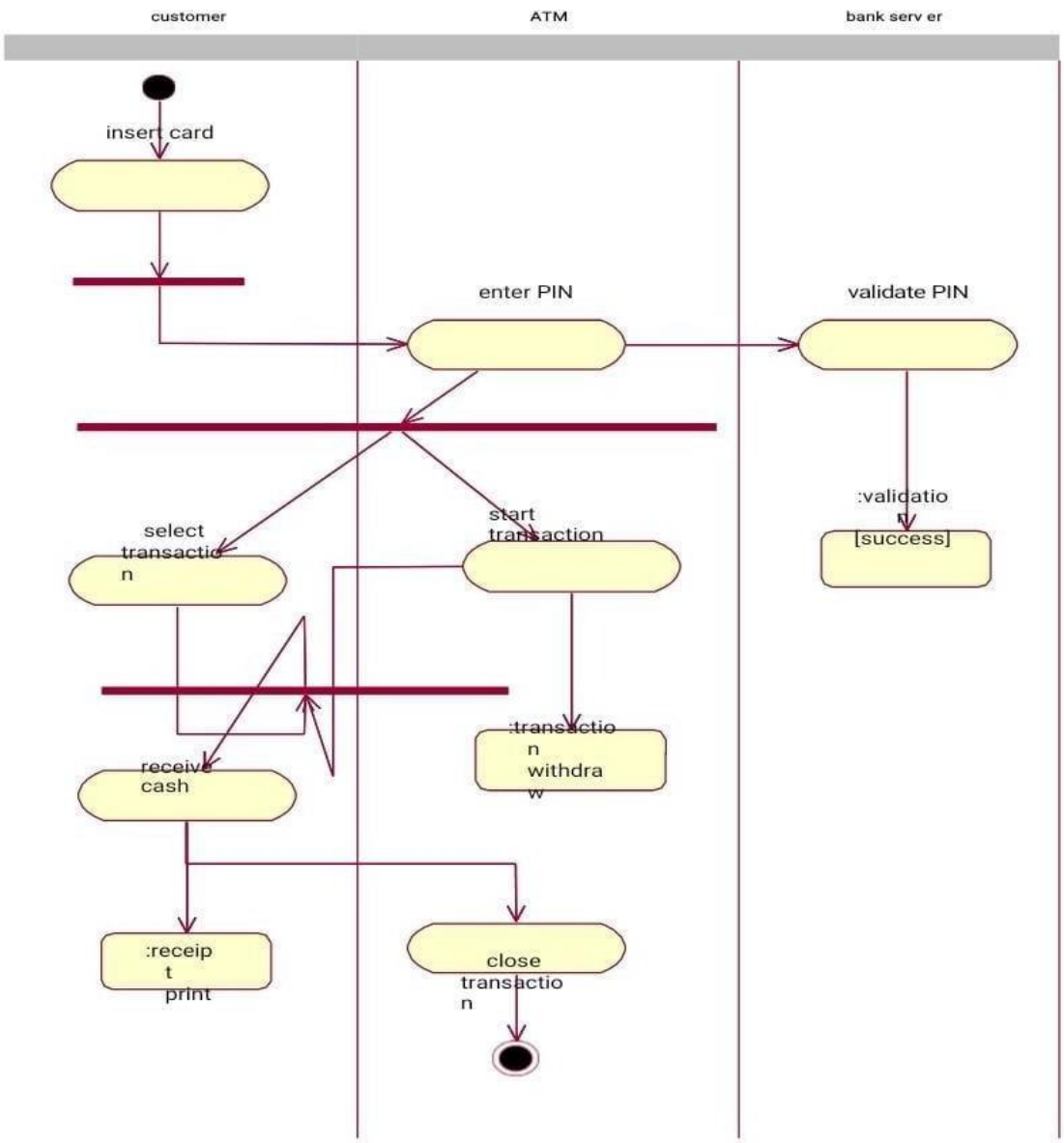
COLLABARATION DIAGRAM:



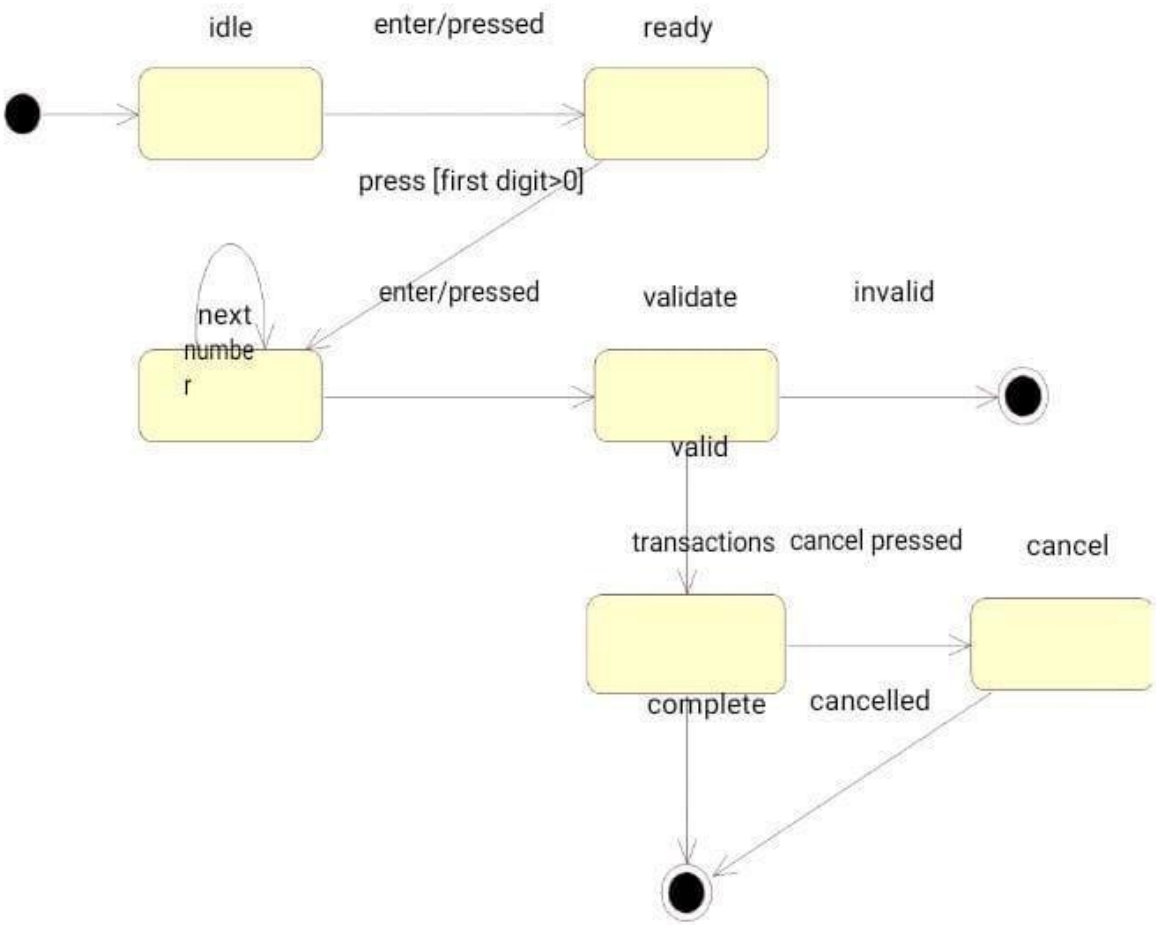
DEPOSITUseCase:

SEQUENCE DIAGRAM:




customer
ATM
bank serv er
insert card
enter PIN
validate PIN
:validatio
n
[success]
select
transactio
n
start
transaction
:transactio
n
withdra
w
receive
cash
:receip
t
print
close
transactio
n

STATE CHART FOR ATM



STATE CHART DIAGRAM:

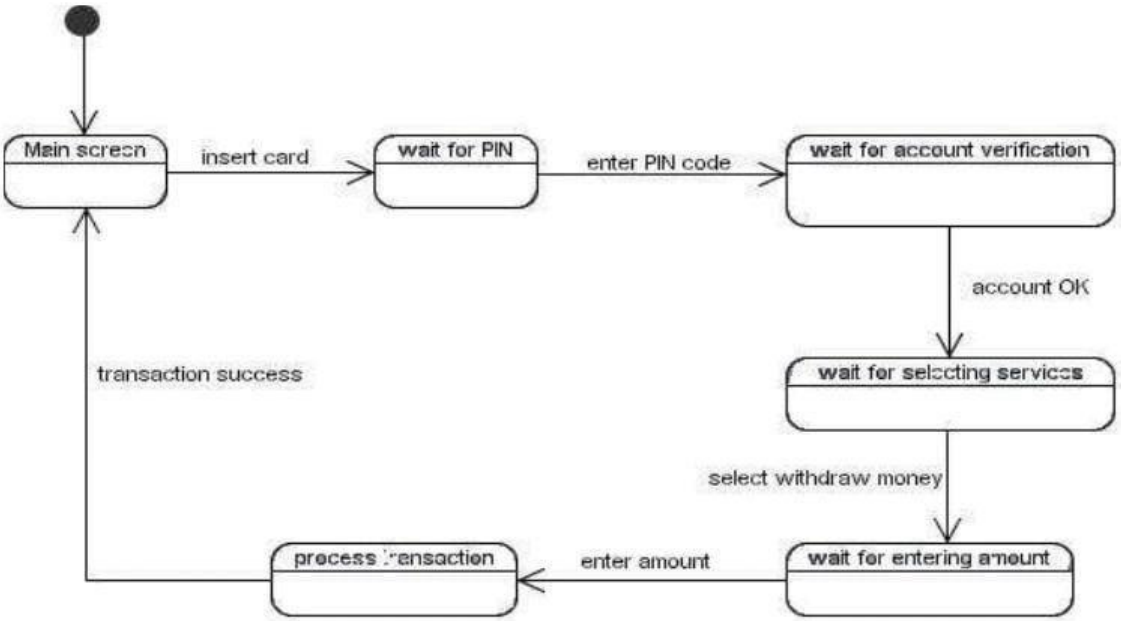
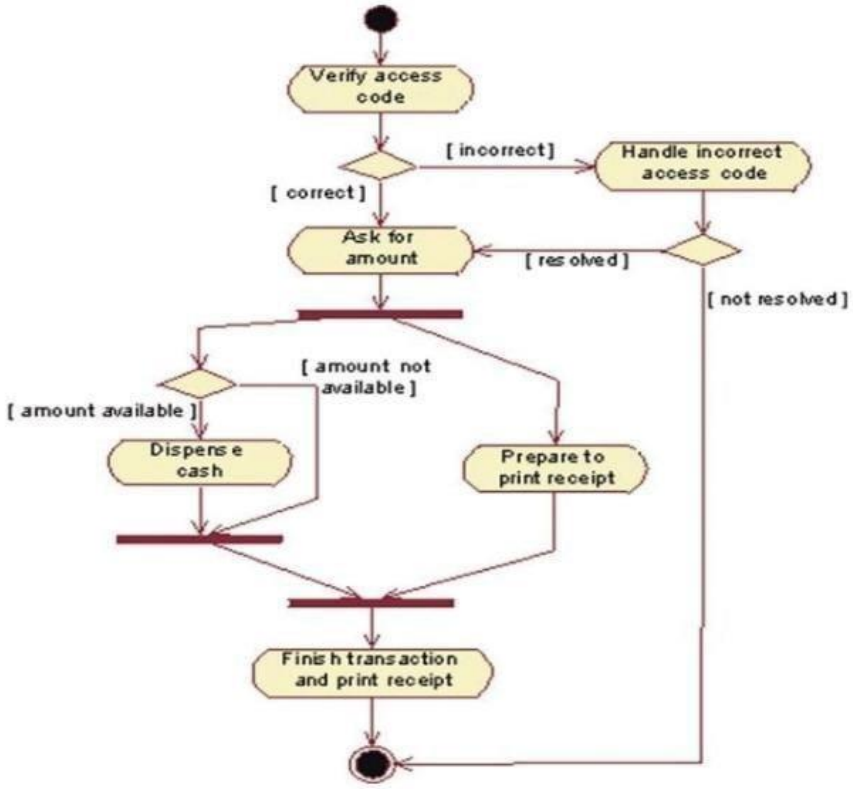
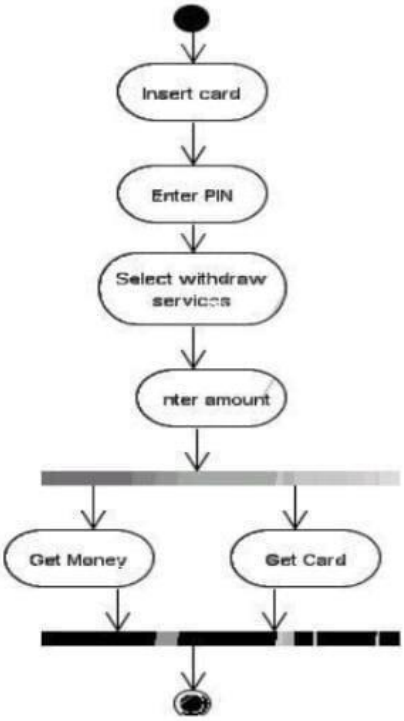


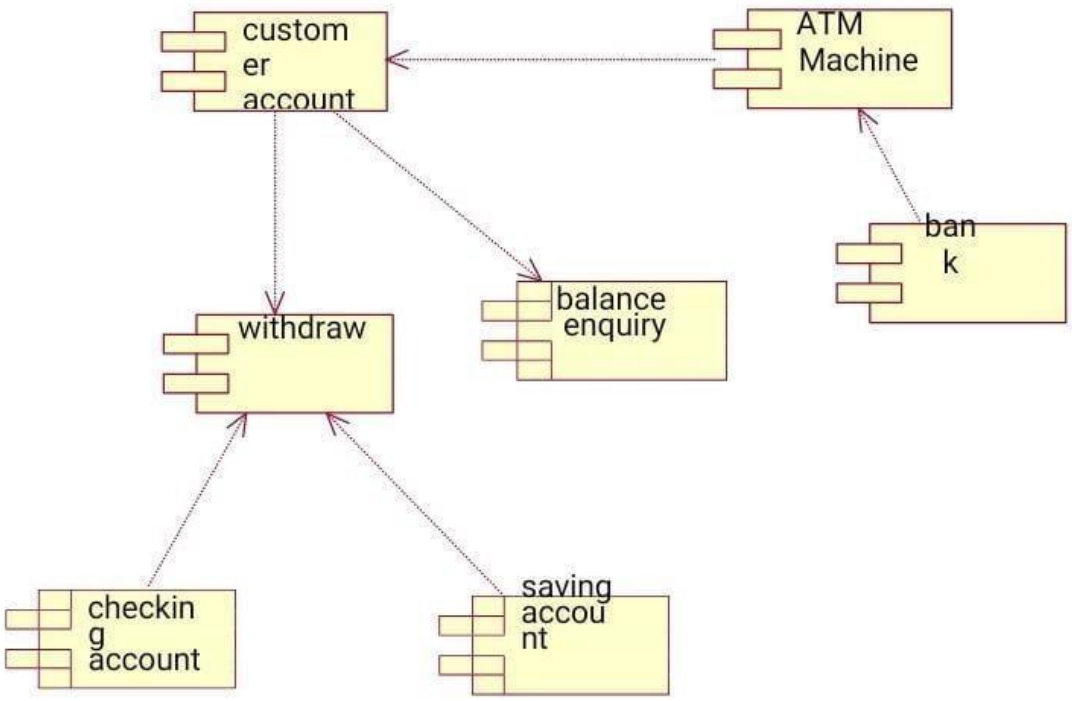
DIAGRAM: Activity diagram for Transactions:



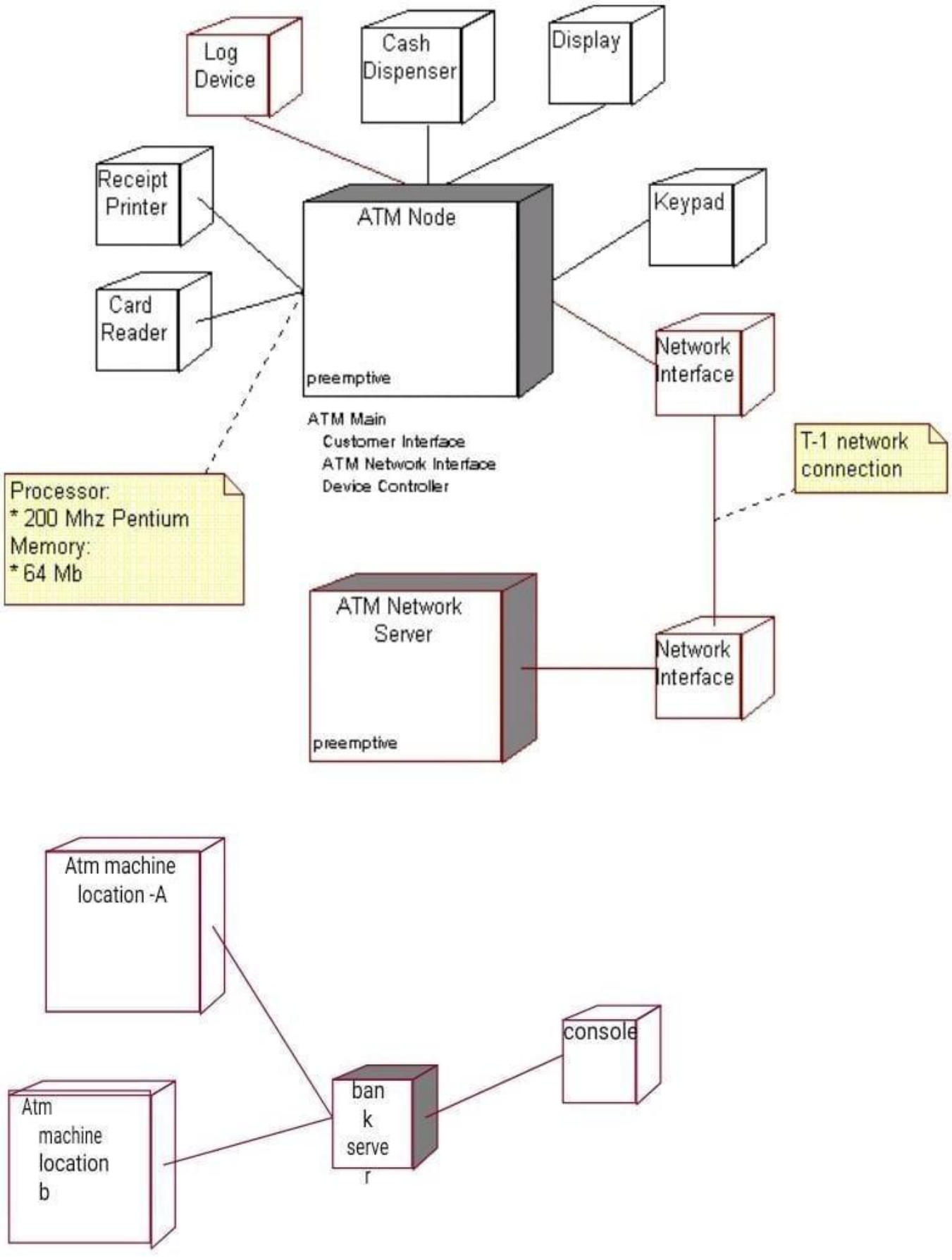
Activity diagram for Withdraw:



COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM



RESULT:

Thus the Atm and banking System project was executed and the output was verified.

EXNO:2
DATE:

LIBRARY MANAGEMENT SYSTEM

AIM:

To study the problem statement, SRS document and draw all the UML diagrams of a Library Management System.

PROBLEM STATEMENT:

To create Library Management System software that will meet the needs of the applicant and help them to registering and buy the book for the Library, modification in database and cancellation for the registered project.

OVERALL DESCRIPTION:

The Library Management System is an integrated system that has four modules as part of it. The four modules are

Registration for Membership:

In this module, the user can select the books to register for the library,Modification in the book database, cancelling the books.

Book details:

In this module the user can search for the books by giving bookie in the project and selecting the semester for the book.

Maintaining Book Details:

In this module the administrator can change the data's like the semester, address, books can be done.

Cancellation for the Book:

In this module the user can cancel their name which is registered for the Book.

SOFTWARE REQUIRMENTS:

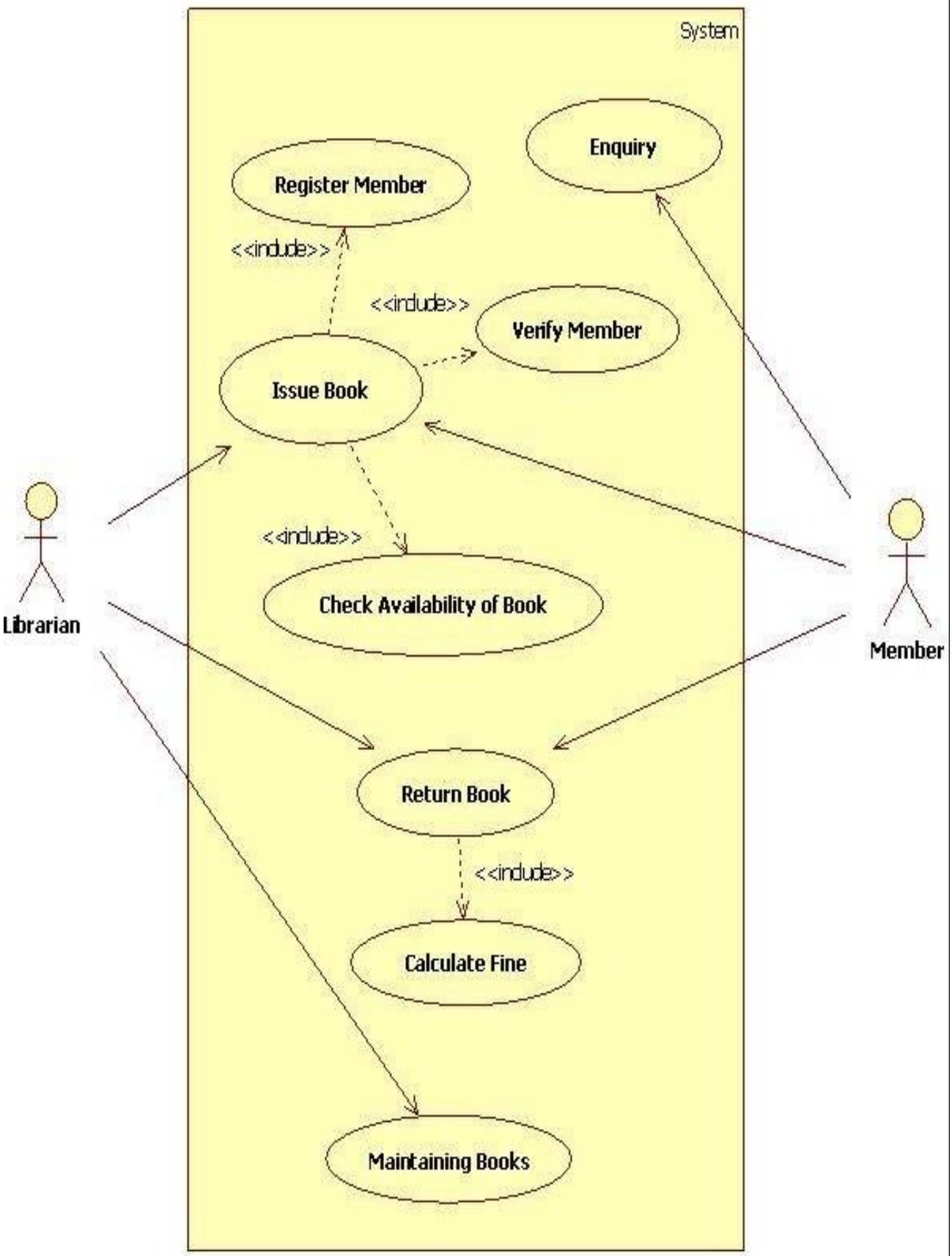
Rational Rose

SQL 8.0

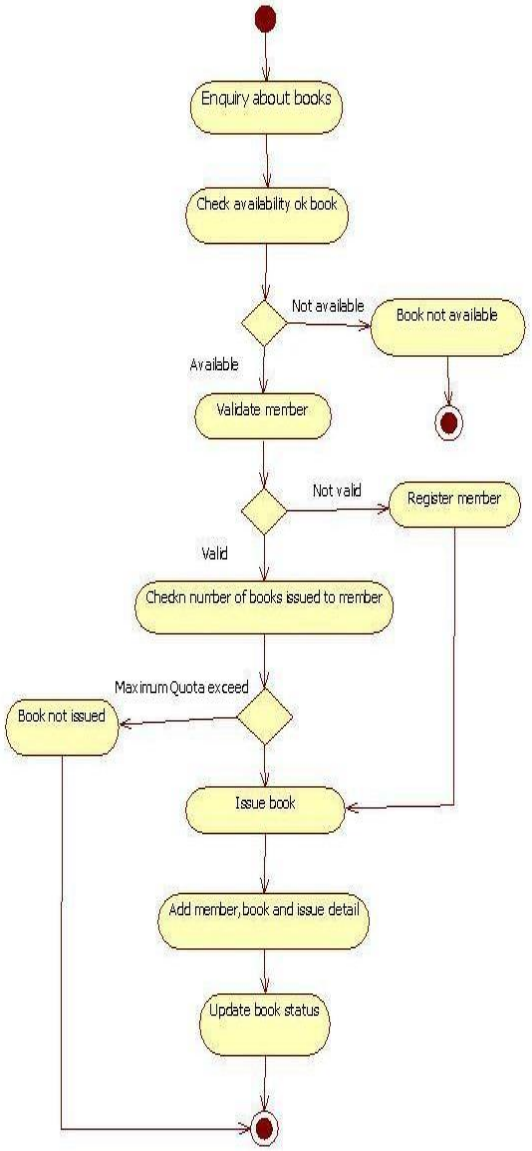
HARDWARE REQUIRMENTS:

1. 512MB RAM2. Pentium III Processor

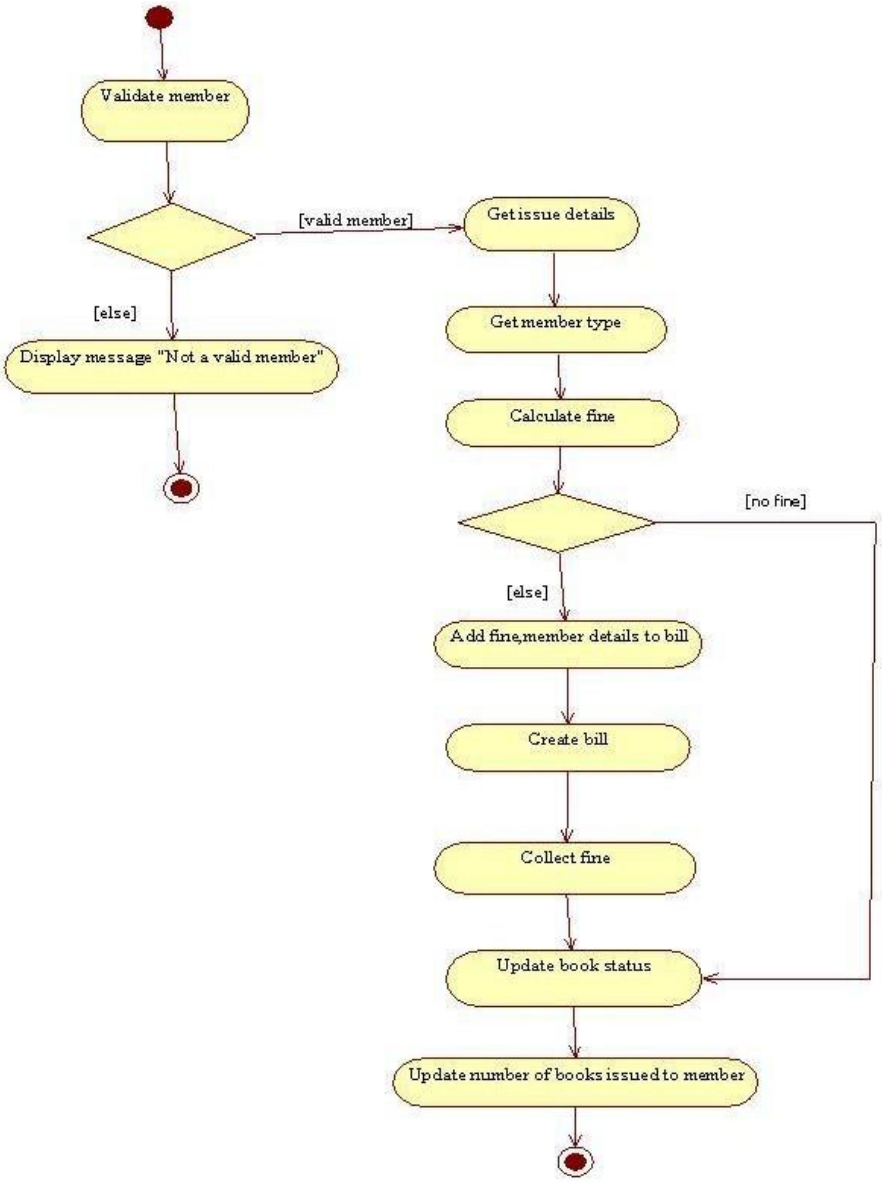
USE CASE DIAGRAM



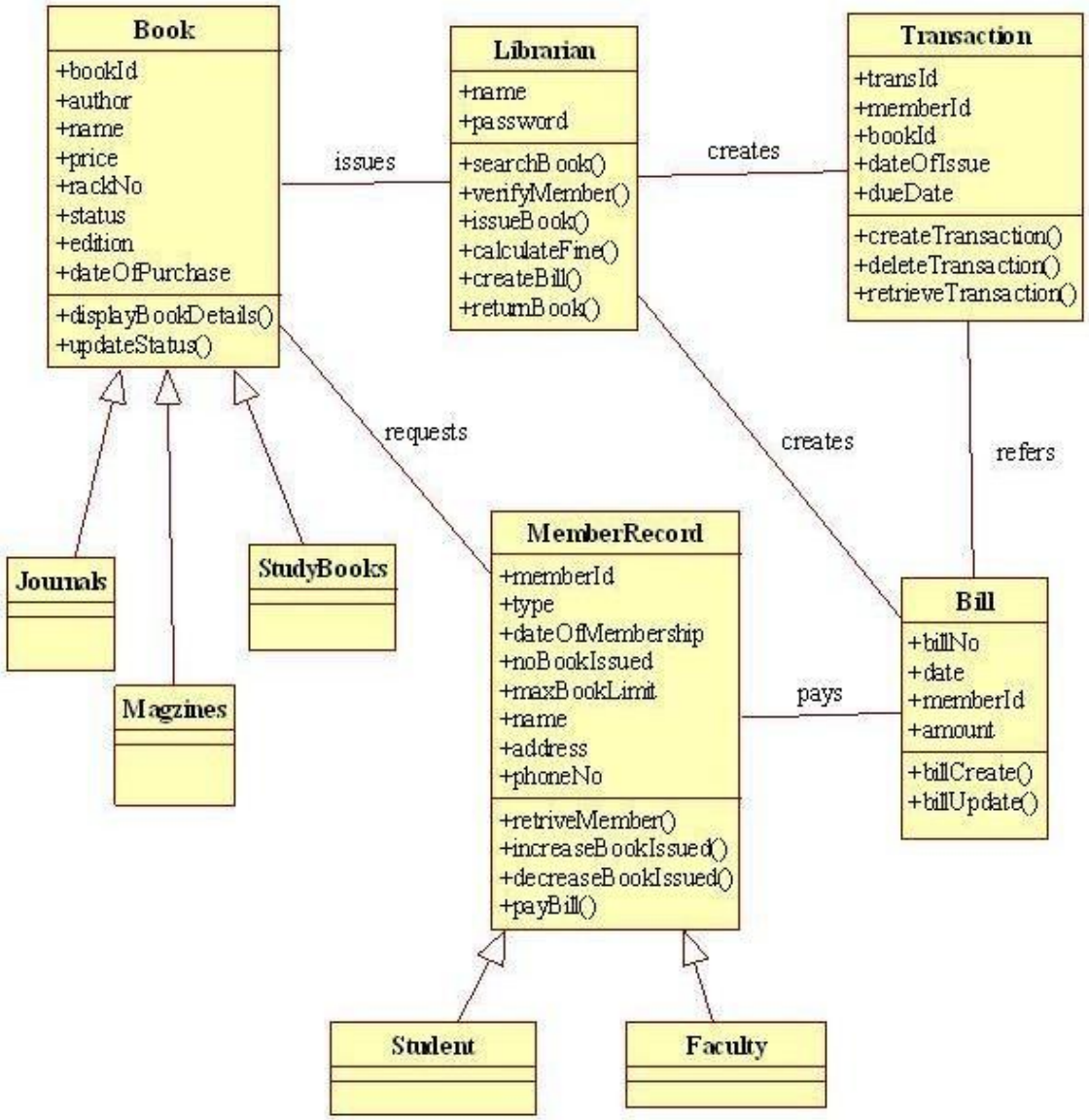
ACTIVITY DIAGRAM FOR ISSUE BOOK IN LIBRAR:



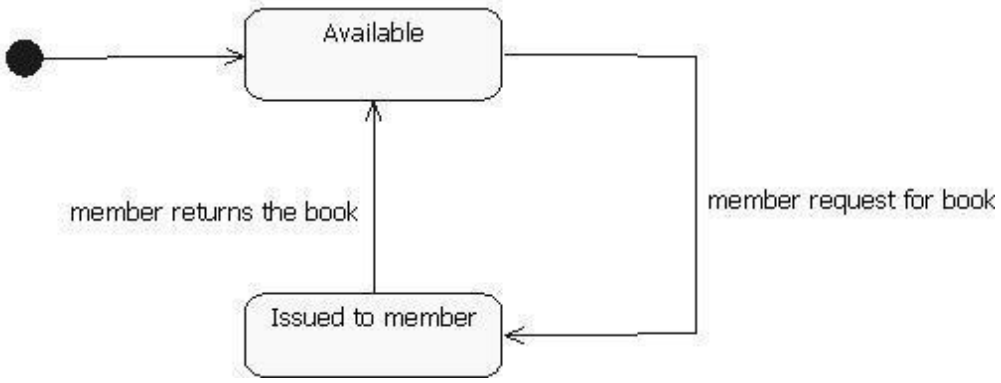
ACTIVITY DIAGRAM FOR RETURN BOOK IN LIBRARY:-



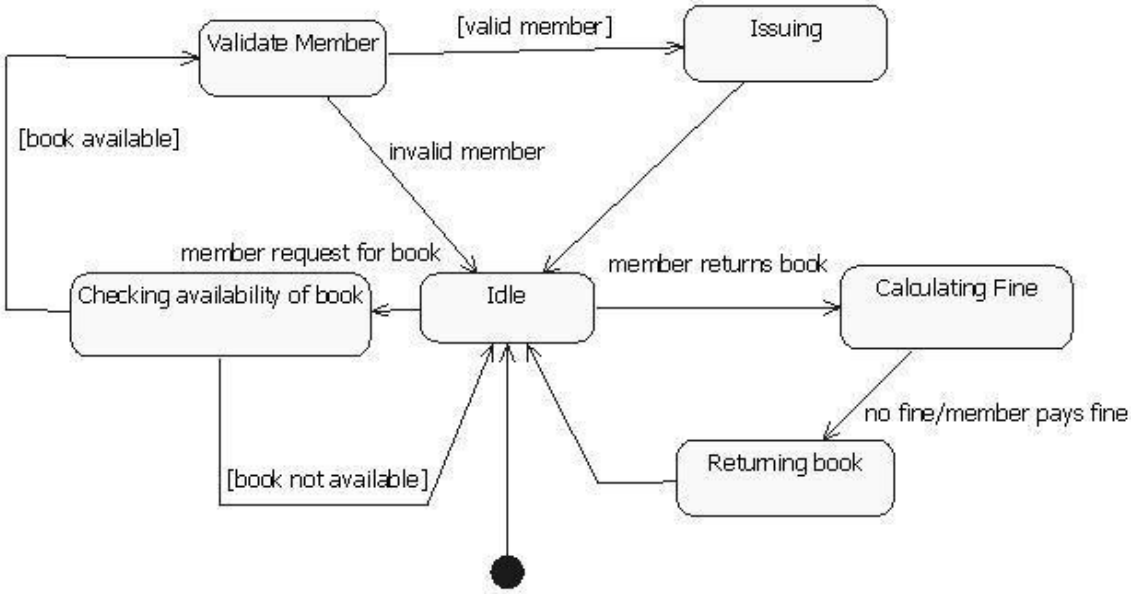
CLASS DIAGRAM:



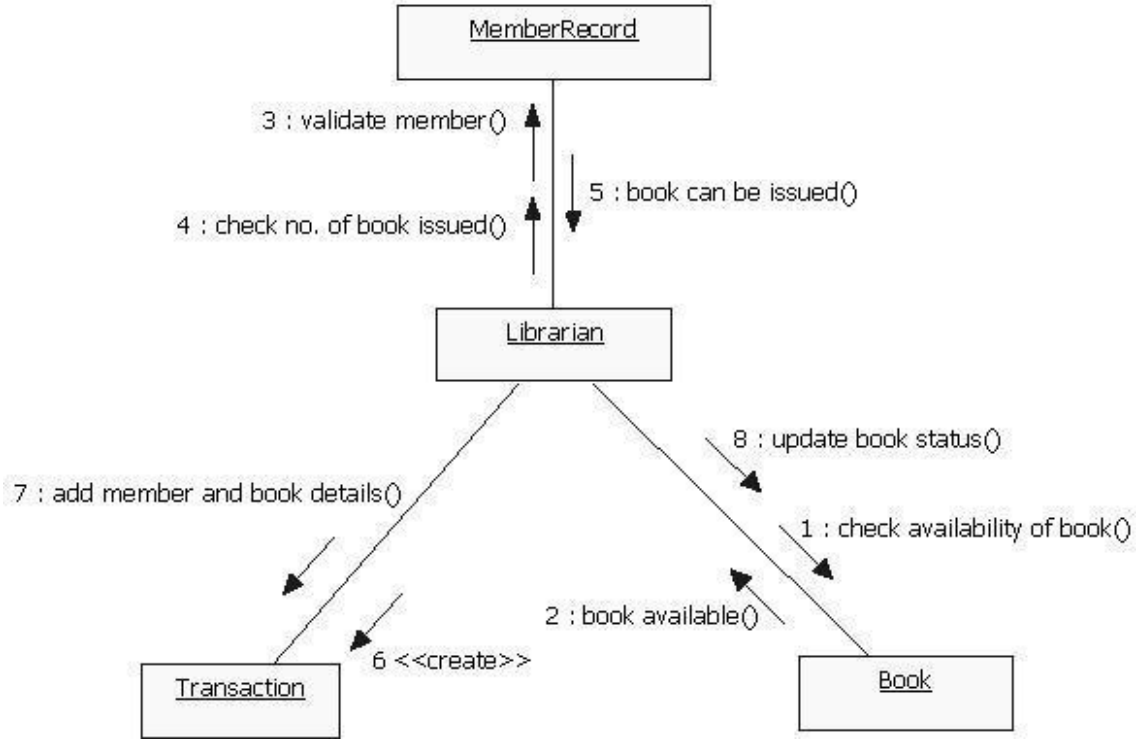
STATE DIAGRAM FOR BOOK:



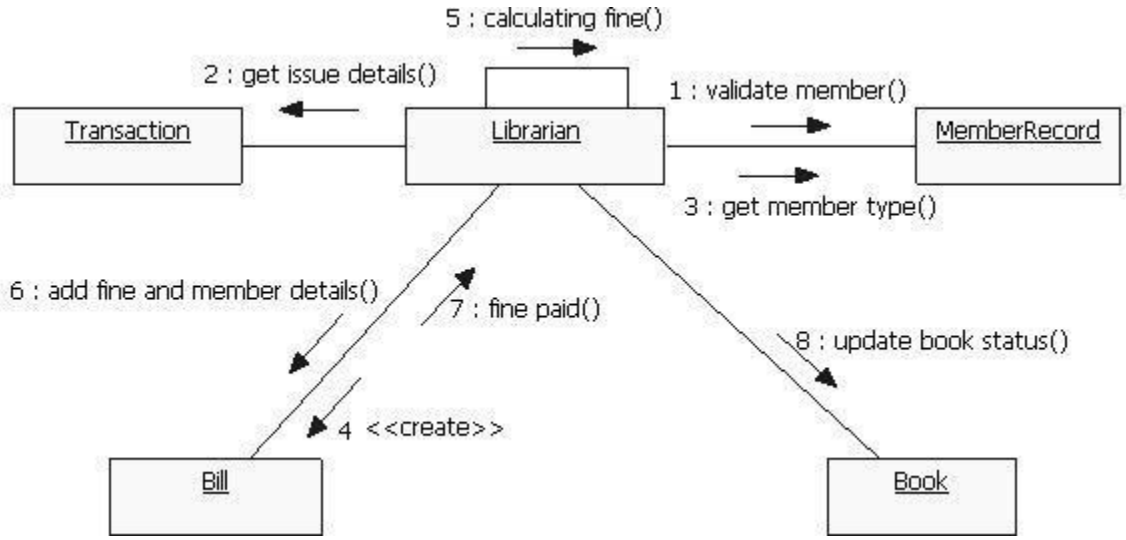
STATE DIAGRAM FOR LIBRARIAN:



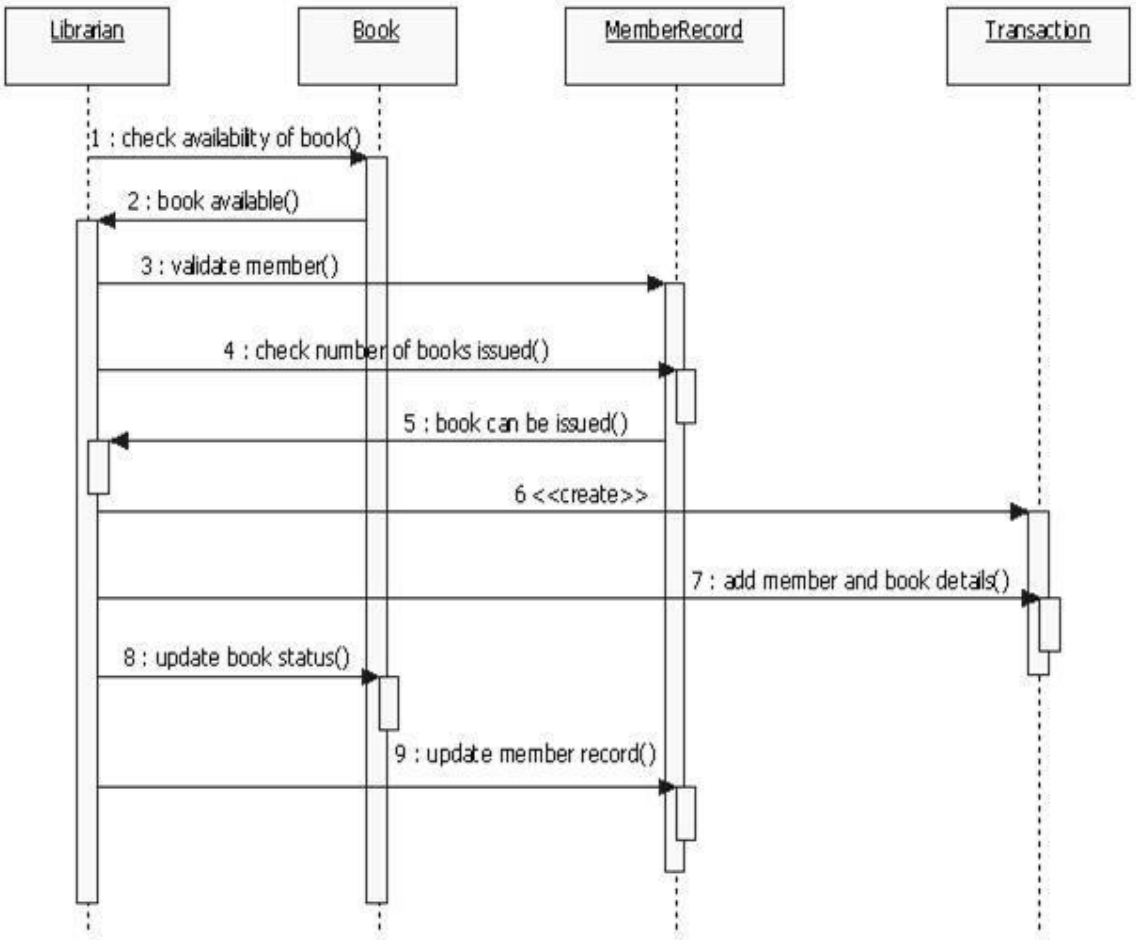
COLLABORATION DIAGRAM FOR ISSUING BOOK:



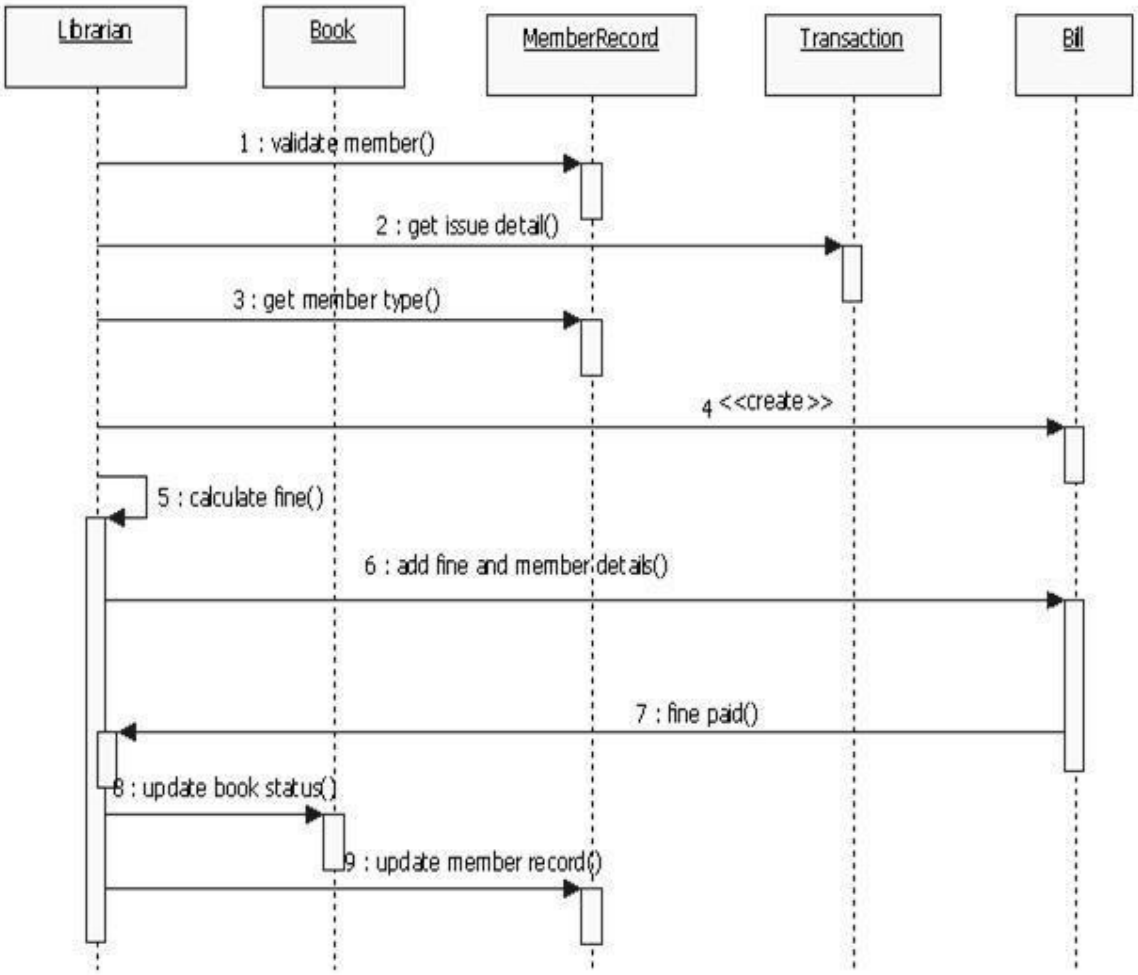
COLLABORATION DIAGRAM FOR RETURNING BOOK:



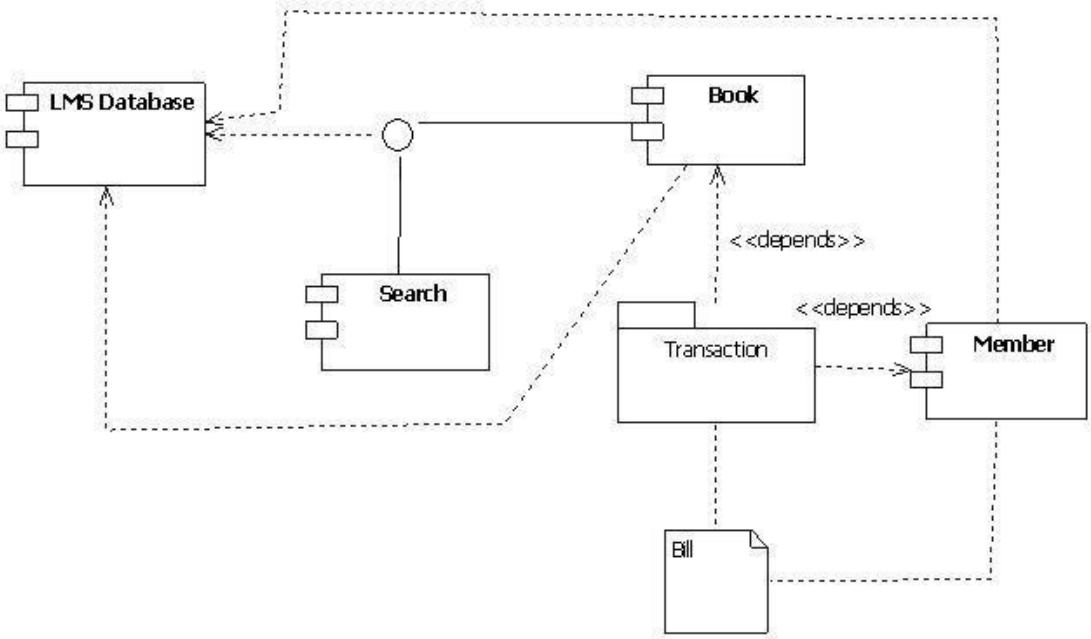
SEQUENCE DIAGRAM FOR ISSUING BOOK:



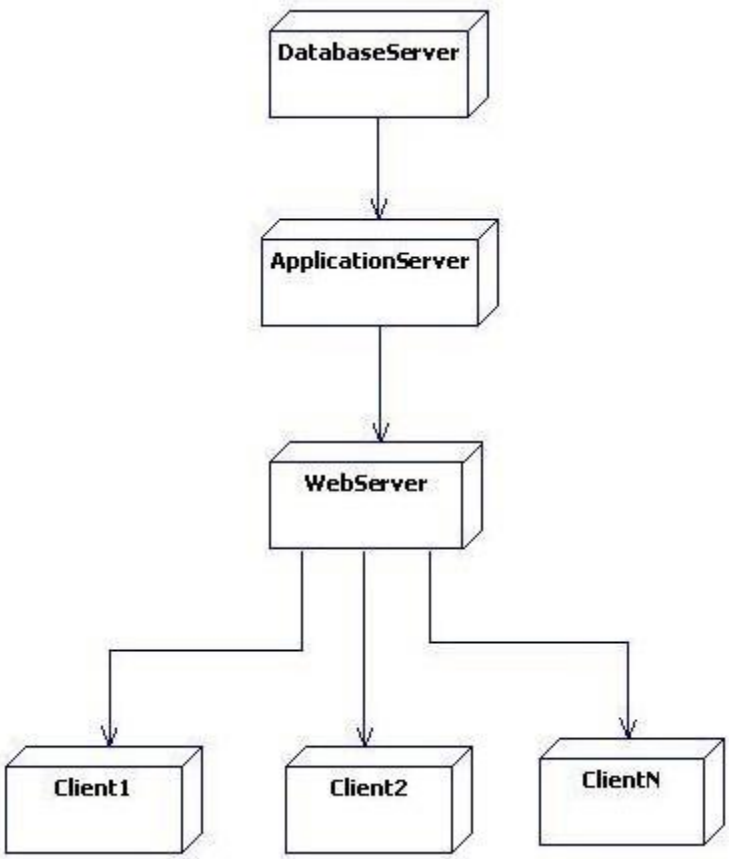
SEQUENCE DIAGRAM FOR RETURNING BOOK:



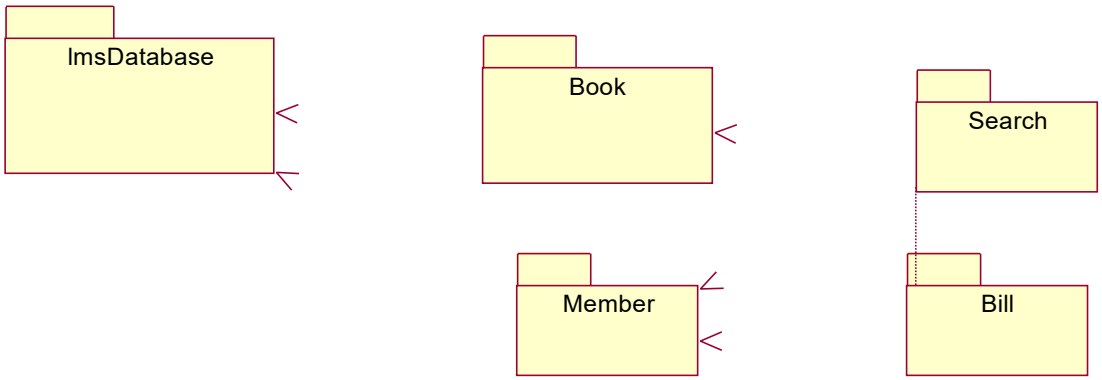
COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



PACKAGE DIAGRAM:



RESULT:
Thus the Library management system project was executed and the output was verified.

EX NO: 3
DATE:

RAILWAY RESERVATION SYSTEM

AIM

To develop the Railway Reservation System using Star UML tool.

PROBLEM STATEMENT

1. An E-Ticket (Electronic ticket) is a paperless electronic document used for ticketing passengers, particularly in the commercial airline, railway industries.

2. An E-Ticket offers many advantages for both travelers and airline including security, flexibility and cost convenience. At the same time, it also provides the standard assurance of the traditional paper ticket, scaling choice, travel time options and other flexibilities.

3. Passengers typically print out copies of their E-Ticket including confirmation E-mail and other document. All those documents can be replaced by pulling them out of the computer again and only a person with proper identification can actually use an E-Ticket.

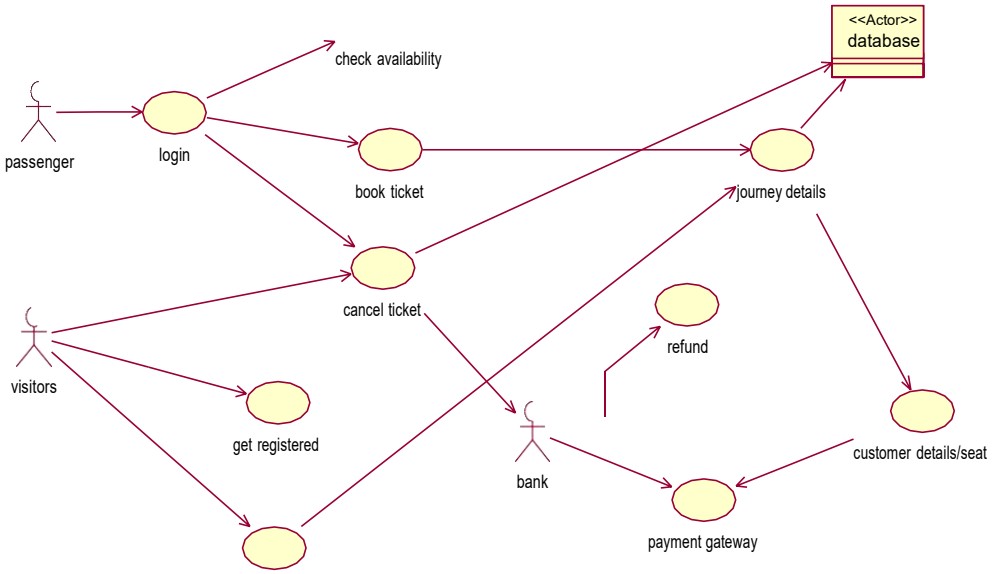
4. E-Ticket passengers can receive everything from gate assignments to cancellation or delay through E-mail, text messages sent to their home or business computers or to their cell phones.

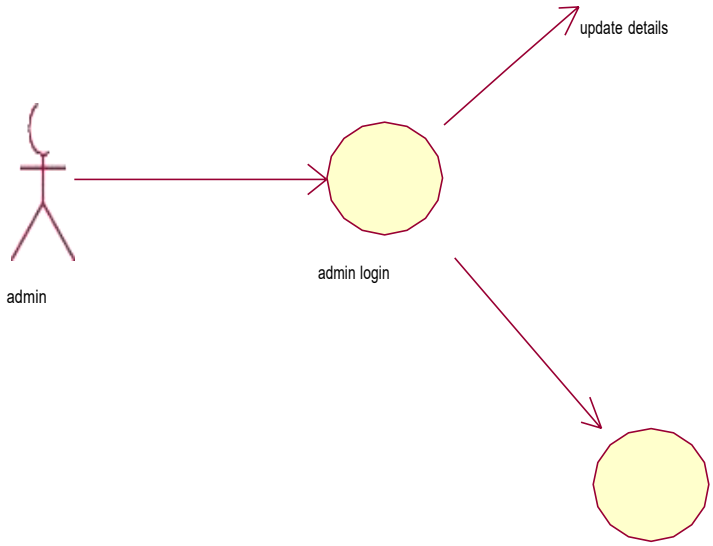
5. Finally, using E-Ticket is a more environmental friendly approach. The main purpose of the online bus ticket system is to provide another way for transnational customers to buy their tickets.

UML DIAGRAMS

S.NO	UML DIAGRAMS
1	Use Case diagram
2	Class diagram
3	Interaction diagram
4	Sequence diagram
5	Collaboration diagram
6	State Chart diagram
7	Activity diagram
8	Component diagram
9	Deployment diagram
10	Package diagram

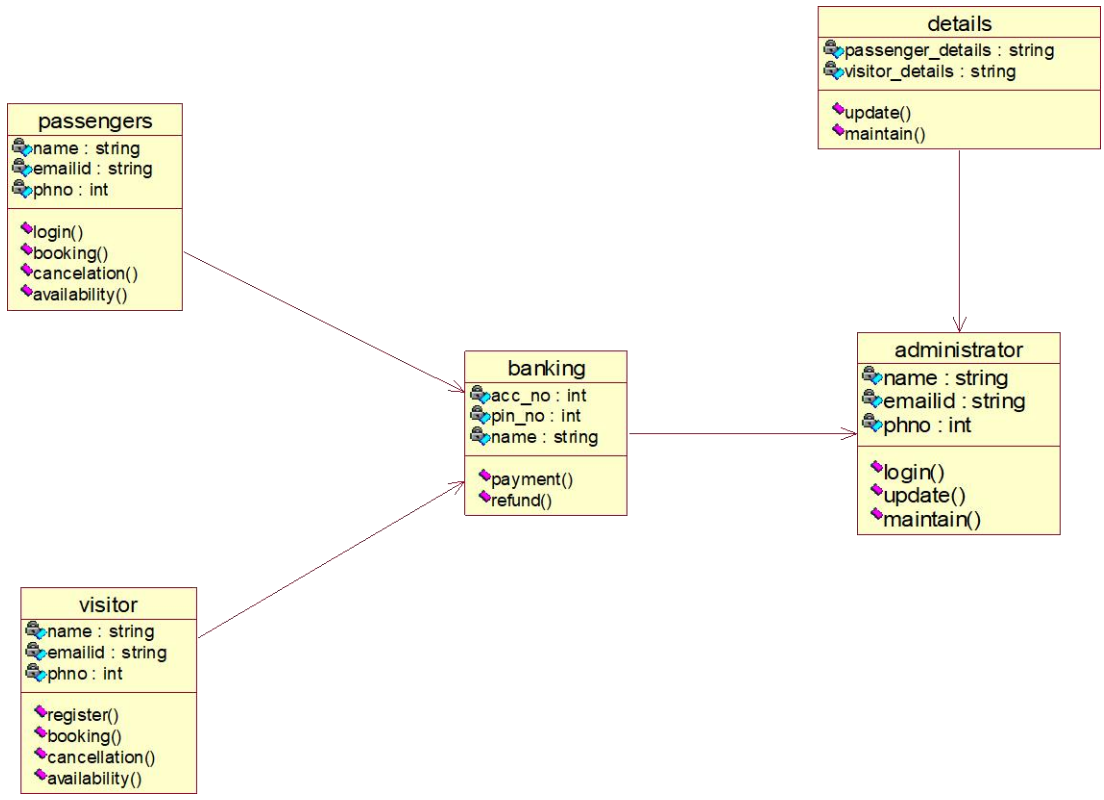
USECASE DIAGRAM:



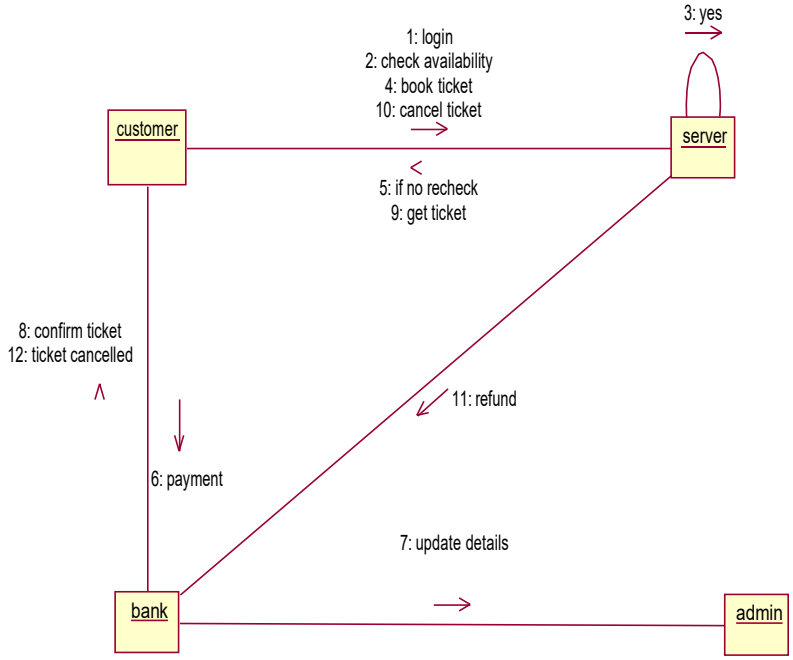


CLASS DIAGRAM

A class is drawn as rectangle box with three compartments or components separated by horizontal lines. The top compartment holds the class name and middle compartment holds the attribute and bottom compartment holds list of operations.

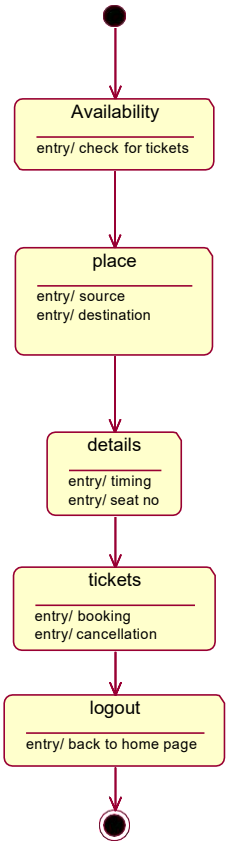


COLLABORATION DIAGRAM



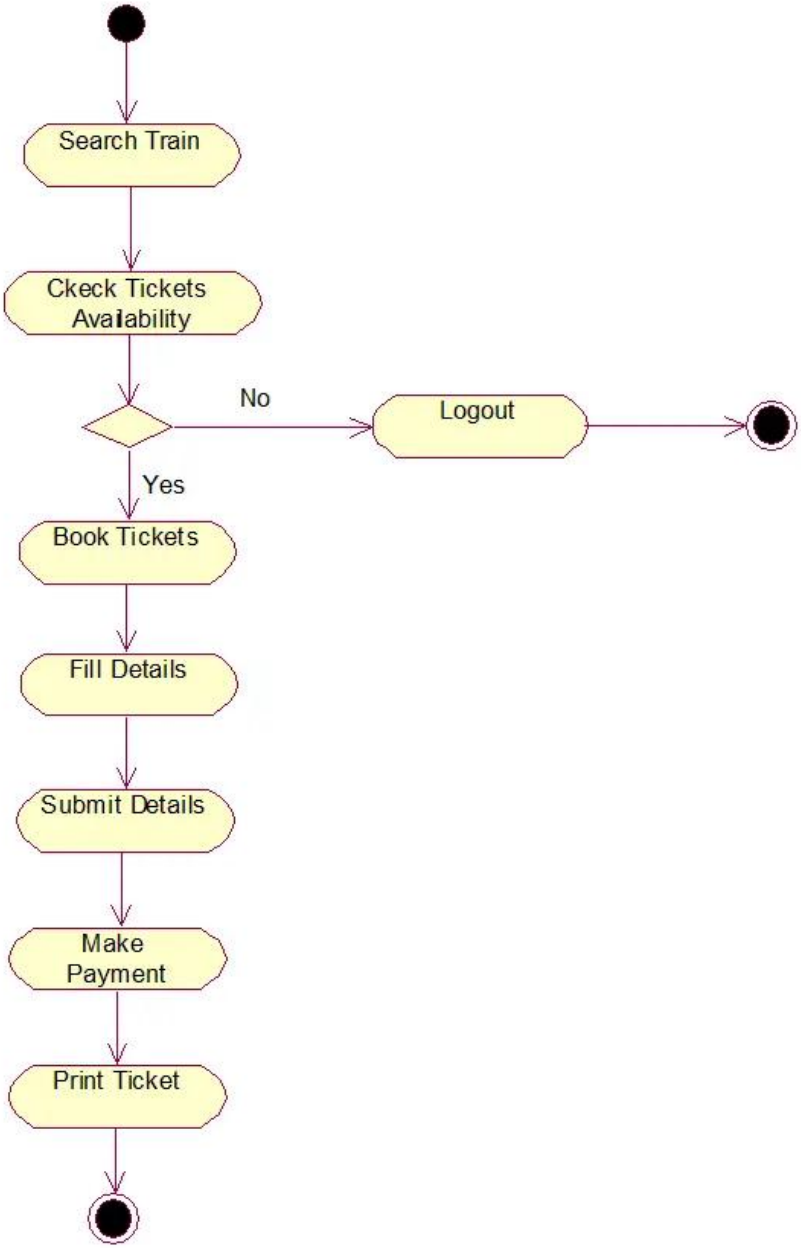
STATE CHART DIAGRAM

The state chart diagram contains the states in the rectangle boxes and starts in indicated by the dot and finish is indicated by dot encircled. The purpose of state chart diagram is to understand the algorithm in the performing method.



ACTIVITY DIAGRAM

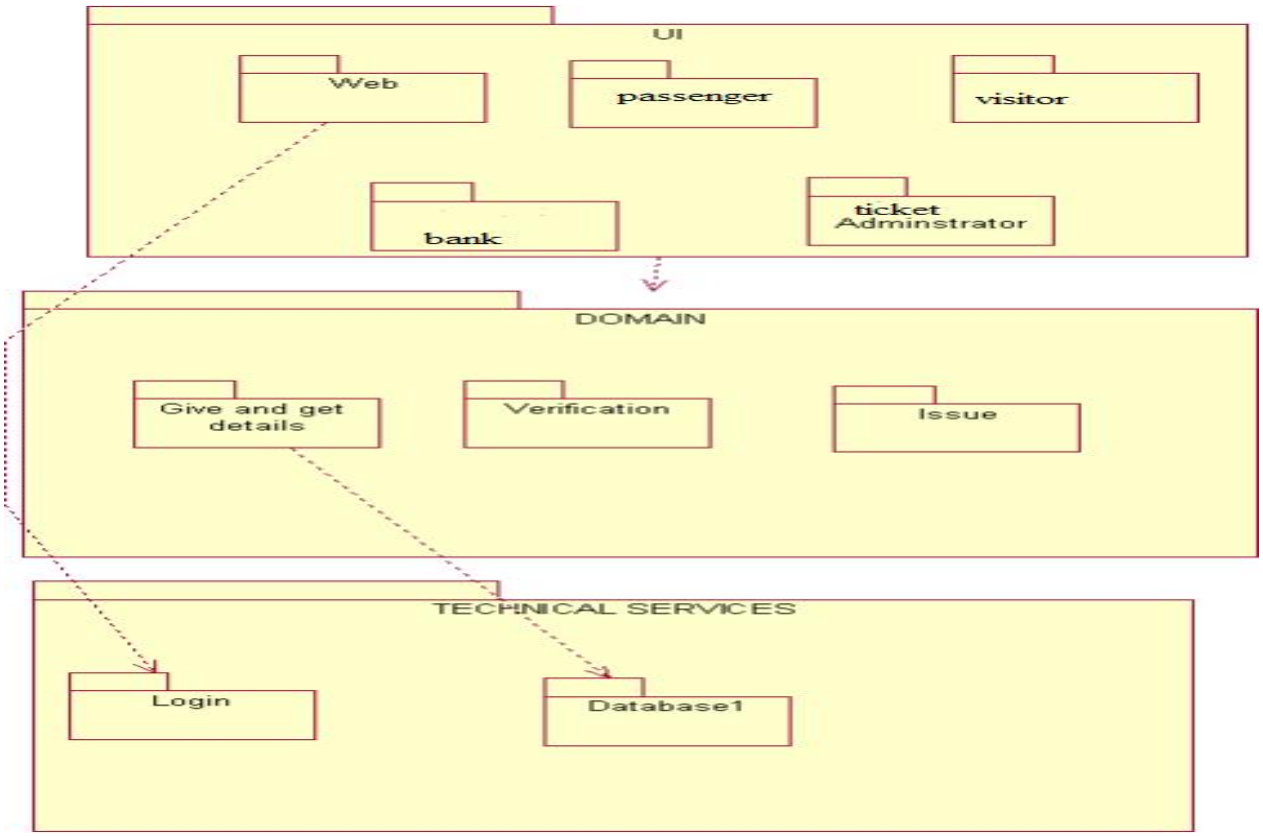
An activity diagram is a variation or special case of a state machine in which the states or activity representing the performance of operation and transitions are triggered by the completion of operation. The purpose is to provide view of close and what is going on inside a use case or among several classes. An activity is shown as rounded box containing the name of operation.



PACKAGE DIAGRAM

A package diagram is represented as a folder shown as a large rectangle with a top attached to its upper left corner. A package may contain both sub ordinate package and ordinary model elements. All uml models and diagrams are organized into package. A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).
There are three types of layer. They are

- User interface layer
- Domain layer
- Technical services layer



RESULT:

Thus the project to develop e-ticketing system was developed using Star UML Software.

EX NO: 4
DATE:

HOSPITAL MANAGEMENT SYSTEM

AIM

To develop the Hospital management System using Star UML tool.

PROBLEM STATEMENT:

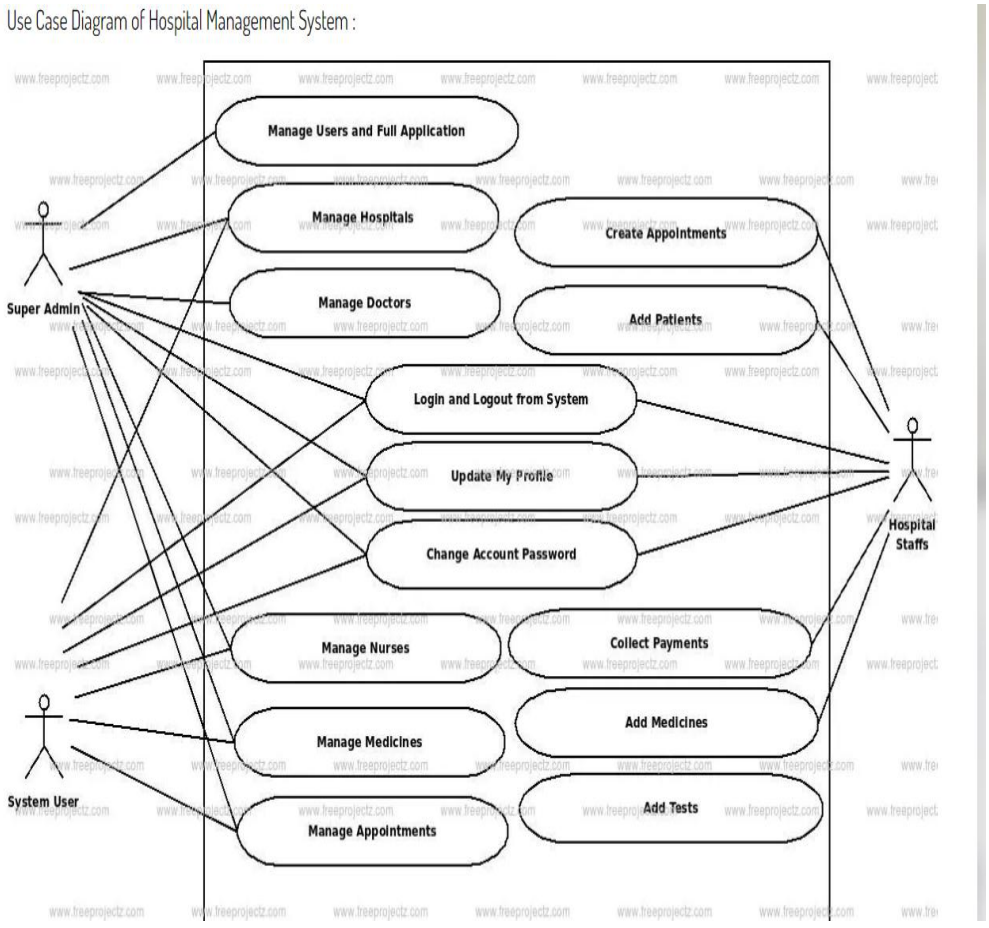
It is very imporatant to maintain efficient software to handle information of a hospital. This application provides a way to record this information and to access these in a simple way.

UML DIAGRAMS:

The following UML diagrams describe the process involved in the online recruitment system

1.Use case diagram
2.Class diagram
3.Sequence diagram
4.Package diagram
5.Activity diagram
6.Component diagram

USECASEDIAGRAM:



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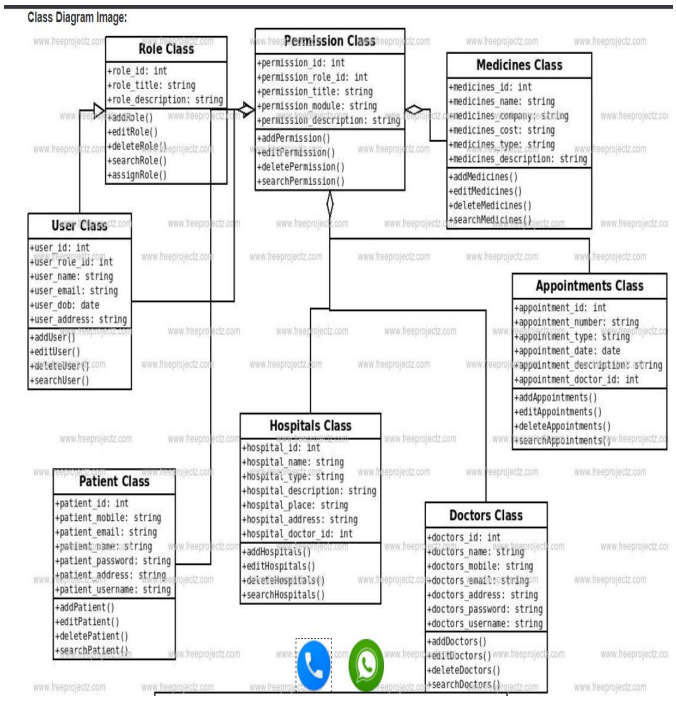
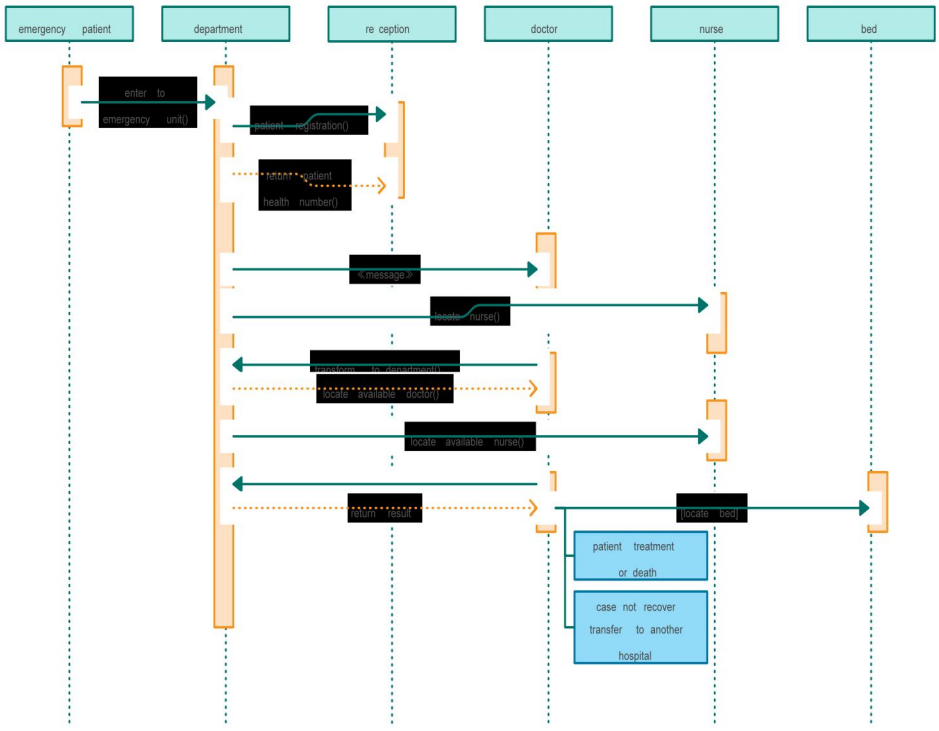
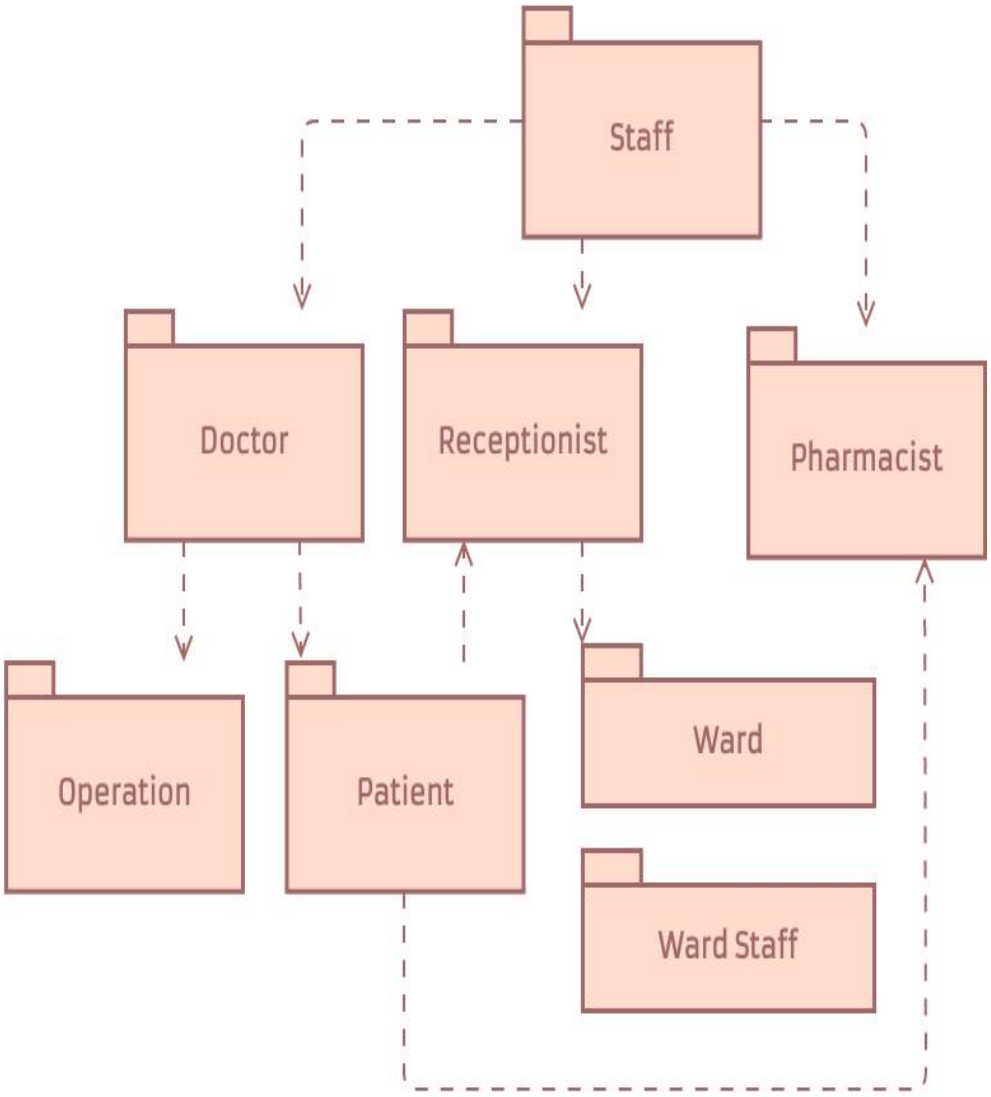
CLASS DIAGRAM:



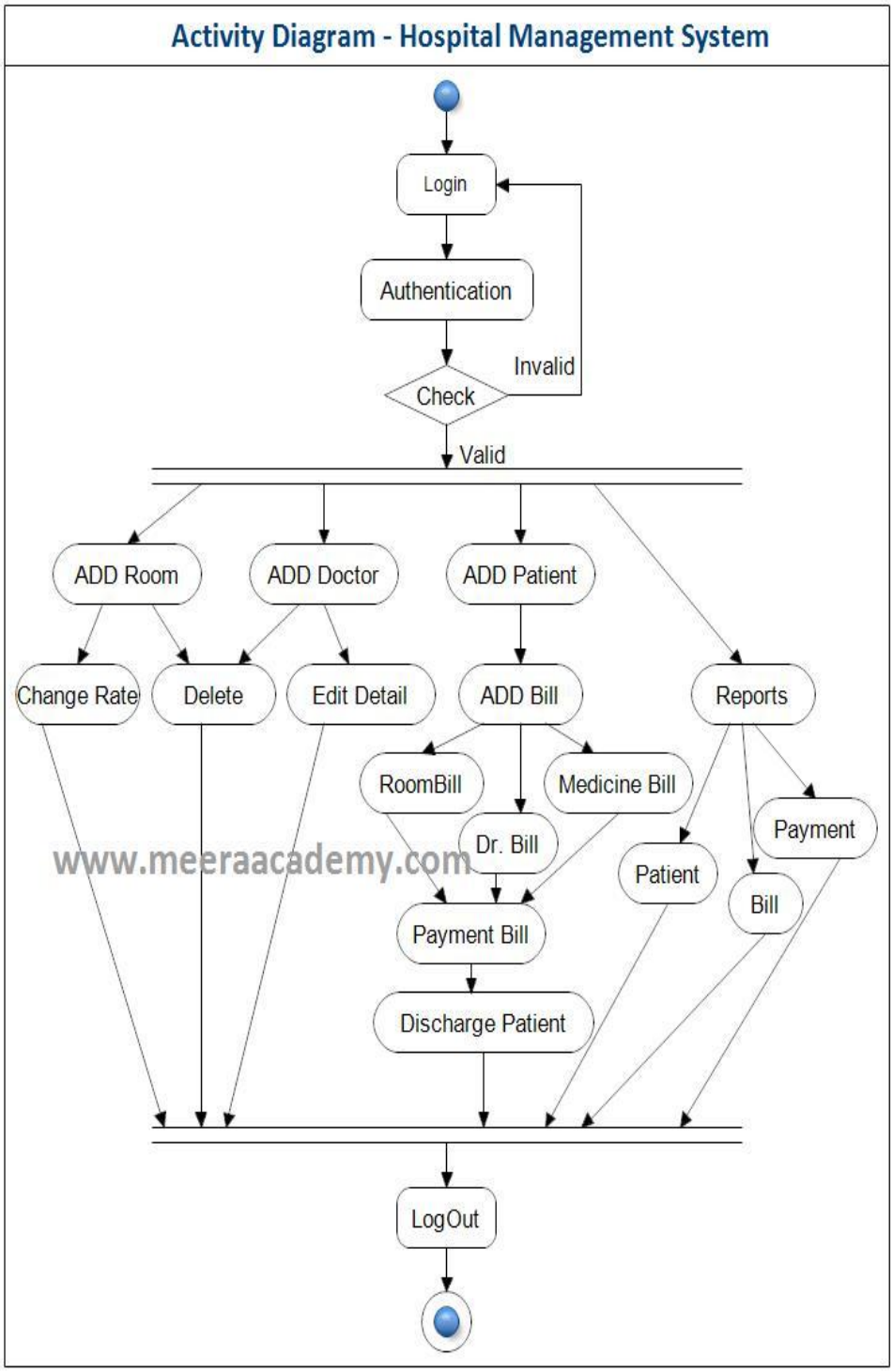
SEQUENCE DIAGRAM:



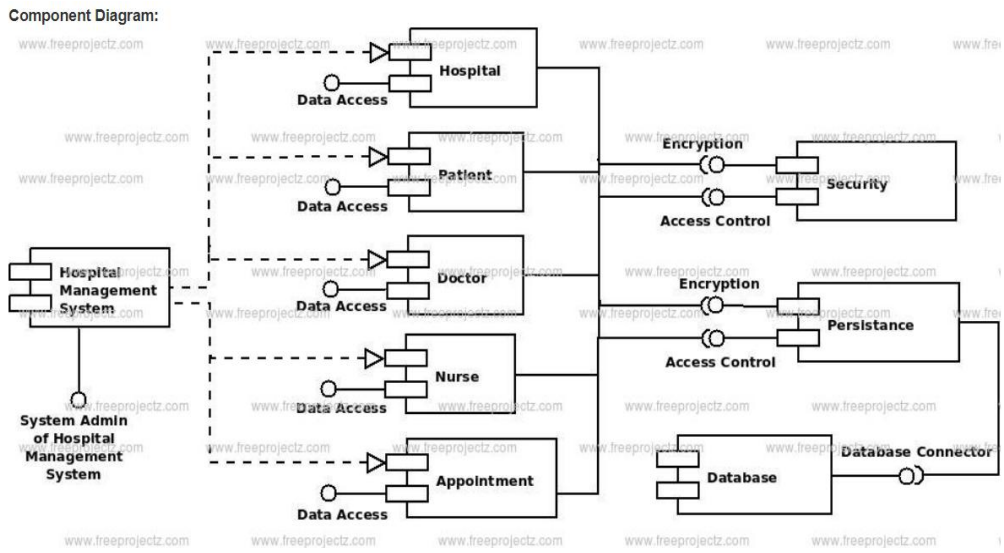
PACKAGE DIAGRAM:



ACTIVITYDIAGRAM:



COMPONENT DIAGRAM:



RESULT:

Thus the Hospital management System project was executed and the output was verified.

EX NO:5
DATE:

STUDENT REGISTRATION SYSTEM

AIM:

To develop a project Student Registration System using Rational Rose Software and to implement the software in Java.

PROBLEM ANALYSIS AND PROJECT PLANNING:

A Student Registration system (SRS) is a software application for educational establishments to manage student data. Student information systems provide capabilities for entering student test and other assessment scores, building student schedules, tracking student attendance, and managing many other student-related data needs in a school, college or university.

PROBLEM STATEMENT:

a. Effective for Administration Purpose
b. Cost effective
c. Better Service

UML DIAGRAMS:

The following UML diagrams describe the process involved in the online recruitment system

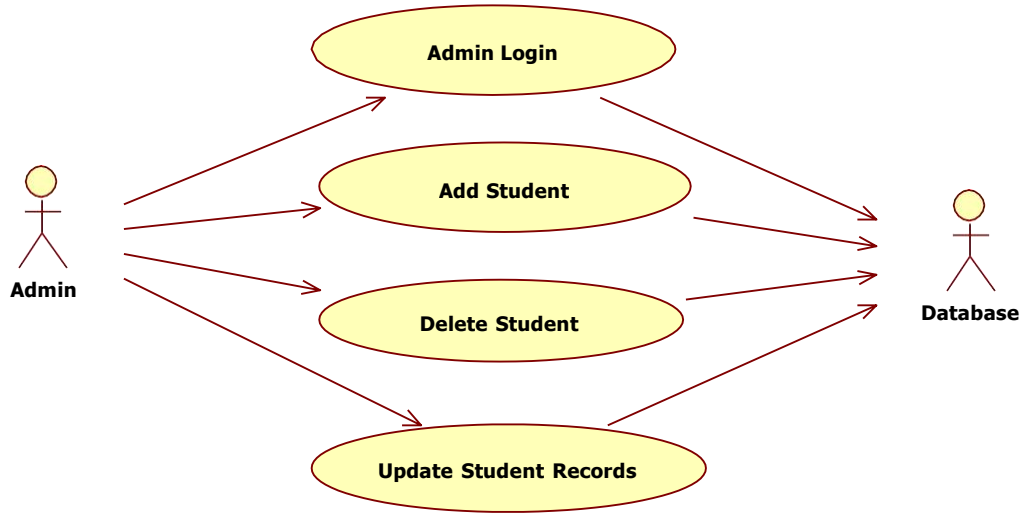
a. Use case diagram
b. Class diagram
c. Sequence diagram
d. Collaboration diagram
e. Activity diagram
f. Component diagram

USE CASE DIAGRAM:

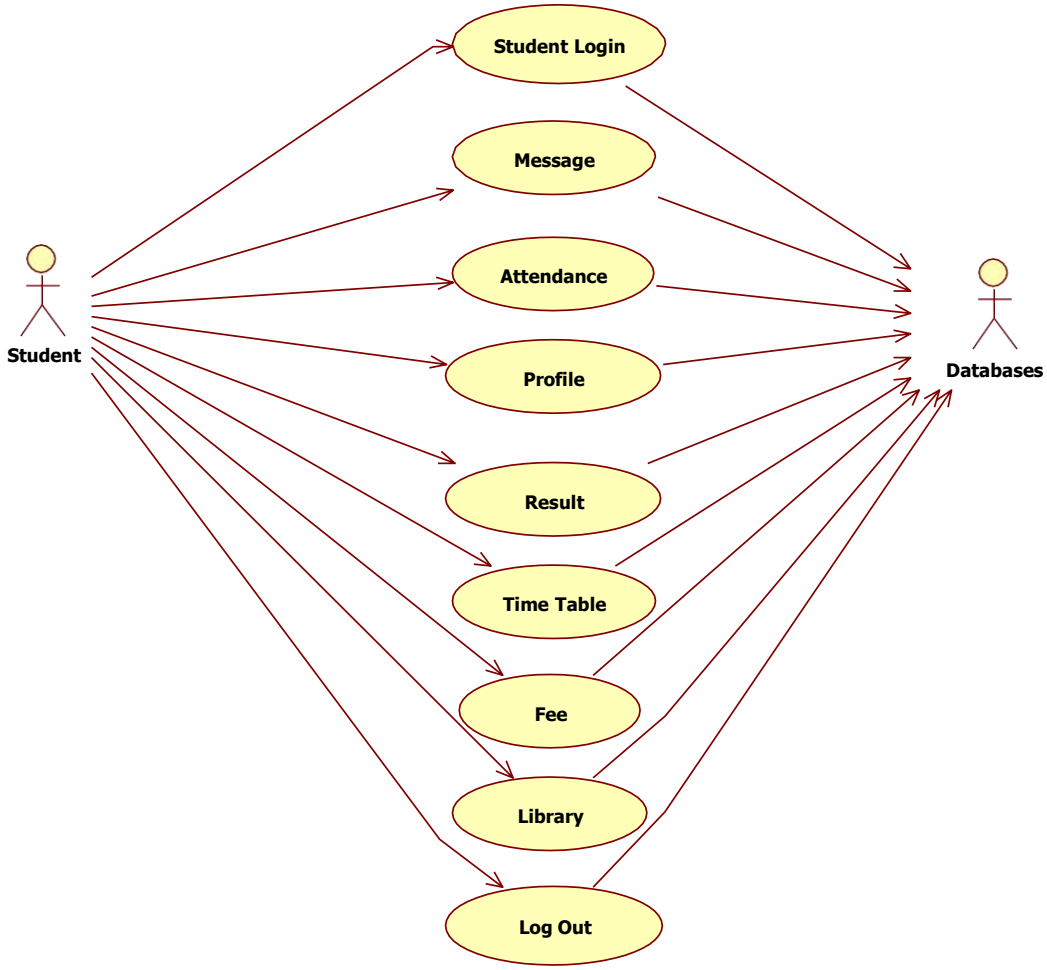
A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. The use case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal. It is represented using ellipse. Actor is any external entity that makes use of the system being modeled. It's represented using stick figure the actors in this use case diagram are Admin, Student, and Database. The use cases are the activities performed by actors.

a. Admin register login, and store the student records details in database.
b. Student Register from the Student Login process.
c. Then the database is searched for details and verified.
d. Database stores the details and returns acknowledgement

For Administrator:



For Student:



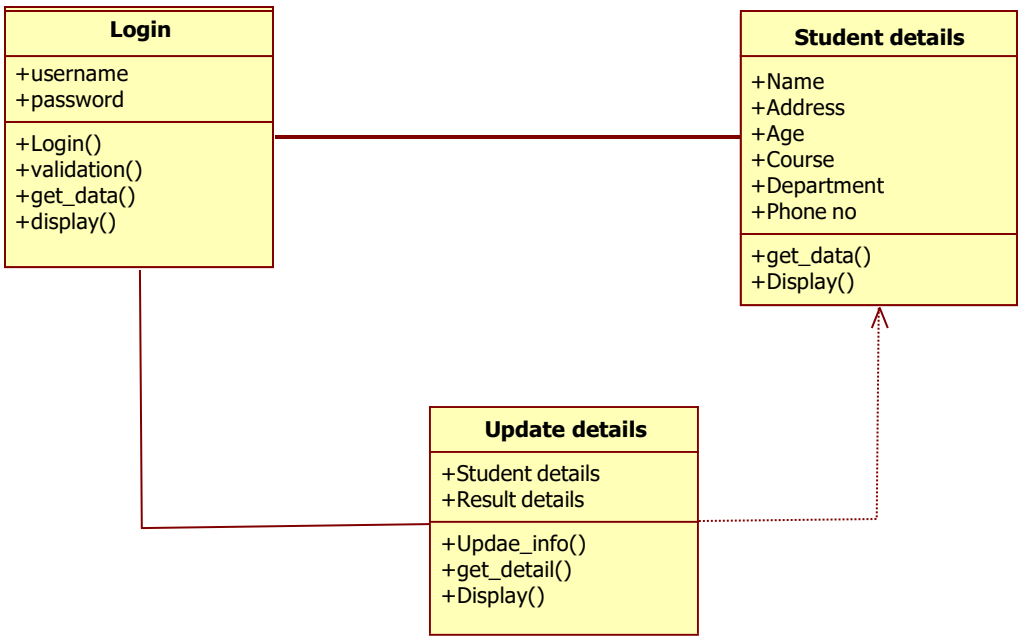
CLASS DIAGRAM

A class diagram in the unified modeling language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, and the relationships between the classes. It s represented using a rectangle with three compartments. Top compartment have the class name, middle compartment the attributes and the bottom compartment with operations. This class diagram has three classes Login, Student details and Update details in database.

a. Students – is the class name. Its attributes are name, Address, DOB, Gender, College, Subjects, Semester, Year, Degree, and Branch. The operations Preformed in the students class, Store database and Update.

b. Administration– is the class name. Its attributes are Login, Password and database. The operations performed are Student Details store in database and send acknowledgement.

c. Database – is the class name. The operations performed are storing Search and storing the values.



SEQUENCE DIAGRAM:

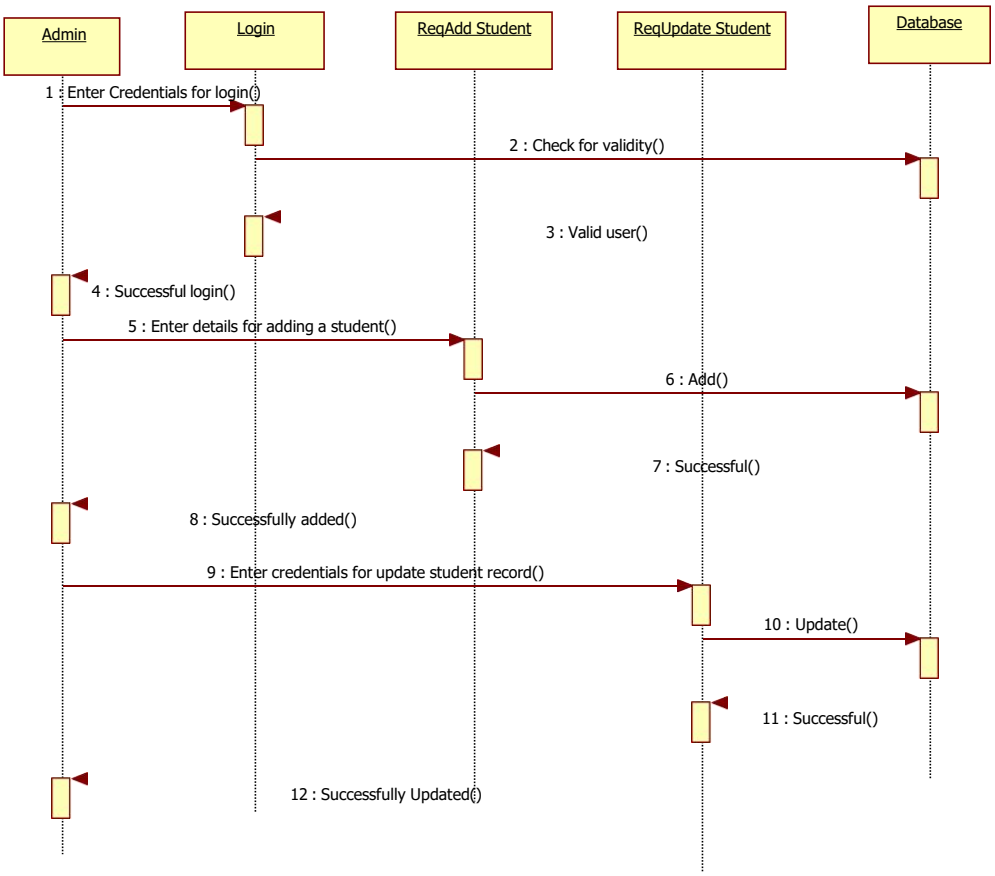
A sequence diagram in Unified Modeling Language (UML) is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. There are two dimensions.

1. Vertical dimension-represent time.
2. Horizontal dimension-represent different objects.

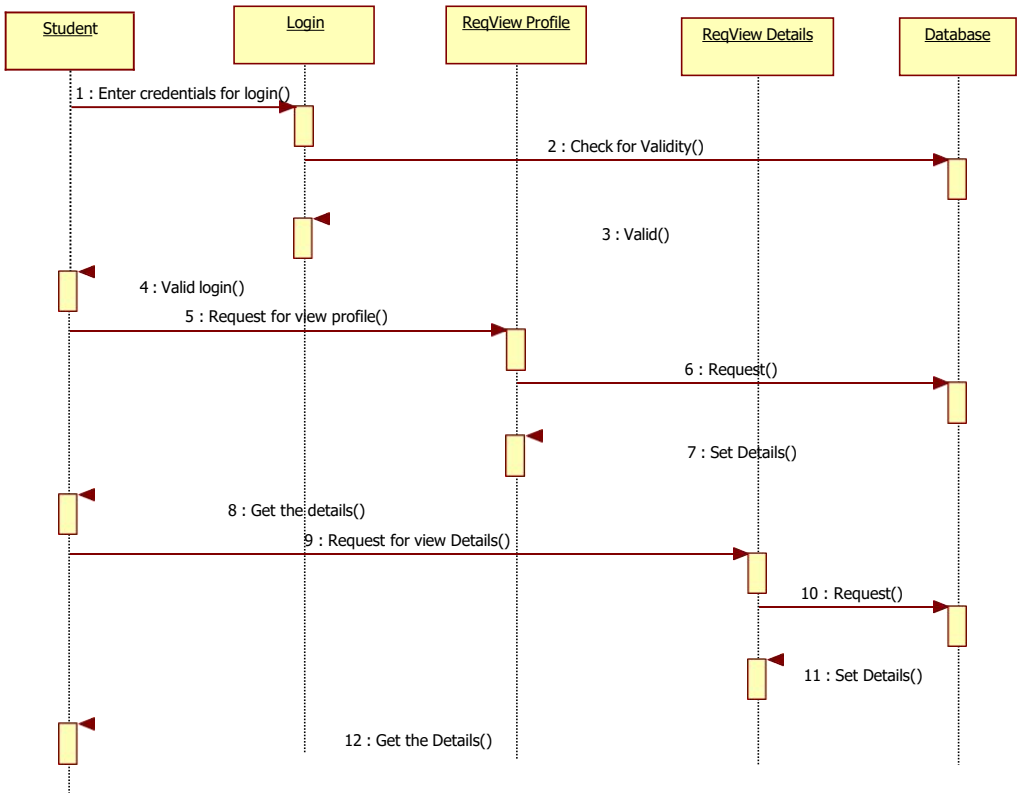
The sequence diagram describes the sequence of steps to show

a. The Admin login and registering for Add Student Details.
b. The verification done by the interface and sending acknowledgement for registration.
c. Searching the database with login and displaying it for maintenance.

For Administrator:

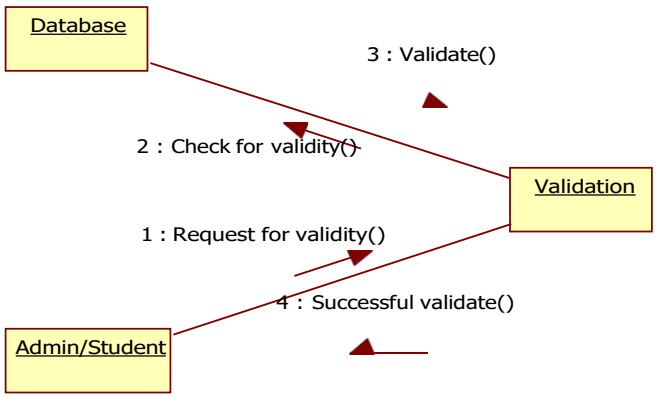


For Student:

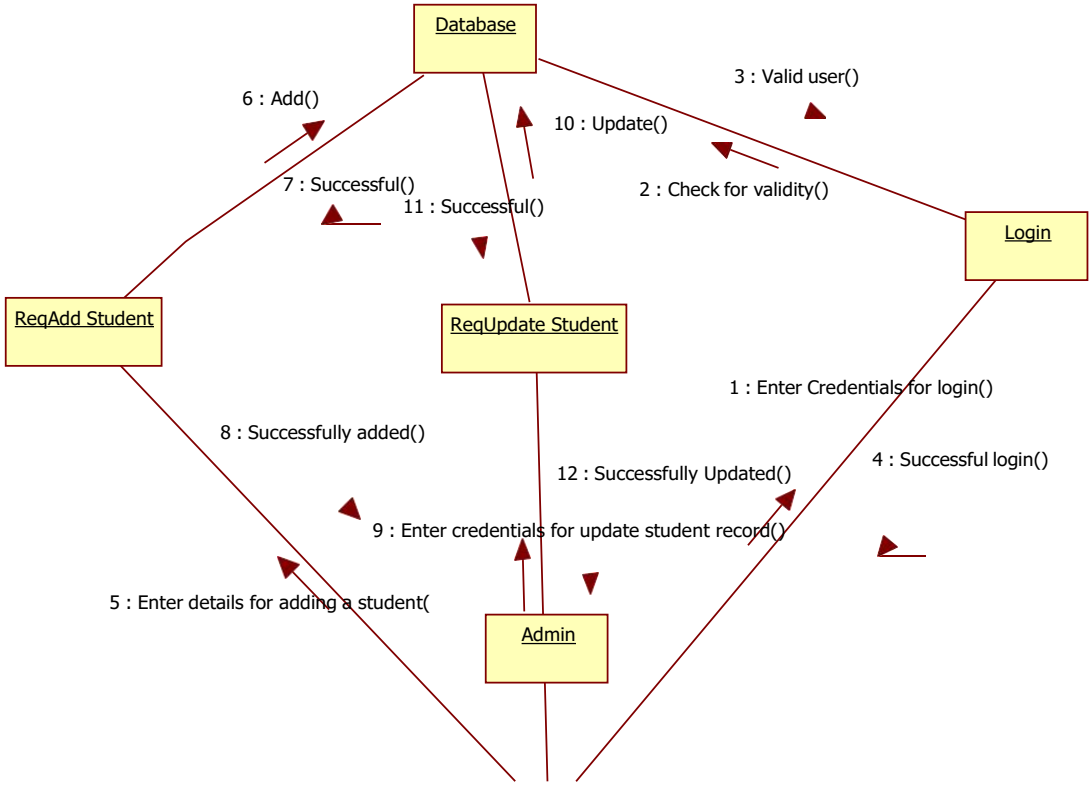

Student
Login
ReqView Profile
ReqView Details
Database
1 : Enter credentials for login()
2 : Check for Validity()
3 : Valid()
4 : Valid login()
5 : Request for view profile()
6 : Request()
7 : Set Details()
8 : Get the details()
9 : Request for view Details()
10 : Request()
11 : Set Details()
12 : Get the Details()

COLLABORATION DIAGRAM:

For Validity:

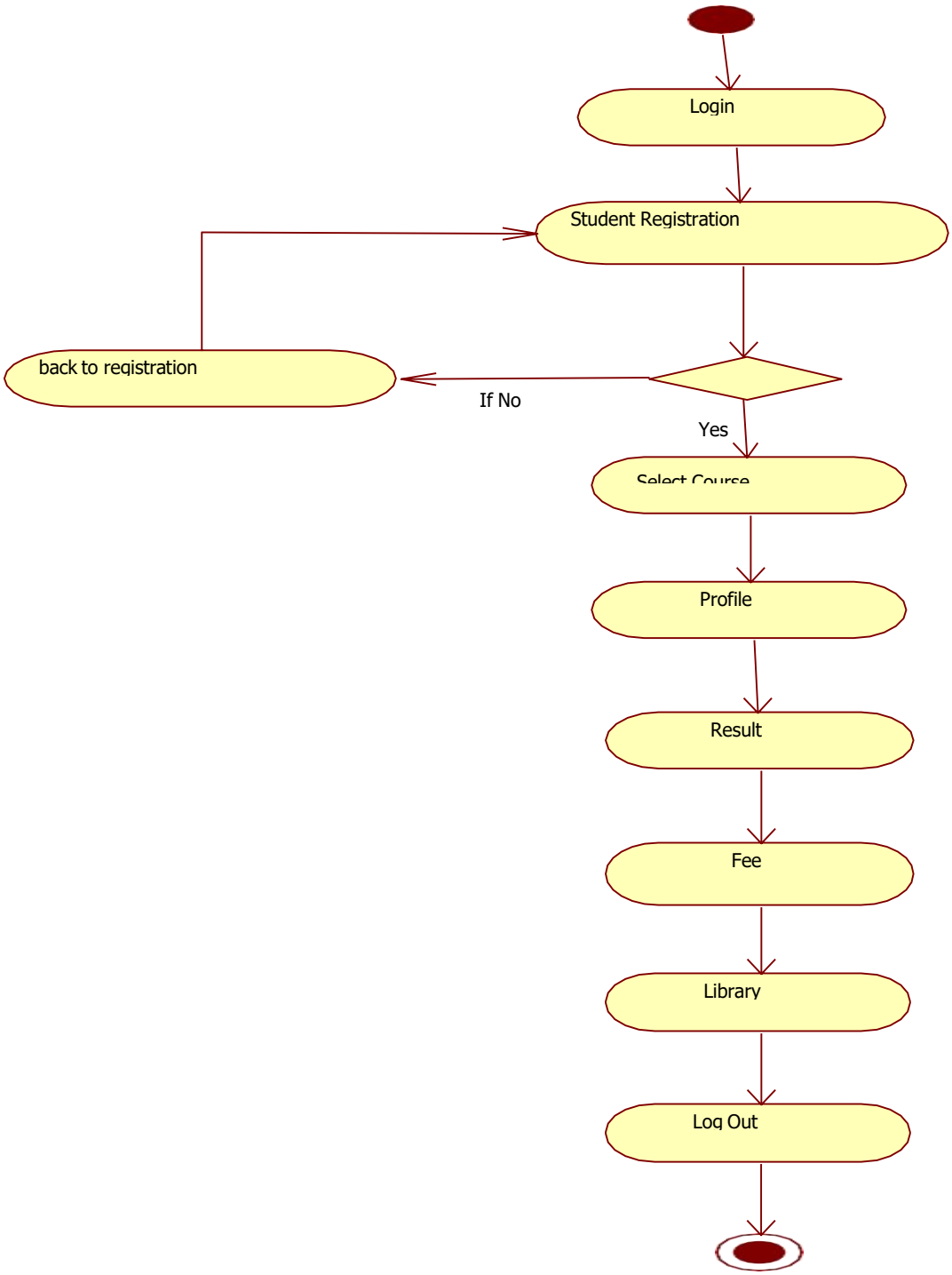


For Administrator:



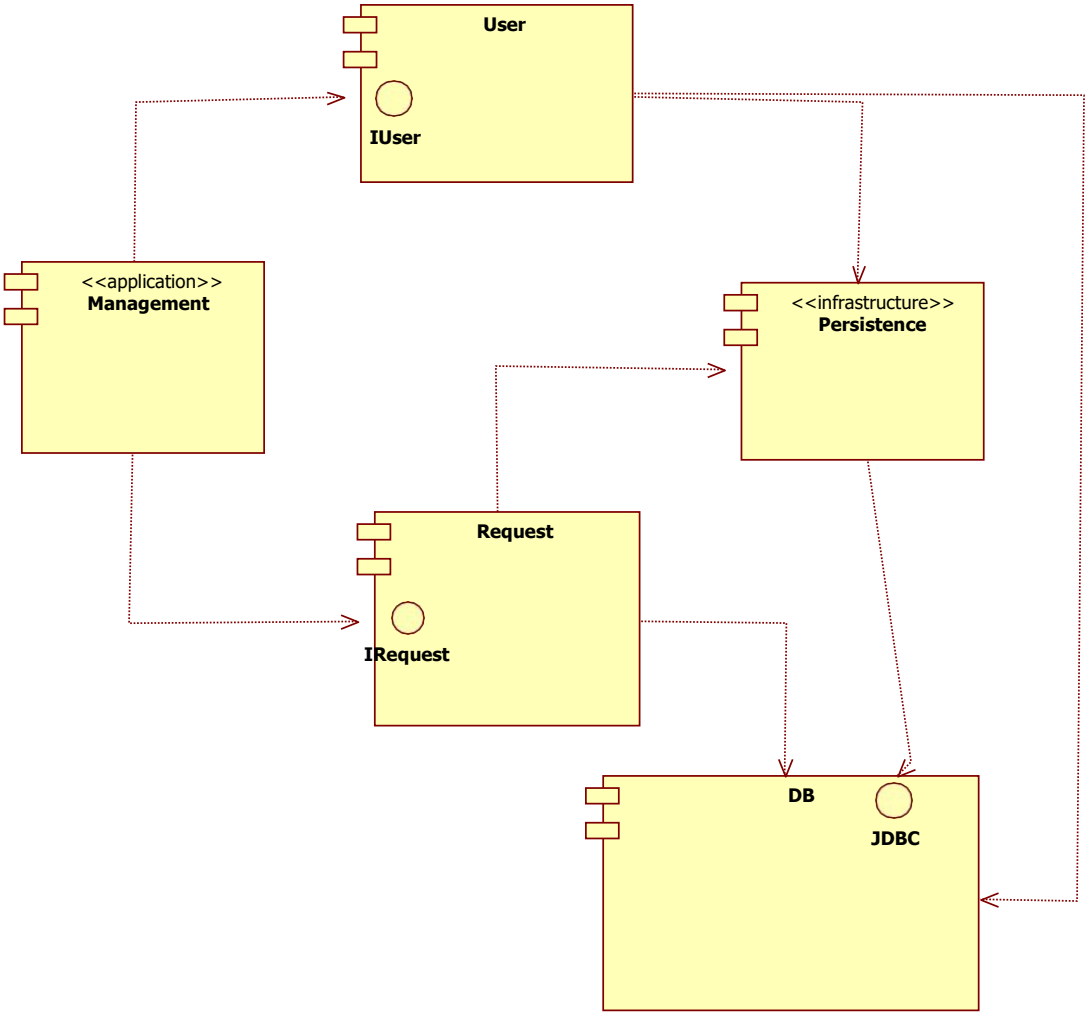
ACTIVITY DIAGRAM:

Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency. In the Unified Modeling Language, activity diagrams can be used to describe the business and operational step-by-step workflows of components in a system. An activity diagram shows the overall flow of control. An activity is shown as a rounded box containing the name of the operation.



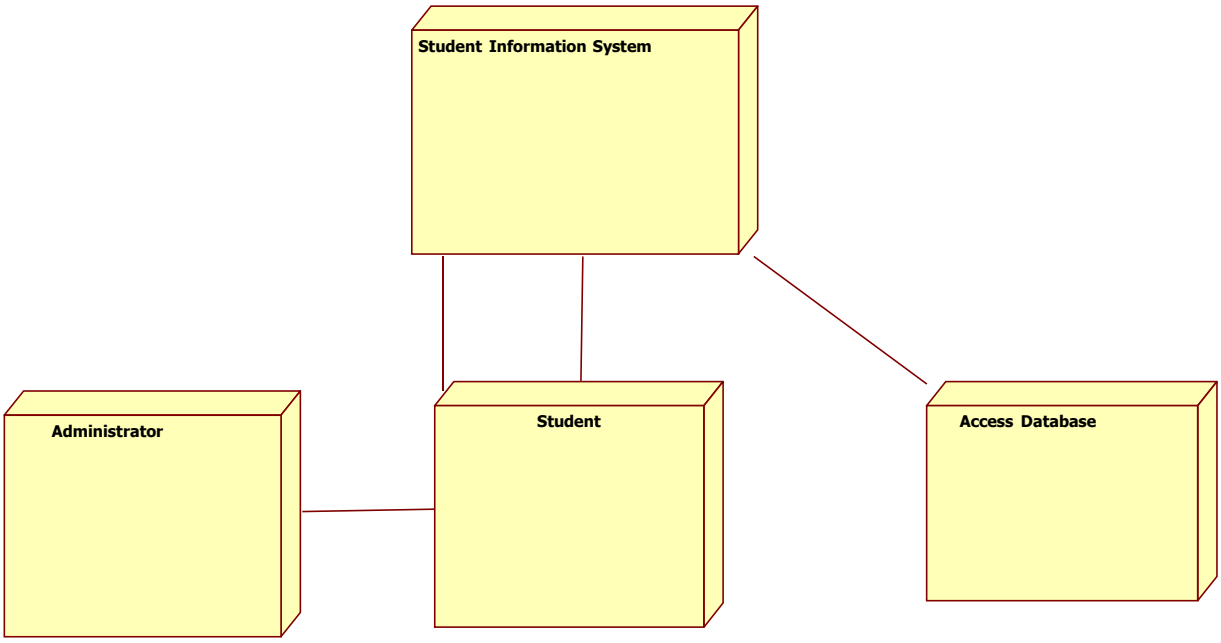
COMPONENT DIAGRAM:

The component diagram's main purpose is to show the structural relationships between the components of a system. It is represented by boxed figure. Dependencies are represented by communication association.



DEPLOYMENT DIAGRAM:

A deployment diagram in the unified modeling language serves to model the physical deployment of artifacts on deployment targets. Deployment diagrams show "the allocation of artifacts to nodes according to the Deployments defined between them. It is represented by 3-dimentional box. Dependencies are represented by communication association. The processor in this deployment diagram is the Student Information System which is the main part and the Student are the Admin, verify and search which are the some of the main activities performed in the system.



RESULT:

Thus the Student information system project was executed and the output was verified.

EXNO: 6
DATE:

ONLINE EXAMINATION SYSTEM

AIM

To develop the Exam Registration System using Star UML tools.

PROBLEM STATEMENT

1. Exam Registration System is used in the effective registration of exams to all of the applicants. This system adopts a comprehensive approach to minimize the manual work and schedule resources, time in a coherent manner.

2. The core of the system is to get the online registration form (with details such as name, address etc.,) filled by the applicant whose details are later verified by the Administrator.

3. Then the applicant needs to pay the examination fees by the interface provided in the Exam Registration system. After the end of the due date for submitting the form, the information is in turn forwarded to the administrator's view.

4. The applications are then processed based on the information given by the applicant, and any forfeiting identified can make the applicant liable to penalty as per the law.

5. The administrator after successful confirmation, initiates the process to generate the hall tickets for the applicants. After successful generation of hall tickets, the system delivers the hall ticket to the applicants. The applicants can download the hall tickets finally in the end.

UML DIAGRAMS

S.NO	UML DIAGRAMS
1	Use Case diagram
2	Class diagram
3	Interaction diagram
4	Sequence diagram
5	Collaboration diagram
6	State Chart diagram
7	Activity diagram
8	Component diagram
9	Deployment diagram
10	Package diagram

USE CASE DIAGRAM:

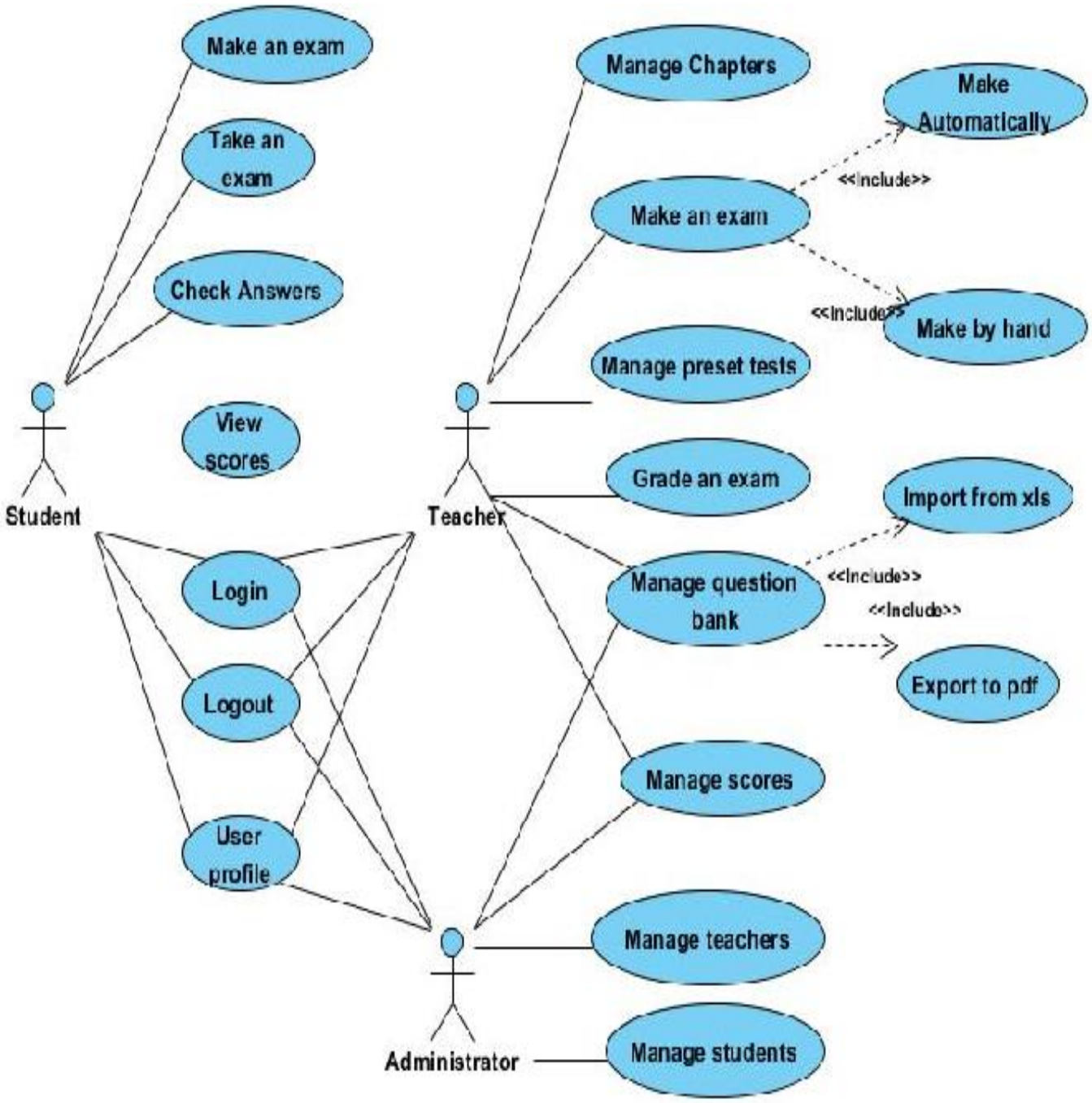
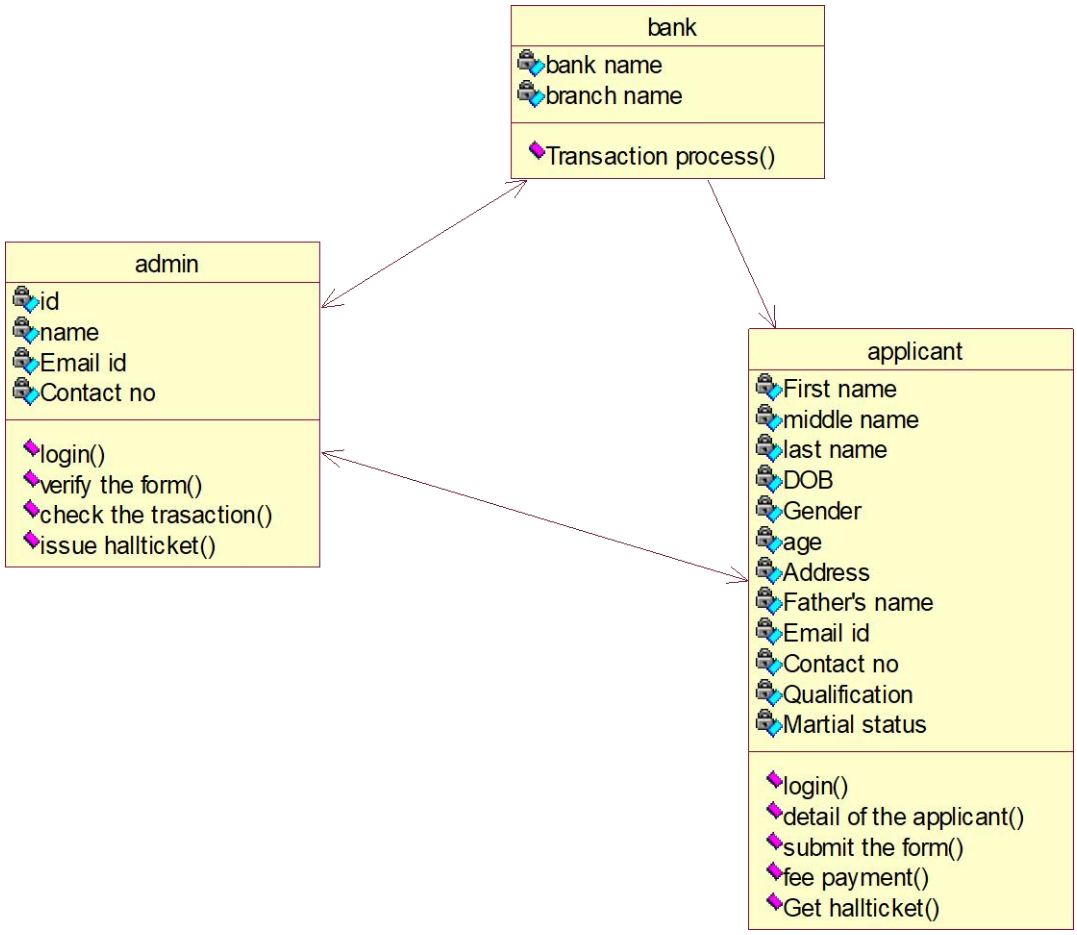


Figure 3 User case diagram for the system

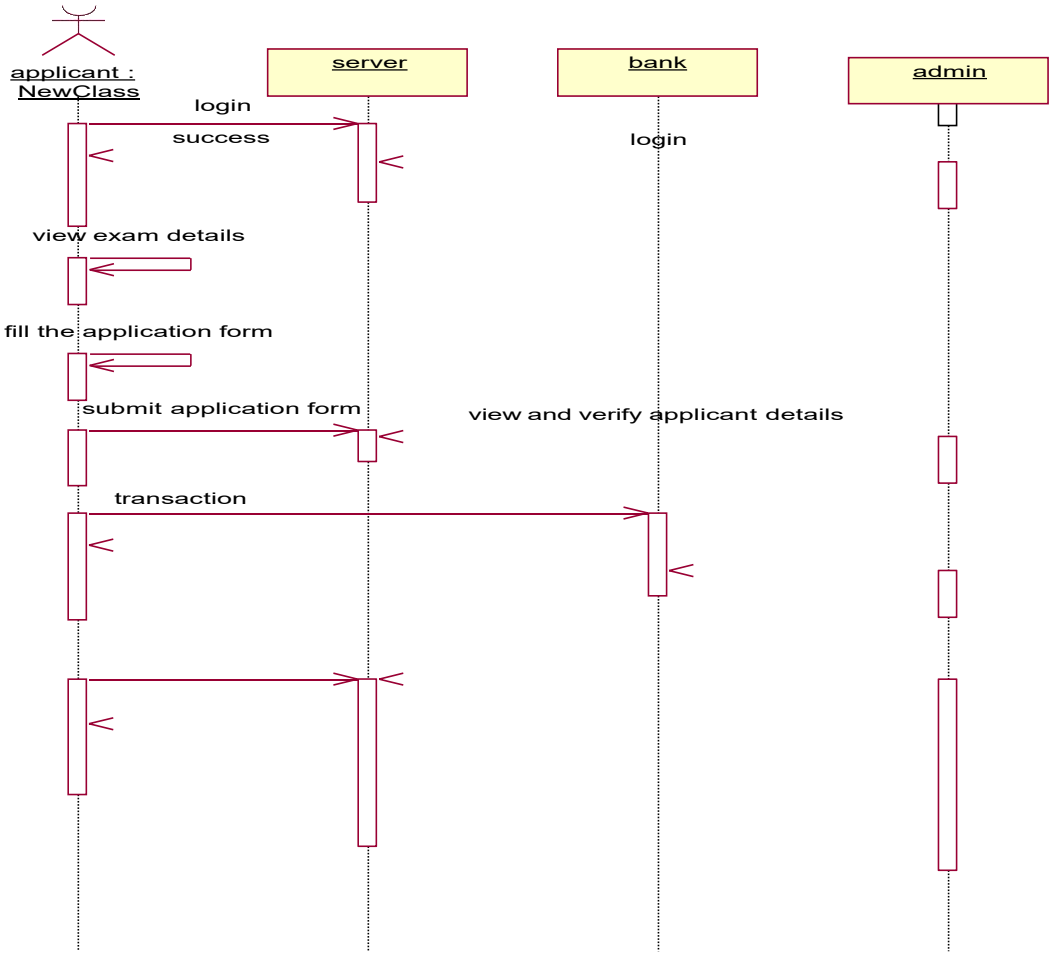
CLASS DIAGRAM:

A class is drawn as rectangle box with three compartments or components separated by horizontal lines. The top compartment holds the class name and middle compartment holds the attribute and bottom compartment holds list of operations.



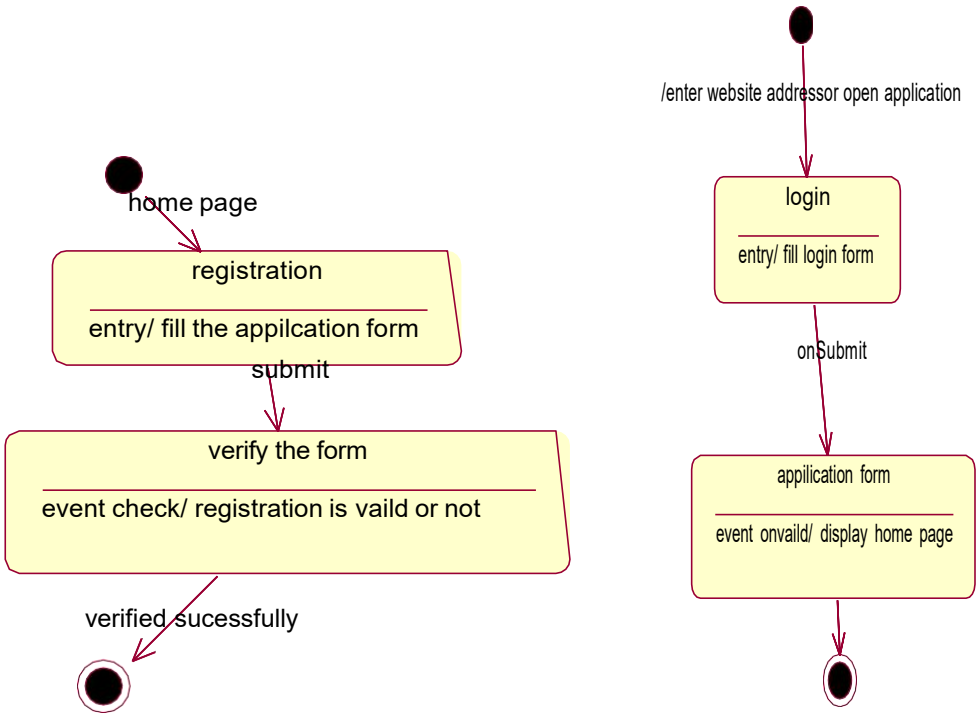
SEQUENCE DIAGRAM:

It shows object participating in interaction by their lifeline by the message they exchange arranged in time sequence. Vertical dimension represent time and horizontal dimension represent object.



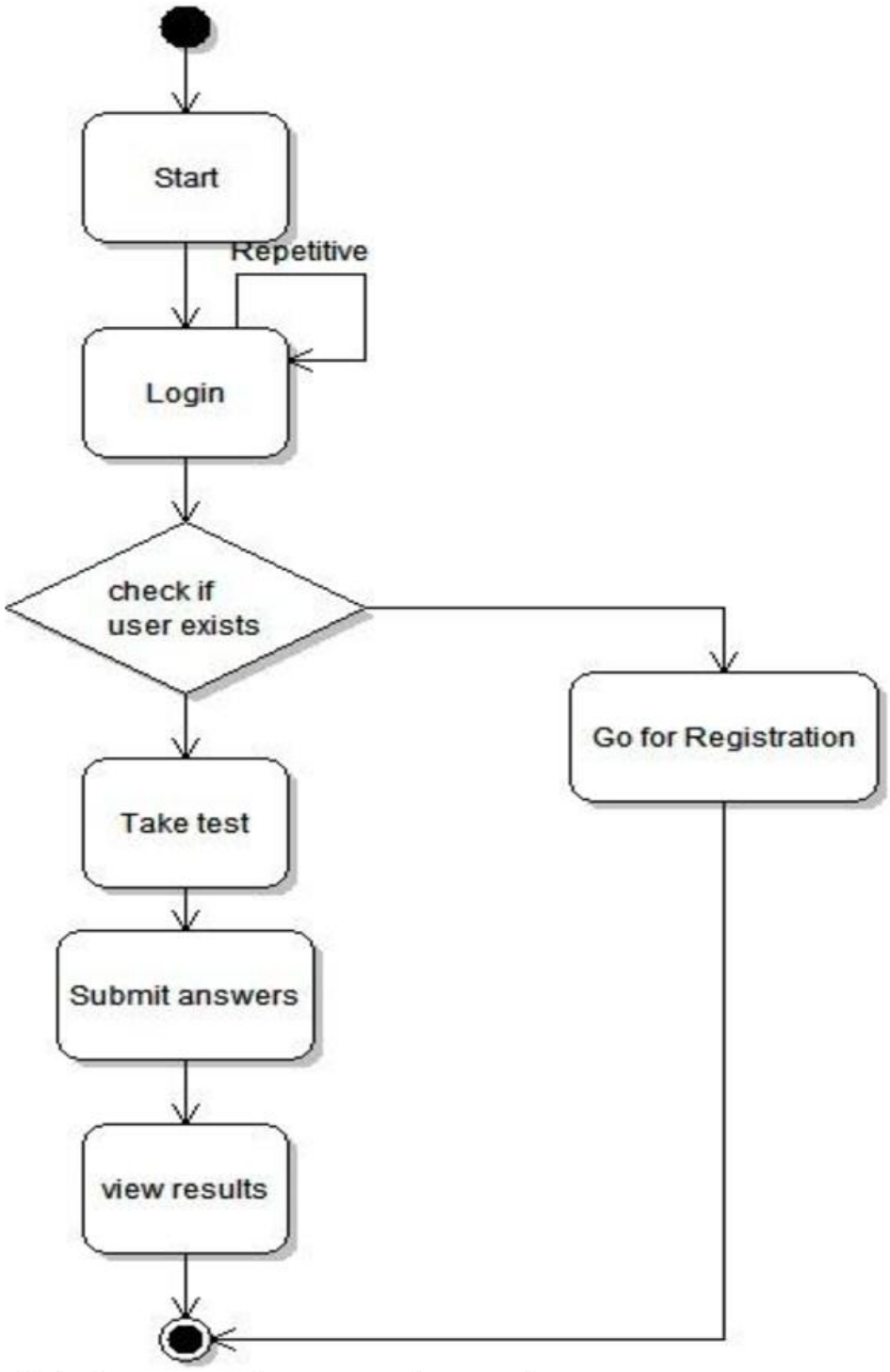
STATE CHART DIAGRAM:

The state chart diagram contains the states in the rectangle boxes and starts in indicated by thedot and finish is indicated by dot encircled. The purpose of state chart diagram is to understandthe algorithm in the performing method



ACTIVITY DIAGRAM:

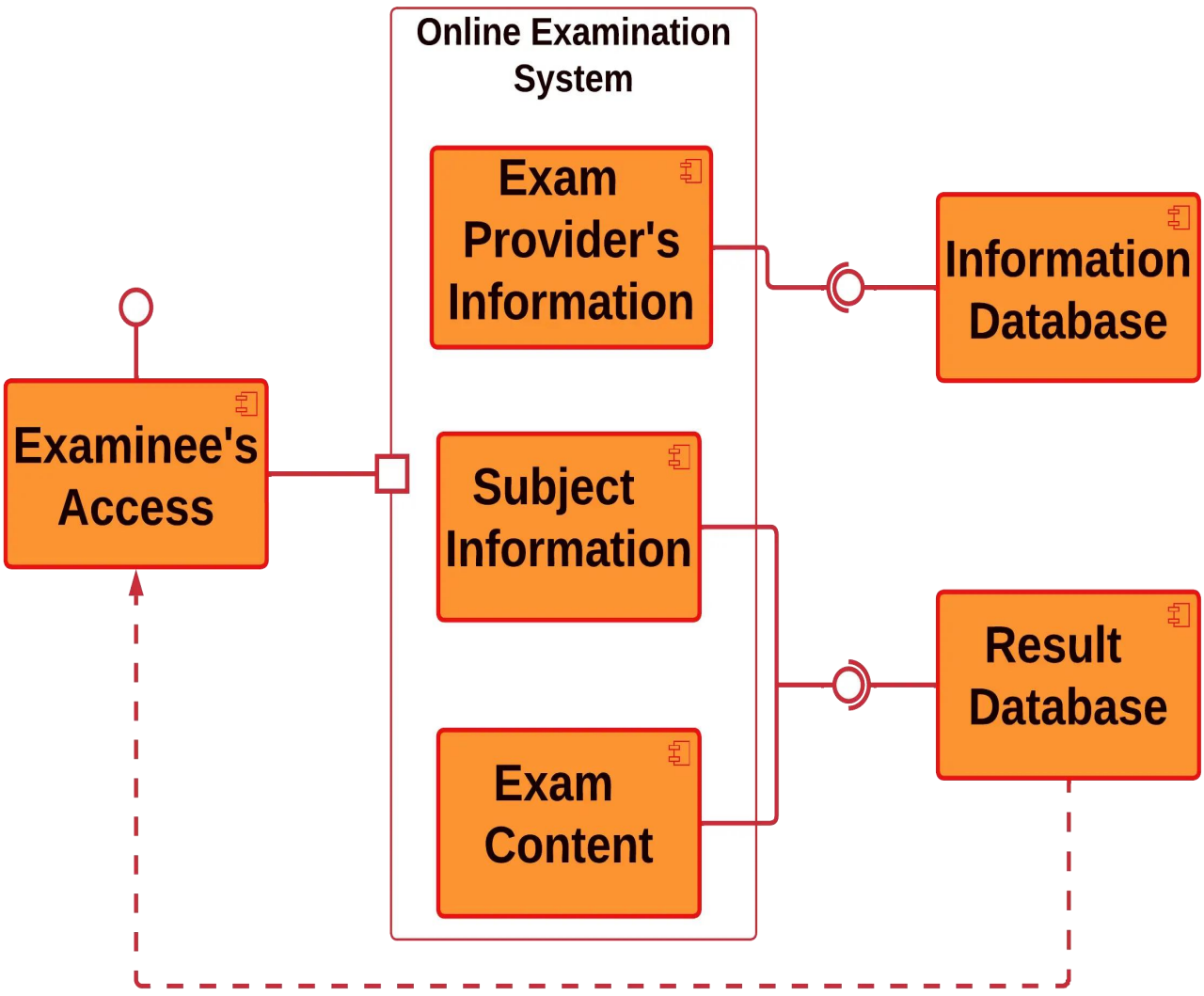
An activity diagram is a variation or special case of a state machine in which the states or activity representing the performance of operation and transitions are triggered by the completion of operation. The purpose is to provide view of close and what is going on inside a use case or among several classes. An activity is shown as rounded box containing the name of operation.



. 3. (a) Activity diagram for online examination syste

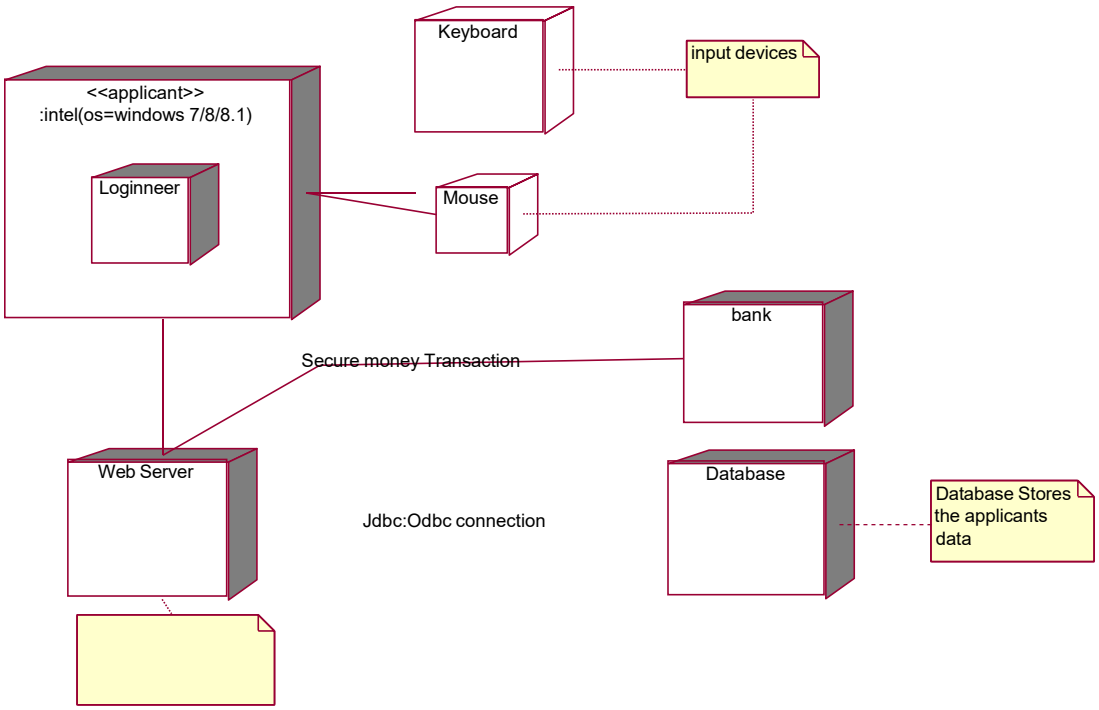
COMPONENT DIAGRAM:

The component diagram is represented by figure dependency and it is a graph of design of figure dependency. The component diagram's main purpose is to show the structural relationships between the components of a systems. It is represented by boxed figure. Dependencies are represented by communication association.



EXECUTION ENVIRONMENT NODE

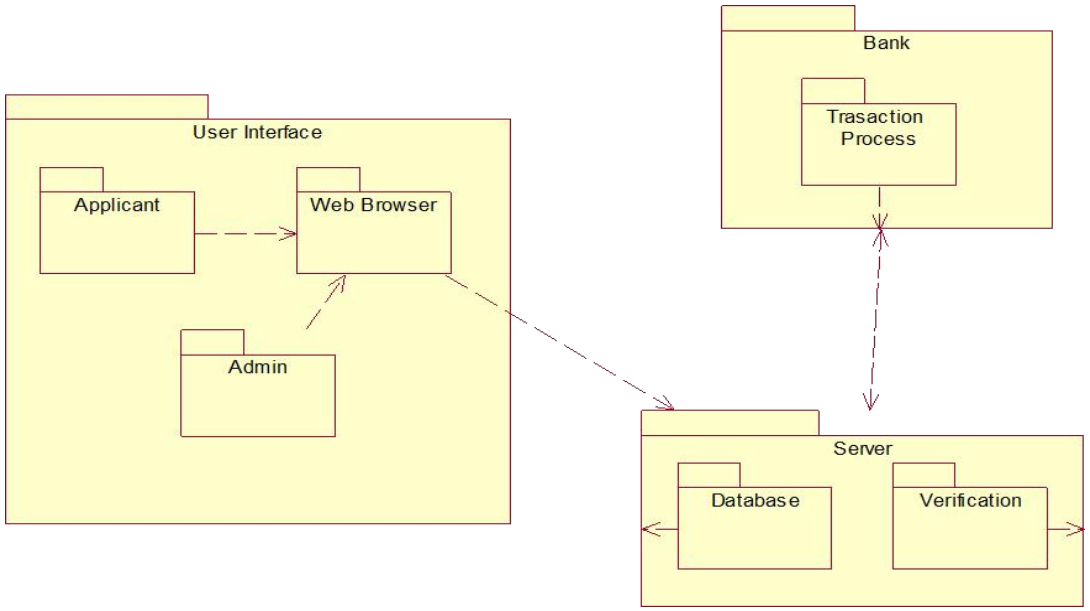
This is a software computing resource that runs within an outer node and which itself provides a service to host an execute other executable software element.



PACKAGE DIAGRAM:

A package diagram is represented as a folder shown as a large rectangle with a top attached to its upper left corner. A package may contain both sub ordinate package and ordinary model elements. All uml models and diagrams are organized into package. A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).
There are three types of layer. They are

- User interface layer
- Server
- Bank



RESULT:

Thus the project to develop Exam Registration system was developed using Star UML Software is done successfully.