

EX.NO: 1

PASSPORT AUTOMATION SYSTEM

DATE:

AIM:

To study the problem statement, SRS document and draw all the UML diagrams of a passport automation system

PROBLEM STATEMENT:

To create PASSPORT AUTOMATION software that will meet the needs of the applicant and help them to register and buy the passport. Modification in database and cancellation for the registered project can be done in the software.

1. INTRODUCTION:

1.1 Purpose:

This project is about developing a passport automation system within budget and should be delivered on time. The system should be able to provide the applicants to login and enter the details. The applicants should enter the required details which must be verified by the Passport Issue Officer. The acknowledgement, verification and counseling must be done by the Verification officer. The applicant should be acknowledged about the process going on.

1.2 Document Conventions:

The headings have been written using “normal” style with “Times New Roman” font and font size of “12” with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each heading also use “normal” style with “times” font and size “12”.

1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer. The Suggested way of

reading the document for all the readers is in the sequence as it has been given in the document.

1.4 Project Scope:

The Passport automation system allows a user to file their application to the passport office for verification and get the passport. The applicant makes payment after the application is accepted. The passport officer scrutinizes the applications received and verifies the applicant details. The verification officer acknowledges the applicant about the progress in verification process and counsels him. After cross checking all the details the passport is issued upon all the details found to be true.

1.5 References : None

2. OVERALL DESCRIPTION:

2.1 Product Perspective:

The system is a new, self-contained product with its own requirements and functionalities.

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Submitting an application form.
2. Making the payment as required.
3. Applying for a particular course.
4. Acknowledgement about the counseling dates.
5. Verification of applicant details.
6. Issuance of the passport.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and students.

APPLICANT:

The applicant browses the homepage and submits the form. The applicant can keep track of the verification process and be informed about the tentative dates for the counseling.

VERIFICATION OFFICER:

The verification officer verifies the applicant details and reports it to the passport issuing officer. He charts out the dates for counseling and gives the information to

applicant.

PASSPORT ISSUING OFFICER:

He checks the applications and verifies them to be passed over to the verification officer. He does the verification and issues the passport after the report of the verification officer.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints:

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time with all the specification implied to the software is a major factor.

3. SYSTEM FEATURES:

3.1 System Feature1:

LOGIN

3.1.1 Description and Priority:

This use case allows the applicant to access the website and fill their application form.

3.1.2 Stimulus/Response Sequences:

BASIC FLOW

1. The applicant views the homepage and enters the required details in the application form...
2. The application fees are to be paid online.
3. The application can check out the progress of the verification of his application.
4. The applicant is given the tentative schedule for the counseling.
5. The applicant gets the passport after verification.

3.1.3 Functional Requirements:

ALTERNATIVE FLOW:None.

SPECIAL REQUIREMENTS:

A website should be registered in a domain to be accessed all over the world through internet.

PRE-CONDITIONS:

The entered details must be saved in the database.

POST-CONDITIONS:

If the application is not submitted successfully it should generate an error message.

3.2 System Feature 2:**ENTER DETAILS:****3.1.1 Description and Priority:**

This use case allows the verification officer to verify the forms and passport officer to issue passport.

3.1.2 Stimulus/Response Sequences:**BASIC FLOW:**

The verification officer verifies the applications.

The issuing officer issues the passport after t6hye report by the verification officer.

3.1.4 Functional Requirements:**ALTERNATIVE FLOW:**

If any of the required data is left or invalid the user should have to enter the proper details.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS: None.

POST-CONDITIONS:

After entering the details, system should start processing it and store it into the Database.

4. EXTERNAL INTERFACE REQUIREMENTS:

4.1 User Interfaces:

The interface allows the applicant to enter the form and submit the form. The Applicant receives the schedule for counseling. The verification officer is able to view the application and verify the details. He sends the report to issuing officer. The issuing officer can also view the form and after complete verification issues the passport

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP, 7

Tools: Eclipse IDE, Rational Rose-2003

5. OTHER NONFUNCTIONAL REQUIREMENTS:

5.1 Performance Requirements:

The database should store and maintain the applicant details.

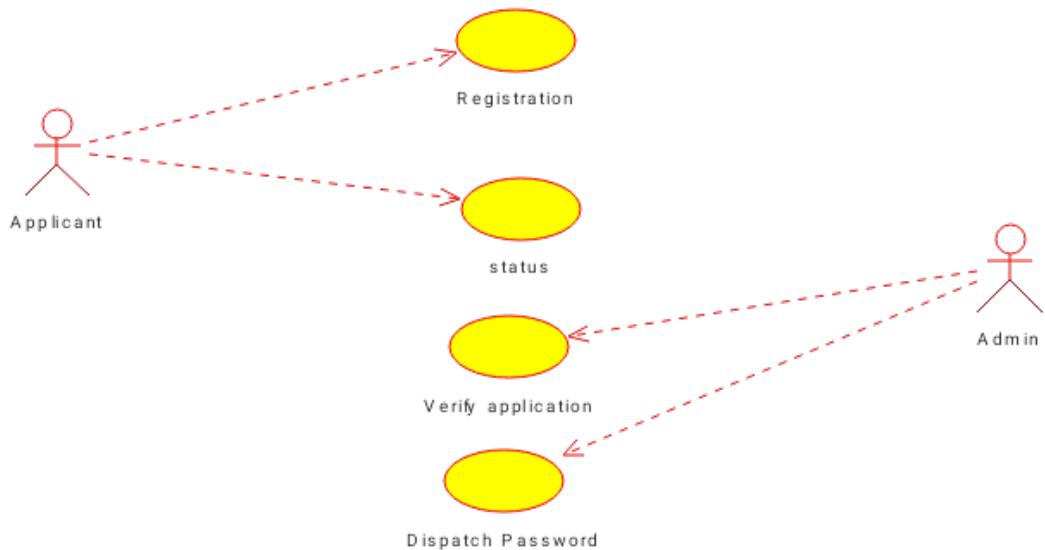
5.2 Security Requirements:

The applicant details are made secure.

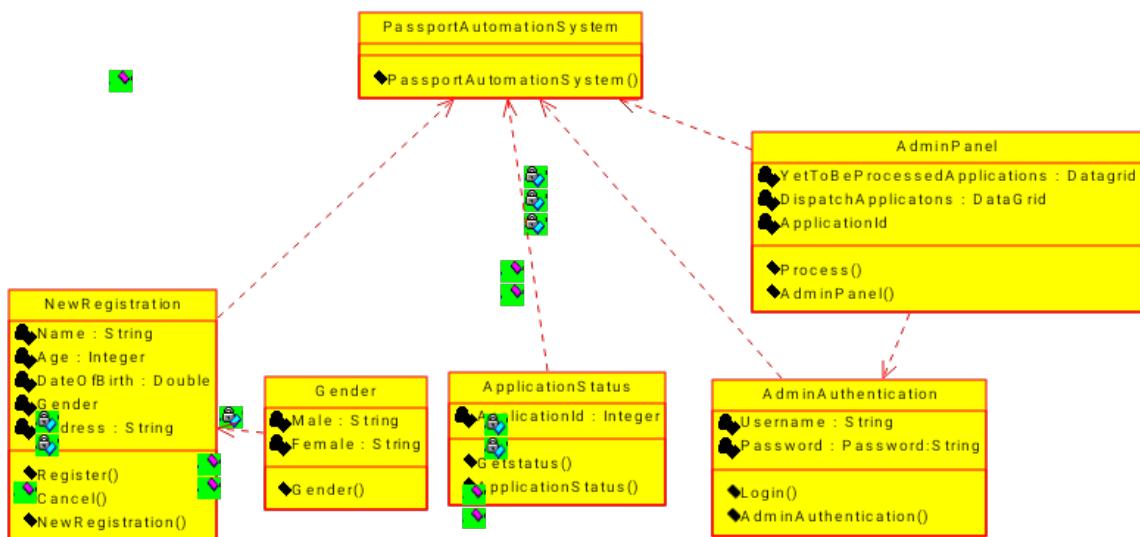
5.3 Software Quality Attributes:

The expected key attributes out of this product are adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability.

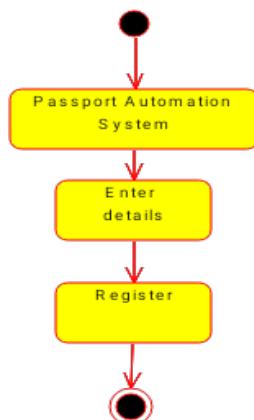
USE CASE DIAGRAM:



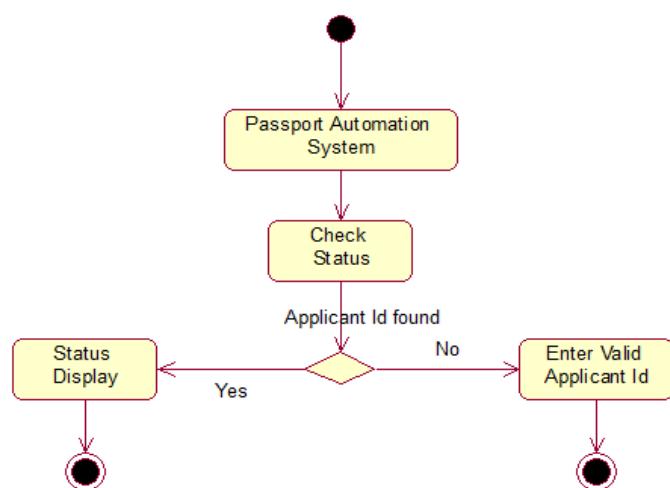
CLASS DIAGRAM:



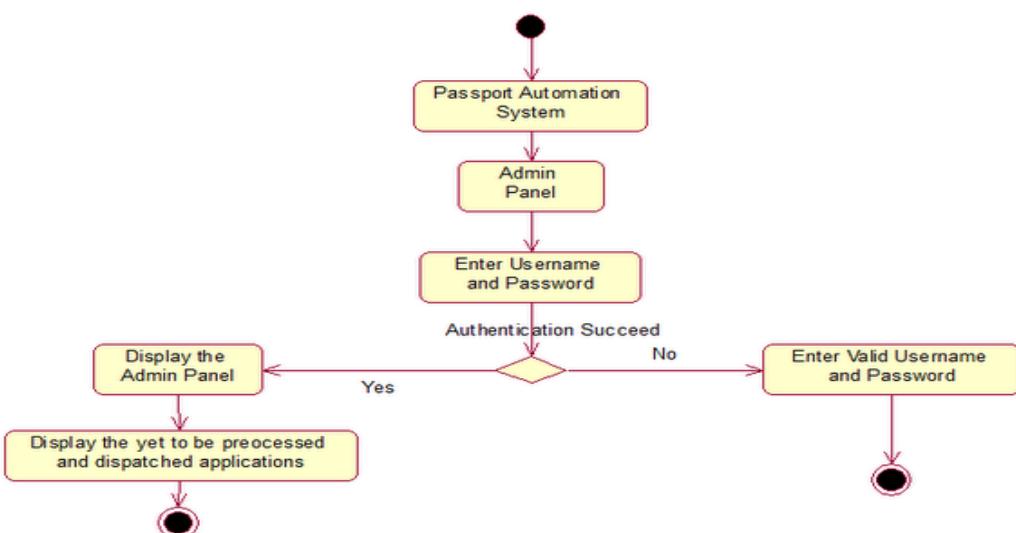
ACTIVITY DIAGRAM: New Registration



New Registration

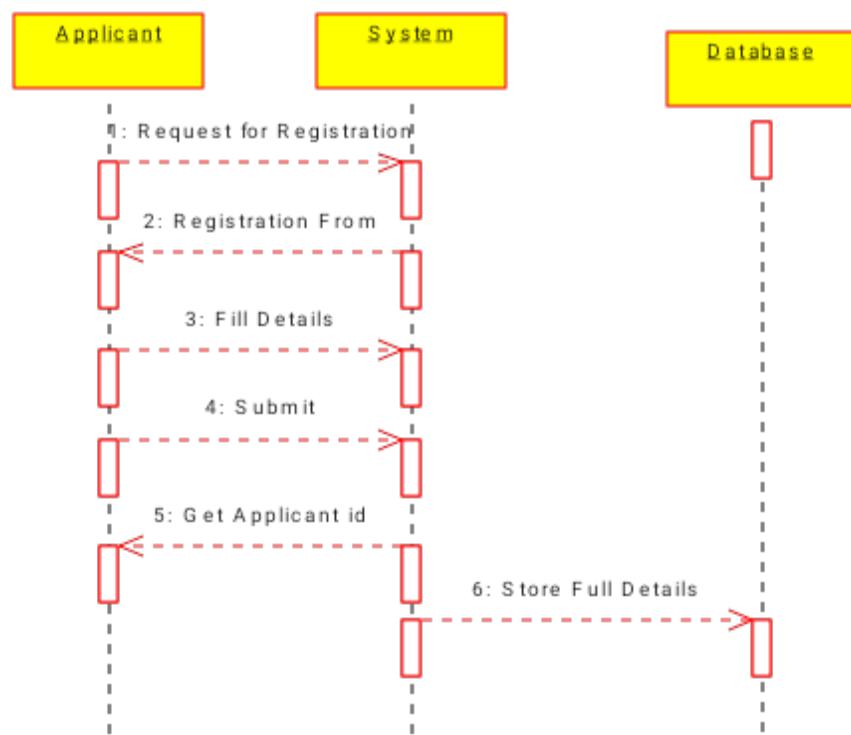


Admin Panel



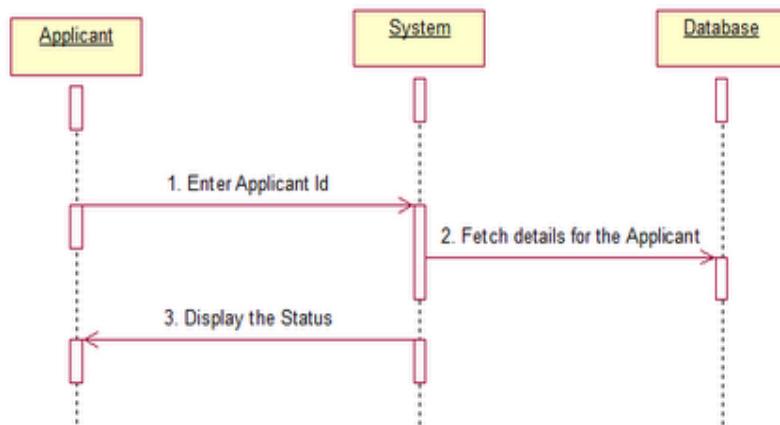
SEQUENCE DIAGRAM:

New Registration

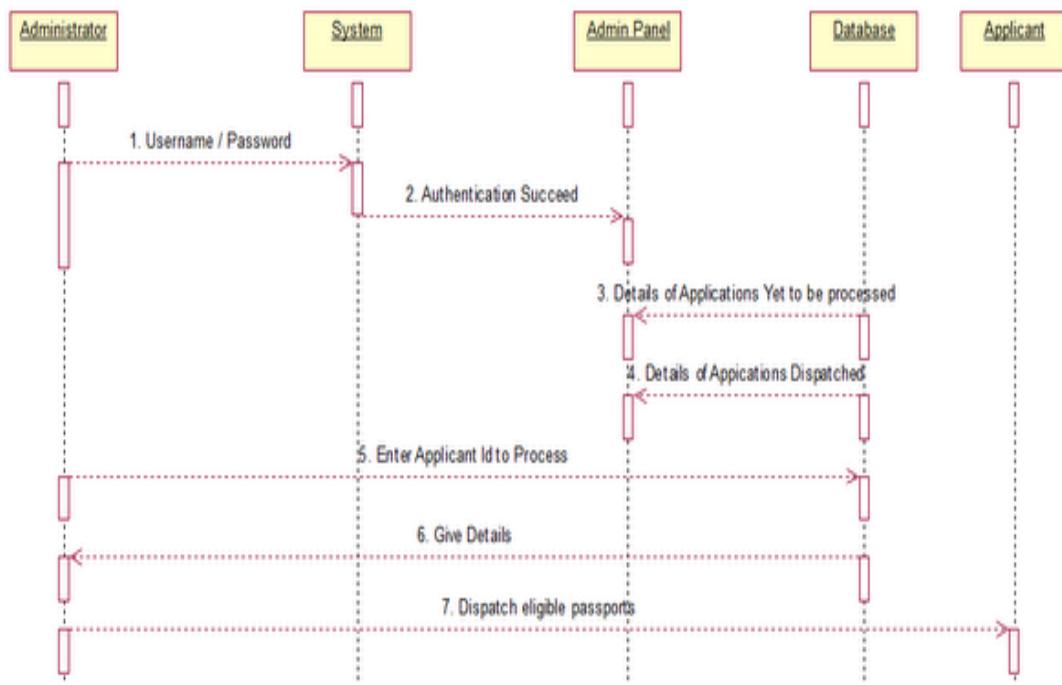


Check Status

Sequence Diagram for Checking Status

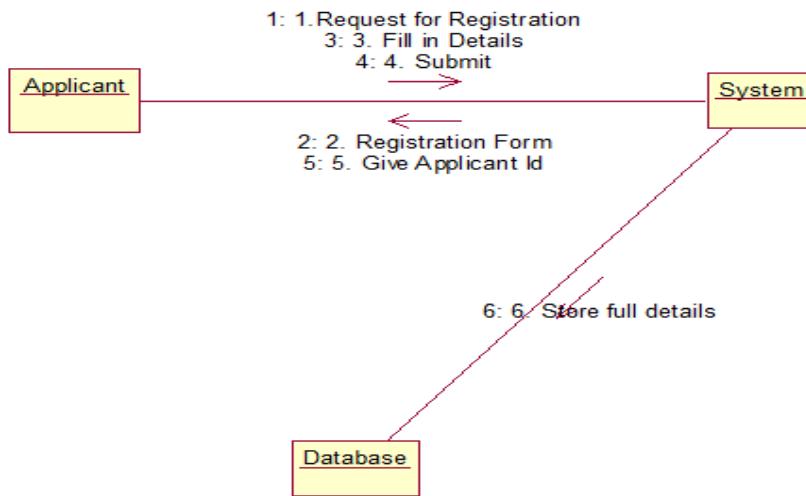


Admin Panel

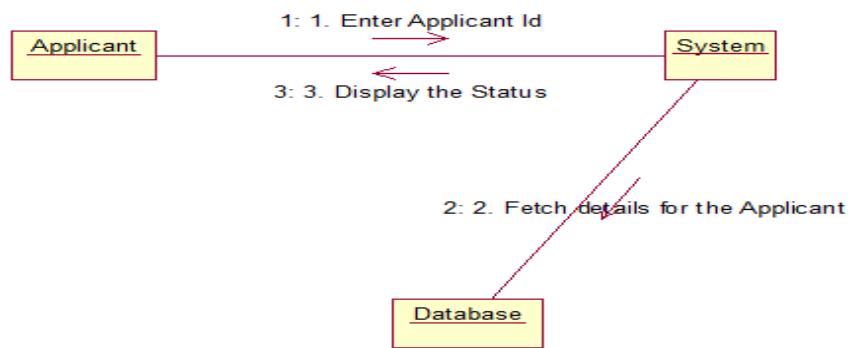


COLLABORATION DIAGRAMS:

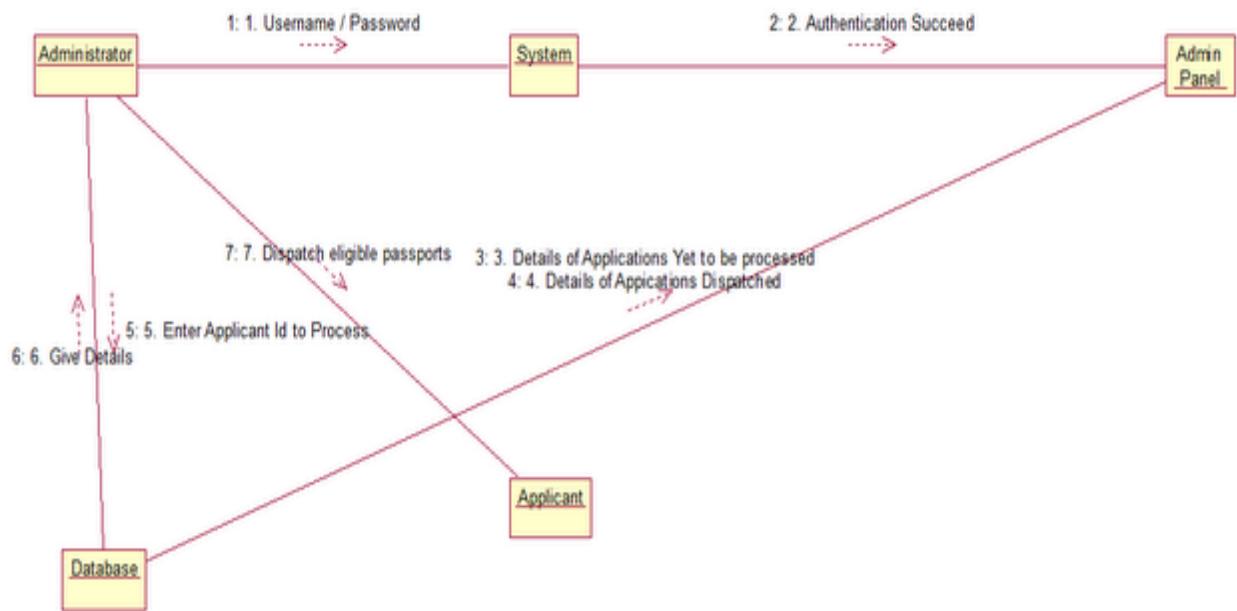
New Registration



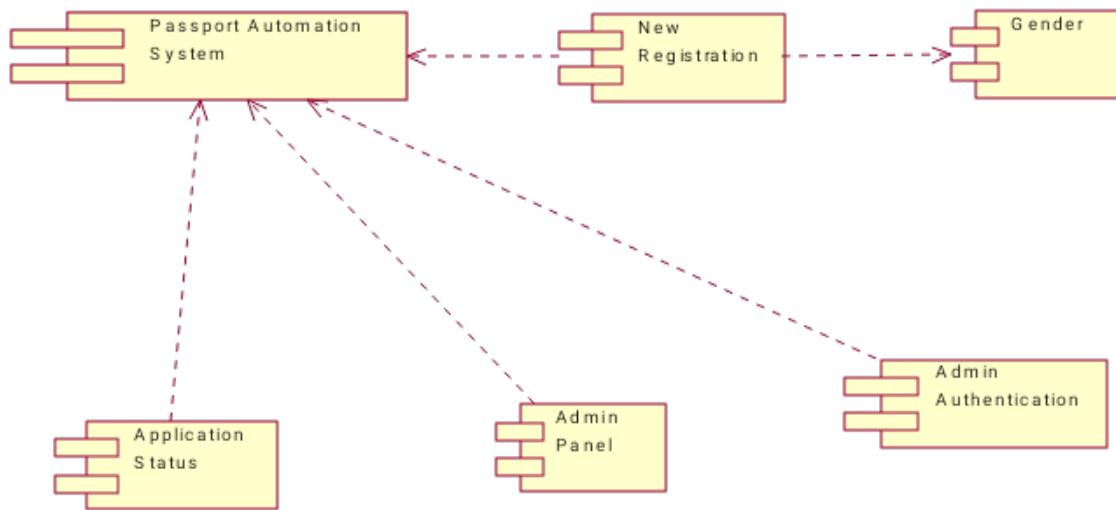
Check Status



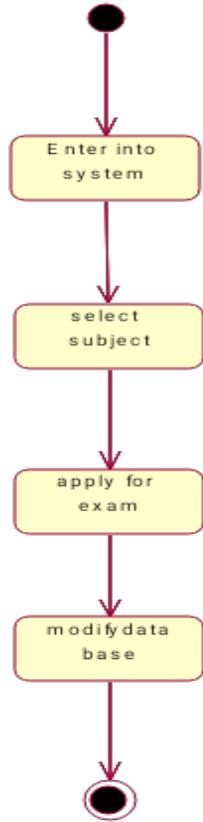
Admin Panel



COMPONENT DIAGRAM:



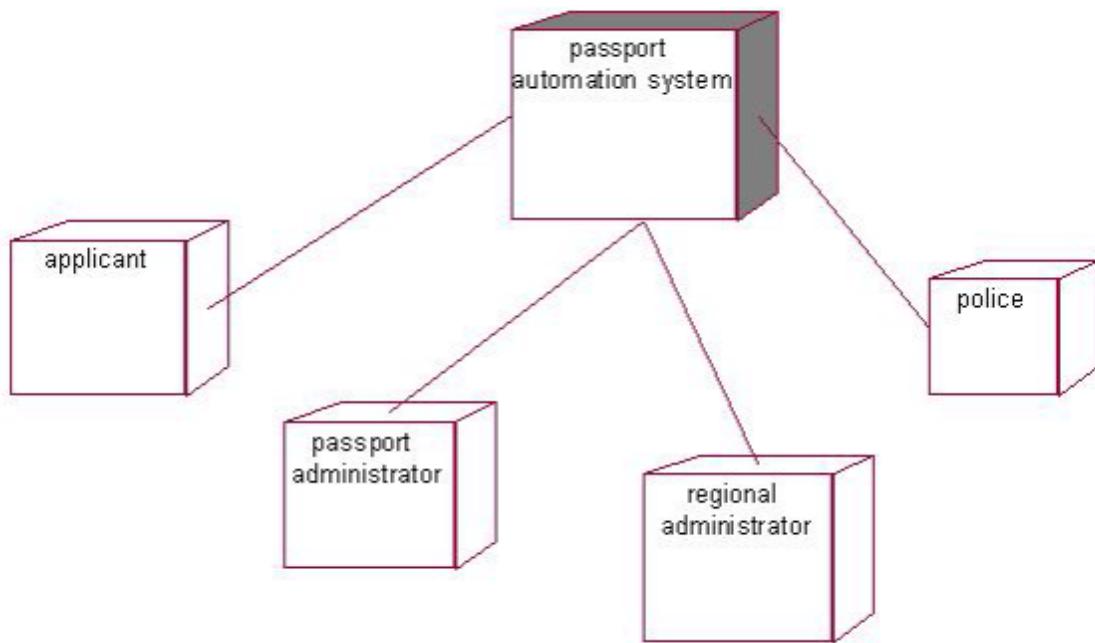
STATE CHART DIAGRAM:



PACKAGE DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```

public class New Registration
{
    private String Name;
    private Integer Age;
    private Double DateOfBirth;
    private int Gender;
    private String Address;
    /**
     * @roseuid 55F0006D0290
     */
    public New Registration ()
    {

    }
    /**
     * @roseuid 55AF58D40280
     */
    public void Register ()
    {
    }

    /**
     * @roseuid 55AF58E00271
     */

```

```
public void Cancel ()  
{  
}  
}
```

Viva Questions

1. Define Object Oriented Analysis?

Object Oriented Analysis (OOA) is a method of analysis that examines requirements from the perspective of the classes and objects found in the vocabulary of the problem domain.

2. What is meant by Object Oriented?

Object Oriented means we organize the software as a collection of discrete objects that

incorporate both data structure and behavior.

3. Write the characteristics of an object.

Identity, classification, polymorphism, and inheritance.

4. What is a class?

A class is a set of objects that share a common structure and a common behavior.

RESULT:

Thus the passport automation system project was executed and the output is verified.

EX.NO: 2

BOOK BANK SYSTEM

DATE:

AIM:

To study the problem statement, SRS document and draw all the UML diagrams of a book bank.

PROBLEM STATEMENT:

To create BOOK BANK software that will meet the needs of the applicant and help them to register and buy the book for the book bank, modification in database and cancellation for the registered project.

OVERALL DESCRIPTION:

The Book Bank System is an integrated system that has four modules as part of it.

The four modules are

Registration for the Book:

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

Book details

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

Book Bank 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.

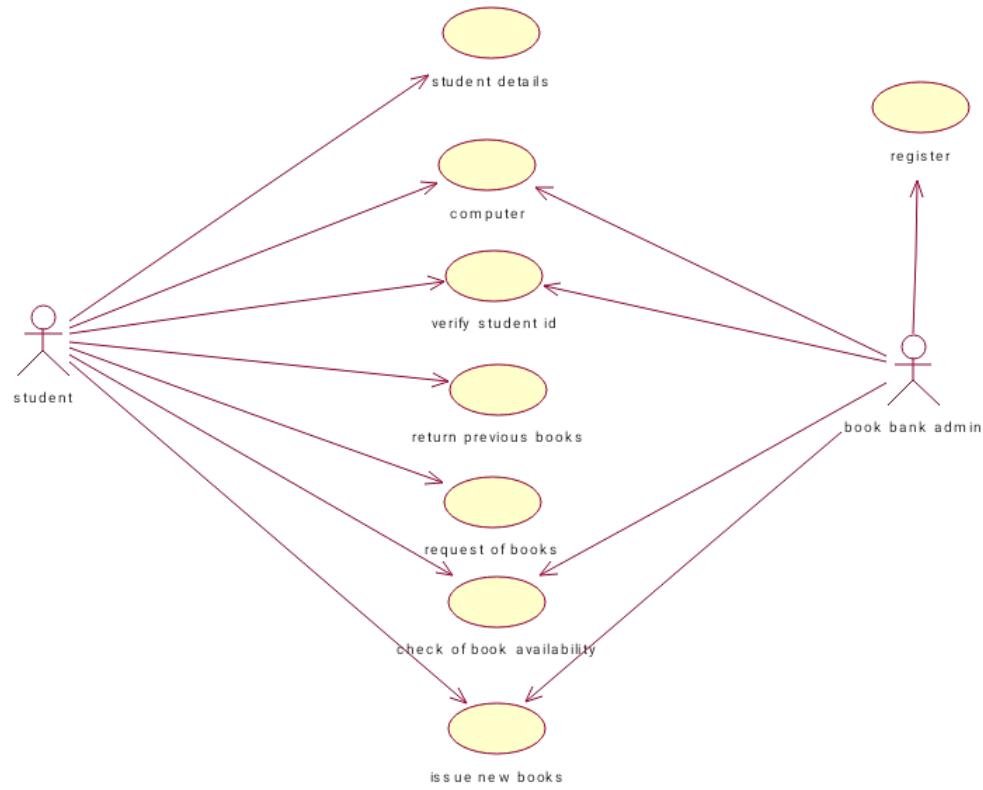
SOFTWARE REQUIREMENTS:

1. Microsoft Visual Basic 6.0
2. Rational Rose
3. SQL 8.0

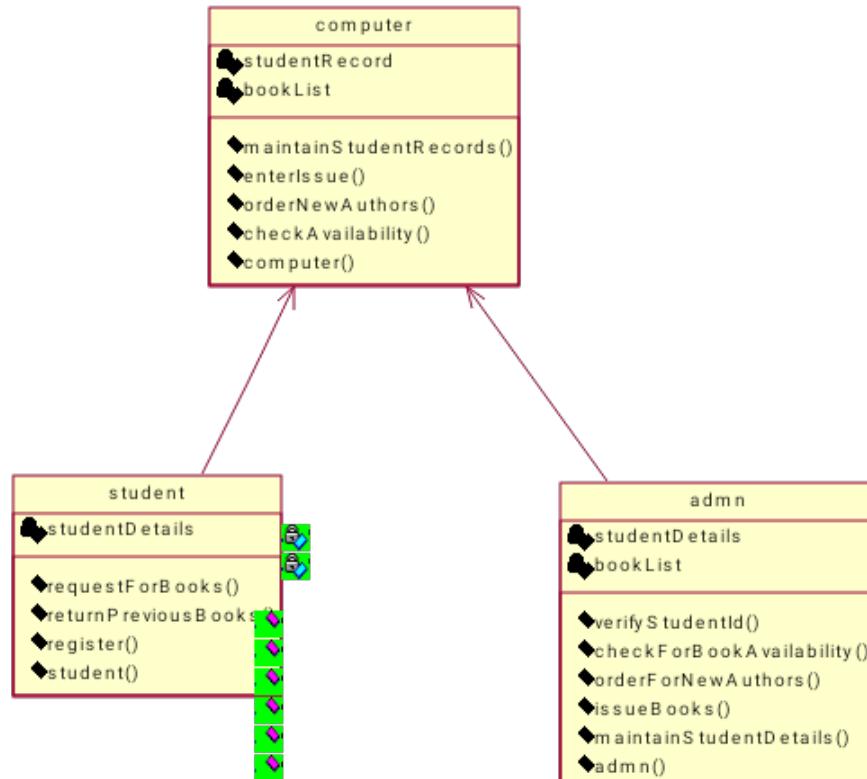
HARDWARE REQUIREMENTS:

1.512MB RAM2. Pentium III Processor

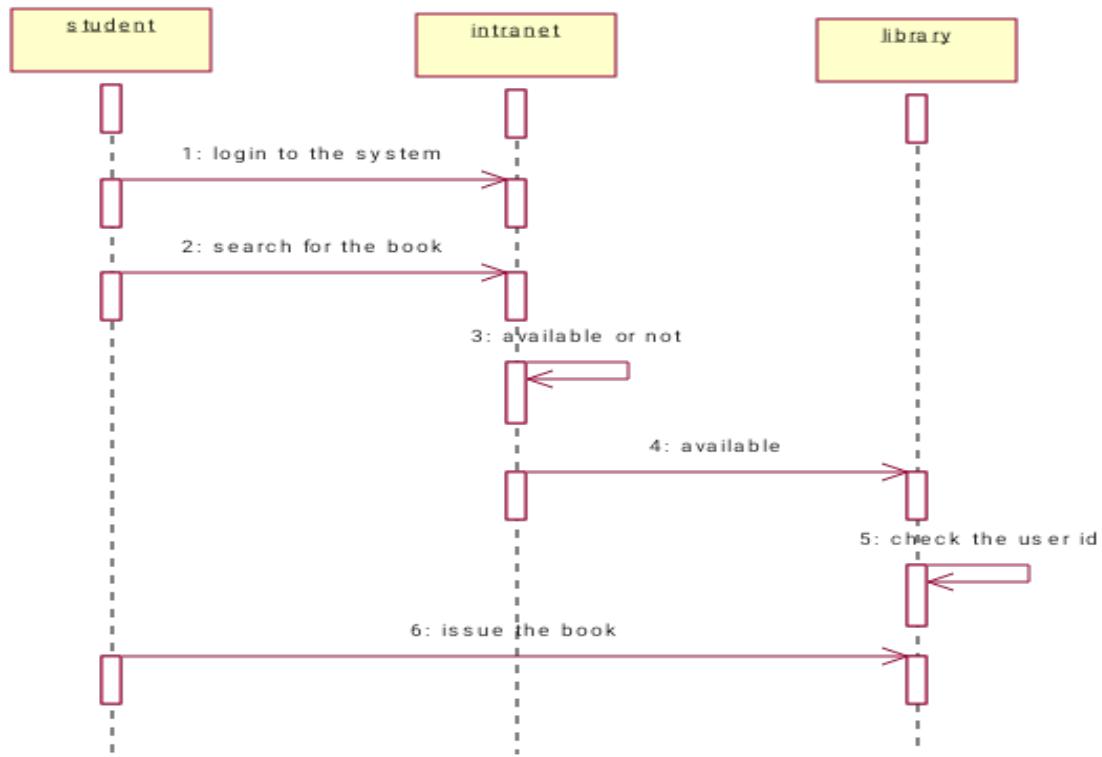
USE CASE DIAGRAM:



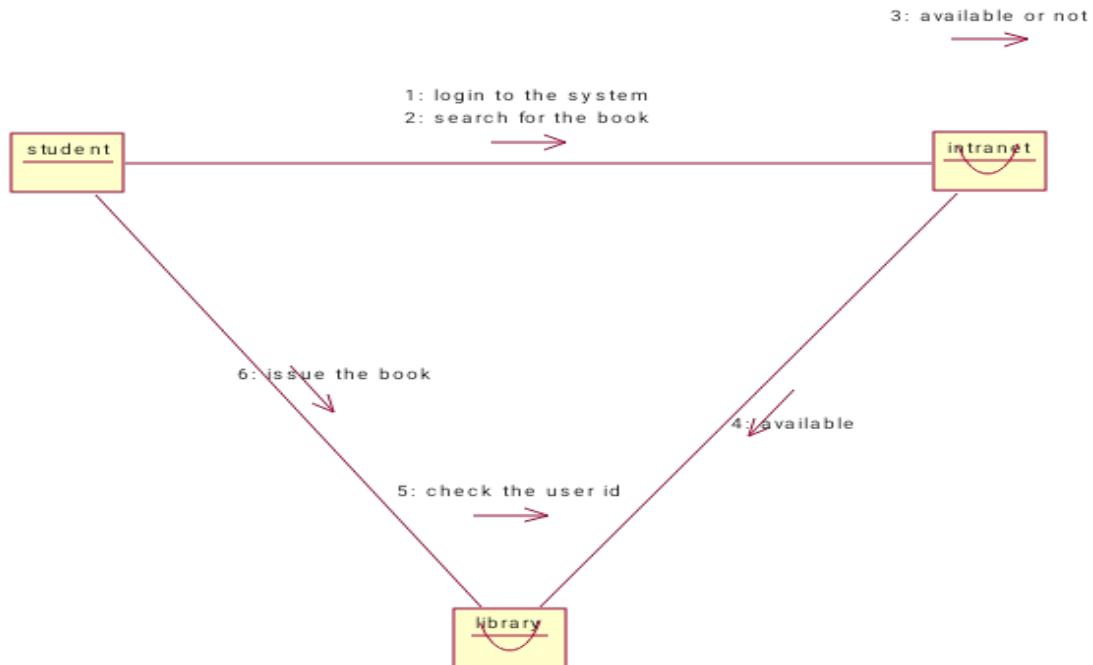
CLASS DIAGRAM:



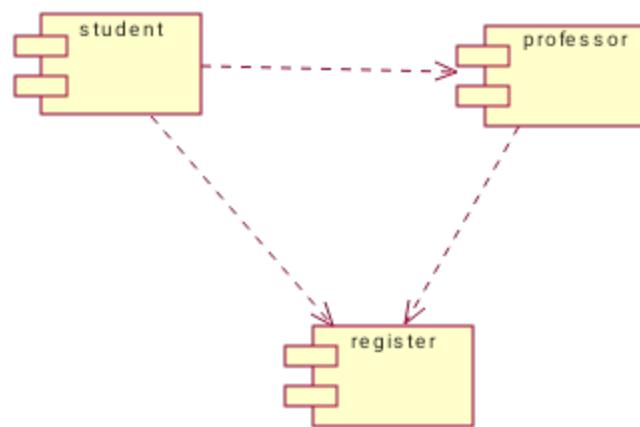
SEQUENCE DIAGRAM:



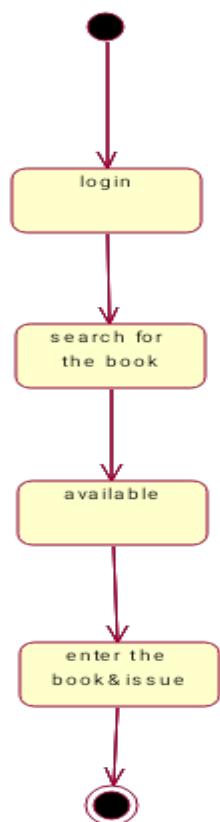
COLLABORATION DIAGRAM:



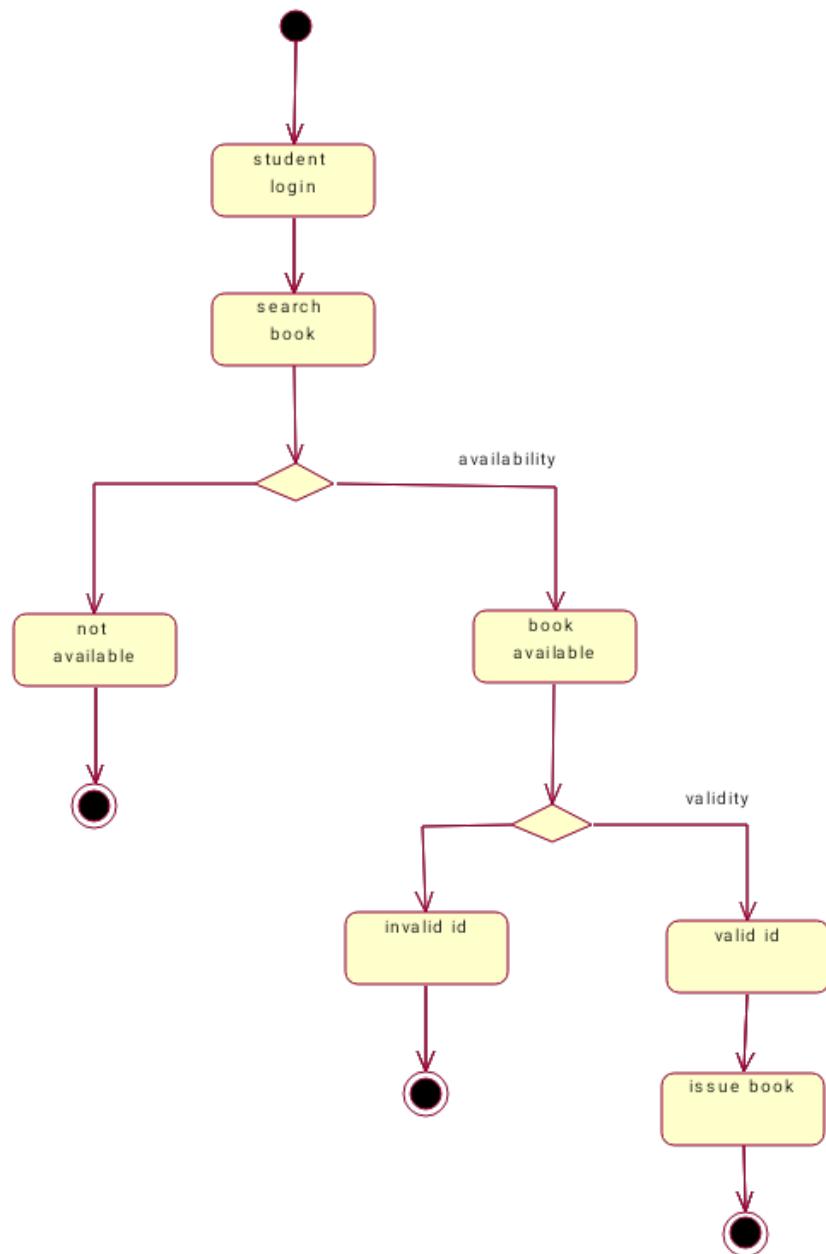
COMPONENT DIAGRAM:



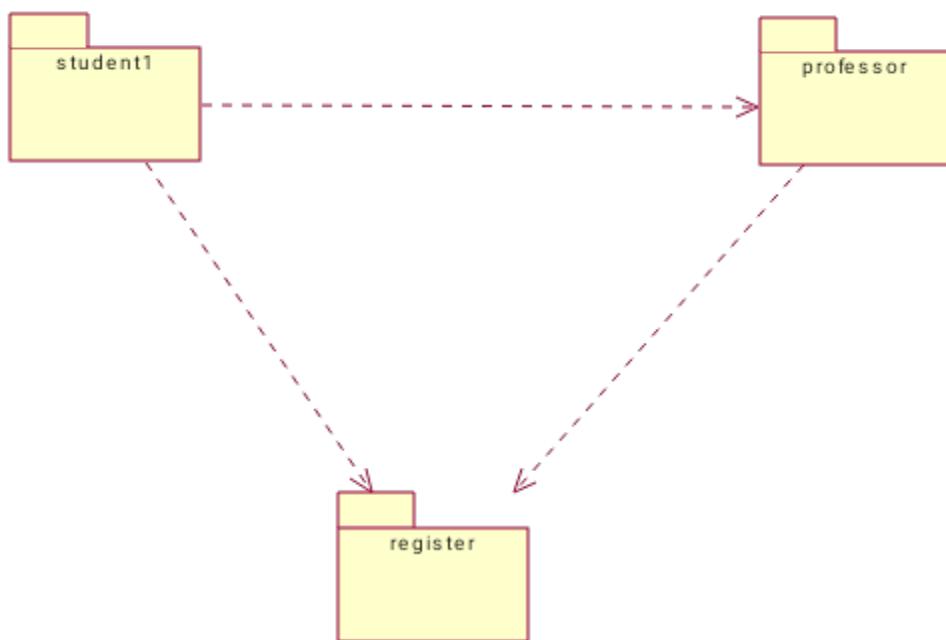
STATE CHART DIAGRAM:



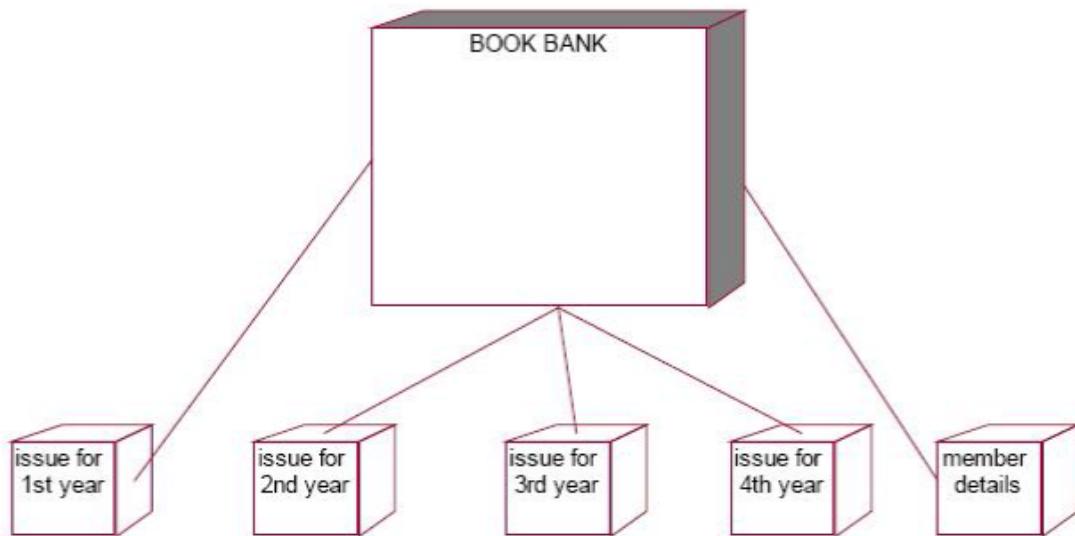
ACTIVITY DIAGRAM:



PACKAGE DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```
//Source file: D:\\jdk1.6.0\\bin\\computer.java
Public class computer
{
private int student Record;
private int booklist;
/***
* @roseuid 55EFFBB4004E
```

```
 */
public computer ()
{
}
/** 
 * @roseuid 55EFF21B0203
 */
public void maintainStudentRecords ()
{
}
/** 
 * @roseuid 55EFF2290242
 */
public void enter Issue ()
{
}
/** 
 * @roseuid 55EFF22C037A
 */
public void orderNewAuthors ()
{
}
/** 
 * @roseuid 55EFF233029F
 */
public void check Availability ()
{
}
}

//Source file: D:\\jdk1.6.0\\bin\\student.java
public class student
{
private int student Details;
public computer the Computer;
/** 
 * @roseuid 55EFFBD60232
 */
public student ()
{
}
/** 
 * @roseuid 55EFF25F030D
 */
public void requestForBooks ()
{
}
/** 
 * @roseuid 55EFF2660119
 */
public void returnPreviousBooks ()
{
```

```
}

/**
 * @roseuid 55EFF26D0213
 */
public void register ()
{
}
}

/***
 * Student. Student ()
 * Student.Loginout () {
 *
}
 * Student. Login () {
 *
}
 * void student. apply () {
 *
}
 * student. student ()
 * void student.selectTheSubect () {
 *
}
 *///
//Source file: D:\\jdk1.6.0\\bin\\admn.java
public class admn
{
private int student Details;
private int booklist;
public computer the Computer;
/***
 * @roseuid 55EFFBD70138
*/
public admn ()
{
}
}

/***
 * @roseuid 55EFF29800AB
*/
public void verifyStudentId ()
{
}

/***
 * @roseuid 55EFF29F009C
*/
public void checkForBookAvailability ()
{
}

/***
 * @roseuid 55EFF2AF0261
*/
public void orderForNewAuthors ()
{
```

```

}
/**
 * @roseuid 55EFF2AA0242
 */
public void issue Books ()
{
}
/** 
 * @roseuid 55EFF2C50000
 */
public void maintainStudentDetails ()
{
}

```

Viva Questions:

1. Define – Use case

In software and systems engineering, a use case is a list of actions or event steps typically defining the interactions between a role and a system to achieve a goal. The actor can be a human or other external system

2. List the relationships used in use cases.

Association between actor and use case.

Generalization of an actor.

Extend between two use cases.

Include between two use cases.

Generalization of a use case.

3. What is a scenario?

Scenario is a description of a specified sequence of actions. It depicts the behavior of objects undergoing a specific action series. The primary scenarios depict the essential sequences and the secondary scenarios depict the alternative sequences.

4. In which phase the use case model is developed ?

The use-case model is used as an essential input to activities in analysis, design ... the use-case model is generally used in all phases of the development cycle.

5. How the actor can be represented?



actor

RESULT:

Thus the book bank project was executed and the output was verified.

EX.NO: 3

EXAM REGISTRATION

DATE:

AIM:

To study the problem statement, SRS document and draw all the UML diagrams of a exam registration system.

PROBLEM STATEMENT:

To create an Exam registration software that will meet the needs of the applicant and help them in registering for the exam ,enquiry about the registered subject ,modification in database and cancellation for the registered project.

1. INTRODUCTION:

1.1 Purpose:

This project is about developing an exam registration system for a Francis Xavier Engineering college within budget and should be delivered on time. The system should be able to facilitate the student to login and submit the required details. The student can do online payment, take up the online exam. The administrator should do the verification and validation of the student entered details, issues the registration number and hall ticket. Evaluation will be done by the administrator after the exam is over and the result should be displayed. The students should be able to view the results and get the marks sheet.

1.2 Document conventions:

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1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains



keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer. The Suggested way of reading the document for all the readers is in the sequence as it has been given in the document. The document contains the Gantt chart and all required UML diagrams.

1.4 Project Scope:

An online exam registration software that allows the students to login using their own username and password. Students can enter the required details and submit it online. The student can make the fee payment and take up the exam. The administrator will provide the validation upon the verification. The result will be displayed and students can view their marks sheet.

1.5 References: None

2. OVERALL DESCRIPTION:

2.1 Product Perspective;

The system is a new, self-contained product with its own requirements and functionalities.

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Verifying the student login.
2. Enter the student's required details.
3. Submission, verification and validation of entered details.
4. Payment of required fees.
5. Issue registration number and hall ticket.
6. Take up exam and evaluation to be done.
7. Publish result and display marks sheet.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and students.

ADMINISTRATOR:

The administrator can provide access privilege to the student through a Student login, verify and validate the entered details. The administrator also issues the

registration number and hall ticket. Evaluation, displaying result and marks sheet is done by the administrator.

STUDENTS:

The students can login, enter their personal details. They can take up exam and get result displayed.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints:

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time with all the specification implied to the software is a major factor. To use and apply new technology to the software in order to cope with time, funds play a vital role.

3. SYSTEM FEATURES:

3.1. Description and Priority:

This use case allows the administrator and students to access the system.

3.1. Stimulus/Response Sequences:

BASIC FLOW:

1. The student can login and enter the required details.
2. The students can get the registration number and hall ticket upon verification.
3. The student can take up exam and view the result.
4. The administrator validates the student details entered and issue the hall ticket.
5. The evaluation is done after the exam is over and result is published.

3.1. Functional Requirements:

ALTERNATIVE FLOW:

If the student doesn't give the right password, an error message will be displayed. If any of the entered details is not correct the registration number is not issued.

SPECIAL REQUIREMENTS:

A website of the college which should be registered in a domain to be accessed all over the world through internet.

PRE-CONDITIONS:

The username and the corresponding passwords and the userid should already be available in the legacy database. The student should provide required personal information. The administrator should validate and provide the reg no.

POST-CONDITIONS:

If the login succeeds the student can make payment and get the hall ticket. When the exam is over the administrator evaluates the marks and displays result.

4. EXTERNAL INTERFACE REQUIREMENTS:

4.1 User Interfaces:

The interface allows the student to login, enter the required details for verification, make payment and get the registration number along with hall ticket. The interface allows the student to take up exam, submit answers and get the results displayed. The administrator provides validation to the student using login, password and entered details. The admin interface does the evaluation and displays result.

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP, 7

Tools: Eclipse IDE, Rational Rose-2003

5. OTHER NONFUNCTIONAL REQUIREMENTS:

5.1 Performance Requirements:

The student should be able to login and enter required details. The exam

5.2 Security Requirements:

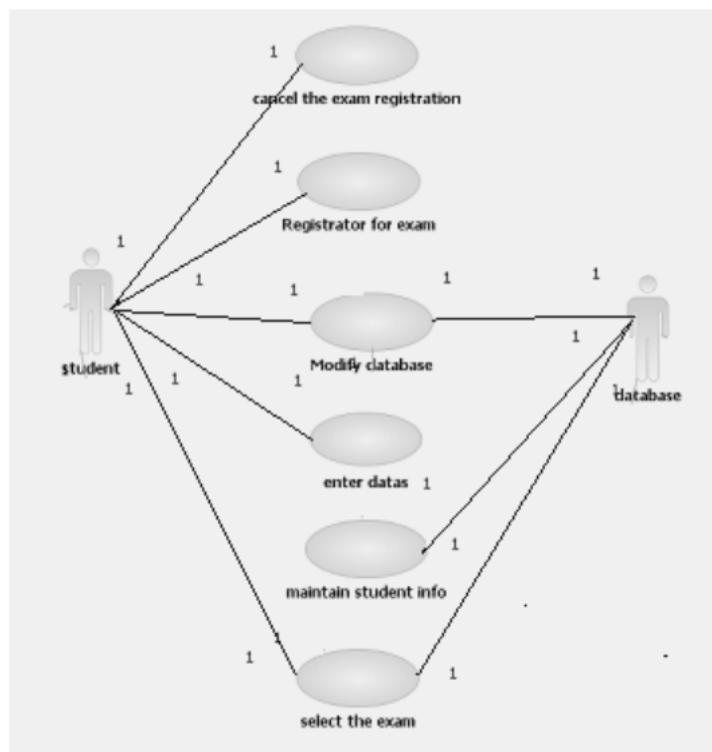
The student can login and access the system only using the username and password to make reservations. If any user without proper username, password or

register number try to login they should be blocked or stopped from doing so. The personal information is also to be made secure.

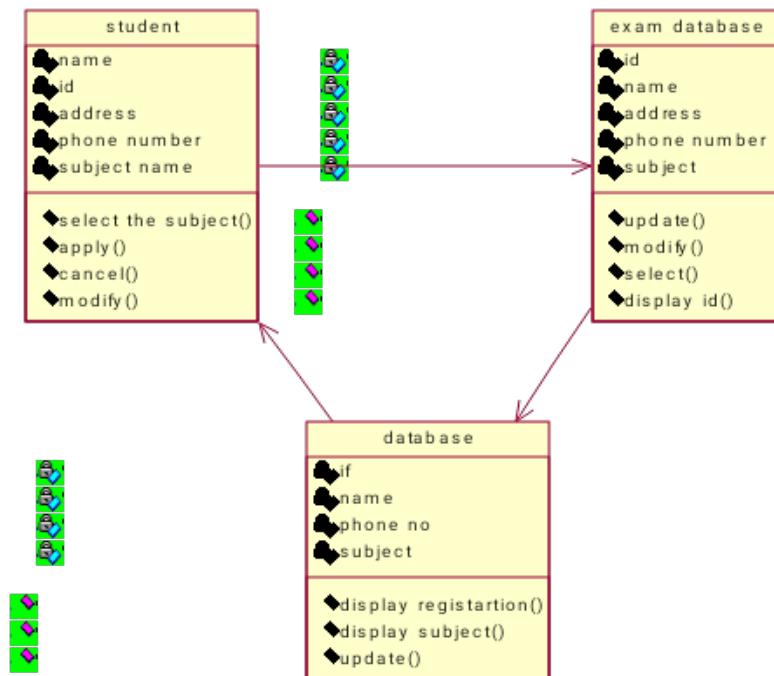
5.3 Software Quality Attributes:

The expected key attributes out of this product are adaptability, availability, correctness flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability.

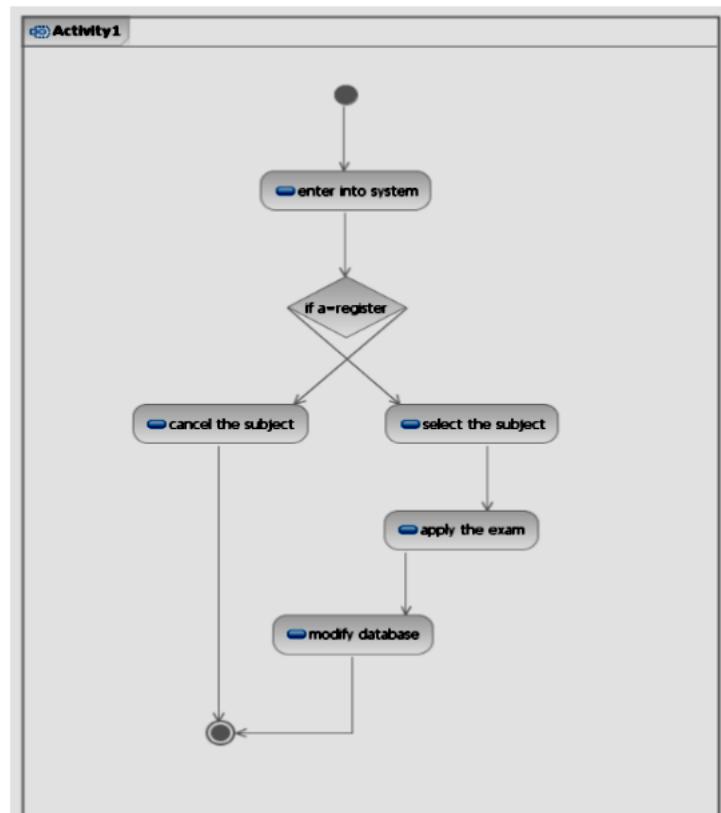
USECASE DIAGRAM:



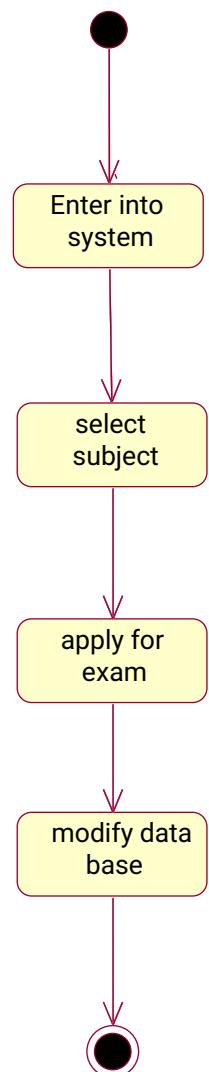
CLASS DIAGRAM



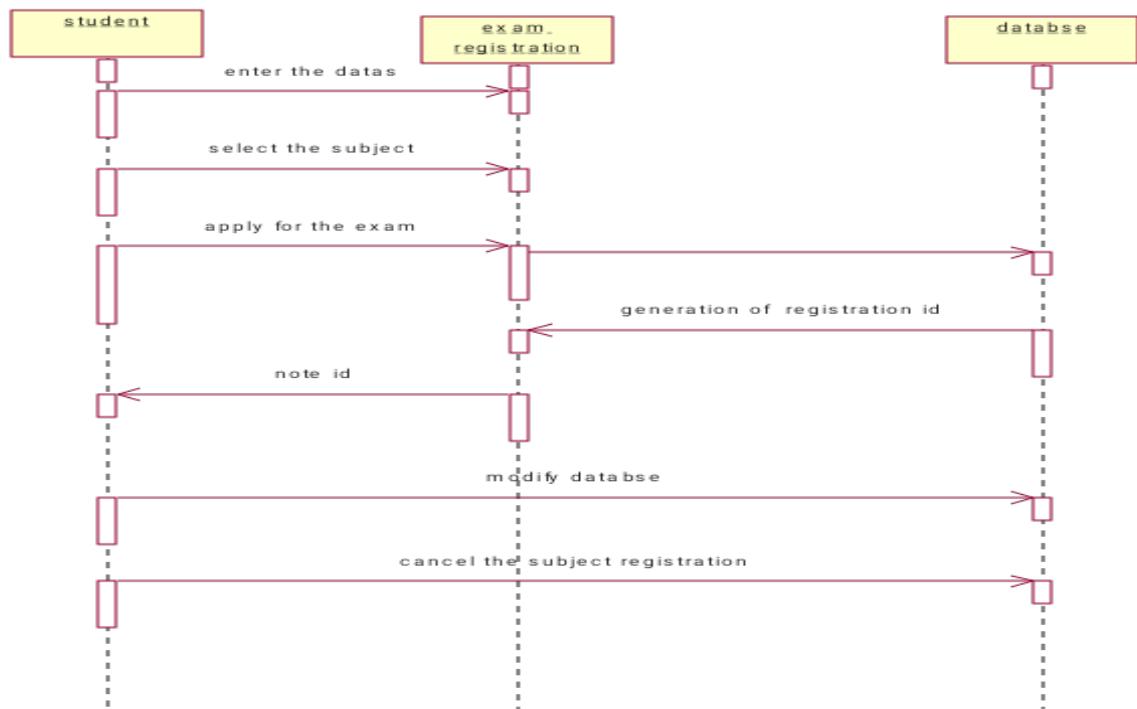
ACTIVITY DIAGRAM:



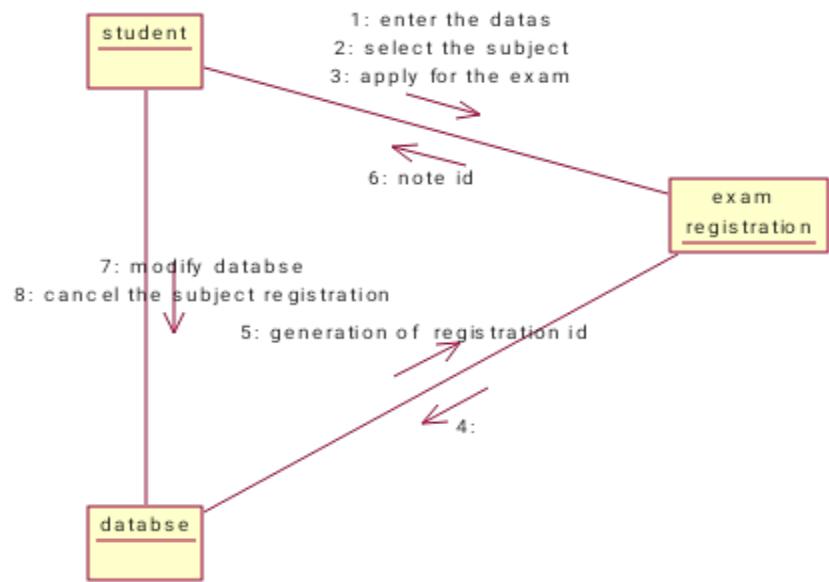
STATE CHART DIAGRAM:



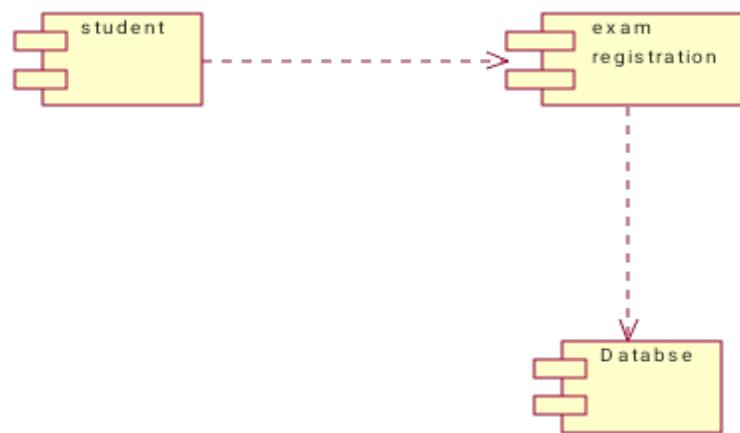
SEQUENCE DIAGRAM:



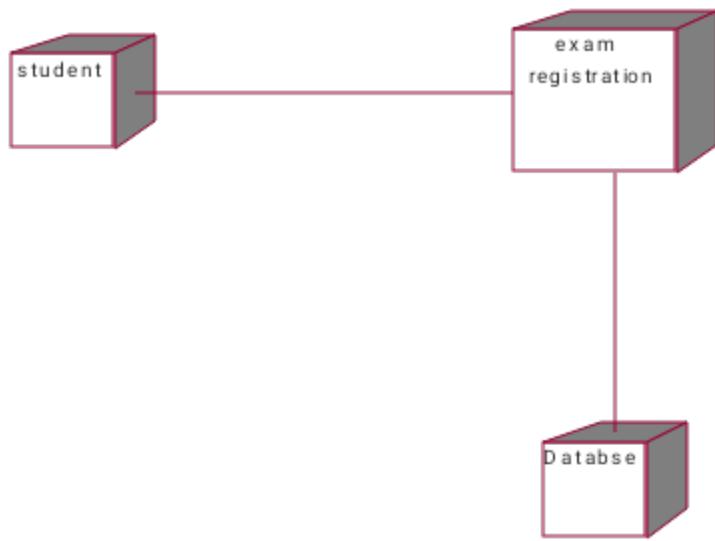
COLLABRATION DIAGRAM:



COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```

//Source file: C:\\Program Files\\Rational\\Rose\\student.java
public class student
{
    private int name;
    private int id;
    private int address;
    private int phone Number;
    private int subject Name;
    public exam Database theExamDatabase;
    /**
     * @roseuid 55FE5FD40016
     */
    public student()
    {
    }
    /**
     * @roseuid 55FE5F300151
     */
    public void selectTheSubject()
    {
    }
    /**
     * @roseuid 55FE5F37006C
     */
    public void apply()
    {
    }
    /**
     * @roseuid 55FE5F39027B

```

```
 */
public void cancel()
{
}
/***
* @roseuid 55FE5F3D03DC
*/
public void modify()
{
}
}

//Source file: C:\\Program Files\\Rational\\Rose\\examDatabase.java
public class exam Database
{
private int id;
private int name;
private int address;
private int phone Number;
private int subject;
public database the Database;
/***
* @roseuid 55FE5FD302E5
*/
public exam Database()
{
}
/***
* @roseuid 55FE5F5201F6
*/
public void update()
{
}
/***
* @roseuid 55FE5F55025E
*/
public void modify()
{
}
/***
* @roseuid 55FE5F5703E1
*/
public void select()
{
}
/***
* @roseuid 55FE5F5A0237
```



```

*/
public void displayId()
{
}
}
//Source file: C:\\Program Files\\Rational\\Rose\\database.java
public class database
{
private int id;
private int name;
private int phone No;
private int subject;
public student the Student;
/**
 * @roseuid 55FE5FD30371
 */
public database()
{
}
/**
 * @roseuid 55FE5FA90345
 */
public void display Registration()
{
}
/**
 * @roseuid 55FE5FB10329
 */
public void display Subject()
{
}
/**
 * @roseuid 55FE5FB601E9
 */
public void update()
{
}
}

```

Viva Questions:

1. Identify the use cases in exam registration system.
Cancel the exam registration, Register for exam, modify database, enter data ,maintain student info,select the exam
2. List the actors involved in the exam registration system.
Student,Database
3. Write the problem statement for exam registration system.
To create an Exam registration software that will meet the needs of the

applicant and help them in registering for the exam ,enquiry about the registered subject ,modification in database and cancellation for the registered project.

4. How the actor can be represented?



RESULT:

Thus the exam registration system project was executed and the output was verified.

EX.NO: 4 STOCK MAINTENANCE SYSTEM

DATE:

AIM:

To study the problem statement,SRS document and draw all the UML diagrams of a stock maintenance system.

PROBLEM DOMAIN:

Inventory system is a real time application used in the merchant's day to day system. This is a database to store the transaction that takes places between the Manufacturer, Dealer and the Shop Keeper that includes stock inward and stock outward with reference to the dealer.

Here we assume our self as the Dealer and proceed with the transaction as follows:

1. The Manufacturer is the producer of the items and it contains the necessary information of the item such as price per item, Date of manufacture, best before use,

Number of Item available and their Company Address.

2.The Dealer is the secondary source of an Item and he purchases Item from the manufacturer by requesting the required Item with its corresponding Company Name and the Number of Items required. The Dealer is only responsible for distribution of the Item to the Retailers in the Town or City.

3.The Shop Keeper or Retailer is the one who is prime source for selling items in the market. The customers get Item from the Shop Keeper and not directly from the Manufacturer or the Dealer.

4.The Stock is the database used in our System which records all transactions that takes place between the Manufacturer and the Dealer and the Dealer and the Retailer.

1. INTRODUCTION:

1.1 Purpose :

This project is about developing a stock maintenance system within budget and should be delivered on time. The system should be able to provide the customers to search the required items and receive the bill upon buying the item. The administrator should update the item details, add or delete the required items. All the customer and administrator performed activities should be updated in the database.

1.2 Document Conventions:

The headings have been written using “normal” style with “Times New Roman” font and font size of “12”. with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each headings also use “normal” style with “times” font and size “12”. Every requirement statement has its own priority and each requirement is to be had a detailed study.

1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer.

1.4 Project Scope:

An online course reservation system is a software that allows the students to view the list of courses available and make reservations. The system allows the students to enter their personal details needed for applying to a course. The administrator verifies the details and maintains course details as well as the student information.

1.5 References: None

2. OVERALL DESCRIPTION:

2.1 Product Perspective:

The system is a new, self-contained product with its own requirements and functionalities

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Entering details of new items added to stock.
2. Deleting the items which are not in stock.
3. Update the item details.
4. Database updates all the details.
5. Search the items by customer.
6. Confirmation of purchase.
7. Bill receipt generation.
8. Purchase details to be stored in database.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and students.

ADMINISTRATOR:

The administrator has the privilege to maintain the stock details, entering the available item details, deleting records of unavailable items, updating any purchase.

CUSTOMERS:

The customer can browse through the available items in stock and make purchases. The customer receives a bill receipt after the purchase details are updated in database.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints:

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time with all the specification implied to the software is a major factor. To use and apply new technology to the software in order to cope with time, funds play a vital role.

3. SYSTEM FEATURES:

LOGIN:

3.1. Description and Priority:

This use case allows the administrator and customer to access the website and perform required activities.

3.2. Stimulus/Response Sequences:

BASIC FLOW:

1. The customer can view the item list and details.
2. The customer can make purchases and get a payment receipt.
3. The administrator can make updating, addition and deletion of stock records from the database.
4. The administrator has the access to the database to check for the purchase detail

3.3 Functional Requirements:

ALTERNATIVE FLOW:

If any of the database transactions; updating, deletion or addition fails it should not

affect the already existing record.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS :

The administrator only has privilege to maintain record of all items in a stock .

POST-CONDITIONS:

Payment transaction should be updated

4. EXTERNAL INTERFACE REQUIREMENTS:

4.1 User Interfaces:

The interface allows the customer to browse the available item details and make payment online. The administrator interface allows entering the item code, name and maintaining the transaction ids.

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP,7

Tools: Eclipse IDE, Rational Rose-2

5. OTHER NONFUNCTIONAL REQUIREMENTS:

5.1 Performance Requirements:

The updatons in database should be persistent.

5.2 Security Requirements

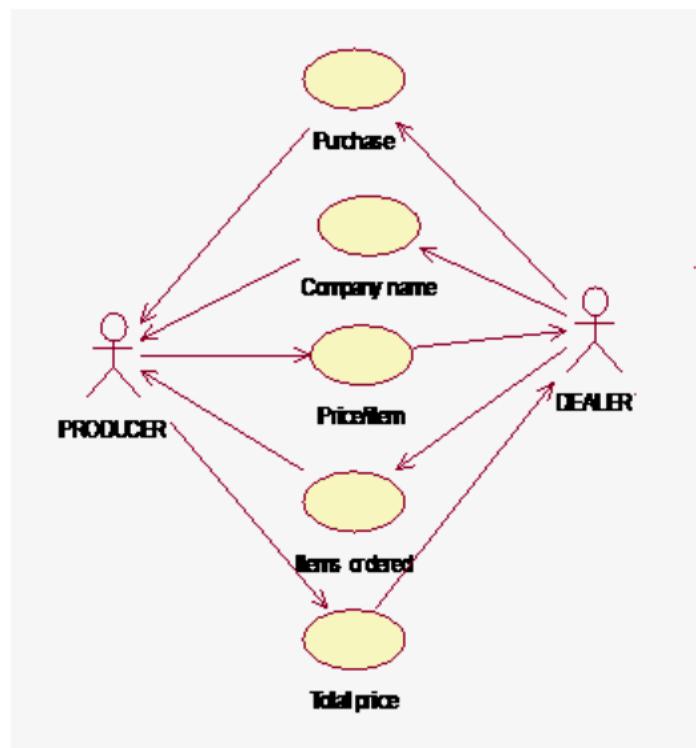
The database access privilege is only provided to the authorized administrator.

Purchase transactions and all item details to be updated without error.

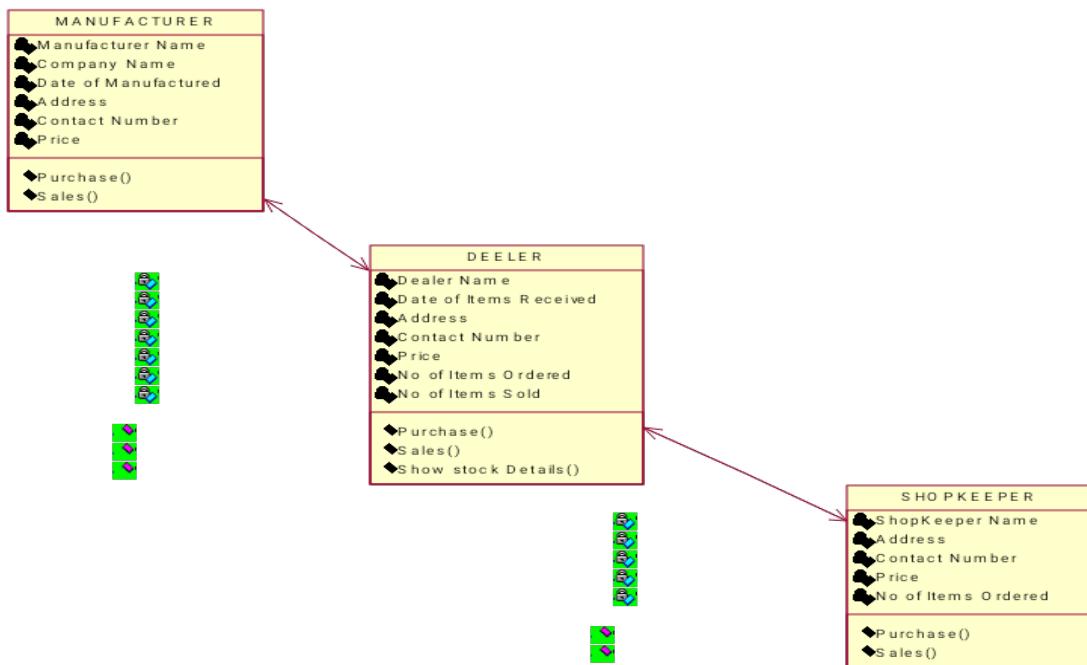
5.3 Software Quality Attributes

The expected key attributes out of this product are adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability.

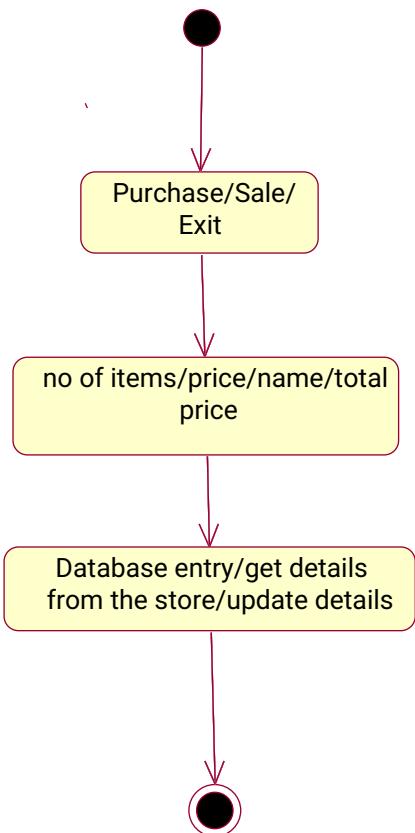
USE CASE DIAGRAM :



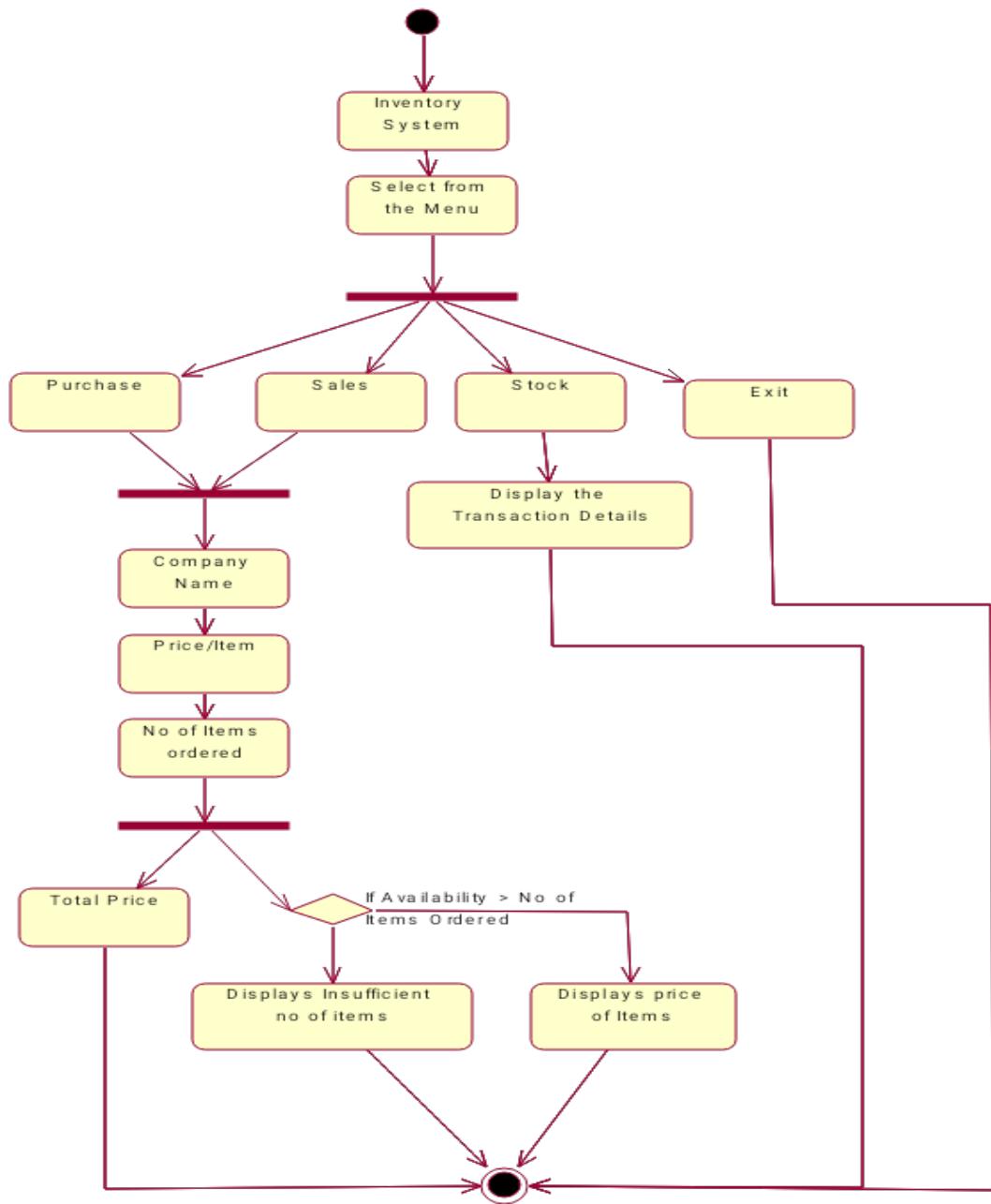
CLASS DIAGRAM :



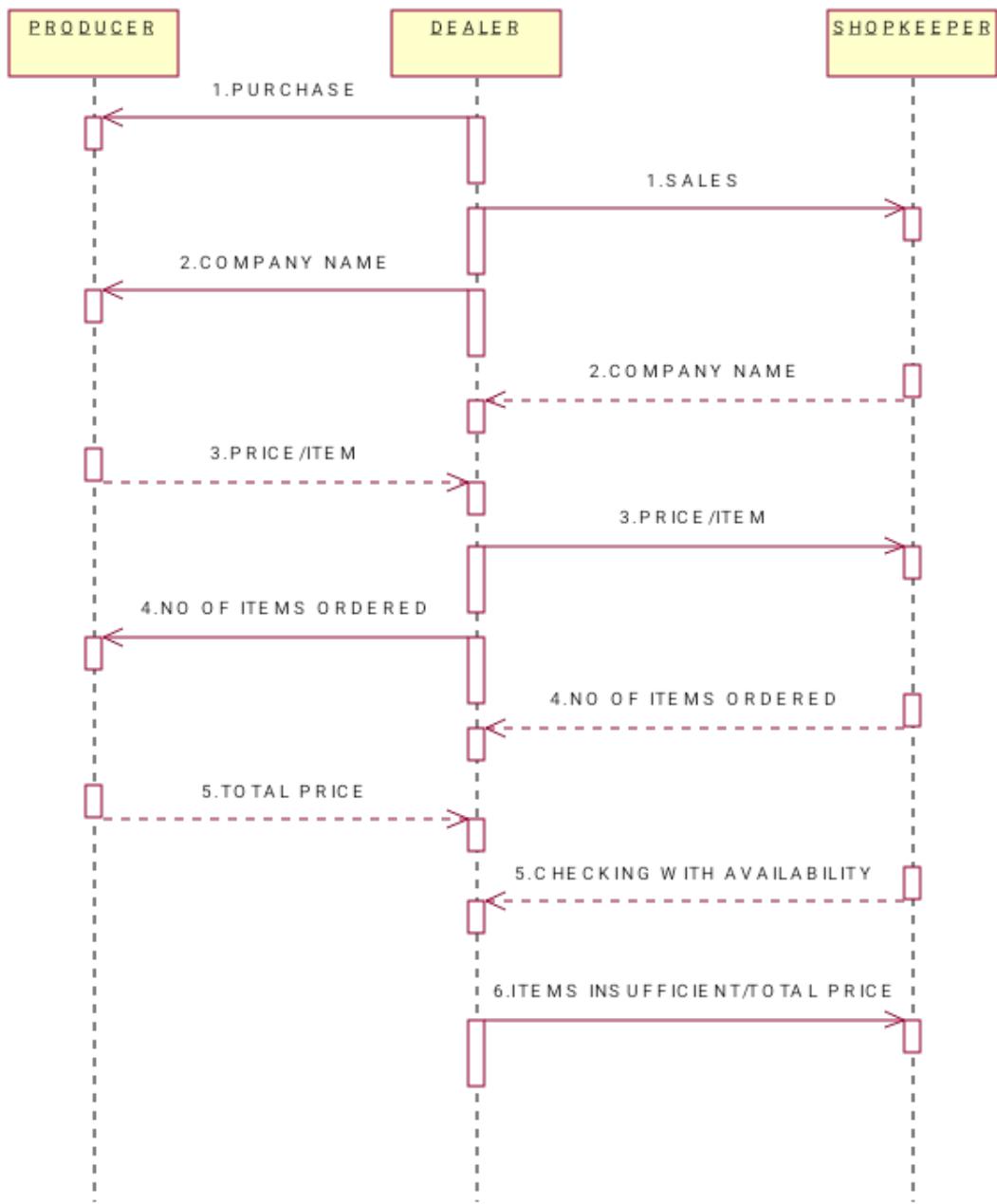
STATE CHART DIAGRAM:



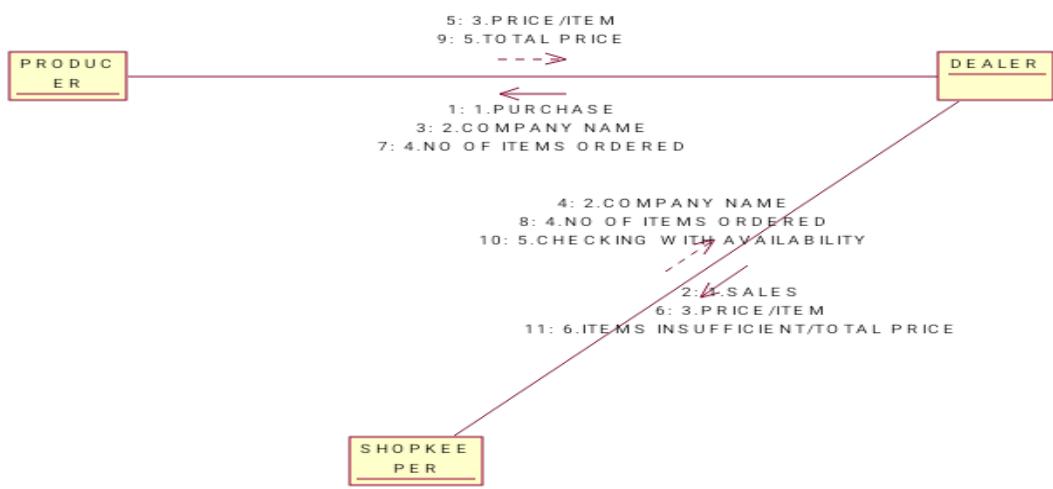
ACTIVITY DIAGRAM :



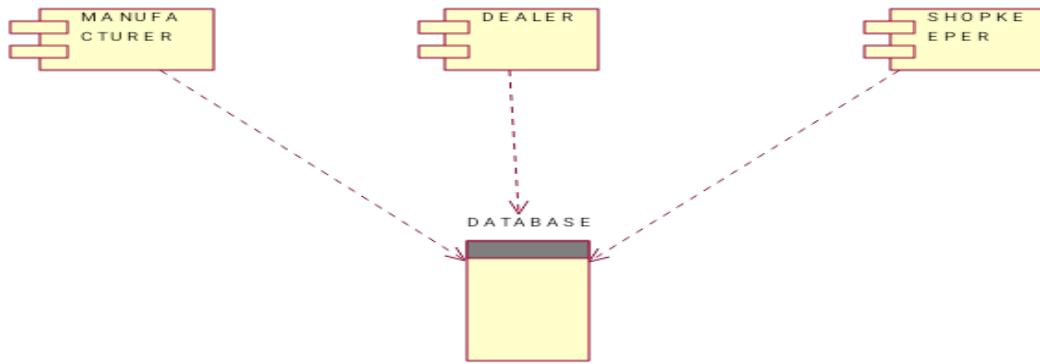
SEQUENCE DIAGRAM :



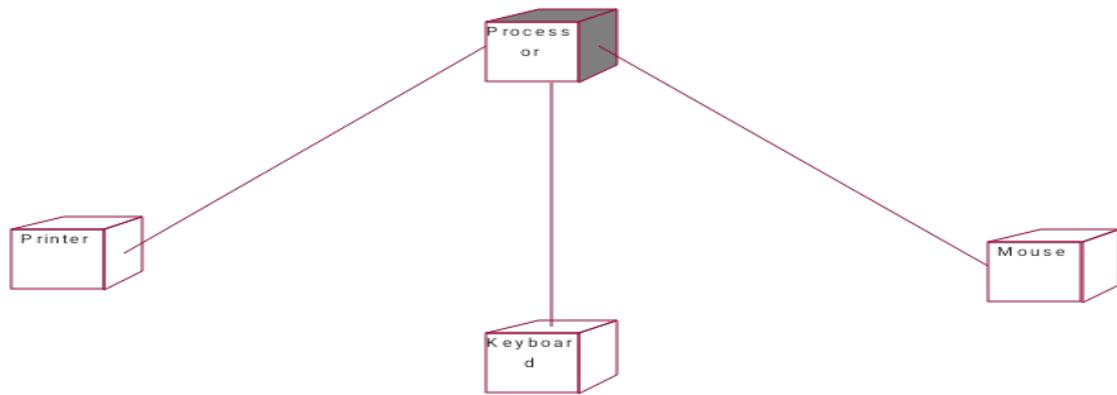
COLLABORATION DIAGRAM :



COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```
//Source file: C:\\Program Files\\Rational\\Rose\\manufacturer.java
public class manufacturer
{
    private int manufacturer Name;
    private int company Name;
    private int dateOfManufactured;
    private int address;
    private int contact Number;
    private int price;
    public dealer the Dealer;
    /**
     * @roseuid 55FE64580345
     */
    public manufacturer()
    {
    }
    /**
     * @roseuid 55FE639303E7
     */
    public void purchase()
    {
    }
    /**
     * @roseuid 55FE639702D8
     */
    public void sales()
    {
    }
//Source file: C:\\Program Files\\Rational\\Rose\\dealer.java
public class dealer
{
    private int dealer Name;
    private int dateOfItemsReceived;
    private int address;
    private int contact Number;
    private int price;
    private int noOfItemsOrdered;
    private int noOfItemsSold;
    public manufacturer theManufacturer;
    public shopkeeper theShopkeeper;
    /**
     * @roseuid 55FE6458029A
     */
    public dealer()
    {
```

```
}

/***
 * @roseuid 55FE63F50154
 */
public void purchase()
{
}
/***
 * @roseuid 55FE63FC01E5
 */
public void sales()
{
}
/***
 * @roseuid 55FE63FF00E7
 */
public void showStockDetails()
{
}
}

public class shopkeeper
{
private int shopkeeperName;
private int address;
private int contact Number;
private int price;
private int noOfItemsOrdered;
public dealer the Dealer;
/***
 * @roseuid 55FE64590047
 */
public shopkeeper()
{}/**
 * @roseuid 55FE642E02FC
 */
public void purchase()
{}
public void sales()
{}
```

Viva Questions:

1. Identify the use cases in Stock maintenance system
Purchase, Company name, Problem, Item order etc.
2. List the actors involved in the Stock maintenance system
Producer, Dealer
3. Write the problem statement for Stock maintenance system.
Inventory system is a real time application used in the merchant's day to day system. This is a database to store the transaction that takes places between the Manufacturer, Dealer and the Shop Keeper that includes stock inward and stock outward with reference to the dealer.
4. How the actor can be represented?



RESULT:

Thus the stock maintenance system project was executed and the output was verified

EX.NO:5

ONLINE COURSE RESERVATION SYSTEM

DATE:

AIM:

To design an object oriented model for course reservation system.

PROBLEM STATEMENT:

A Course Reservation Project is software which is used to manage the seats allocation of the various colleges of various departments for the eligible students. It also gives full access to the students to check the availability of the seats in the colleges according to the category of the community which the students belong to. The student can check for the information of the college, such that the year which the college is started, where the college is situated and the chairman of the college. This software allows the administrator to allot the seat for the eligible candidates to the group which they wish and the group and college which are available at that time.

1. INTRODUCTION:

1.1 Purpose:

This project is about developing an online course reservation system within budget and should be delivered on time. The system should be able to provide the available course list and all course related details to the student. Students can login, update their personal information and make online reservations for a particular course. The administrator will be able to maintain the course details, student details, verify details and provide reservations

1.2 Document Conventions:

The headings have been written using “normal” style with “Arial” font and font size of “12” with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each headings also use “normal” style with “times” font and size “12”. Every requirement statement has its



own priority and each requirement is to be had a detailed study.

1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer. The Suggested way of reading the document for all the readers is in the sequence as it has been given in the document.

1.4 Project Scope:

An online course reservation system is a software that allows the students to view the list of courses available and make reservations. The system allows the students to enter their personal details needed for applying to a course. The administrator verifies the details and maintains course details as well as the student information.

1.5 References: None

2. OVERALL DESCRIPTION:

2.1 Product Perspective:

The system is a new, self-contained product with its own requirements and functionalities

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Verifying the student login.
2. Displaying the courses and each course details.
3. Applying for a particular course.
4. Entering personal details required.
5. Verification of student details.
6. Confirmation of reservation.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and students.

ADMINISTRATOR:

The administrator can provide access privilege to the student through a Student login, maintain the student details, course details and curriculum. The administrator also verifies the information entered by the student.

STUDENTS:

The students can login, enter their personal details. They can also view the courses available, course details and can apply for any of the courses.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints:

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time with all the specification implied to the software is a major factor. To use and apply new technology to the software in order to cope with time, funds play a vital role. If the customer fails to provide the proper size of the product that is to be developed it will cause major problems for the completion of the project.

3. SYSTEM FEATURES:

3.1 System Feature 1:

LOGIN:

3.1.1 Description and Priority:

This use case allows the administrator and students to access the website.

3.1.2 Stimulus/Response Sequences:

BASIC FLOW:

1. The student can view the course list and details .
2. The students can reserve the course of choice and also enter the required

personal details.

3. The student is provided with a login and password.
4. The administrator validates the student login, manages the course list and provides the reservation to the students.

3.1.3 Functional Requirements:

ALTERNATIVE FLOW:

If the student doesn't give the right password, an error message will be displayed.

SPECIAL REQUIREMENTS:

A website of the college which should be registered in a domain to be accessed all over the world through internet.

PRE-CONDITIONS:

The username and the corresponding passwords and the userid should already be available in the legacy database. The student should provide required personal information.

POST-CONDITIONS:

If the login succeeds the student can view the course list and also make the reservations.

3.2 System Feature 2:

ENTER DETAILS:

3.1.1 Description and Priority:

This use case allows the students to enter the username and password for login, their details name, dob, age, address, qualification along with marks.

3.1.2 Stimulus/Response Sequences:

BASIC FLOW:

1. The student should enter the name, address, age, dob, qualification with marks.
2. The administrator verifies the entered details and provides the confirmation for reservation.

3.1.4 Functional Requirements:

ALTERNATIVE FLOW:

If any of the required data is left or invalid the user should have to enter the proper details.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS:

The student should have been login properly.

POST-CONDITIONS:

After entering the details, system should start processing it and store it into the Database.

4. EXTERNAL INTERFACE REQUIREMENTS:

4.1 User Interfaces:

The interface allows the student to login, browse through the course details as well as select the preferred course. The student can enter the required personal details for verification. The administrator provides validation to the student using login and password. The administrator maintains the course details, verifies the student details and confirms or rejects the reservation.

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP,7

Tools: Eclipse IDE, Rational Rose-2003

5. OTHER NONFUNCTIONAL REQUIREMENTS:

5.1 Performance Requirements:

The student should be able to login. The course list must be displayed correctly with course curriculum.

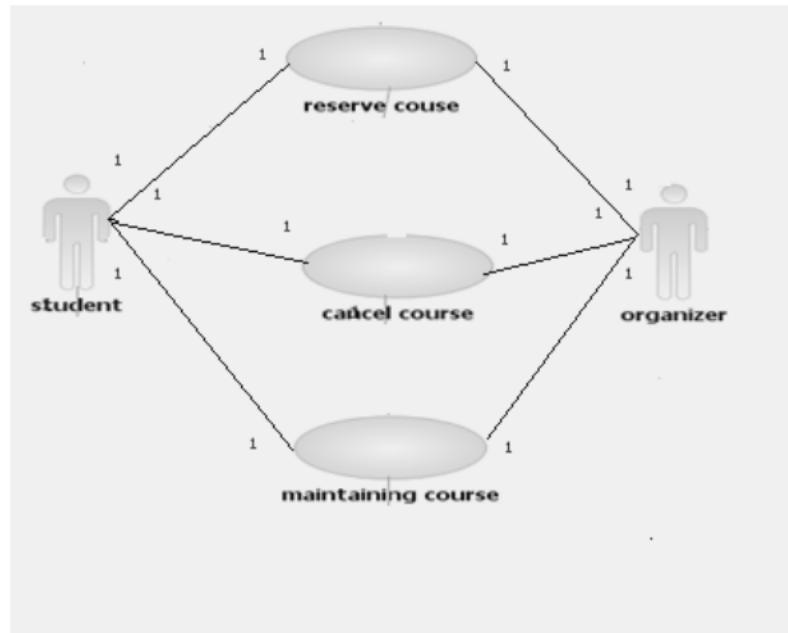
5.2 Security Requirements :

The student can login and access the system only using the username and password to make reservations. If any user without proper username, password or register number try to login they should be blocked or stopped from doing so. The personal information is also to be made secure.

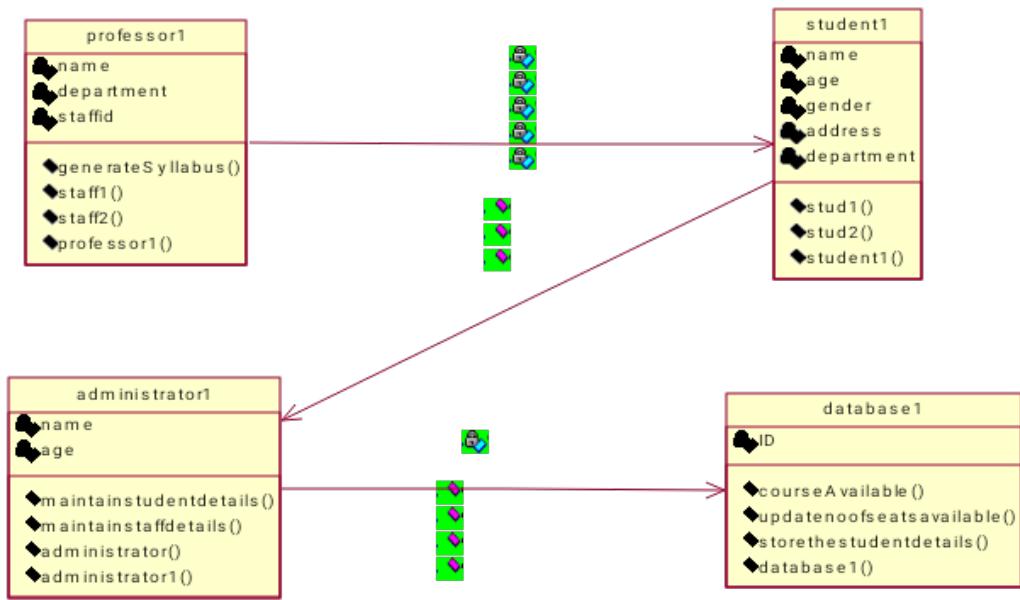
5.3 Software Quality Attributes

The expected key attributes out of this product are adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability.

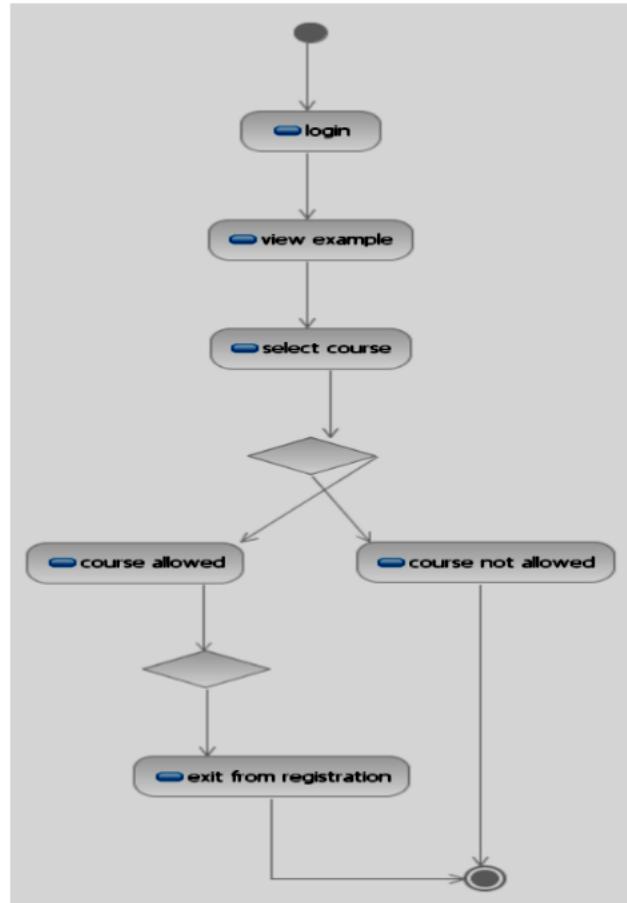
USE CASE DIAGRAM:



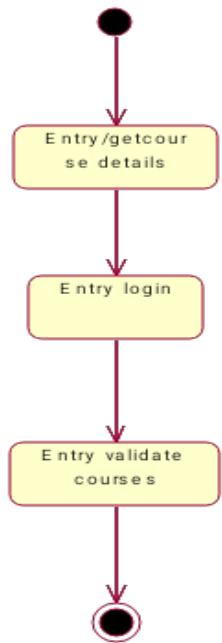
CLASS DIAGRAM:



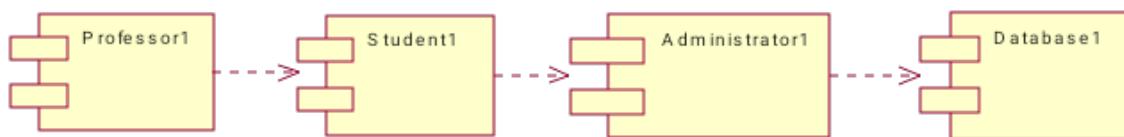
ACTIVITY DIAGRAM:



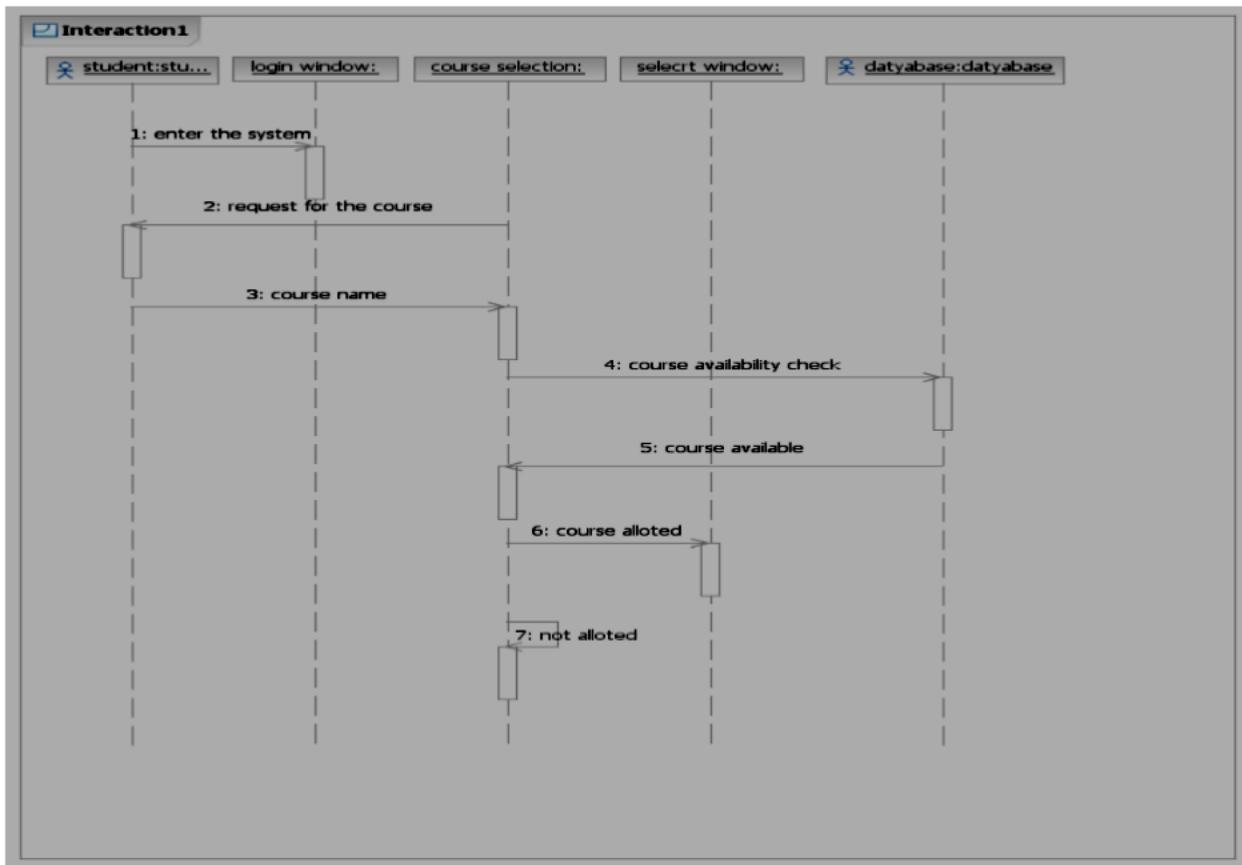
STATE CHART DIAGRAM:



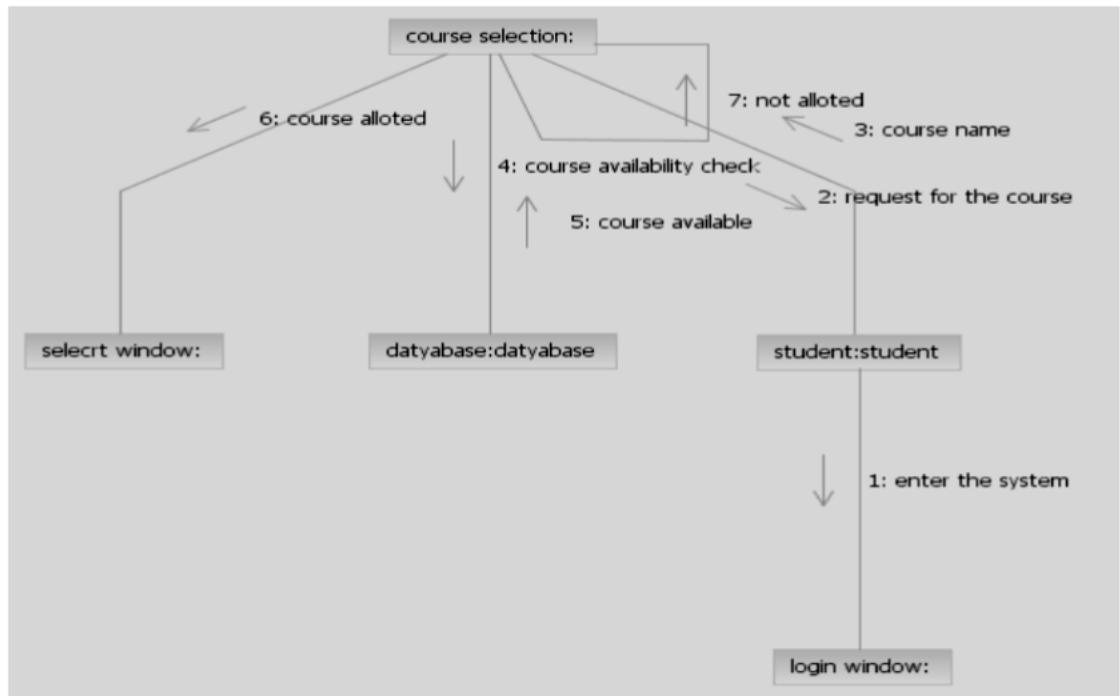
COMPONENT DIAGRAM:



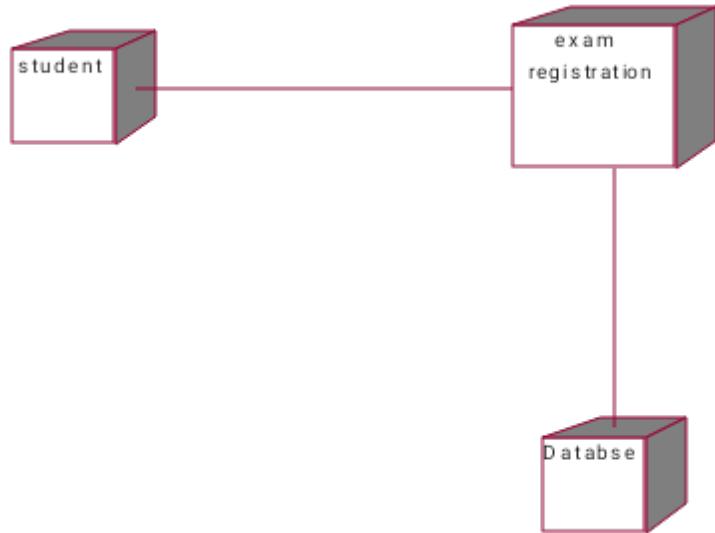
SEQUENCE DIAGRAM:



COLLABORATION DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

//Source file: C:\\Program Files\\Rational\\Rose\\professor1.java

```
public class professor1
{
    private int name;
    private int department;
    private int staffid;
    public student1 theStudent1;
    /**
     * @roseuid 55FE69DB0325
     */
    public professor1()
    {
    }
    /**
     * @roseuid 55FE69BB02BC
     */
    public void generateSyllabus()
    {
    }
    /**
     * @roseuid 55FE69D40091
     */
    public void staff1()
    {
    }
    /**
     * @roseuid 55FE69D7033B
     */
    public void staff2()
    {
    }
}
//Source file: C:\\Program Files\\Rational\\Rose\\student1.java
```



```
public class student1
{
    private int name;
    private int age;
    private int gender;
    private int address;
    private int department;
    public administrator1 theAdministrator1;
    /**
     * @roseuid 55FE6A100135
     */
    public student1()
    {
    }
    /**
     * @roseuid 55FE6A0200EE
     */
    public void stud1()
    {
    } /**
     * @roseuid 55FE6A070366
     */
    public void stud2()
    {
    }
}

//Source file: C:\\Program Files\\Rational\\Rose\\administrator1.java
public class administrator1
{
    private int name;
    private int age;
    public database1 theDatabase1;
```

```
/**  
 * @roseuid 55FE6A5E0398  
 */  
  
public administrator1()  
{  
}  
  
/**  
 * @roseuid 55FE6A3B02E4  
 */  
  
public void maintainstudentdetails()  
{  
}  
  
/**  
 * @roseuid 55FE6A5302CF  
 */  
  
public void maintainstaffdetails()  
{  
}  
  
/**  
 * @roseuid 55FE6A5A015D  
 */  
  
public void administrator()  
{  
}  
  
}  
  
//Source file: C:\\Program Files\\Rational\\Rose\\database1.java  
  
public class database1  
{  
  
    private int ID;  
  
    /**  
     * @roseuid 55FE6AB201EB  
     */  
}
```

```
public database1()
{
}
/***
 * @roseuid 55FE6A7502BA
 */
public void courseAvailable()
{
}
/***
 * @roseuid 55FE6A7C00DB
 */
public void updatenoofseatsavailable()
{
}
/***
 * @roseuid 55FE6A87025F
 */
public void storethestudentdetails()
{
}
}
```

Viva Questions:

1. Identify the use cases in Online course reservation system
Reserve course, Cancel course, maintaining course

2. List the actors involved in the Online course reservation system
Student, Organizer
3. Write the problem statement for Online course reservation system
A Course Reservation Project is software which is used to manage the seats allocation of the various colleges of various departments for the eligible students. It also gives full access to the students to check the availability of the seats in the colleges according to the category of the community which the students belong to. The student can check for the information of the college, such that the year which the college is started, where the college is situated and the chairman of the college. This software allows the administrator to allot the seat for the eligible candidates to the group which they wish and the group and college which are available at that time.

RESULT:

Thus the online course reservation system project was executed and the output was verified.

DATE:

AIM:

To develop the E-Ticketing System using Rational Rose Software

PROBLEM STATEMENT:

To create an E-Ticketing software that will meet the needs of the applicant and help them to register the tickets in the project, modification in database and cancellation for the registered project.

OBJECTIVES:

To analyze the problem gather the requirements and implementation online ticket at reservation system and to model the data using UML diagram.

PHASE 1:

PROBLEM ANALYSIS:

The System will allow passenger,

1. To register their tickets
2. To cancel their tickets
3. To view the reservation charts.

The system will maintain a ticket database for ticket availability and for the reservation chart so when the user wants to reserve the ticket. She/he must check availability. If the tickets are not available then the system has to provide an alternative.

Try for another train or an another date, waitinglist, cancel name, source, destination, time, date and finally the credit and detail for payment as well as reference. User enter details, if the details are valid then the system reaches the seat availability for specification, if the ticket is available then the system has to provide a way for reservation otherwise the system has to provide way for alternative.

Based on choice by the user, the system recycles the process if a passenger wants to cancel his ticket with rules after confirmation of tickets the system allows cancelling his ticket with rules. If a ticket is cancelled then seat is allotted for another user who is waiting for the same.

PHASE 2:

Functional Requirement Analysis:

User:

External entity to the system and this entity initiate the reservation process of this reservation.

Schedule:

This is the system and it is responsible for each event caused by the user.

Ticket availability:

This is the continuation of the ticket enquiry it was based on train details displaying alternative choices if seats are not available is the part of the state displayed in available phases.

Cancellation:

This is independent process from the reservation this is the phase to cancel a confirmed ticket.

Identifying actors and use cases:

1. Passenger:

Login

Reservation

Cancellation

View chart

2. System

Login processing

Checking

PHASE 3:

Data Modeling:

The various data modeling techniques which are implemented in the online ticket reservation system are,

1. Use case Diagram
2. Class Diagram
3. State chart
4. Sequence Diagram
5. Activity Diagram
6. Collaboration Diagram

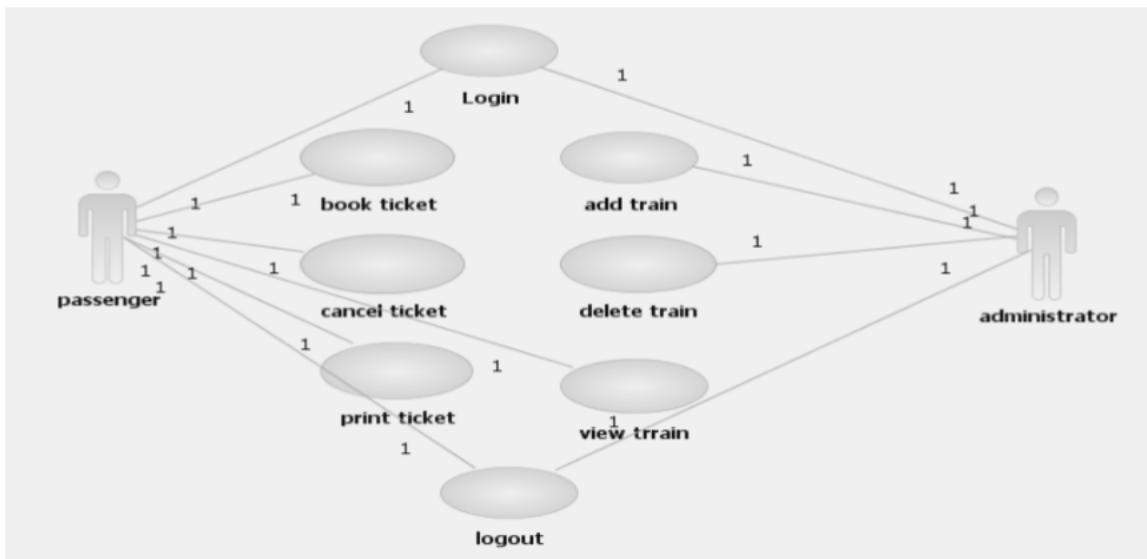
7. Component Diagram

PHASE 4:

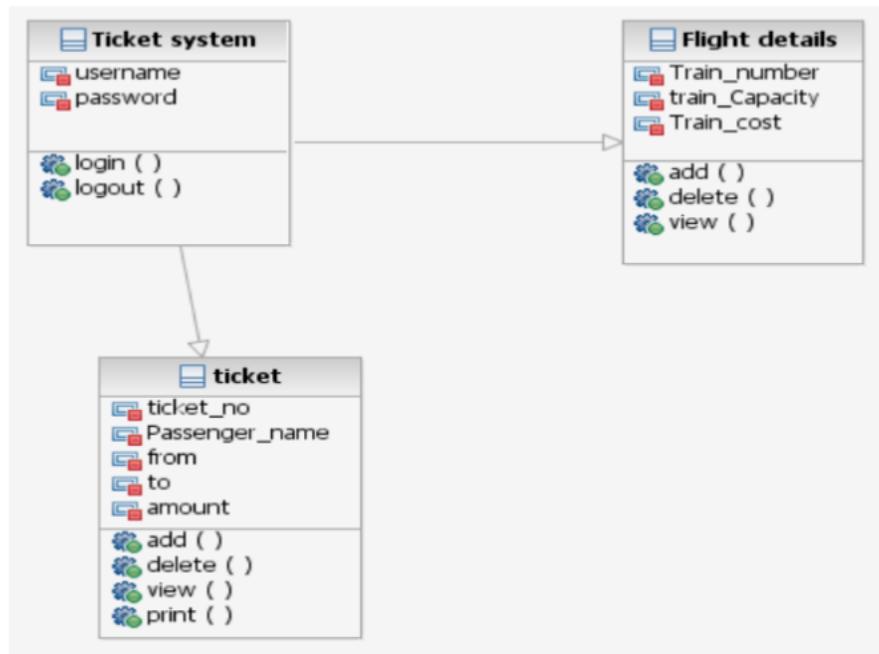
Software Requirements:

The software is now designed in rational rose and skeleton code in java.

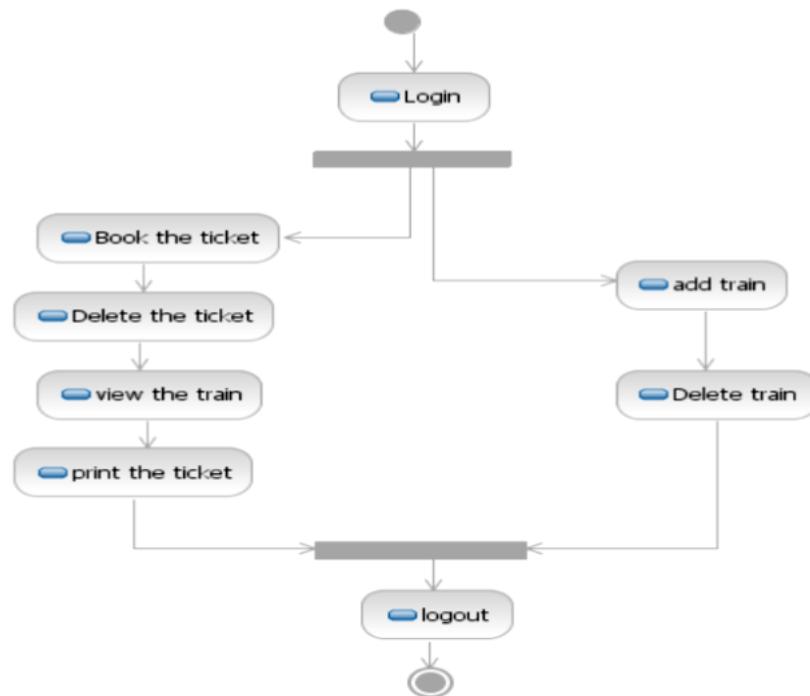
USECASE DIAGRAM:



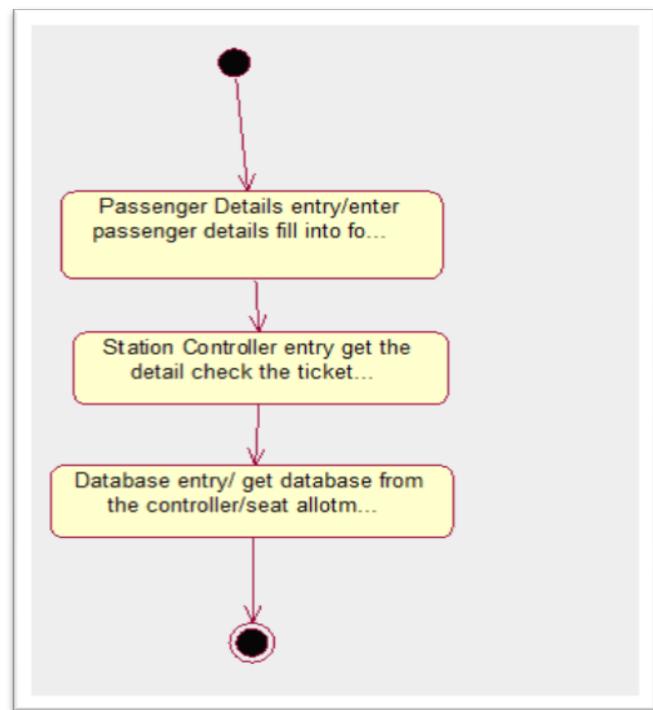
CLASS DIAGRAM:



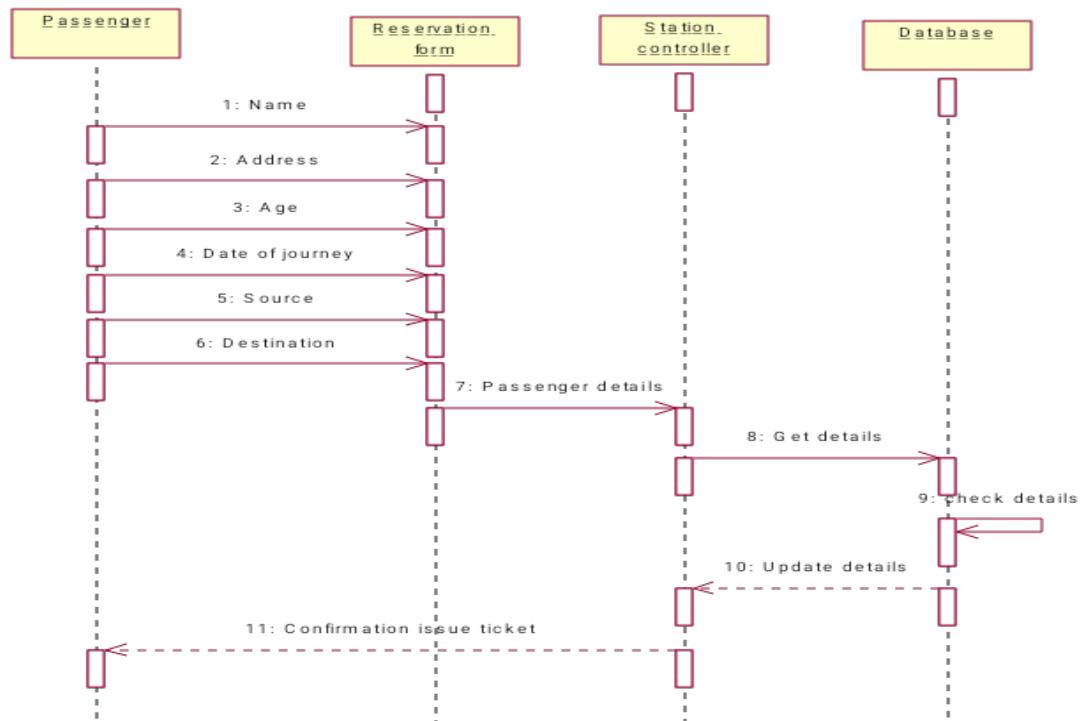
ACTIVITY DIAGRAM:



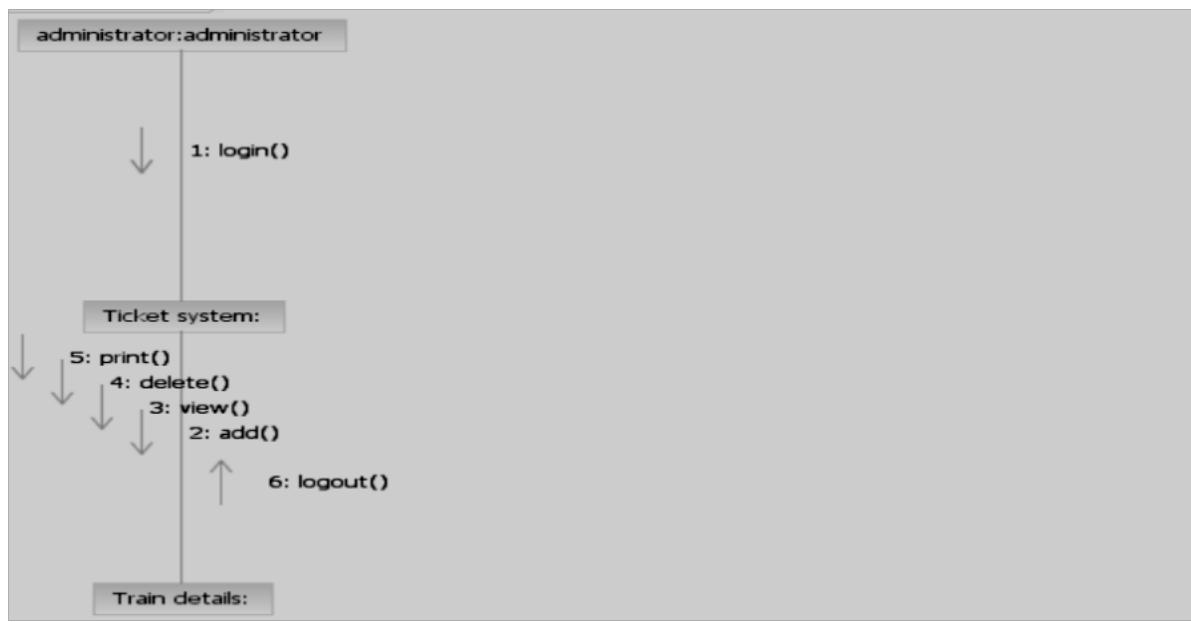
STATE CHART DIAGRAM:



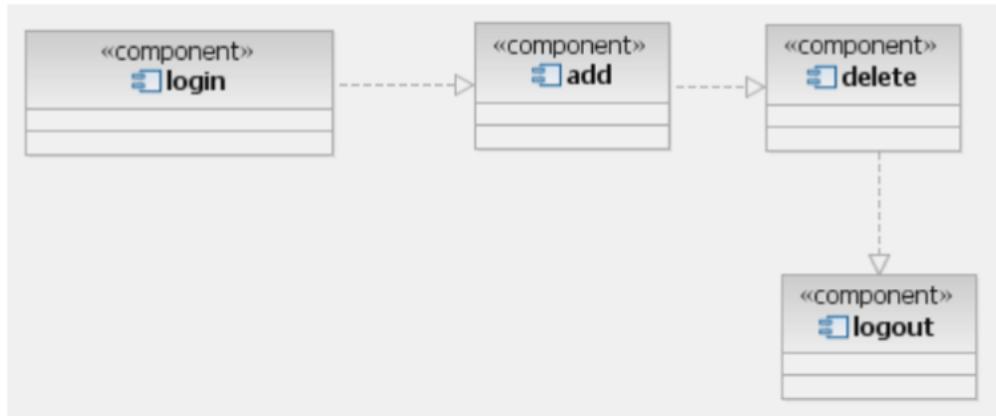
SEQUENCE DIAGRAM:



COLLABARATION DIAGRAM:



COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```
//Source file: C:\\Program Files\\Rational\\Rose\\ticketSystem.java
public class ticket System
{
private int username;
private int password;
public flight Details theNewClass2;
public ticket theNewClass3;
/**
 * @roseuid 55FE5B4301A7
 */
public ticket System()
{
}
/**
 * @roseuid 55FE576D02F9
 */
public void login()
{
}
/**
 * @roseuid 55FE583A00AE
 */
public void logout()
{
}
}
//Source file: C:\\Program Files\\Rational\\Rose\\flightDetails.java
public class flight Details
{
private int train number;
private int train capacity;
private int train cost;
/**
 * @roseuid 55FE5B4300CC
 */
public flight Details()
{}
/**
 * @roseuid 55FE57780113
 */
public void add()
{}
/**
 * @roseuid 55FE5884035B
 */
public void delete()
{}
}
/**
 * @roseuid 55FE57AB03D1
```



```

*/
public void view()
{
}
}
//Source file: C:\\Program Files\\Rational\\Rose\\ticket.java
public class ticket
{
private int ticket no;
private int passenger name;
private int from;
private int to;
private int amount;
/**
 * @roseuid 55FE5B430139
 */
public ticket()
{
}
/**
 * @roseuid 55FE577C0300
 */
public void add()
{
}
/**
 * @roseuid 55FE57AC00E3
 */
public void delete()
{
}
/**
 * @roseuid 55FE58EA01AF
 */
public void view()
{
}
/**
 * @roseuid 55FE58EE02A2
 */
public void print()
{
}
}

```

Viva Questions:

1. Identify the use cases in E-ticketing
Book ticket, add train, cancel train, delete train, view train, log out
2. List the actors involved in theE-ticketing
Passenger, administator
3. Write the problem statement for E-ticketing.

The System will allow passenger,

1. To register their tickets
2. To cancel their tickets
3. To new the reservation charts.

The system will maintain a ticket database for ticket availability and for the reservation chart so when then user wants to reserve the ticket. She/he must check availability. If the tickets are not available then the system has to provide an alternative

RESULT:

Thus the E ticketing project was executed and the output was verified.

EX.NO: 7 SOFTWARE PERSONNEL MANAGEMENT SYSTEM

DATE:

AIM:

To develop a project software personnel management system using the Rational Rose

Software

PROBLEM STATEMENT:

To compute the gross pay of a person using the software personnel management system software and to add new details to the existing database and update it, using visual basic 6.0 and MS Access

1. INTRODUCTION

1.1 Purpose

This project is about developing an software persona management system for a software company within budget and should be delivered on time. The system should be able to provide the available to maintain the employee details and help the HR to monitor the employee activities. This system also allows provides the facility to maintain the recruitment details, training and performance details of the employees. The HR can also facilitate the salary increment. The employees can use it for time management.

1.2 Document Conventions

The headings have been written using “normal” style with “Arial” font and font size of “12” with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each headings also use “normal” style with “times” font and size “12”. Every requirement statement has its own priority and each requirement is to be had a detailed study.

1.3 Intended Audience and Reading Suggestions

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer. More clear details are provided using the UML diagrams.

1.4 Project Scope

A software personal management system is a software that allows the HR to maintain the employee's recruitment and training details, monitor the salary and increment, and provide motivation. The employees will also be able to check their training and salary details. Employees can keep track of their performance and do time management for improvement.

2. OVERALL DESCRIPTION

2.1 Product Perspective

The system is a new, self-contained product with its own requirements and functionalities.

2.2 Product Features :

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Access to the HR and employees.
2. Displaying the recruitment details to HR.
3. Training and salary details to be accessed by HR and employees.
4. Monitoring the employee's performance by HR.
5. Keeping track of employee performance and time management.
6. Motivation provided by HR.

2.3 User Classes and Characteristics

The various user classes that are being anticipated will this product is administrator and students.

HUMAN RESOURCES OFFICER(HR):

The HR has the access to employee's recruitment and training details. He can provide increment in salary and keeping track of it.

EMPLOYEE:

The employee can access the training and salary details. He can track his performance and improve the time management.

2.4 Operating Environment

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time with all the specification implied to the software is a major factor. To use and apply new technology to the software in order to cope with time, funds play a vital role.

3. SYSTEM FEATURES

3.1. Description and Priority

This use case allows the HR and employees to access the system and maintain the records.

3.2. Stimulus/Response Sequences

BASIC FLOW

1. The employee can check out his training and salary details.
2. The HR keeps record of recruitment and training details of an employee.
3. The employee can check out his performance and time management ability.
4. The HR manages the salary and monitors the employee performance.
5. The HR also updates the increment in employee salary and gives motivation.

3.3. Functional Requirements

SPECIAL REQUIREMENTS

A website of the company which should be registered in a domain to be accessed all over the world through internet. Only the employees and HR working under the company can access the system. The updating of details is not allowed by the employees.

PRE-CONDITIONS

The username and the corresponding passwords and the userid should already be available in the legacy database. The employees and HR should provide required information according to provided privileges.

POST-CONDITIONS

The HR monitors all the employees' details and updates it. Employees keep track of their performance and improve their performance by time management.

4. EXTERNAL INTERFACE REQUIREMENTS

4.1 User Interfaces

The interface allows the HR to view all the employee recruitment, training and salary details. The interface also updates the salary increment and motivates employees. The interface allows the employees to check out salary and view training details. The interface also allows the employee to do performance measurement and time management

4.2 Hardware Interfaces

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing

the generated reports if necessary

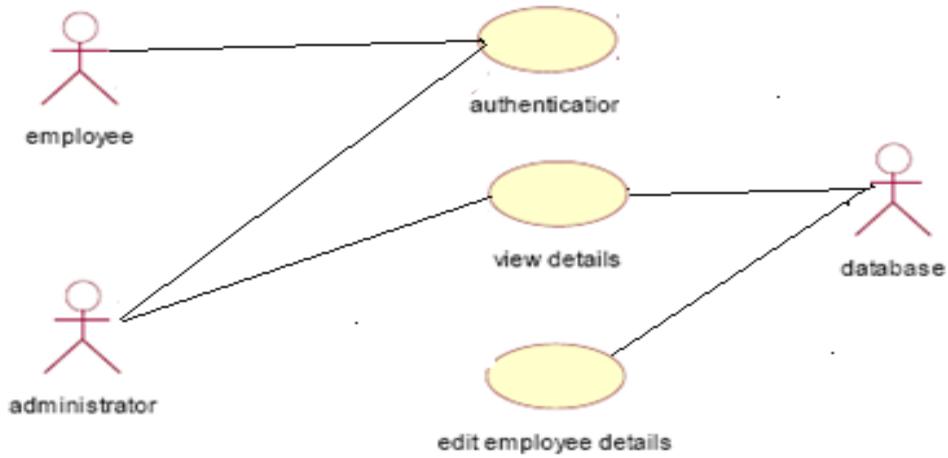
4.3 Software Interfaces

Software: Java and Oracle10g

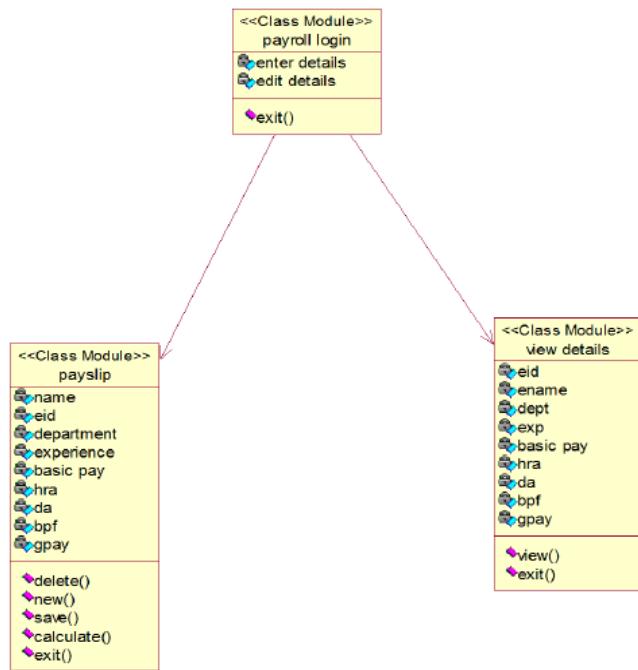
Windows XP,7

Tools: Eclipse IDE, Rational Rose-2003

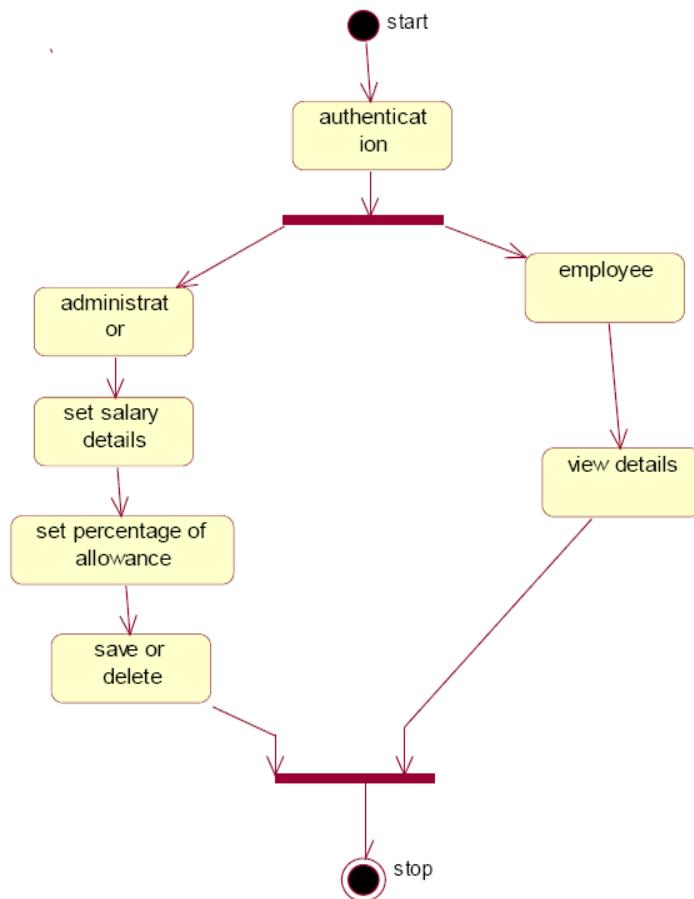
USECASE DIAGRAM:



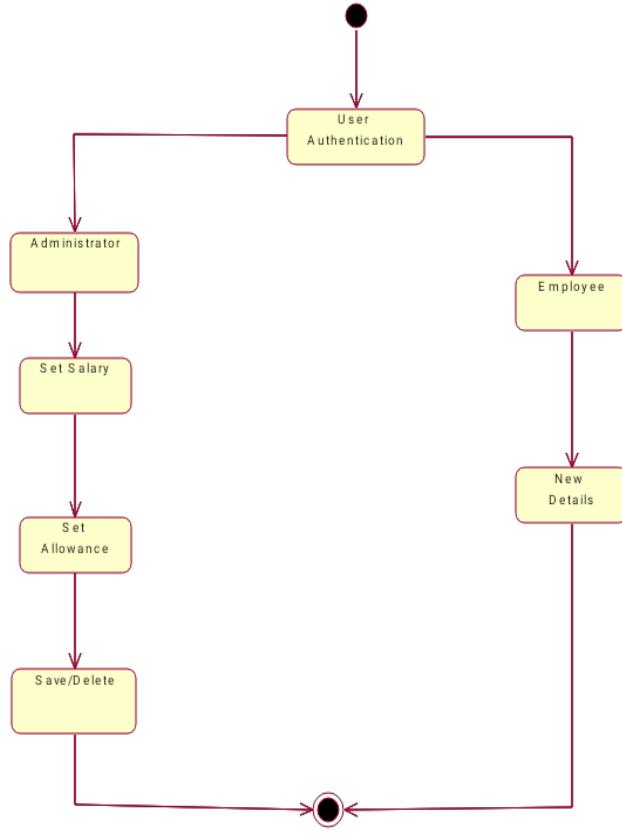
CLASS DIAGRAM:



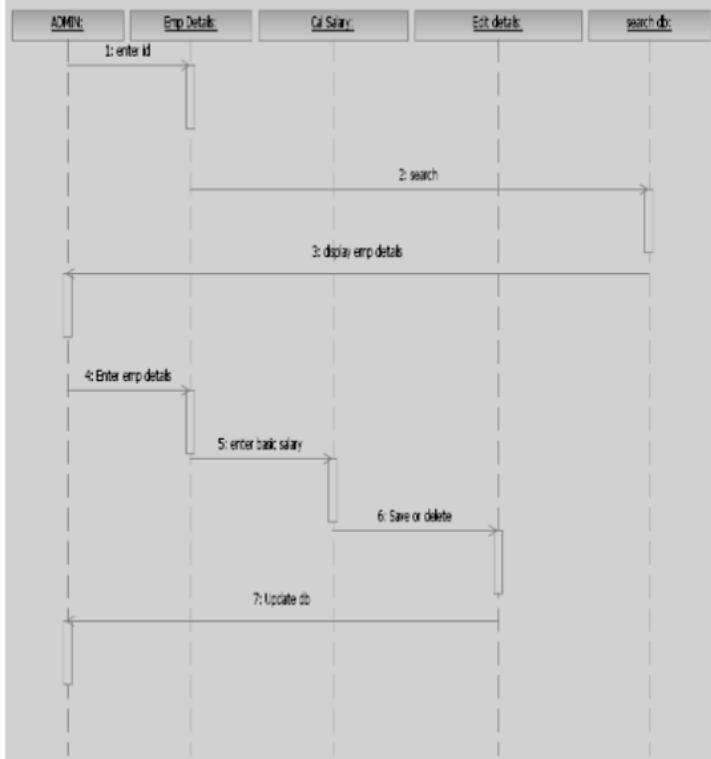
ACTIVITY DIAGRAM:



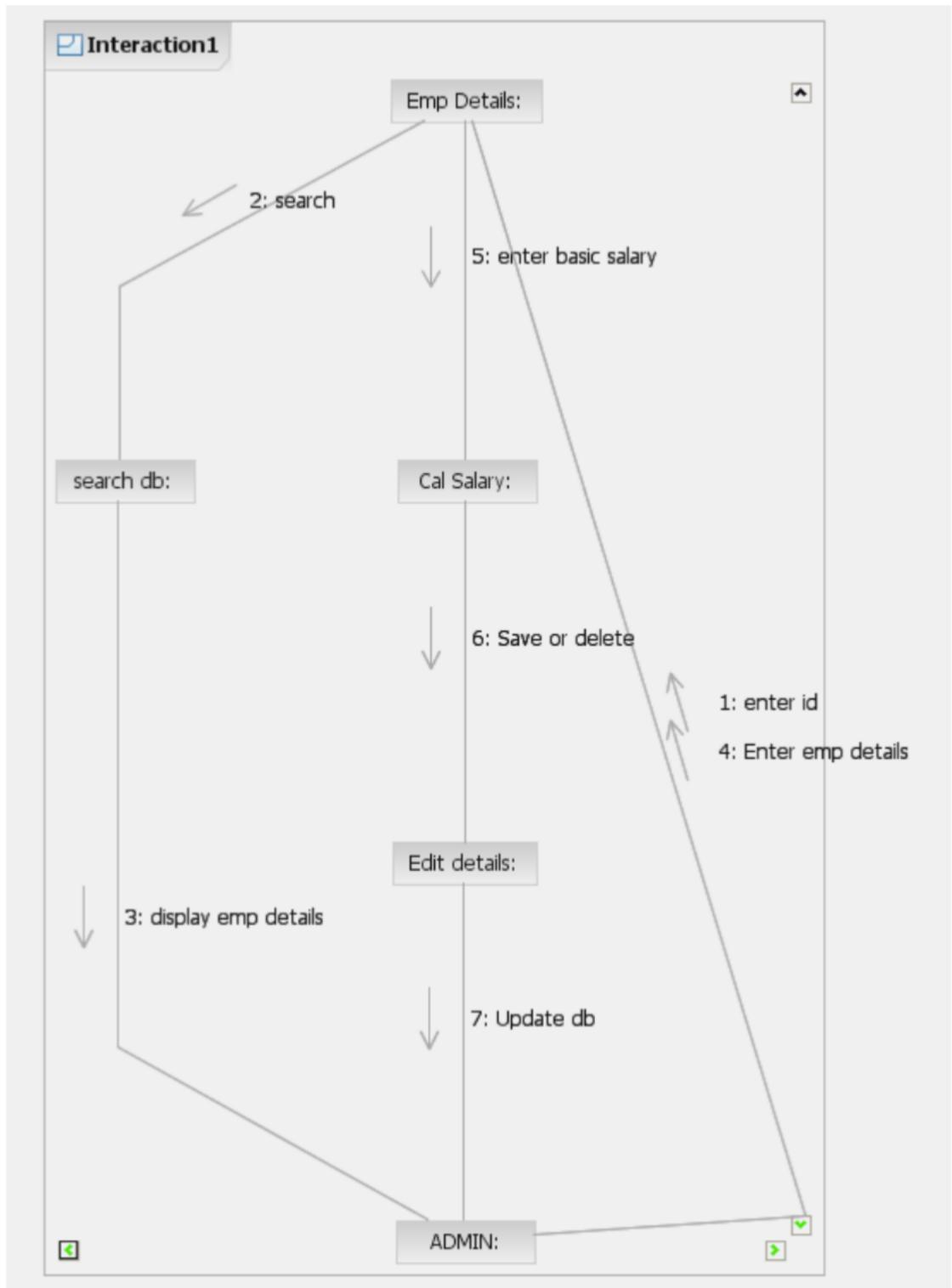
STATE CHART DIAGRAM:



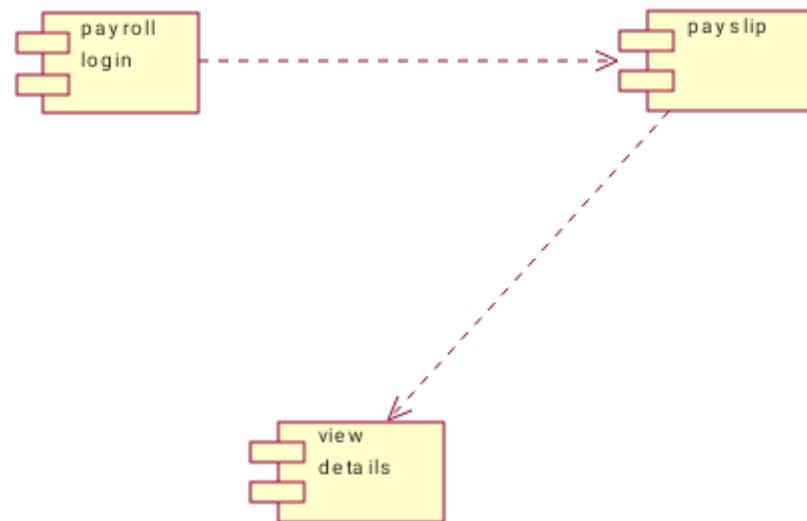
SEQUENCE DIAGRAM:



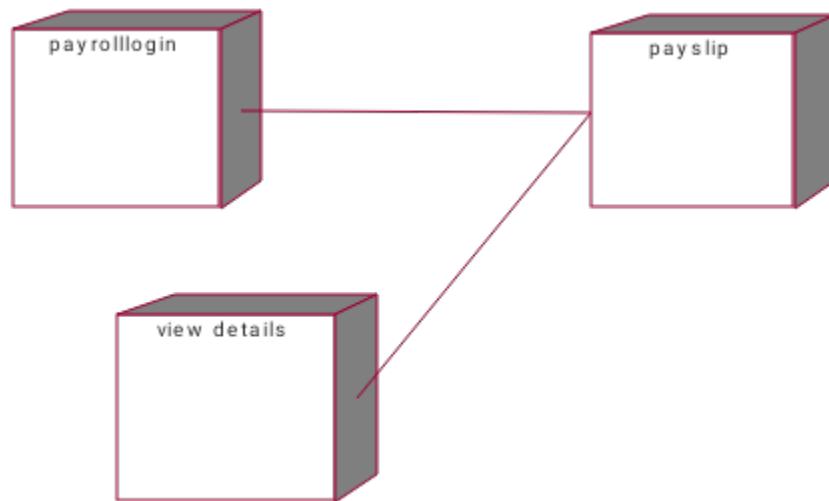
COLLABORATION DIAGRAM:



COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```

//Source file: C:\\Program Files\\Rational\\Rose\\payrollLogin.java
public class payroll Login
{
    private string enters Details;
    private string edits Details;
    public pay thePayslip;
    public view Details theViewDetails;
    /**
     * @roseuid 55FE7212032F
     */
    public payroll Login()
    {

```

```
}

/**
 * @roseuid 55FE6DBD00B9
 */
public void exit()
{
}
}

//Source file: C:\\Program Files\\Rational\\Rose\\payslip.java
public class payslip
{
private int name;
private int eid;
private int department;
private int experience;
private int basicPay;
private int hra;
private int da;
private int bpf;
private int gpay;
/**
 * @roseuid 55FE72A503B9
 */
public payslip()
{
}
}

/**
 * @return String
 * @roseuid 55FE6DFC03DD
 */
public String delete()
{
return null;
}
}

/**
 * @roseuid 55FE6E0302C9
 */
public void save()
{
}

/**
 * @roseuid 55FE6E08012B
 */
public void claculate()
{
}

/**
 * @roseuid 55FE6E0B003C
 */
public void exit()
{
```

```
}

}

//Source file: C:\\Program Files\\Rational\\Rose\\viewDetails.java
public class view Details
{
private int eid;
private int name;
private int dept;
private int exp;
private int basicPay;
private int hra;
private int da;
private int bpf;
private int gpay;
/***
 * @roseuid 55FE6E4900A4
 */
public view Details()
{/***
 * @roseuid 55FE6E310388
 */
public void View()
{/***
 * @roseuid 55FE6E3401DE
 */
public void Exit()
{
```

Viva Questions:

1. Identify the use cases in software personal management system
Authenticator,view details,edit employee details
2. List the actors involved in the software personal management system
Employee,administrator,database
3. Write the problem statement for software personal management system.
To compute the gross pay of a person using the software personnel management system
software and to add new details to the existing database and update it, using visual basic 6.0 and MS Access

RESULT:

Thus the software personnel management system was executed and the output was verified.

EX.NO: 8

CREDIT CARD PROCESSING

DATE:

AIM:

To draw the diagrams [use case, activity, sequence, collaboration, class] for Credit Card Processing

HARDWARE REQUIREMENTS:

Intel Pentium Processor 3

SOFTWARE REQUIREMENTS:

Rational rose

PROJECT DESCRIPTION:

This software is designed for supporting the computerized credit card processing System .In this system, the cardholder purchases items and pays bill with the aid of the credit card. The cashier accepts the card and proceeds for transaction using the central system. The bill is verified and the items are delivered to the cardholder.

USE CASE DIAGRAM:

This diagram will contain the actors, use cases which are given below

Actors: Cardholder, Cashier, Central system.

Use case: Receive bill, Give card, Enter card number, Enter amount, Transaction,Receive Receipt

ACTIVITY DIAGRAM:

This diagram will have the activities as Start point ,End point, Decision boxes as given below:

Activities: Receive Bill, Give card, Enter the card number, Enter the

amount, Transaction, Receive Receipt

Decision box: Verification of card

CLASS DIAGRAM:

This diagram consists of the following classes, attributes and their operations.

CLASSES	ATTRIBUTES	OPERATIONS
Central system	Product name	Print bill()
	Product details	Validate card()
	Product name	Enter amount()
Cashier	Cost of the product	Swipe Card()
		Print Bill()
Cardholder		Deliver Product()
	Items Purchased	Give card()
	Validate Card	Sign bill()

SEQUENCE DIAGRAM:

This diagram consists of the objects, messages and return messages.

Object: Card Holder, Cashier , Central system

COLLABORATION DIAGRAM:

This diagram contains the objects and actors. This will be obtained by the completion of the sequence diagram and pressing the F5 key.

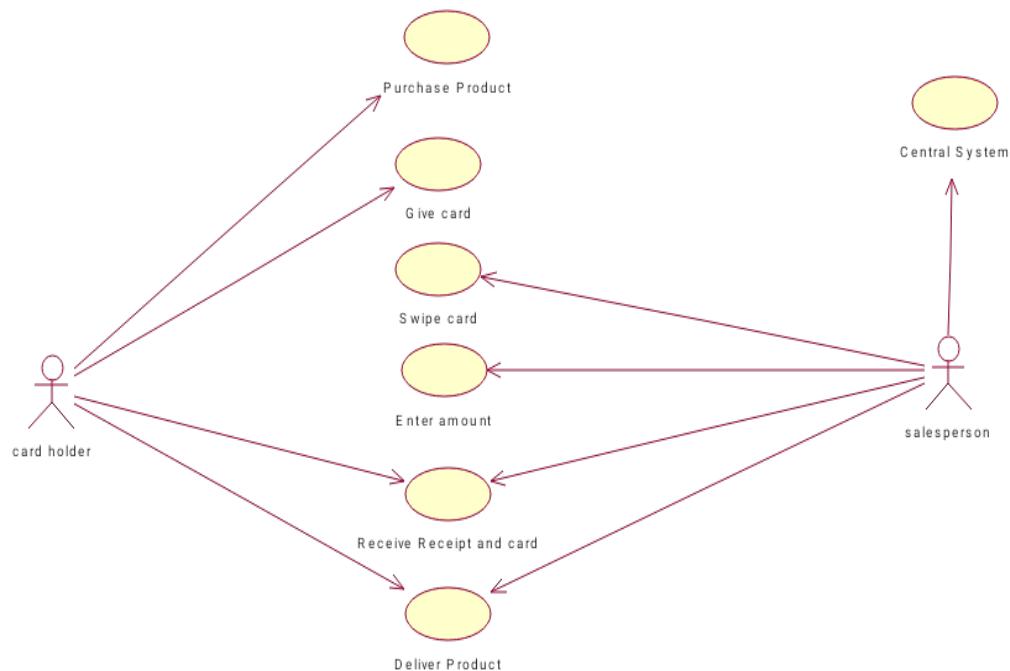
MERITS:

- Provides convenience.
- Easily understandable.
- User friendliness.

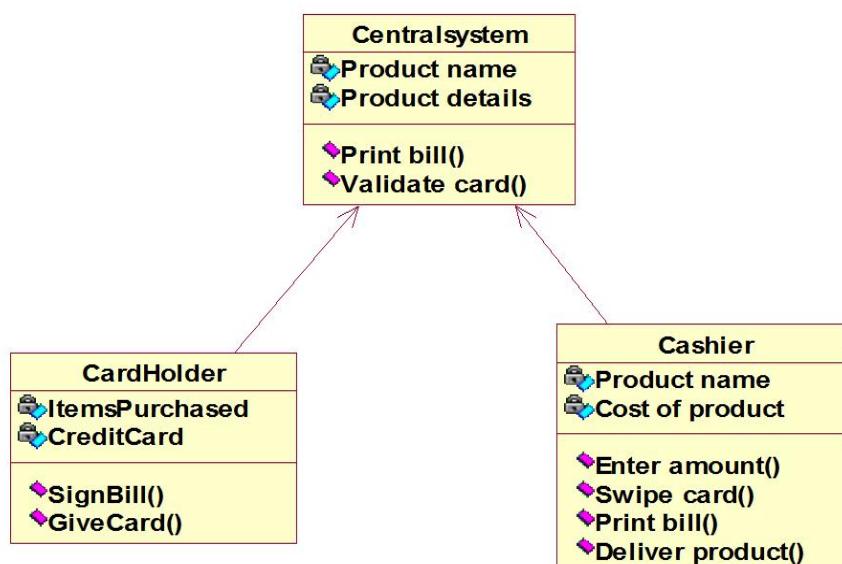
DEMERITS:

- Need computer knowledge.
- It is complex for large scale products.

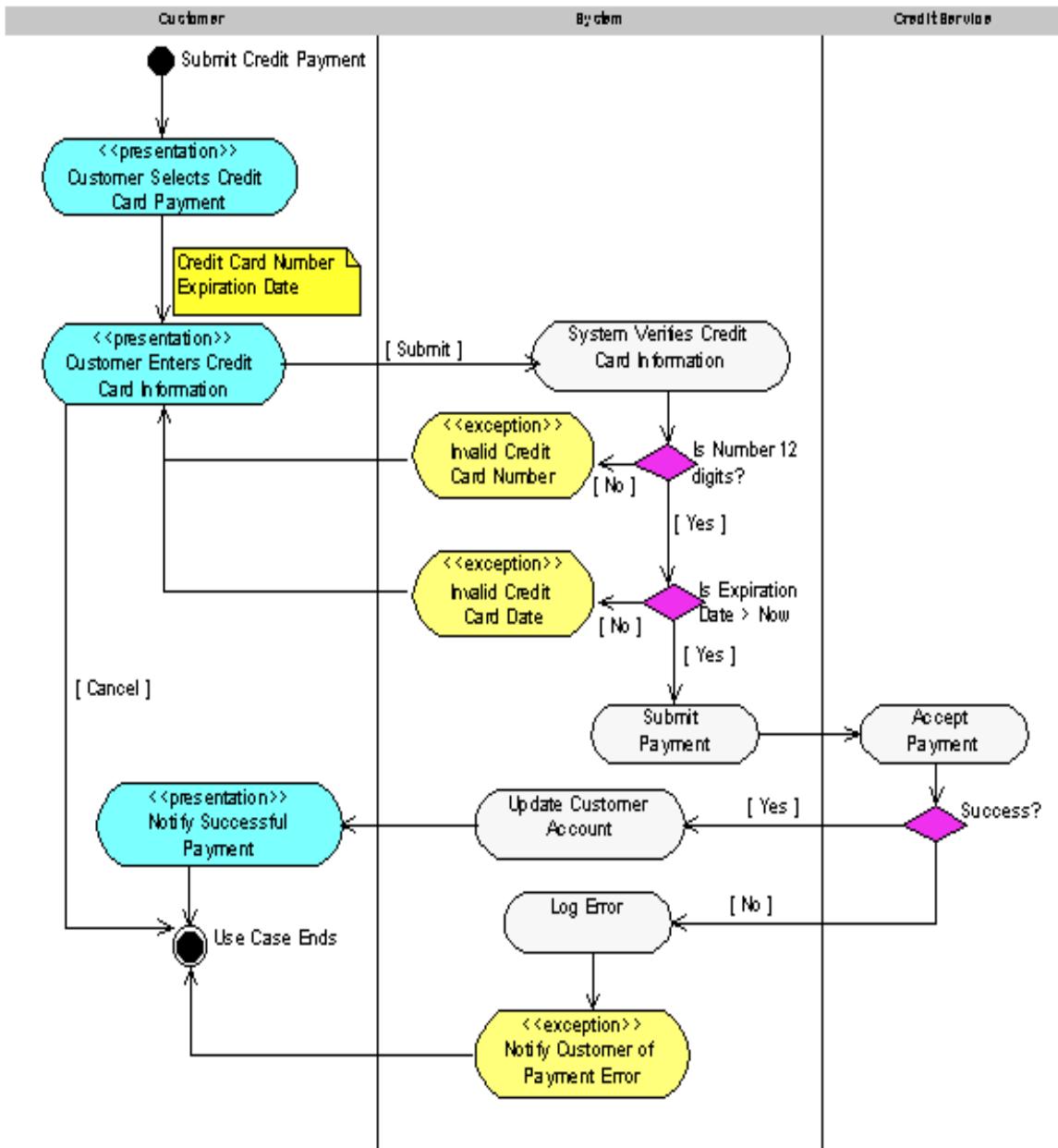
USECASE DIAGRAM:



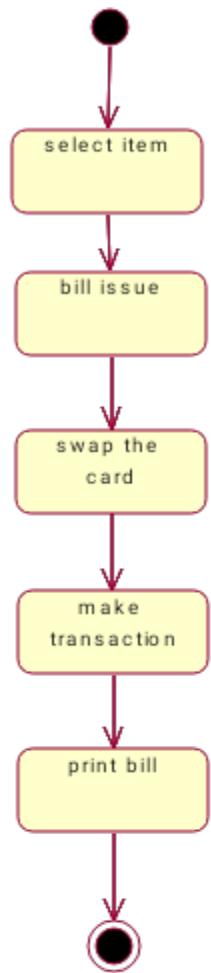
CLASS DIAGRAM:



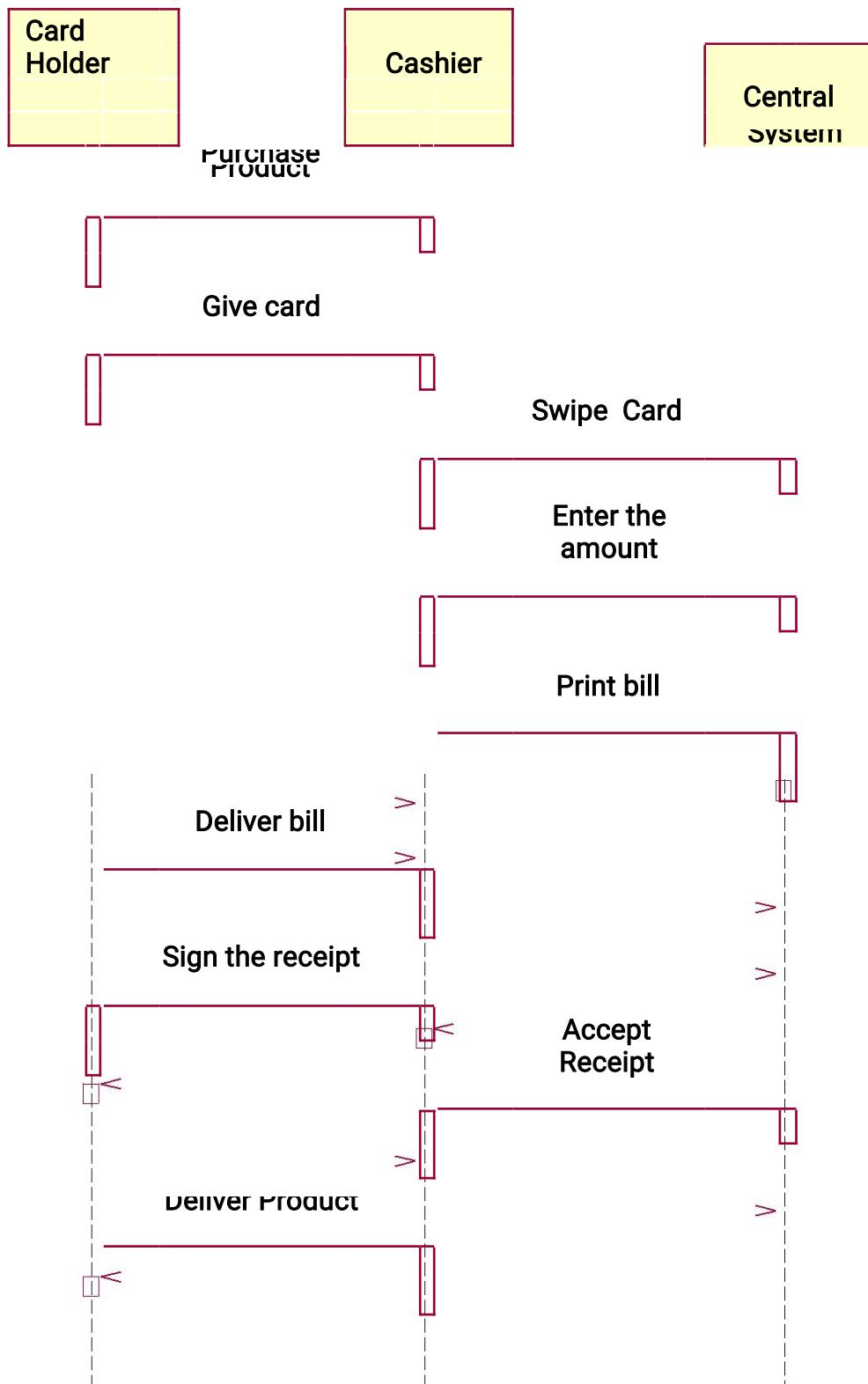
ACTIVITY DIAGRAM



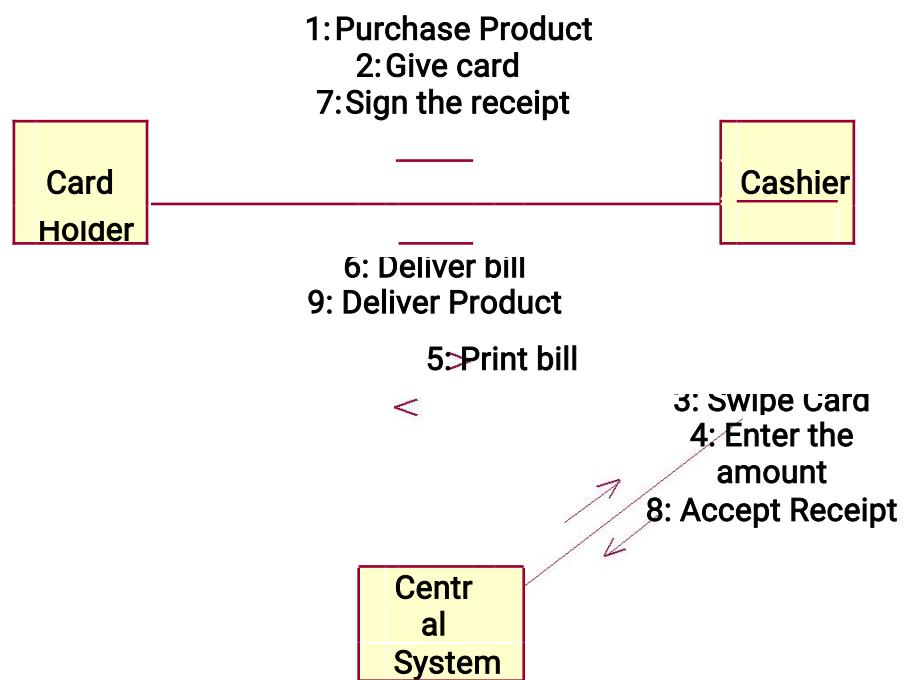
STATE CHART DIAGRAM



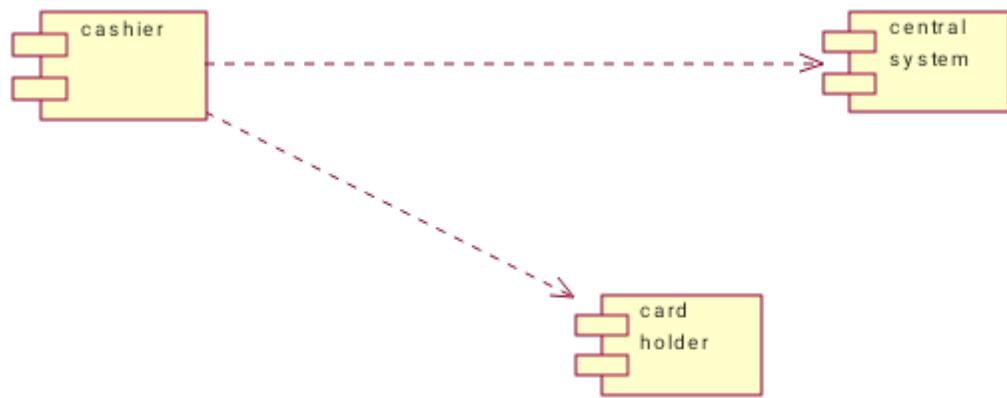
SEQUENCE DIAGRAM:



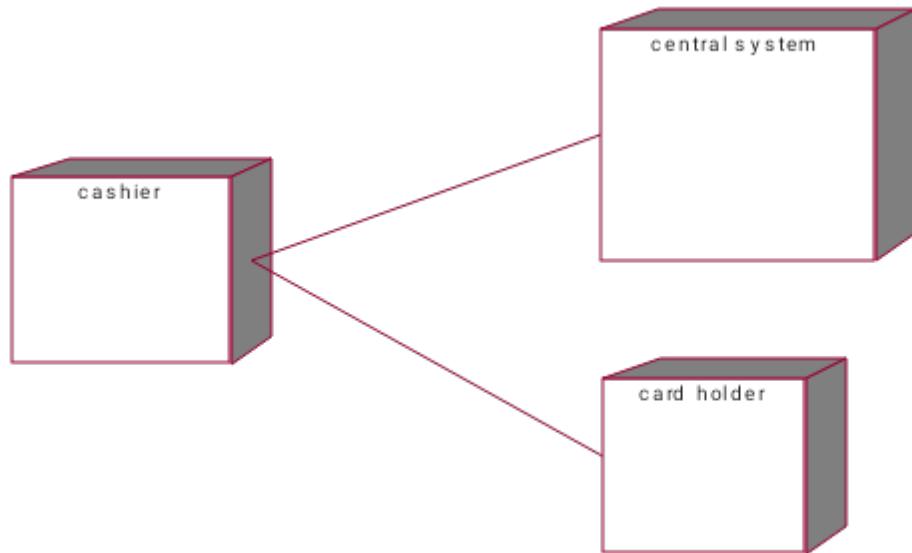
COLLABORATION DIAGRAM



COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```

//Source file: C:\\Program Files\\Rational\\Rose\\centralSystem.java
public class central System
{
    private int product Name;
    private int product Details;
    /**

```

```
* @roseuid 55FE919C00BD
*/
public central System()
{
}
/***
* @roseuid 55FE912C024B
*/
public void print Bill()
{
}
/***
* @roseuid 55FE9130039C
*/
public void validate Card()
{
}
}

//Source file: C:\\Program Files\\Rational\\Rose\\cardholder.java
public class cardholder
{
private int items Purchased;
private int credit card;
public central System theCentralSystem;
/***
* @roseuid 55FE919C0002
*/
public cardholder()
{
}
/***
* @roseuid 55FE915F000E
*/
public void sign bill()
{
}
/***
* @roseuid 55FE91620110
*/
public void give card()
{
}
}

//Source file: C:\\Program Files\\Rational\\Rose\\cashier.java
public class cashier
{
public central System theCentralSystem;
/***
* @roseuid 55FE919C0060
*/
```



```
public cashier()
{
}
/**
 * @roseuid 55FE916E01D7
 */
public void enter amount()
{
}
/**
 * @roseuid 55FE917C01ED
 */
public void print bill()
{
}
/**
 * @roseuid 55FE91810159
 */
public void deliver Product()
{
}
/**
 * @roseuid 55FE91720125
 */
public void swipe card()
{}
```

Viva Questions:

1. Identify the use cases in credit card processing

Purchase product,give card,swipe card,enter amount,deliver product

3. List the actors involved in the credit card processing

Card holder,central system,sales person

3. Write the problem statement for credit card processing.

This software is designed for supporting the computerized credit card processing System .In this system, the cardholder purchases items and pays bill with the aid of the credit card. The cashier accepts the card and proceeds for transaction using the central system. The bill is verified and the items are delivered to the cardholder.

RESULT:

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the Stock maintenance system has been designed ,executed and output was verified.

EX.NO: 9

E-BOOK MANAGEMENT SYSTEM

DATE:

AIM:

To study the problem statement, SRS document and draw all the UML diagrams of a

E-book management system

PROBLEM DOMAIN:

This E-BOOK should contain index of the topics. When the main page is visited index of the topics is displayed. Select the required topic and double click on it. Then the page with the contents of the selected topic will be displayed. A certain option is also present in that page to go back to main page and search for other topics.

1. INTRODUCTION:

1.1 Purpose

This project is about developing an e-book management system .The system should be able to provide user login and display the available book list. The user should be able to search, download and make payment for the desired books online. The administrator provides the registered user to access the download books and

make payment. The administrator also updates and maintains the sales record.

1.2 Document Conventions:

The headings have been written using “normal” style with “Times New Roman” font and font size of “12” with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each headings also use “normal” style with “times” font and size “12”.

1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer. The required UML diagrams are there for simpler view.

1.4 Project Scope:

An e-book management system allows the users to search through the available books. The registered users can only download the book upon payment. The administrator updates the book details, availability and records the sales.

2. OVERALL DESCRIPTION:

2.1 Product Perspective:

The system is a new, self-contained product with its own requirements and functionalities.

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform is as follows:

1. Verifying the user login.
2. Displaying the book details.
3. Downloading the required book.
4. Making payment.
5. Updating the availability of books.

6. Record the sales made and the transactions.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and students.

ADMINISTRATOR:

The administrator can provide access privilege to the users, maintain the books list and allow only registered users to download. The sales made and books download details are updated in database.

USERS AND REGISTERED USERS:

The user can browse the books list and only registered users are able to download the desired book. The payment transaction is made online.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints:

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints.

Delivering on time with all the specification implied to the software is a major factor.

3. SYSTEM FEATURES:

3.1 System Feature 1:

LOGIN:

3.1.1 Description and Priority:

This use case allows the administrator and users to access the website.

3.1.2 Stimulus/Response Sequences:

BASIC FLOW:

1. The users can browse the books but registered users can login and download the book.
2. The user makes payment and downloads the book.
3. The user is provided with a login and password.
4. The administrator validates the user login, manages the transaction details and provides the download privilege to the user.

3.1.3 Functional Requirements:

ALTERNATIVE FLOW:

If the user doesn't give the right password, an error message will be displayed. If the user is new he can register and then login.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS:

The username and the corresponding passwords and the userid should already be available in the legacy database.

POST-CONDITIONS:

If the login succeeds the user can view the book availability list and download required books.

3.2 System Feature 2:

BOOK LIST AND AVAILABILITY:

3.2.1 Description and Priority

This use case allows the administrator to maintain the book availability and update the sale details.

3.2.2 Stimulus/Response Sequences

BASIC FLOW

1. The administrator provides access to registered user to download the book and maintain the availability list.
2. The payment details are stored in database

3.2.3 Functional Requirements

ALTERNATIVE FLOW

If the user is not registered, the book cannot be accessed.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS:

The user should have been already registered.

POST-CONDITIONS:

After entering the details, system should start processing it and store it into the Database.

4. EXTERNAL INTERFACE REQUIREMENTS:

4.1 User Interfaces:

The interface allows the user to browse the available books and registered users can download the book. The payment transaction is made successfully and the administrator keeps track of all the payments and books downloaded. The sales made are updated in the database.

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP, 7

Tools: Eclipse IDE, Rational Rose-2003

5. OTHER NONFUNCTIONAL REQUIREMENTS:

5.1 Performance Requirements:

The user should be able to login and download the books. The sale record as well as payment should be updated. The book availability should be maintained.

5.2 Security Requirements:

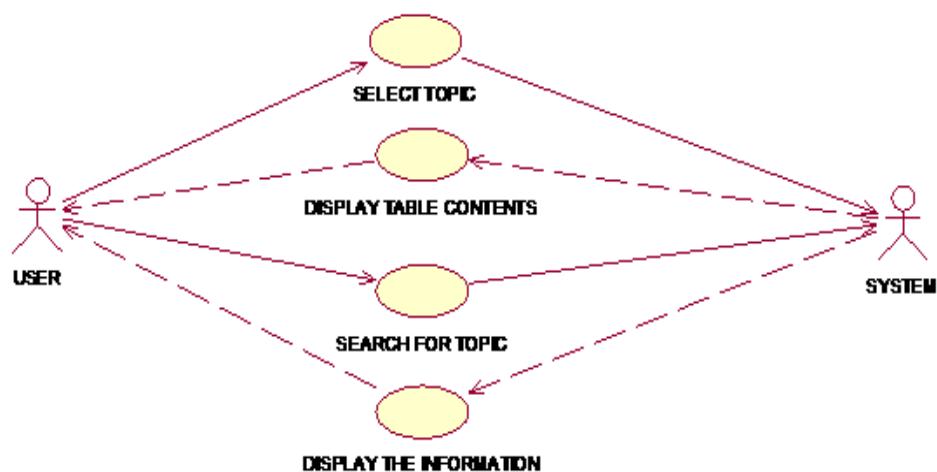
The payment transactions should be secured so that there is no misuse. Only registered users should have access to book download.

5.3 Software Quality Attributes

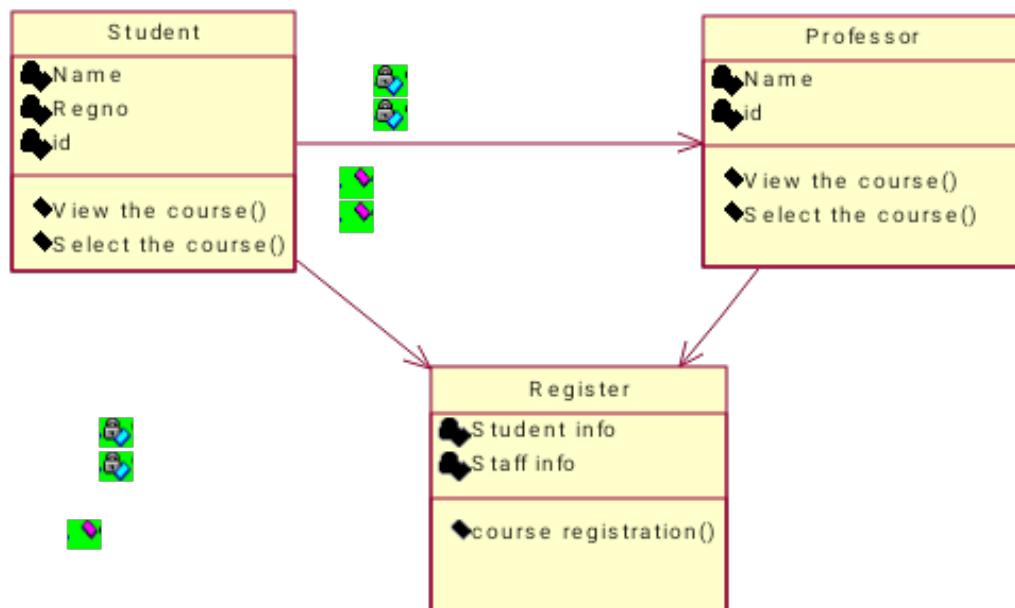
The expected key attributes out of this product are adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability,

reusability, robustness, testability, and usability.

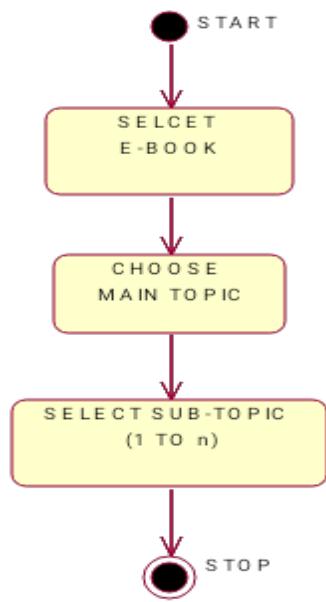
USE-CASE DIAGRAM:



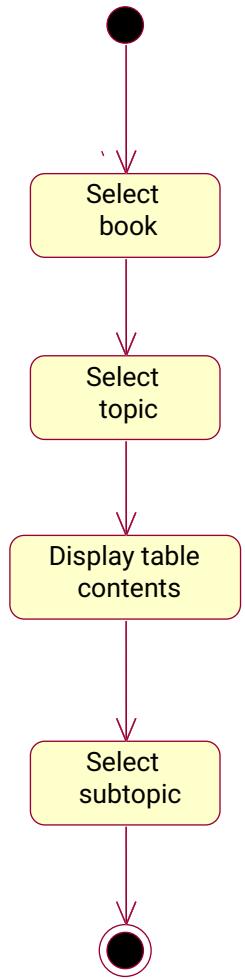
CLASS DIAGRAM:



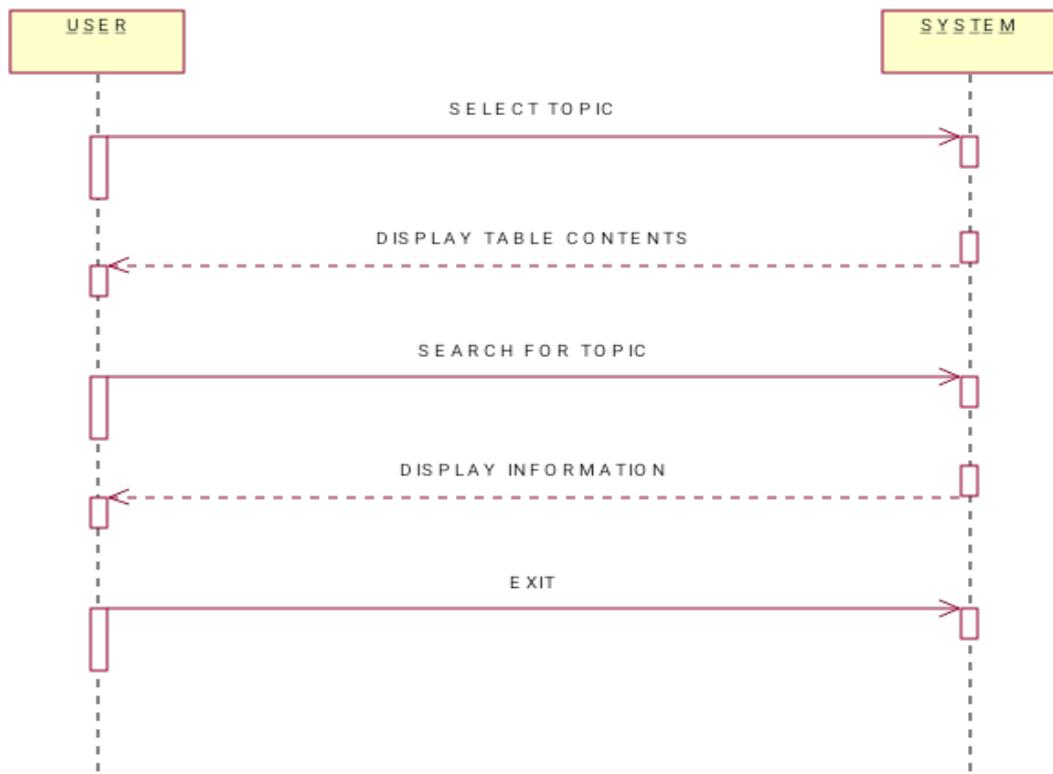
ACTIVITY DIAGRAM:



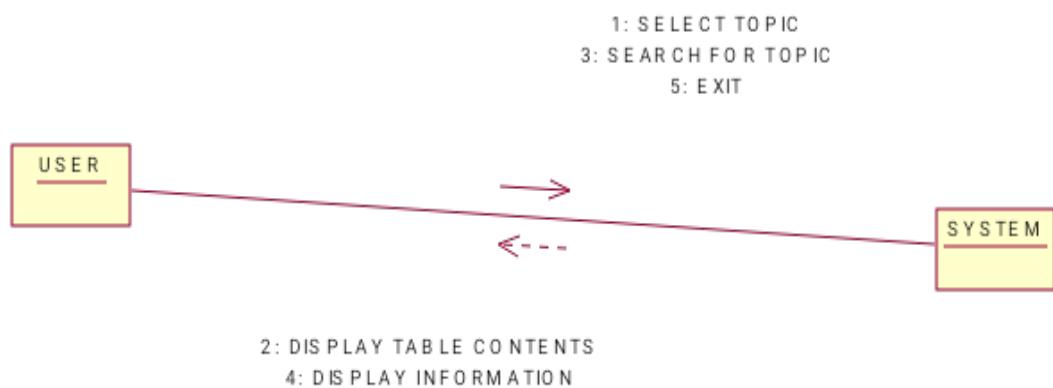
STATE CHART DIAGRAM:



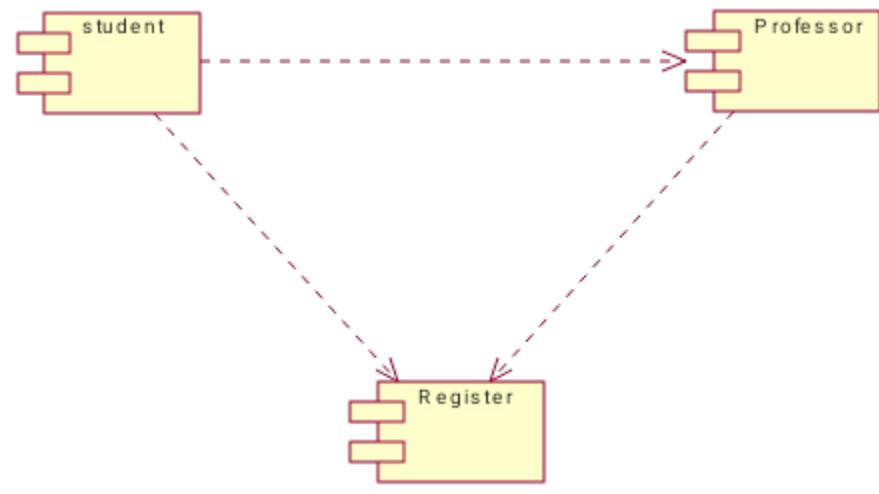
SEQUENCE DIAGRAM:



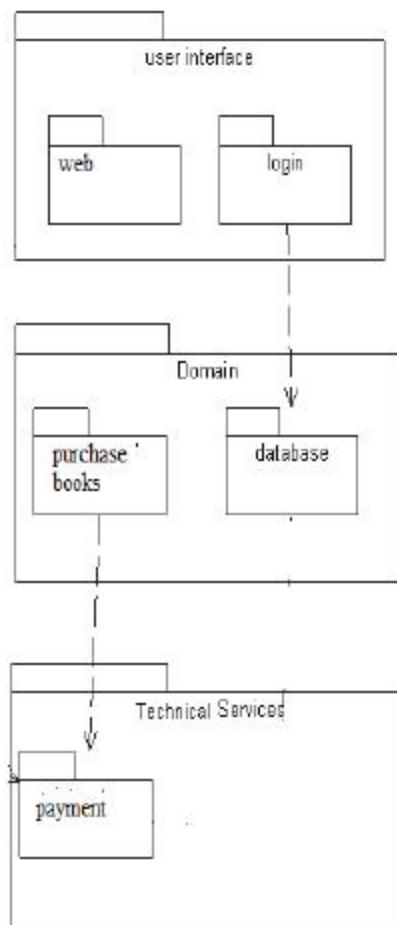
COLLABORATION DIAGRAM:



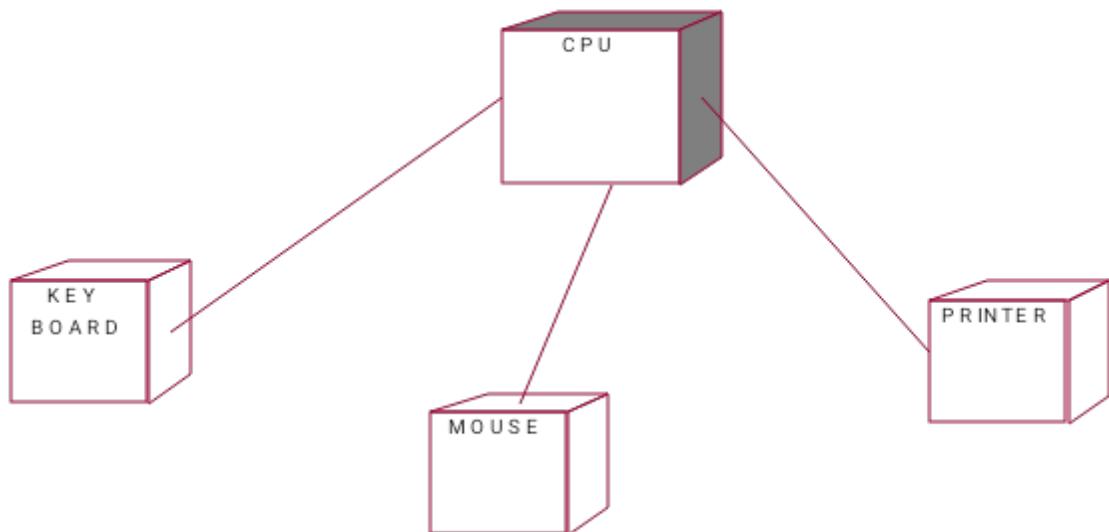
COMPONENT DIAGRAM:



PACKAGE DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\Register.java
public class Register
{
    private int Student Info;
    private int Staff Info;

    /**
     * @roseuid 55FE5968013F
     */
    public Register ()
    {

    }

    /**
     * @roseuid 55FE58A20352
     */
    public void course Registration ()
    {
    }
}
```

Viva Questions:

1. Identify the use cases in e-book management system
Select topic, display table contents, search for topic, display the information
2. List the actors involved in the e-book management system
User, system
3. Write the problem statement for e-book management system

This E-BOOK should contain index of the topics. When the main page is visited index of the topics is displayed. Select the required topic and double click on it. Then the page with the contents of the selected topic will be displayed. A certain option is also present in that page to go back to main page and search for other topics.

RESULT:

Thus the E-Book management system project was executed and the output was



verified.

EX.NO: 10

RECRUITMENT SYSTEM

DATE:

AIM:

To study the problem statement, SRS document and draw all the UML diagrams of a Recruitment system

PROBLEM STATEMENT:

To create a software system this can test the skills of the candidate by generating random question and answer and implementing using Visual basic 6.0 and MS Access.

1. Introduction:

1.1 Purpose:

This project is about developing a recruitment system for a company within budget and should be delivered on time. The system should be able to allow the candidate to register, login, appear for the exam and view results. The administrator should do verification and provide the login access to candidate for test. The result is stored in database and selected candidates receive the interview notice. Database is updated if the candidate is selected.

1.2 Document Conventions:

The headings have been written using “normal” style with “Times New Roman” font and font size of “12” with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each headings also use “normal” style with “times” font and size “12”. Every requirement statement has its own priority and each requirement is to be had a detailed study.

1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer.



1.4 Project Scope:

A recruitment system allows the candidate to login, write the aptitude test and check the result. The administrator provides the login and provides access to candidate for appearing in the test. The administrator also updates the result and candidates are short-listed for the HR interview. The candidates are informed and database stores the recruited candidate details.

2. Overall Description:

2.1 Product Perspective:

The system is a new, self-contained product with its own requirements and functionalities.

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Verifying the candidate login.
2. Displaying the aptitude test questions.
3. Verification of result.
4. Updating the database and candidates for the shortlisted candidates.
5. Conduct HR interview.
6. Confirmation of job for selected candidates.
7. Database updating for recruited candidates.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and students.

ADMINISTRATOR: The administrator can provide access privilege to the candidate through a login, provide access to candidate for test, update result and selected candidate details. The selected candidates are also informed.

CANDIDATES: The candidates can login, take up exams and get the results. They are also informed about selections and called for HR interview. The final recruited candidate's details are updated in the database.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints: A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time with all the specification implied to the software is a major factor. To use and apply new technology to the software in order to cope with time, funds play a vital role.

3. System Features:

3.1. System feature 1:

CANDIDATE LOGIN:

3.1.1. Description and Priority:

This use case allows the administrator and candidates to access the system.

3.1.2 BASIC FLOW:

1. The candidate can login and appear for the aptitude test.
2. The candidate can view the result and is informed if selected or not.
3. The candidate can view the company details.

3.1.3 Functional Requirements:

ALTERNATIVE FLOW:

If the candidate doesn't give the right password, an error message will be displayed and cannot appear for the test.

PRE-CONDITIONS:

The candidate should provide the login details to take the test. The administrator should verify the userid.

POST-CONDITIONS:

If the login succeeds the student can take up the test.

3.2 System Feature 2:

SELECTION PROCESS:

3.2.1 Description and Priority:

This use case allows the students to appear for the aptitude test and informed about the result. The administrator updates the database for result and selected candidates.

3.1.2 Stimulus/Response Sequences:

BASIC FLOW:

1. The candidate should attend the test and administrator updates result in the database .
2. The administrator selects the candidate based on the company selection criteria.

3.1.3 Functional Requirements:

ALTERNATIVE FLOW:

If any of the required data is left or invalid the user should have to enter the proper details.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS:

The student should have been login properly and submitted the answers. The candidates are informed about selection .

POST-CONDITIONS:

The result to be displayed after submission of answers and also display the short-listed names for interview. The selected list is updated in the database.

4. External Interface Requirements:

4.1 User Interfaces:

The interface allows the candidate to login, attend the test and view results. The administrator provides validation to the candidate using login and process result upon the submission of answers. The administrator maintains the candidate details,

test details and selection criteria as well as result display.

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP, 7

Tools: Eclipse IDE, Rational Rose-2003

5. Other Nonfunctional Requirements:

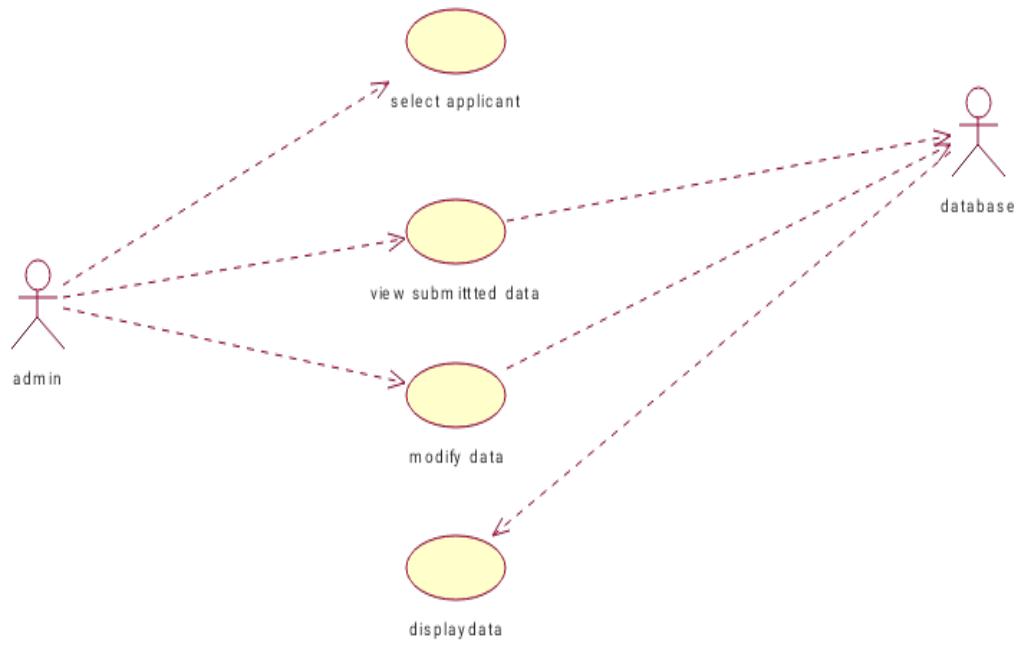
5.1 Performance Requirements:

The candidate should be able to login. The test questions, result and selection criteria to be maintained. The administrator updates the result and short-listed names.

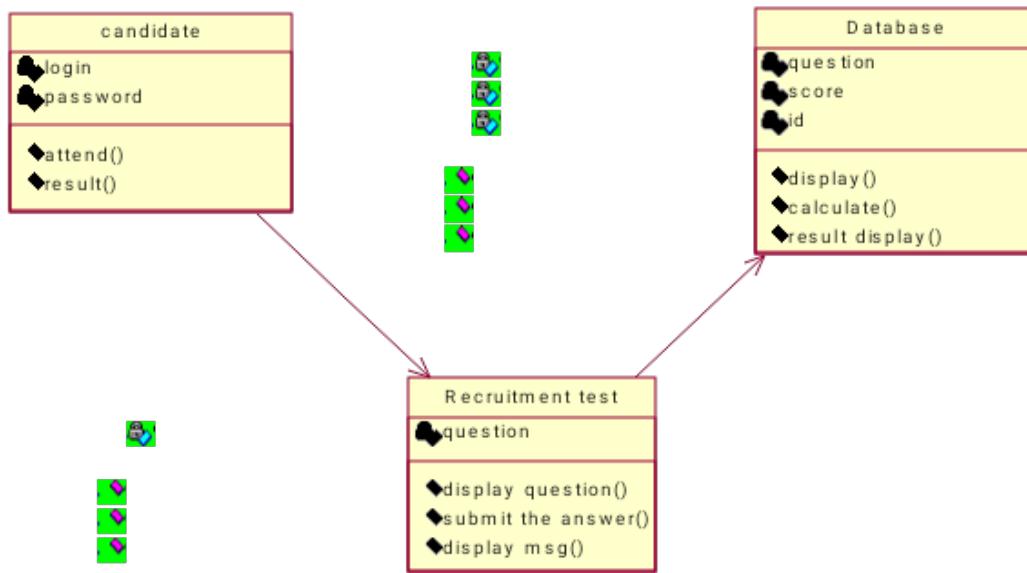
5.2 Security Requirements:

The student can login and access the system to attend the test. The test interface does not appear if the login is not correct. The result updating privilege is only provided by the administrator

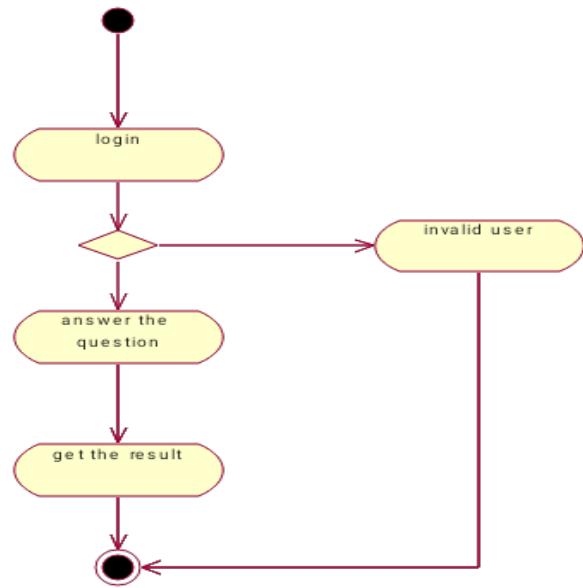
USE CASE DIAGRAM:



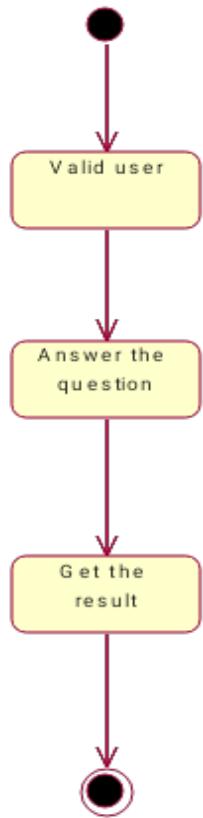
CLASS DIAGRAM:



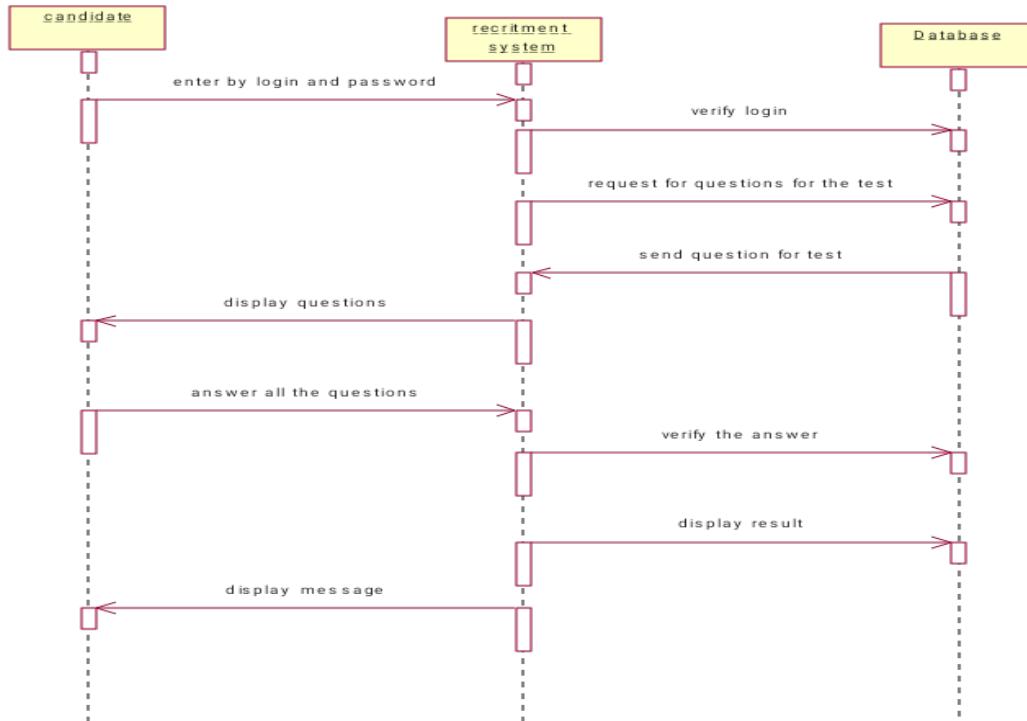
ACTIVITY DIAGRAM:



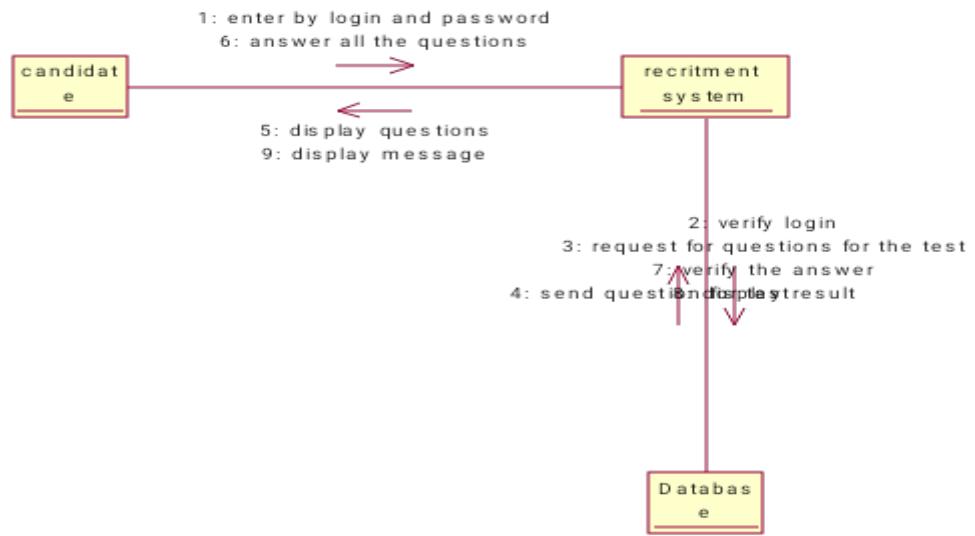
STATE CHART DIAGRAM:



SEQUENCE DIAGRAM:



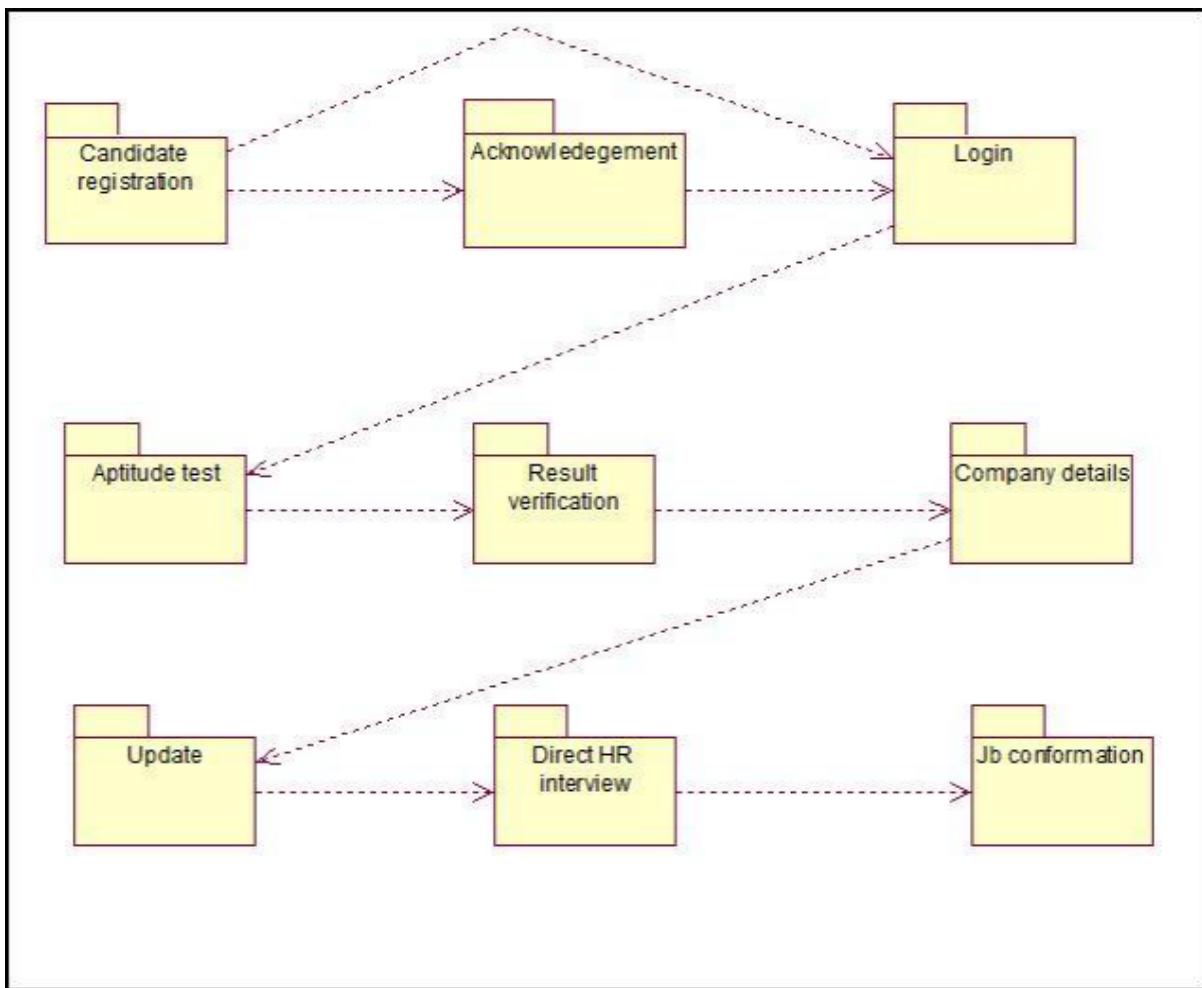
COLLABORATION DIAGRAM:



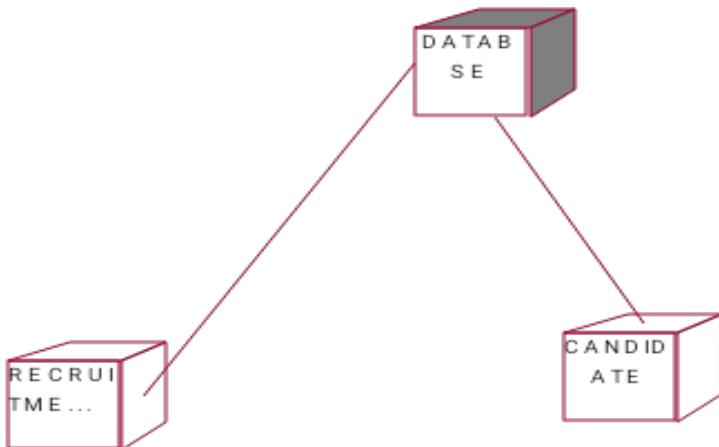
COMPONENT DAIGRAM:



PACKAGE DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\recruitmentTest.java

public class recruitment Test
{
    private int question;
    public Database the Database;

    /**
     * @roseuid 55FE71DF03B8
     */
    public recruitment Test ()
    {

    }

    /**
     * @roseuid 55FE71900139
     */
    public void display Question ()
    {

    }

    /**
     * @roseuid 55FE719C0184
     */
    public void submitTheAnswer ()
    {

    }

    /**
     * @roseuid 55FE71A90095
     */
    public void displayMsg ()
    {

    }
}
```

Viva Questions:



1. Identify the use cases in recruitment system

Select applicant,view submitted data,modify data,display data

2.List the actors involved in the recruitment system

Admin, database

3. Write the problem statement for recruitment system

To create a software system this can test the skills of the candidate by generating random question and answer and implementing using Visual basic 6.0 and MS Access

RESULT:

Thus the recruitment system project was executed and the output was



verified.

EX.NO: 11

FOREIGN TRADING SYSTEM

DATE:

AIM:

To design a project Foreign Trading System using Rational Rose Software.

PROJECT ANALYSIS AND PROJECT PLANNING:

The initial requirements to develop the project about the mechanism of the Foreign Trading System are bought from the trader. The requirements are analyzed and refined which enables the analyst (administrator) to efficiently use the Foreign Trading System. The complete project analysis is developed after the whole project analysis explaining about the scope and the project statement is prepared.

PROBLEM STATEMENT:

The steps involved in Foreign Trading System are:

- The foreign trading system begins its process by getting the username and password from the trader.
- After the authorization permitted by the administrator, the trader is allowed to perform the sourcing to know about the commodity details.
- After the required commodities are chosen, the trader places the order.
- The administrator checks for the availability for the required commodities and updates it in the database.
- After the commodities are ready for the trade, the trader pays the amount to the administrator.
- The administrator in turn provides the bill by receiving the amount and updates it in the database.

- The trader logs out after the confirmation message has been received.

INTRODUCTION:

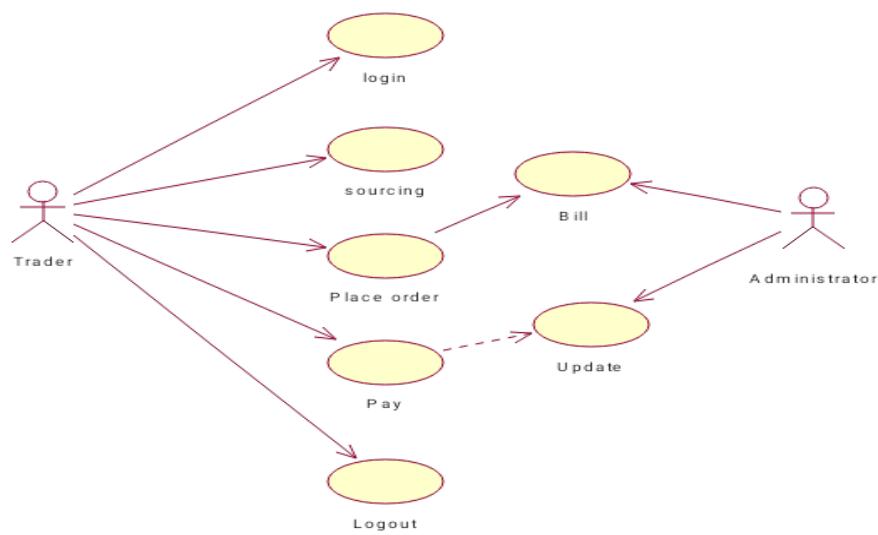
International trade is exchange of capital, goods, and services across international borders or territories. In most countries, it represents a significant share of gross domestic product (GDP). While international trade has been present throughout much of history (see Silk Road, Amber Road), its economic, social, and political importance has been on the rise in recent centuries. Industrialization, advanced transportation, globalization, multinational corporations, and outsourcing are all having a major impact on the international trade system. Increasing international trade is crucial to the continuance of globalization. Without international trade, nations would be limited to the goods and services produced within their own borders.

SCOPE:

They are a lot of advantages in Forex Trading as compared to many other financial trading, like futures or stock trading. The Forex market is open 24 hours a day. Being the market available 24 hours a day, this gives the trader to choose which time they would like to trade. It requires only minimum beginning capital to start the Forex trade. Forex Trading has outstanding liquidity as it never closes.

USECASE DIAGRAM:

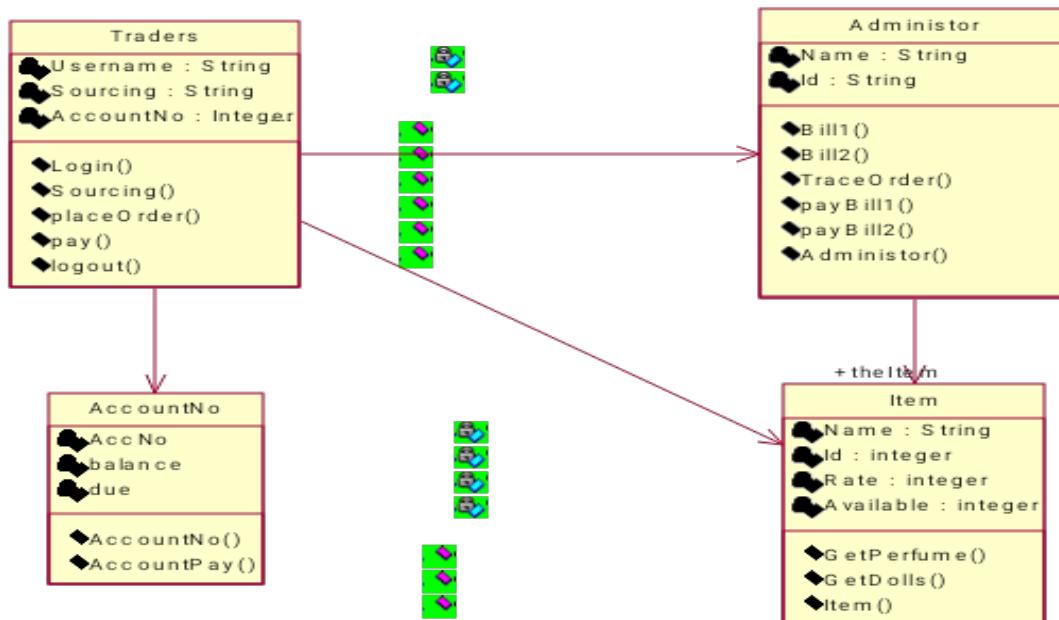
A use case diagram purpose is to present a graphical overview of the functionality provided by the system in terms of actors, their goals, and any dependencies between those use cases. A use case is an interaction between users and a system in a particular environment. It captures the goal of the users and the responsibility of the system to the user. It is represented using ellipse. Actor is a user playing a role with respect to the system. A single actor may perform many use cases. It is represented using a stick figure along with a label.



CLASS DIAGRAM:

A class diagram is a type of static structure diagram that describes the structure of a system. The classes in the class diagram represent both the main objects and or interactions in the application. The class diagram is represented using rectangular boxes each of which contains three parts:

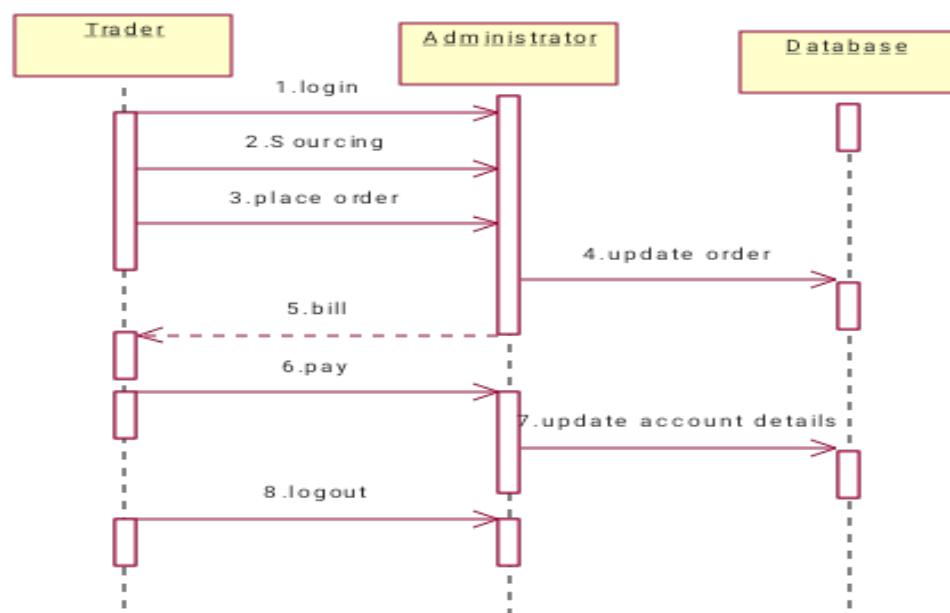
- The upper part holds the name of the class.
- The middle part contains the attributes of the class.
- The bottom part gives the operations or methods the class undertakes



SEQUENCE DIAGRAM:

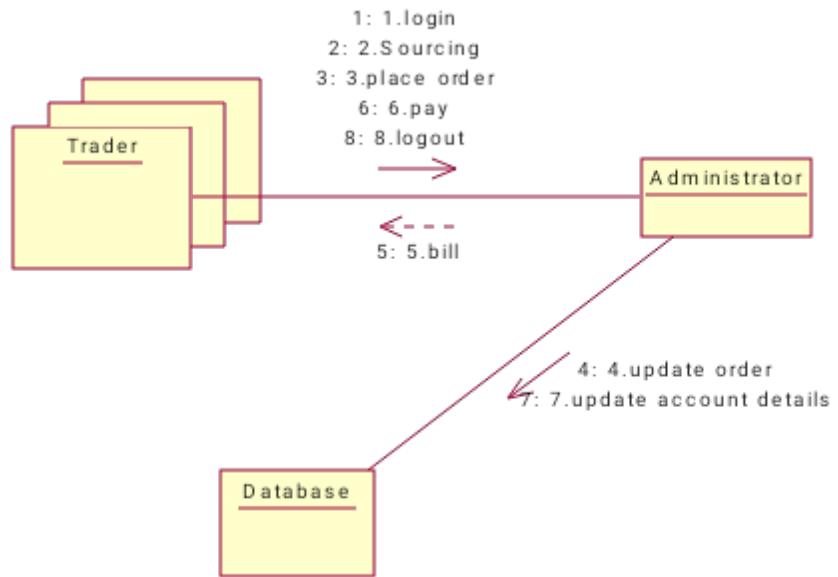
A sequence diagram in unified modeling language is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. Sequence diagrams are sometimes called event diagrams, event scenarios, and timing diagrams. This diagram shows a parallel vertical line called lifelines. There are two dimensions in this diagram

1. Vertical dimension-represents time.
2. Horizontal dimension-represent different object



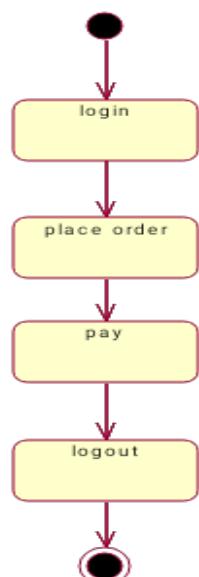
COLLABORATION DIAGRAM:

A collaboration diagram belongs to a group of UML diagrams called Interaction Diagrams. Collaboration diagrams, like sequence diagrams, show how the objects interact over the course of time. Collaboration diagrams show the sequence by numbering the messages on the diagram.



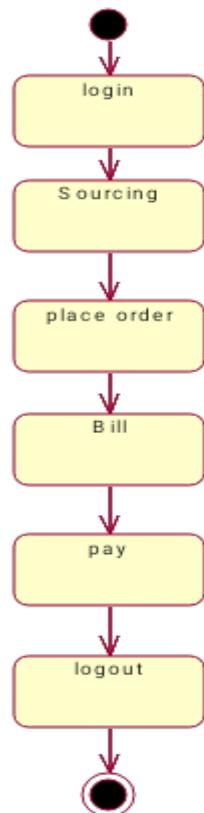
STATE CHART DIAGRAM:

The state chart is used to model dynamic nature of a system. They define different states of an object during its lifetime. And these states are changed by events. So these diagrams are useful for reactive systems i.e., a system that responds to external or internal events. It describes the flow of control from one state to other state. The initial state is represented using the small dot. The final state is represented using a circle surrounded by a small dot.



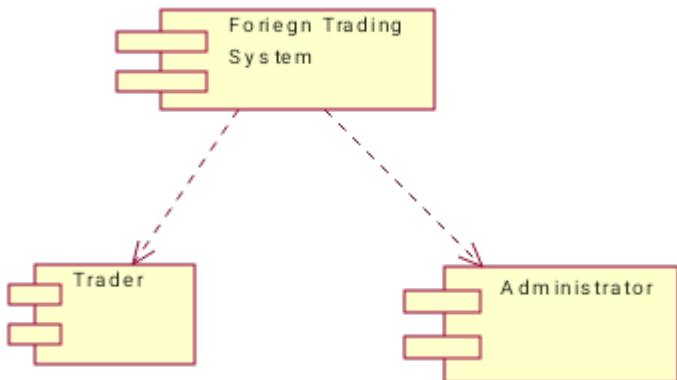
ACTIVITY DIAGRAM:

This diagram represents the graphical representation of workflows of stepwise activities and actions with support for choice, iteration and concurrency. It shows the overall flow of control.



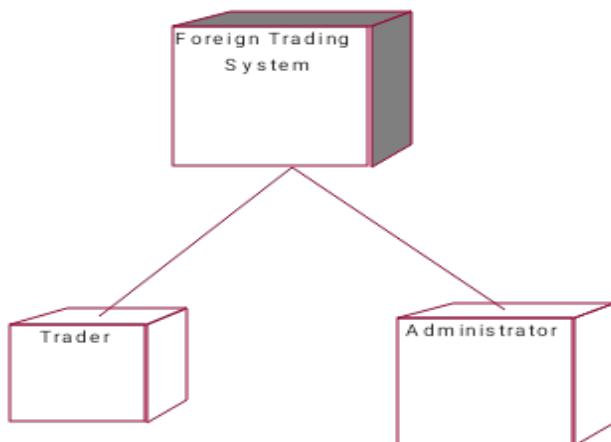
COMPONENT DIAGRAM:

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



DEPLOYMENT DIAGRAM:

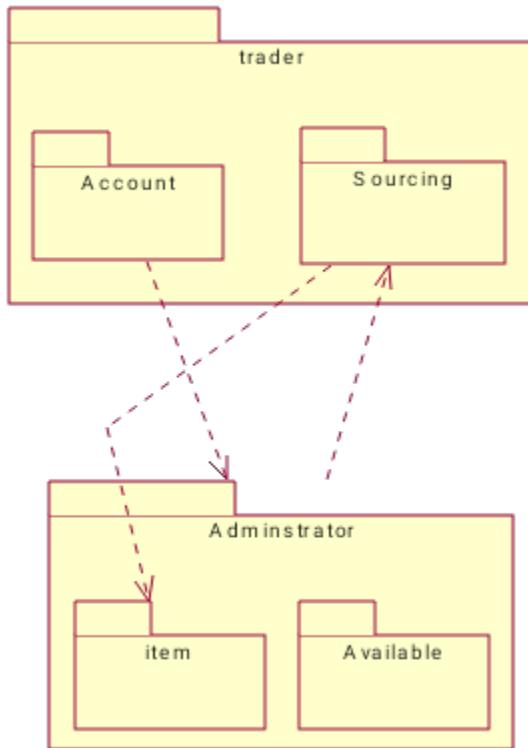
A deployment diagram in the unified modeling language serves to model the physical deployment of artifacts on deployment targets. Deployment diagrams show "the allocation of artifacts to nodes according to the Deployments defined between them. It is represented by 3- dimensional box. Dependencies are represented by communication association.



PACKAGE DIAGRAM:

A package diagram in the unified modeling language depicts the dependencies between the packages that make up a model. It provides a way to group the elements.

Between the packages that make up a model. It provides a way to group the elements.



CODING:

```

//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\Administrator.java
public class Administrator
{
private String Name;
private String Id;
public Item the Item;

/**
 * @roseuid 55FE986801E0
 */
public Administrator ()
{
}

/**
 * @roseuid 55FE91F301CD
 */
public void Bill1 ()
{

}
/** 
 * @roseuid 55FE91FB01C7
 */
public void Bill2 ()
{
```

```
}

/**
 * @roseuid 55FE92020324
 */
public void Trace Order ()
{

}

/**
 * @roseuid 55FE920E0296
 */
public void payBill1 ()
{

}

/**
 * @roseuid 55FE92180238
 */
public void payBill2 ()
{

}

}

//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\Item.java
public class Item
{
private String Name;
private integer Id;
private integer Rate;
private integer Available;

/**
 * @roseuid 55FE98680220
 */
public Item ()
{
}

/**
 * @roseuid 55FE926A027D
 */
public void Get Perfume ()
{
}

}

/**
```



```

* @roseuid 55FE927600C9
*/
public void Get Dolls ()
{
}

//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\AccountNo.java
public class Account No
{
private int Acne;
private int balance;
private int due;

/**
* @roseuid 55FE92A1000D
*/
public Account No ()
{
}

/**
* @roseuid 55FE92A8017D
*/
public void Account Pay ()
{
}
}

```

Viva Questions:

1. Identify the use cases in foreign trading system
Login,sourcing,bill,pay,place order,logout,update,
- 2.List the actors involved in the foreign trading system
Administrator,trader
3. Write the problem statement for foreign trading system

The steps involved in Foreign Trading System are:

- The foreign trading system begins its process by getting the username and password from the trader.
- After the authorization permitted by the administrator, the trader is allowed to perform the sourcing to know about the commodity details.
- After the required commodities are chosen, the trader places the order.
- The administrator checks for the availability for the required commodities and

updates it in
the database.

- After the commodities are ready for the trade, the trader pays the amount to the administrator.

RESULT:

Thus the project to develop foreign trading system using Rational Rose software was done successfully.

EX.NO: 12 CONFERENCE MANAGEMENT SYSTEM

DATE:

AIM:

To draw the diagrams for conference management system.

PROBLEM STATEMENT:

This project deals with the conference management system .As a students or staff members are required to view the details of conference is going to conduct in various colleges or institutions and to attend the conference to gain knowledge from

the conferences. Administrator will add the details about the various conferences available to attend for various department students and staff members. User will enter into the system by giving the username and password and selection form will be displayed for the user from that department should be selected and depending up on the department the conference management system will show the details of the conferences

1. INTRODUCTION:

1.1 Purpose:

This project is about developing a conference management system for various colleges within budget and should be delivered on time. The system should be able to provide the details regarding the various conferences available to attend for users and also allow the user to make enquiries about the details. Users can login by submitting the required information and make enquiries online for any particular conference and also view the details. The administrator will be able to maintain the conference details, student details, add or update the details.

1.2 Document Conventions:

The headings have been written using “normal” style with “Arial” font and font size of “12” with bold type. The contents under each heading uses “normal” style with “times” font and font size of “12”. The subheadings under each headings also use “normal” style with “times” font and size “12”. Every requirement statement has its own priority and each requirement is to be had a detailed study.

1.3 Intended Audience and Reading Suggestions:

The different types of reader that the document is intended for are developers, project managers, users, testers, and documentation writers. This SRS contains keenly analyzed and well organized requirements specification which the system is supposed to contain when being delivered to its customer. The Suggested way of reading the document for all the readers is in the sequence as it has been given in the document.

1.4 Project Scope:

A conference management system is a software that allows the users to view the details of conferences and make enquiries. The system allows the user to enter their

personal details needed for logging in. The administrator verifies the details and maintains the conference details as well as the user information.

1.5 References:None

2. OVERALL DESCRIPTION:

2.1 Product Perspective:

The system is a new, self-contained product with its own requirements and functionalities.

2.2 Product Features:

The significant functions that this product performs as well as lets the user to perform are as follows:

1. Verifying the user login.
2. Displaying the conference and each conference detail.
3. Enquiring about a particular conference.
4. Entering personal details required.
5. Verification of user details.
6. Adding details for conferences.

2.3 User Classes and Characteristics:

The various user classes that are being anticipated will this product is administrator and user.

ADMINISTRATOR:

The administrator can provide access privilege to the user through a User login; maintain the user details and conference details. The administrator also verifies the information entered by the user and adds required details about the conferences

USERS:

The users can login, enter their personal details. They can also view the conferences available, conference details and can enquire about any of the courses.

2.4 Operating Environment:

Hardware: 64 MB RAM, DB Server 128 MB RAM

Operating system: windows 98 and upwards

2.5 Design and Implementation Constraints:

A server with high end processor is required. The website must be registered in a domain to post to on the internet. Time and funding are the major constraints. Delivering on time withal the specification implied to the software is a major factor. To use and apply new technology to the software in order to cope with time, funds play a vital role. If the customer fails to provide the proper size of the product that is to be developed it will cause major problems for the completion of the project.

3. SYSTEM FEATURES:

3.1 System Feature 1:

LOGIN

3.1.1 Description and Priority:

This use case allows the administrator and users to access the website.

3.1.2 Stimulus/Response Sequences:

BASIC FLOW:

1. The user can view the conference list and details.
2. The user can enquire about the conference of choice and also enter the required personal details.
3. The user is provided with a login and password.
4. The administrator validates the user login, manages the conference list and provides the relevant details.

3.1.3 Functional Requirements:

ALTERNATIVE FLOW:

If the user doesn't give the right password, an error message will be displayed.

SPECIAL REQUIREMENTS:

A website of the college where the conference takes place which should be registered in a domain to be accessed all over the world through internet.

PRE-CONDITIONS:

The username and the corresponding passwords and the userid should already be

available in the legacy database. The user should provide required personal information.

POST-CONDITIONS:

If the login succeeds the user can view the conference list and also make the enquiries.

3.2 System feature 2:

VIEW DETAILS:

3.2.1 Description and Priority:

This use case allows the users to view details of the conferences along with their departments, date and timings of the conference, venue of the college, the college website with domain to register for the conferences.

3.2.2 Stimulus/Response Sequences:

BASIC FLOW:

1. The user should enter the name, address, age, DOB, qualification with departments of interest.
2. The administrator verifies the entered details and provides them with access to view the conference details.

3.2.3 Functional Requirements:

ALTERNATIVE FLOW:

If any of the required data is left or invalid the user should have to enter the proper details.

SPECIAL REQUIREMENTS: None.

PRE-CONDITIONS:

The student should have been login properly.

POST-CONDITIONS:

After entering the details, system should start processing it and store it into the Database.

4. EXTERNAL INTERFACE REQUIREMENTS:

4.1 User Interfaces:

The interface allows the user to login, browse through the conference details as well as select the preferred conference. The user can enter the required personal details for verification. The administrator provides validation to the user using login and

password. The administrator maintains the conference details, verifies the student details and adds essential details about the conferences.

4.2 Hardware Interfaces:

Disk is used for data storage. Keyboard is used for getting the input details and the monitor displays the output generated for the given input. Printer is used for printing the generated reports if necessary.

4.3 Software Interfaces:

Software: Java and Oracle10g

Windows XP, 7

Tools: EclipseIDE, RationalRose-2003

5. OTHER NONFUNCTIONAL REQUIREMENTS

5.1 Performance Requirements:

The user should be able to login. The conference list must be displayed correctly with its required details.

5.2 Security Requirements:

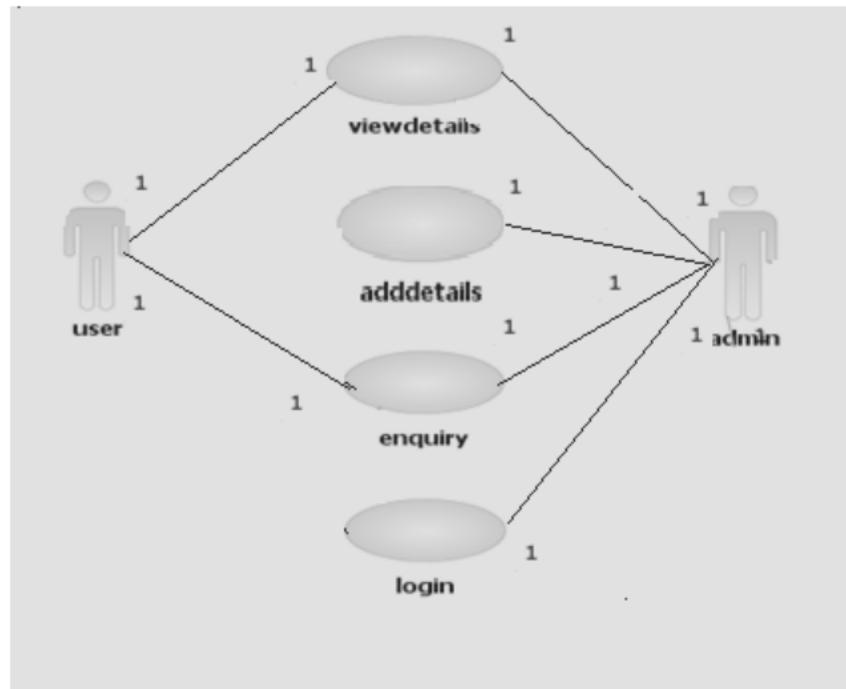
The user can login and access the system only using the username and password to view details. If any user without proper username, password or register number try to login they should be blocked or stopped from doing so. The personal information is also to be made secure.

5.3 Software Quality Attributes:

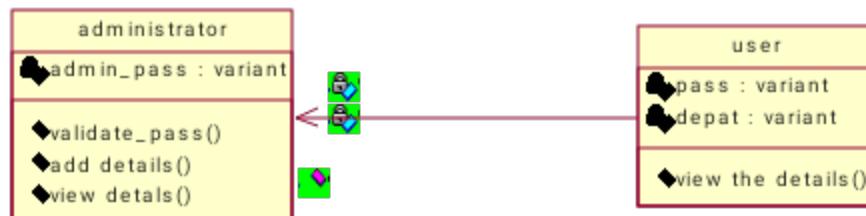
The expected key attributes out of this product are adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability.

6. Other Requirements:None.

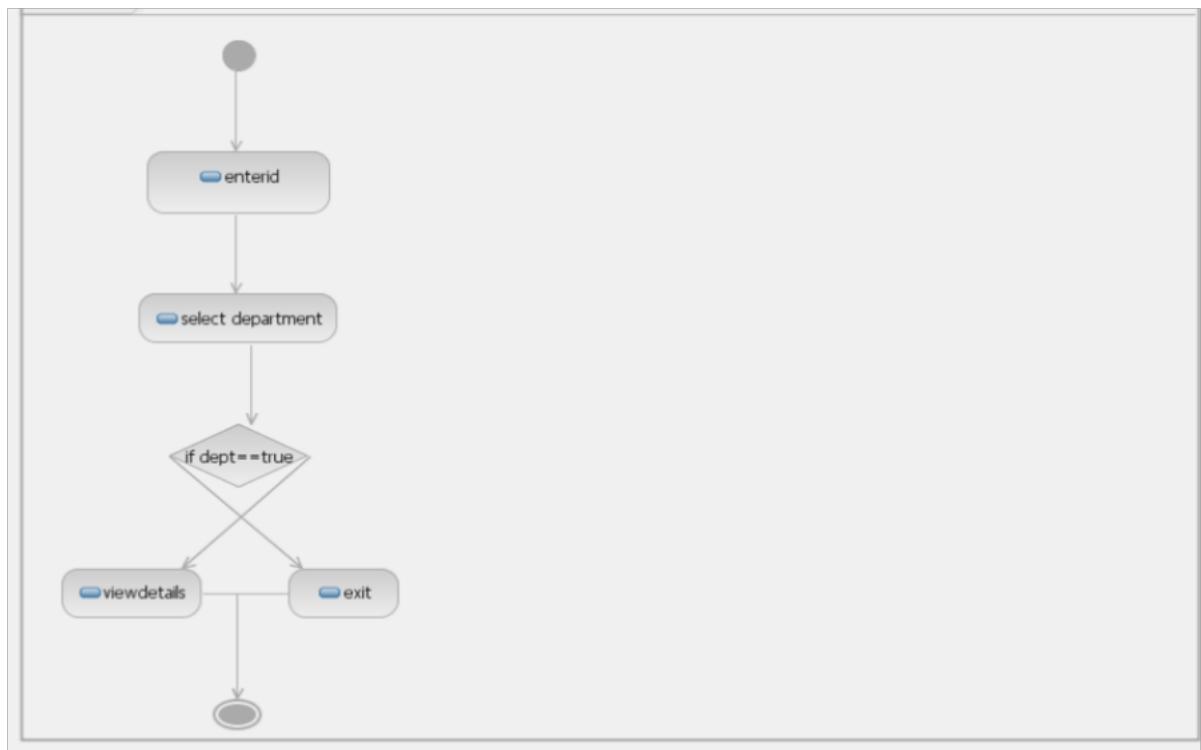
USE CASE DIAGRAM:



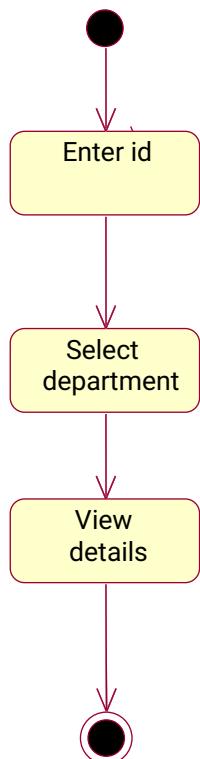
CLASS DIAGRAM:



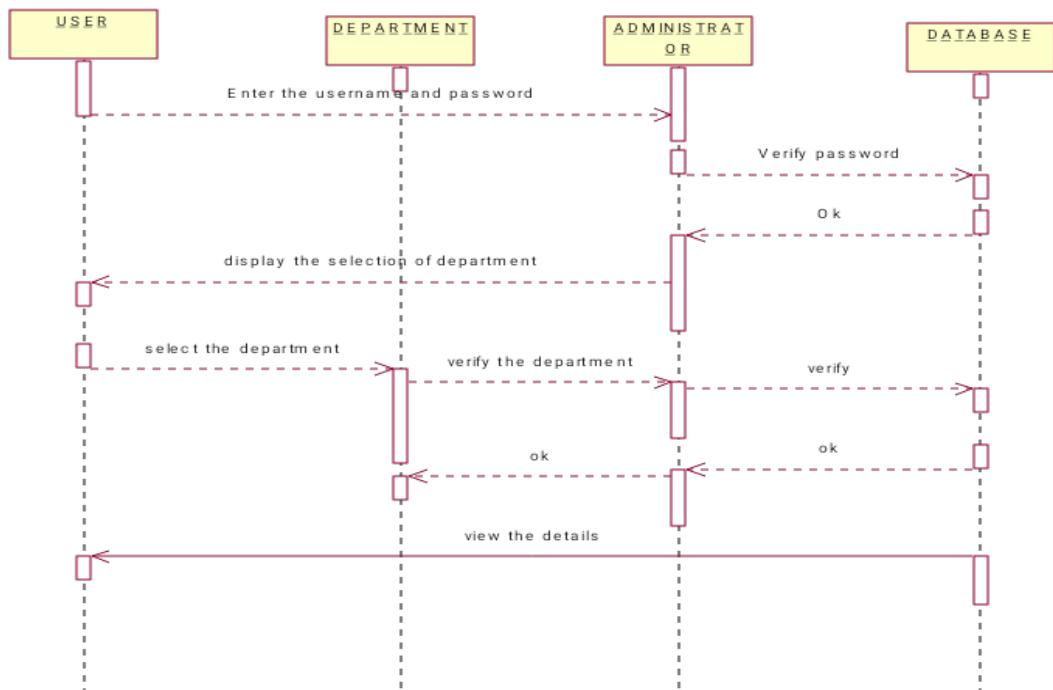
ACTIVITY DIAGRAM:



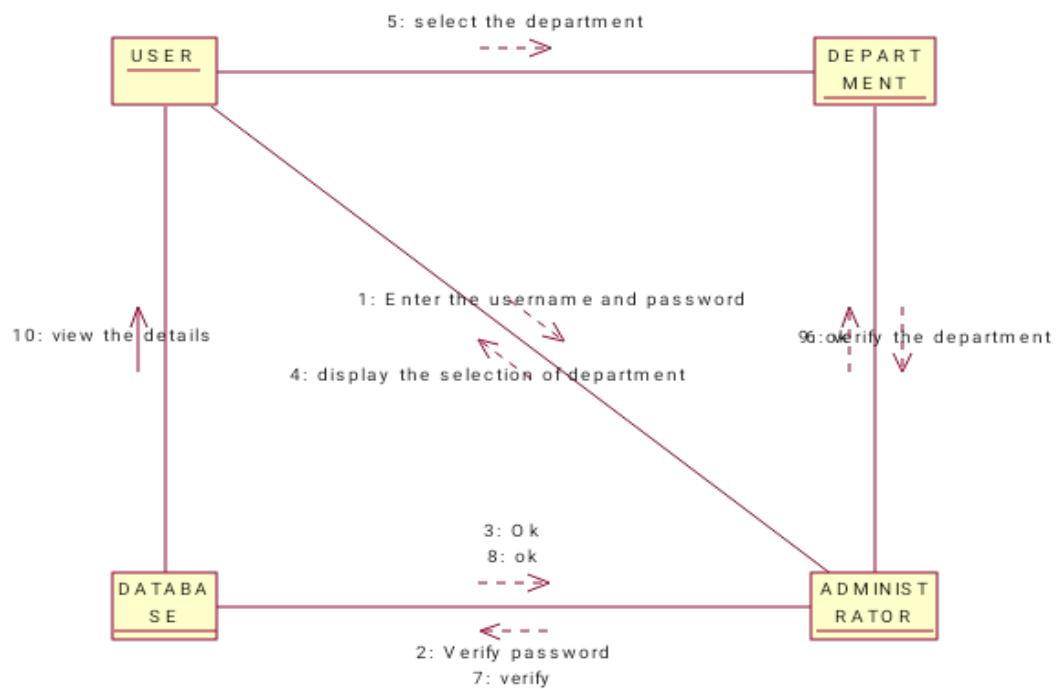
STATE CHART DIAGRAM:



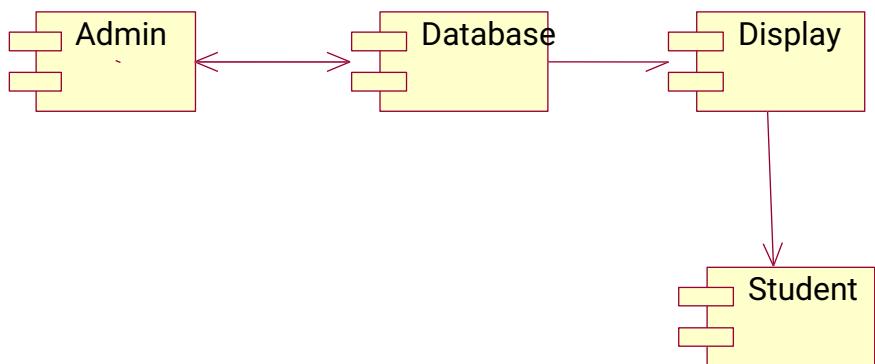
SEQUENCE DIAGRAM:



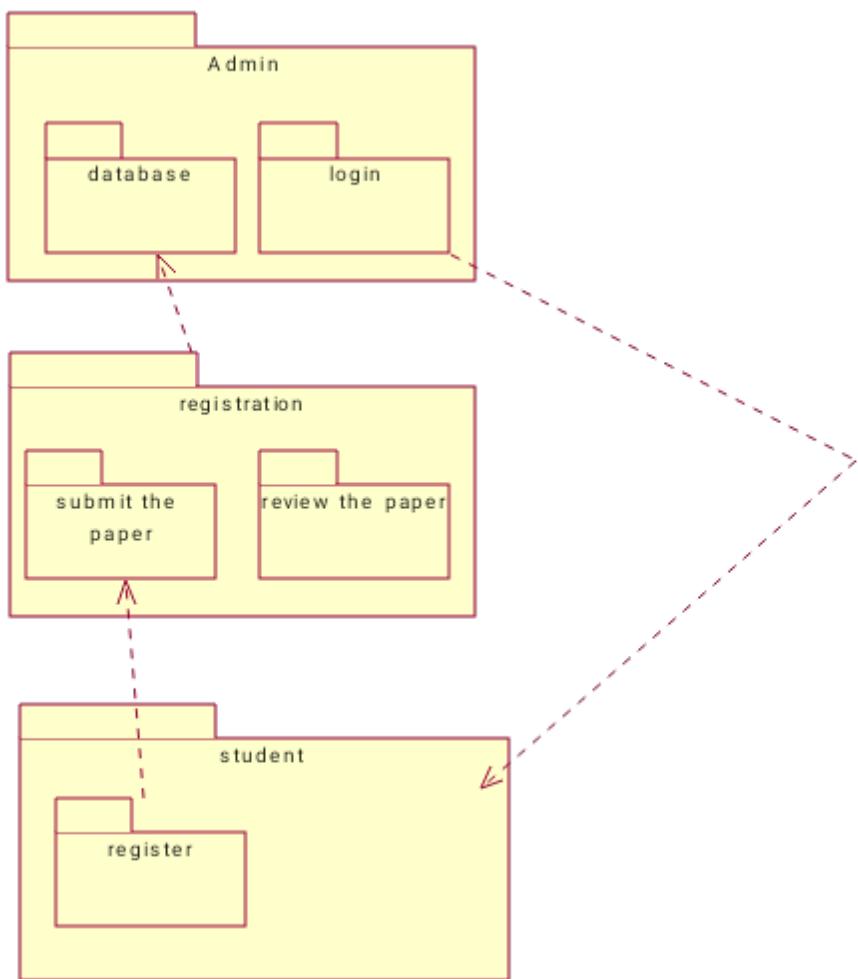
COLLABRATION DIAGRAM:



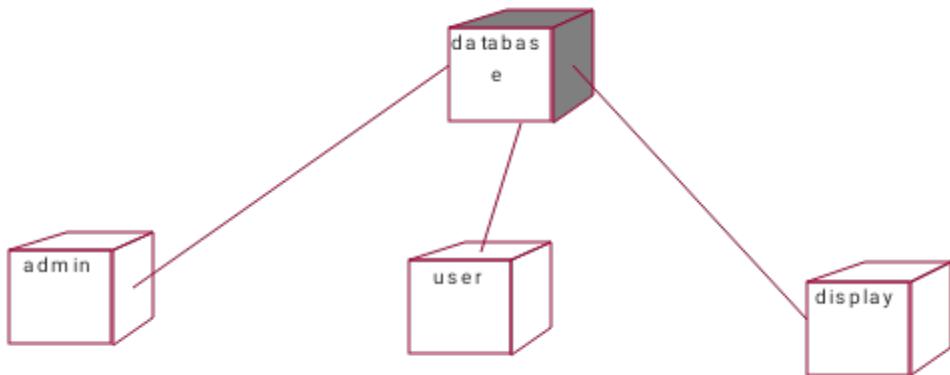
COMPONENT DIAGRAM:



PACKAGE DIAGRAM:



DEPLOYMENT DIAGRAM:



CODING:

```
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\administrator.java
public class administrator
{
private variant admin_pass;

/**
 * @roseuid 55FE709303E2
 */
public administrator()
{
}

/**
 * @roseuid 55FE702C0072
 */
public void validate pass ()
{
}

/**
 * @roseuid 55FE70360293
 */
public void add Details ()
{
}

/**
 * @roseuid 55FE703E0064
 */
```

```

public void view Details ()
{
}

}
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\user.java
public class user
{
private variant pass;
private variant depart;
public administrator the Administrator;

/**
 * @roseuid 55FE709303A4
 */
public user ()
{

}

/**
 * @roseuid 55FE70700246
 */
public void viewTheDetails ()
{
}
}

```

Viva Questions:

1. Identify the use cases in conference management system
View details,add details,enquiry,login
- 2.List the actors involved in the conference management system
User,admin
3. Write the problem statement for conference management system
This project deals with the conference management system .As a students or staff members are required to view the details of conference is going to conduct in various colleges or institutions and to attend the conference to gain knowledge from the conferences. Administrator will add the details about the various conferences available to attend for various department students and staff members. User will enter into the system by giving the username and password and selection form will be displayed for the user from that department should be selected and depending up on the department the conference management system will show the details of the conferences

RESULT:

Thus the conference management system project was executed and the output was verified.

EX.NO:13

BPO MANAGEMENT SYSTEM

DATE:

AIM:

To draw the diagrams [use case, activity, sequence, collaboration, class] for BPO management system

HARDWARE REQUIREMENTS:

Intel Pentium Processor 3

SOFTWARE REQUIREMENTS:

Rational rose

PROJECT DESCRIPTION:

This software is designed to know about the process that was taking place in the BPO office. This system holds the details of the customer who and all approaches to it. It is managed by the central system...

USE CASE DIAGRAM:

This diagram will contain the actors, use cases which are given below

Actors: Customer, Server, Central system

Use case: Product, Voice, NonVoice, Indian office, Employee, and Feedback.

ACTIVITY DIAGRAM:

This diagram will have the activities as Start point, End point, Decision boxes as given below:

Activities: Purchase product, on call, on chat

Decision box: Option to check

CLASS DIAGRAM:

This diagram consists of the following classes, attributes and their operations.

CLASSES	ATTRIBUTES	OPERATIONS
Central system	Store, update	Storing(), updating()
Dealer	Employee name	Delivery()
Customer	details	Feedback()

SEQUENCE DIAGRAM:

This diagram consists of the objects, messages and return messages.

Object: Customer, Dealer, Central system

COLLABORATION DIAGRAM:

This diagram contains the objects and actors. This will be obtained by the completion of the sequence diagram and pressing the F5 key.

MERITS:

Provides convenience.

Easily understandable.

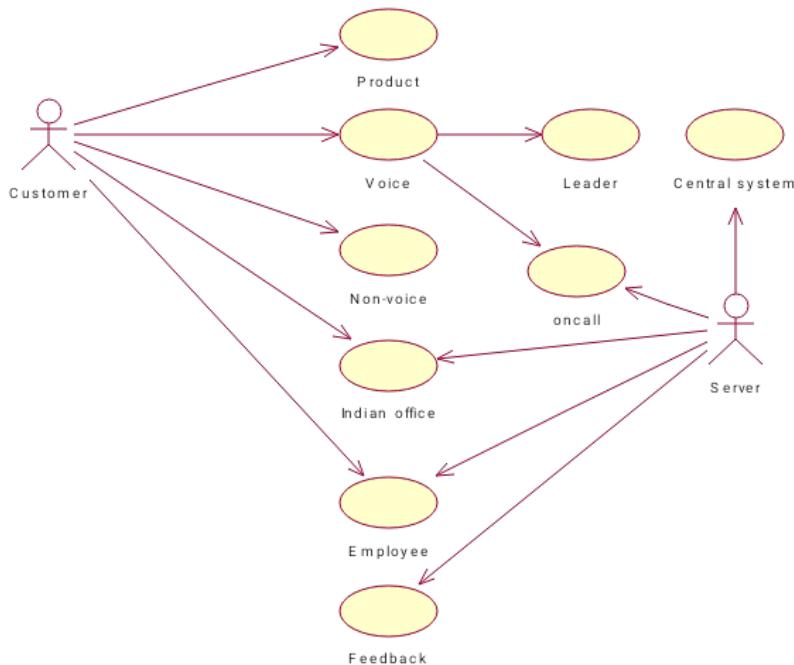
User friendliness.

DEMERITS:

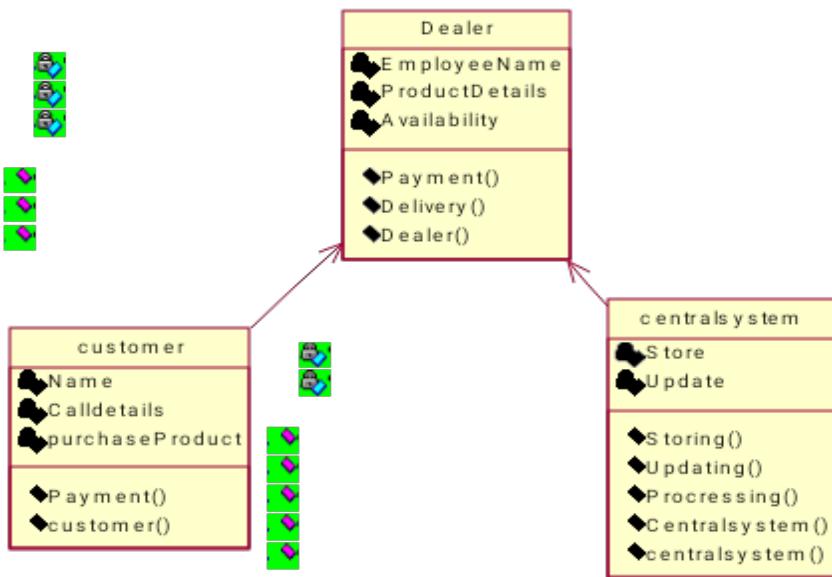
Need computer knowledge.

It is complex for large scale products.

USECASE DIAGRAM:



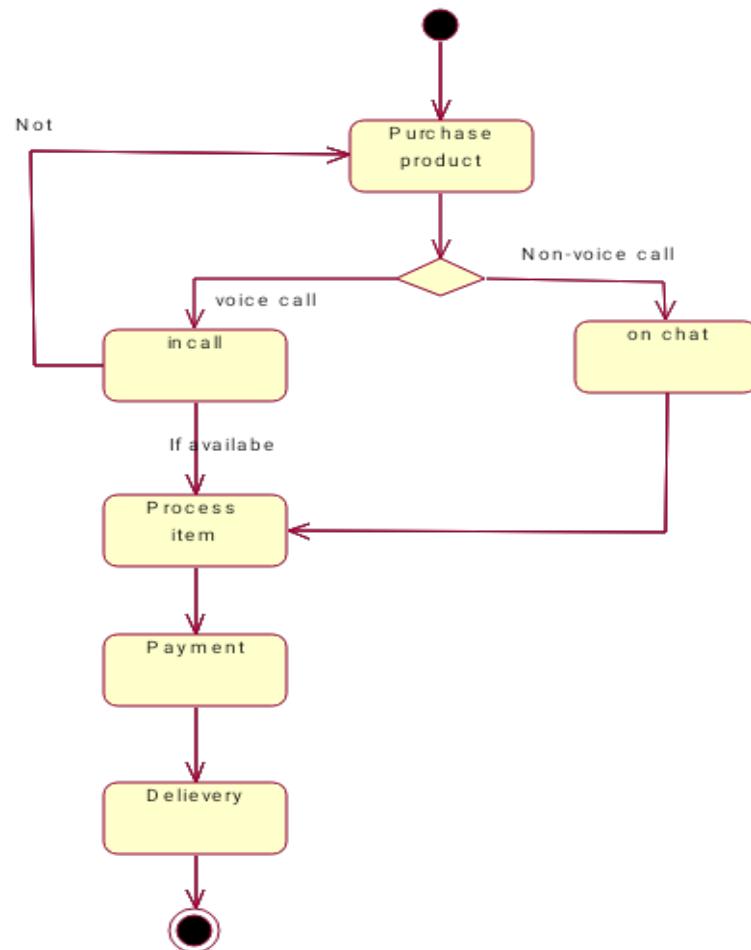
CLASS DIAGRAM:



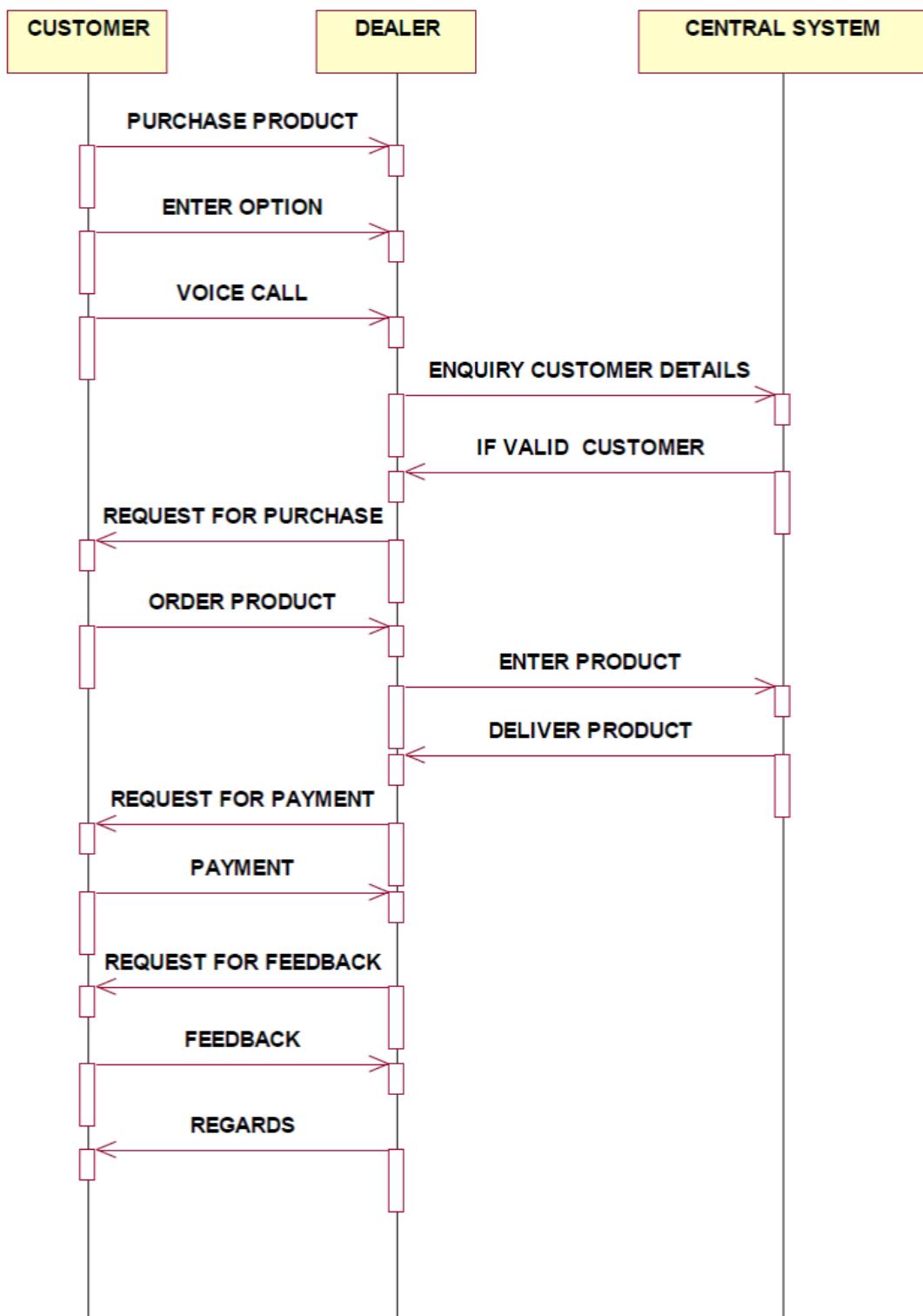
STATECHARTDIAGRAM:



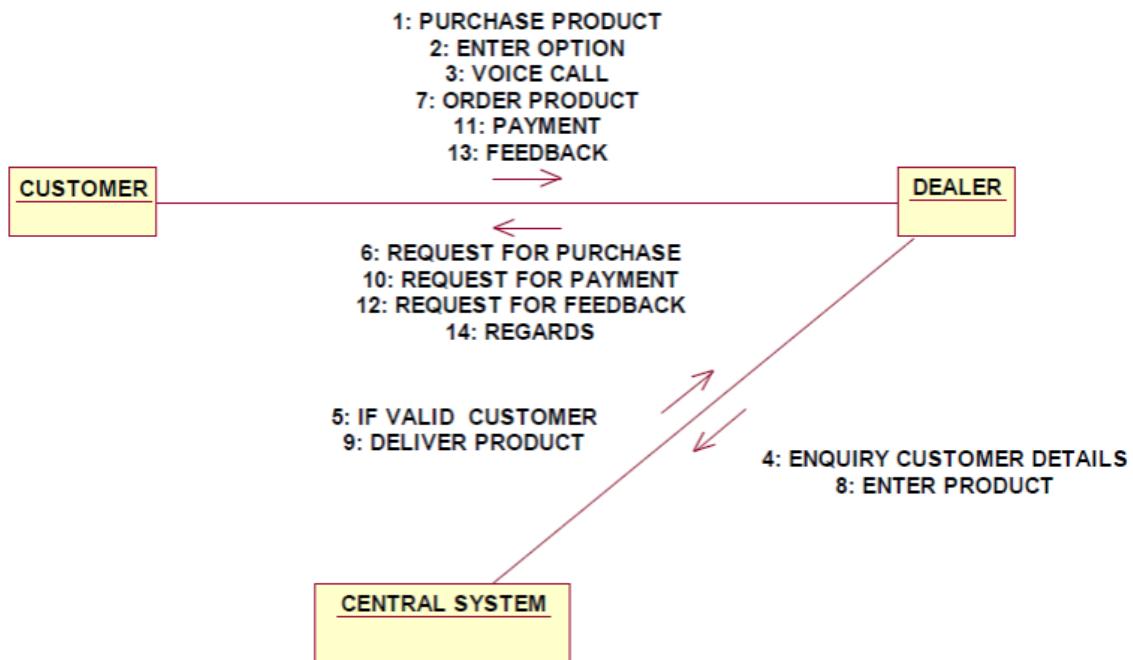
ACTIVITY DIAGRAM:



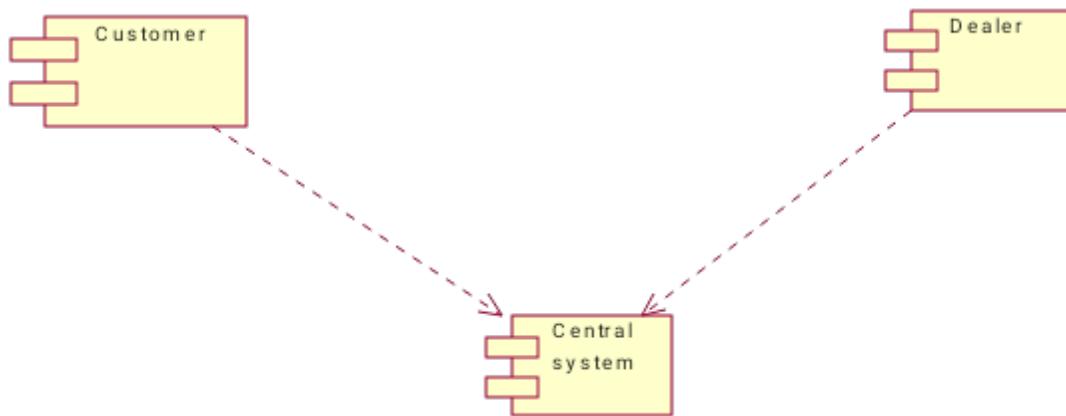
SEQUENCE DIAGRAM:



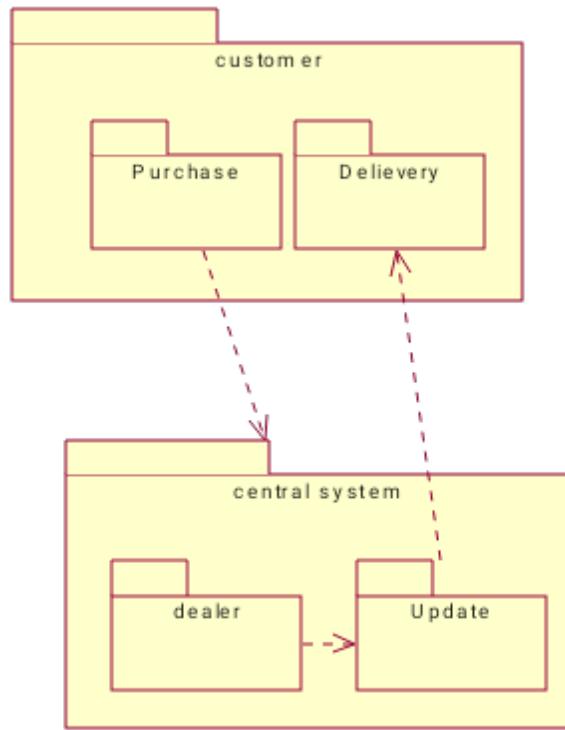
COLLABORATION DIAGRAM:



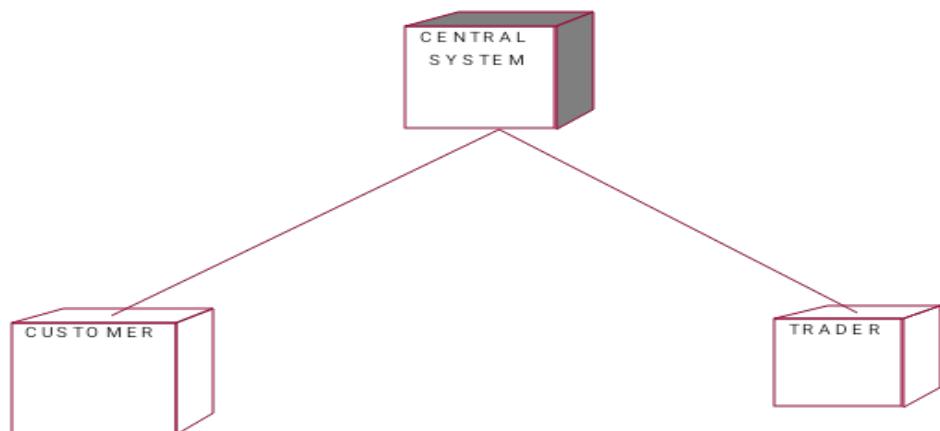
COMPONENT DIAGRAM:



PACKAGEDIAGRAM:



DEPLOYMENTDIAGRAM:



CODING:

```
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\customer.java
public class customer
{
    private int Name;
    private int Call details;
    private int purchase Product;
    public Dealer the Dealer;
    /**
     * @roseuid 55FEB10202FB
     */
    public customer ()
    {
    }
    /**
     * @roseuid 55FEB0F50082
     */
    public void Payment ()
    {
    }
}
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\centralsystem.java
public class central system
{
    private int Store;
    private int Update;
    public Dealer the Dealer;
    /**
     * @roseuid 55FEB102032A
     */

    public central system ()
    {
    }
    /**
     * @roseuid 55FEB0F5009A
     */
    public void Storing ()
    {
    }
    /**
     * @roseuid 55FEB0F5009B
     */
    public void Updating ()
    {
    }
```



```
/**  
 * @roseuid 55FEB0F5009C  
 */  
public void Processing ()  
{  
}  
}  
/**  
 * @roseuid 55FEB0F5009D  
 */  
public void Central system ()  
{  
}  
}  
}
```

```
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\Dealer.java  
public class Dealer  
{  
    private int Employee Name;  
    private int Product Details;  
    private int Availability;  
    /**  
     * @roseuid 55FEB0F5008F  
     */  
    public Dealer ()  
{  
}  
}  
/**  
 * @roseuid 55FEB0F5008D  
 */  
public void Payment ()  
{  
}  
}  
/**  
 * @roseuid 55FEB0F5008E  
 */  
public void Delivery ()  
{  
}  
}
```

Viva Questions:

1. Identify the use cases in bpo management system
Product,voice,non-voice,indian office,employee.
- 2.List the actors involved in the bpo management system
Customer,server
3. Write the problem statement for bpo management system

This software is designed to know about the process that was taking place in the BPO office. This system holds the details of the customer who and all approaches to it. It is managed by the central system...

RESULT:



Thus the diagrams [Use case, class, activity, sequence, collaboration] for the BPO management system has been designed, executed and output was verified.

EX.NO: 14

LIBRARY MANAGEMENT SYSTEM

DATE:

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 register 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 REQUIREMENTS:

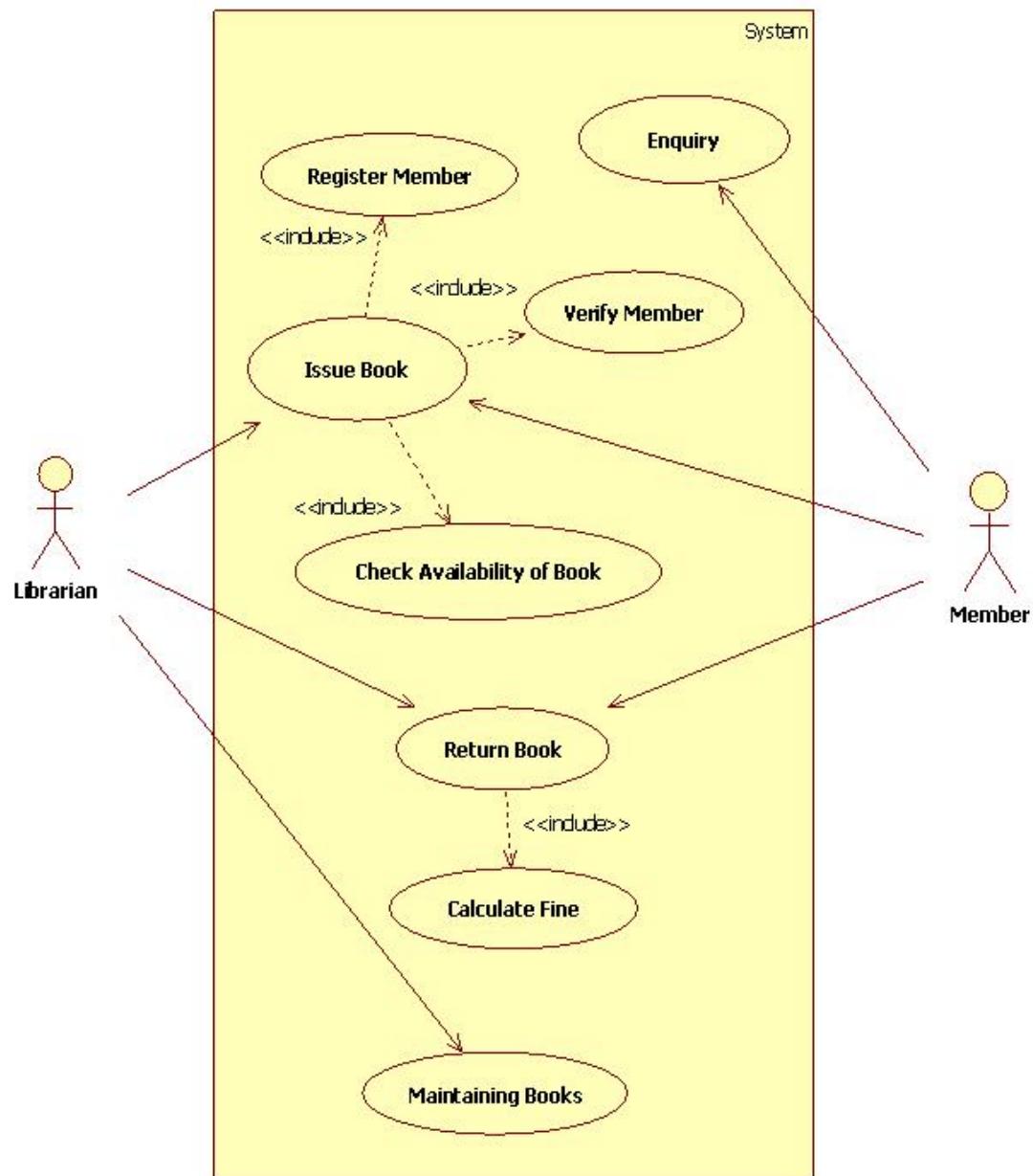
Rational Rose

SQL 8.0

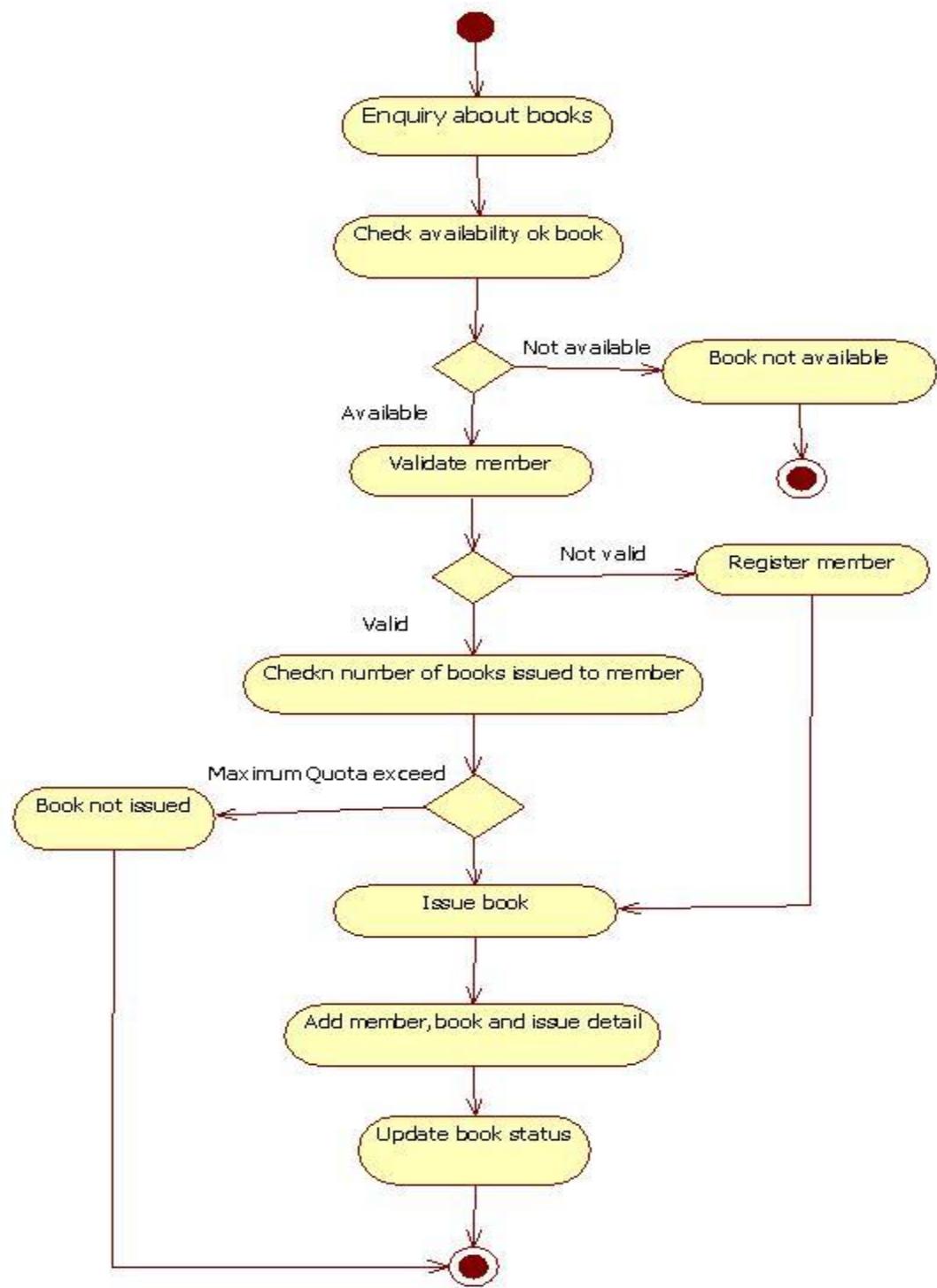
HARDWARE REQUIRMENTS:

1. 512MB RAM
2. Pentium III Processor

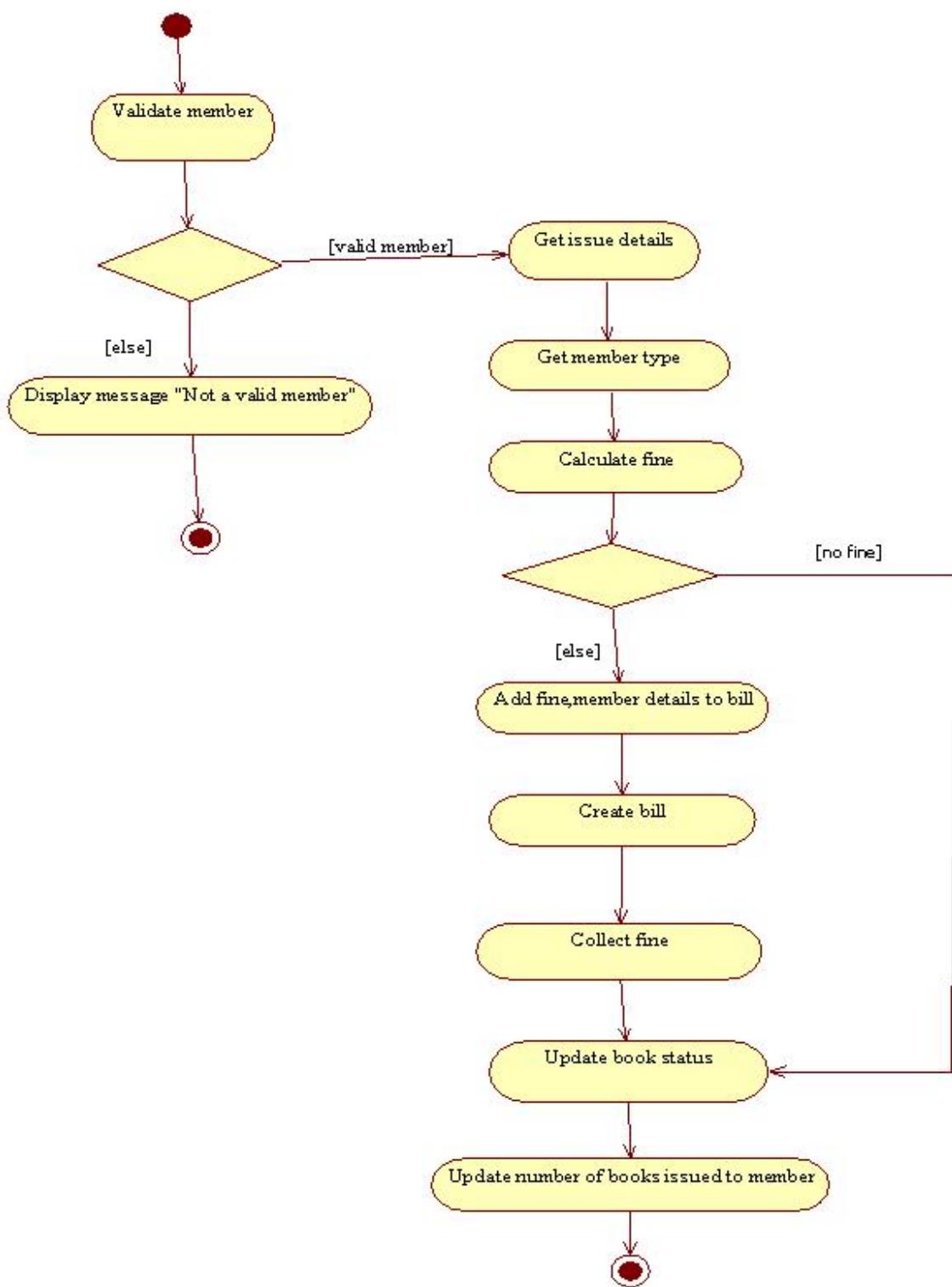
USE CASE DIAGRAM:



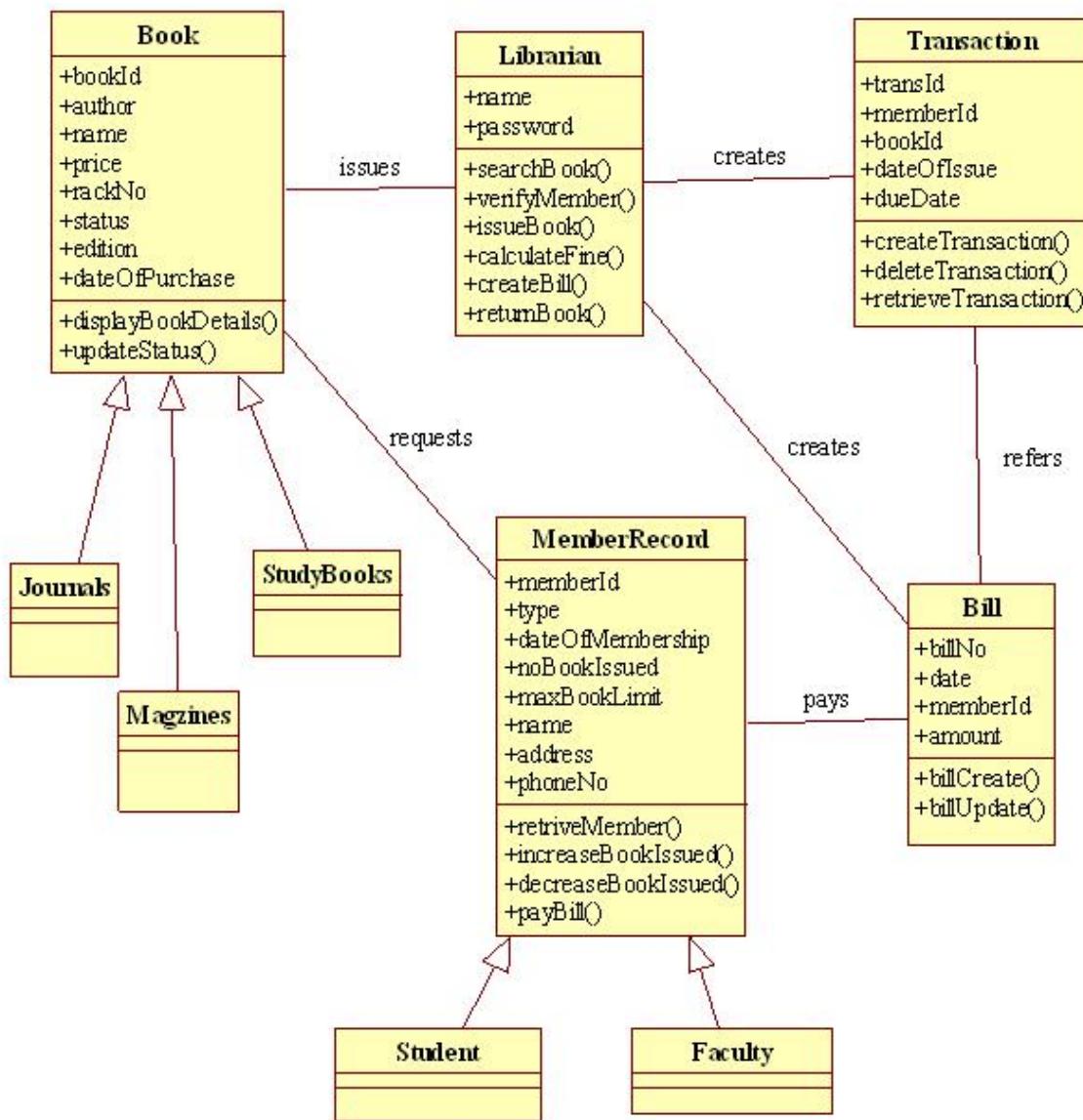
ACTIVITY DIAGRAM FOR ISSUE BOOK IN LIBRARY:



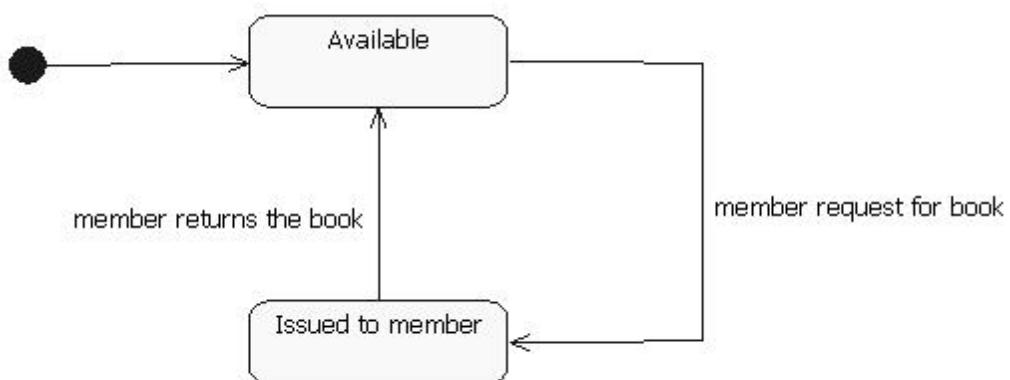
ACTIVITY DIAGRAM FOR RETURN BOOK IN LIBRARY:-



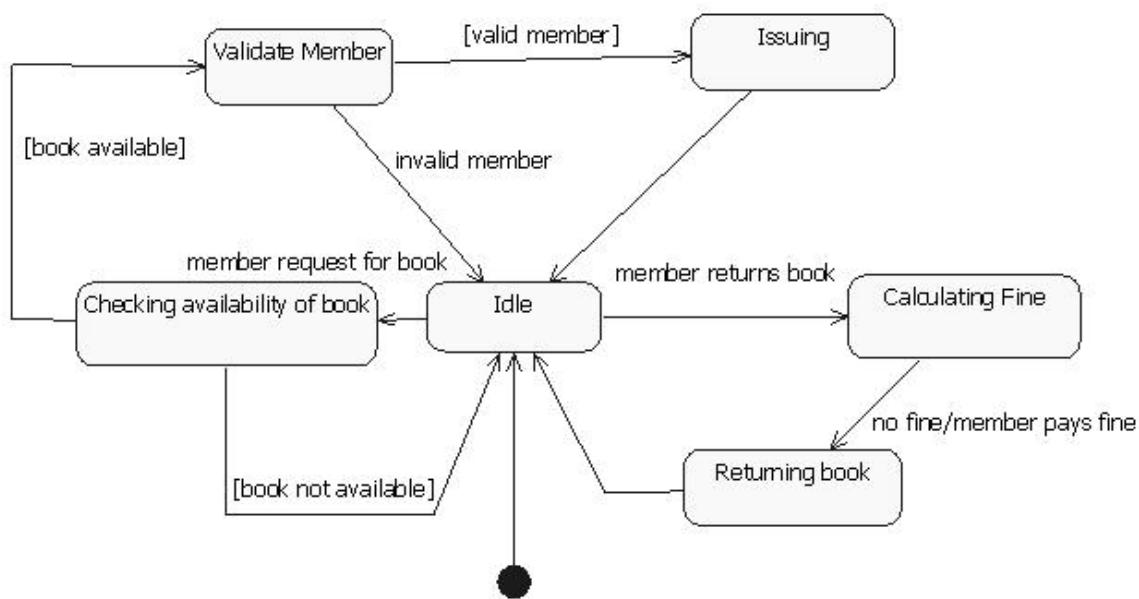
CLASS DIAGRAM:



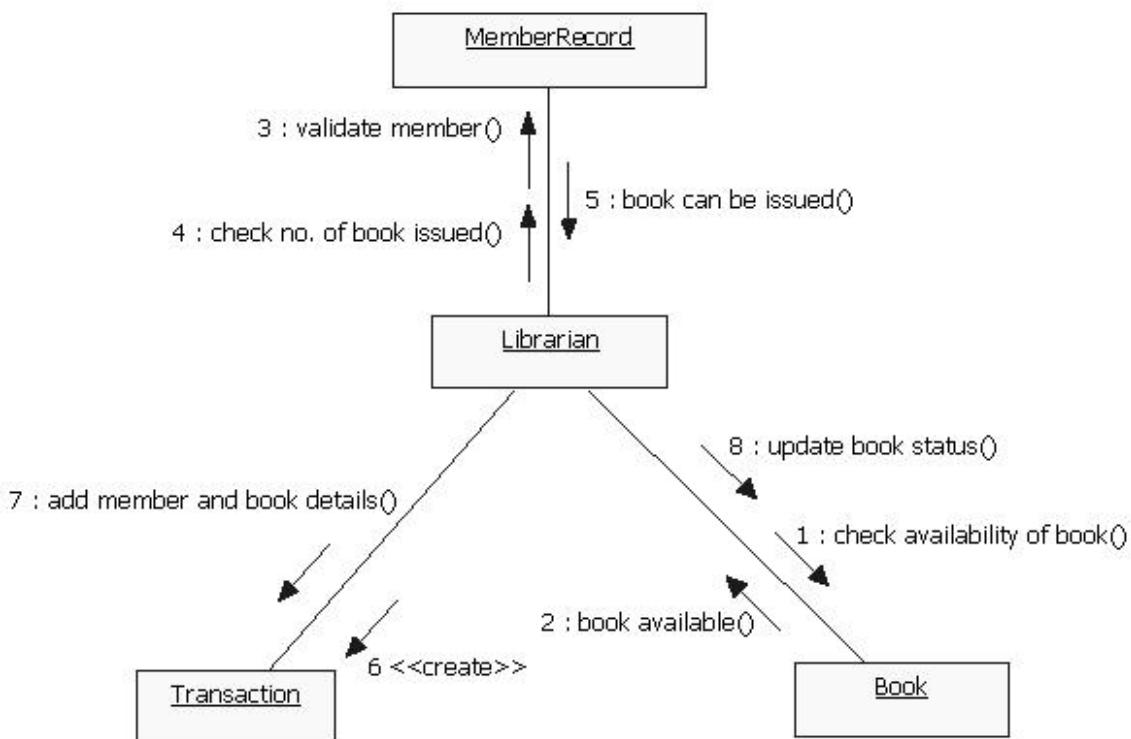
STATE DIAGRAM FOR BOOK:



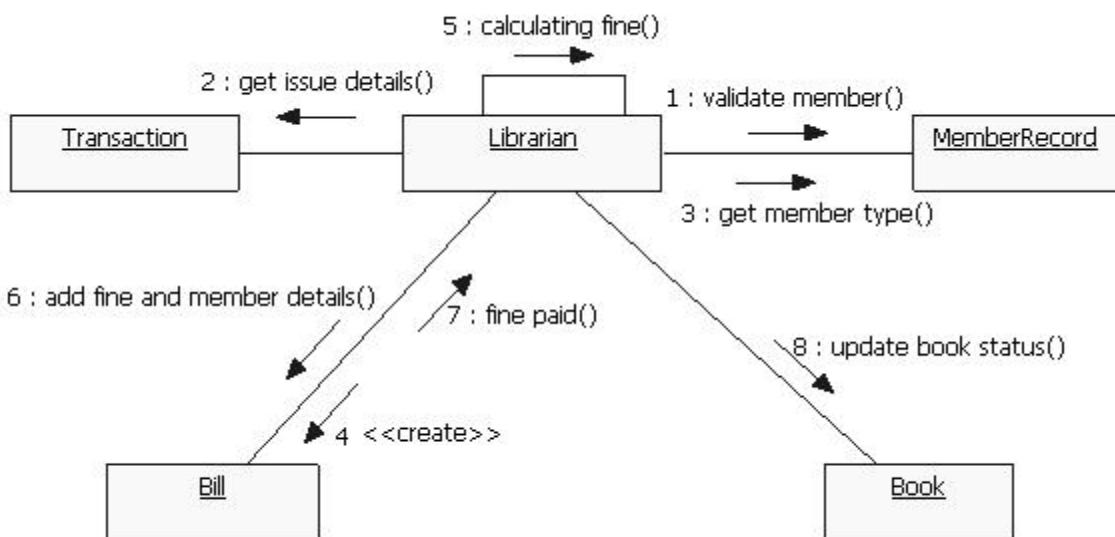
STATE DIAGRAM FOR LIBRARIAN:



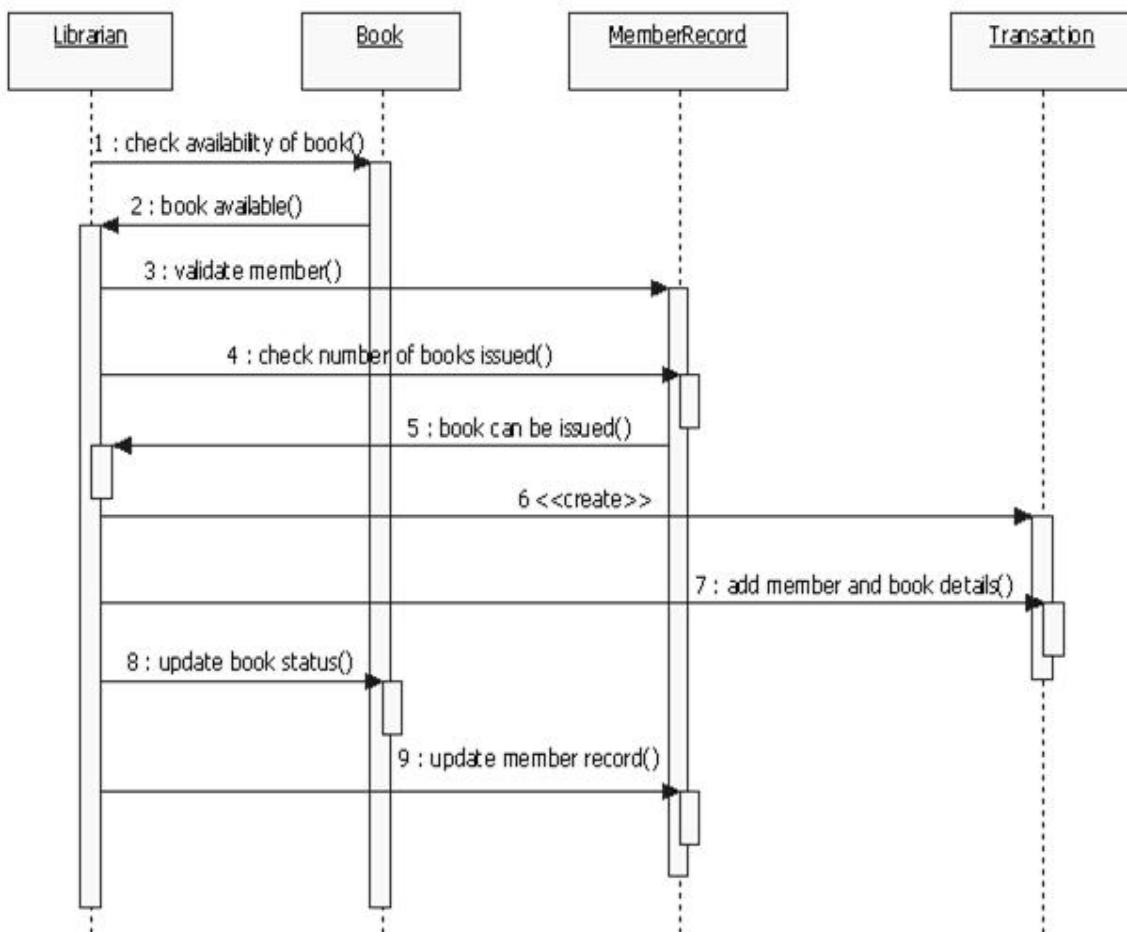
COLLABORATION DIAGRAM FOR ISSUING BOOK:



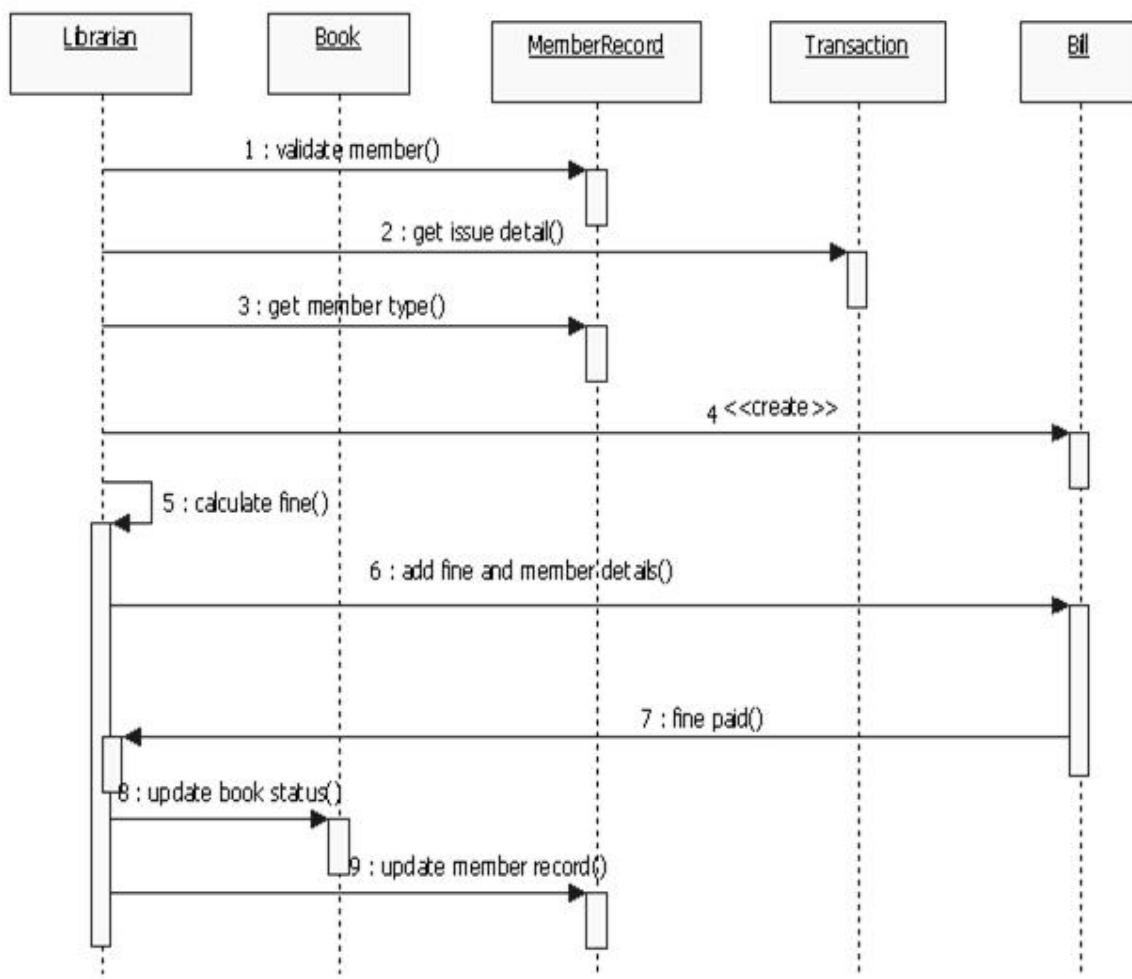
COLLABORATION DIAGRAM FOR RETURNING BOOK:



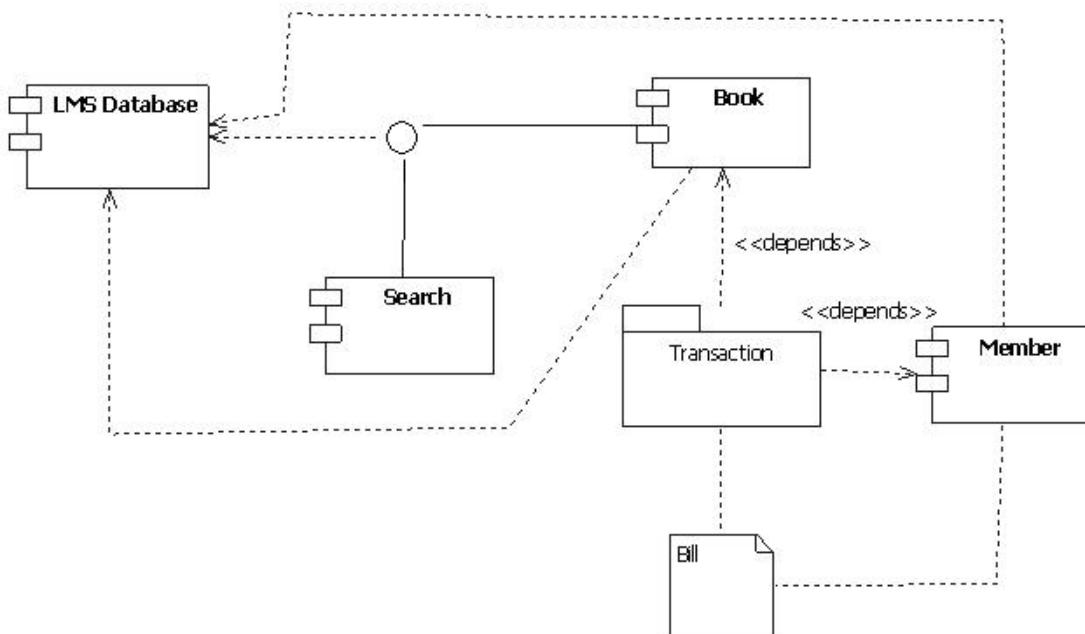
SEQUENCE DIAGRAM FOR ISSUING BOOK:



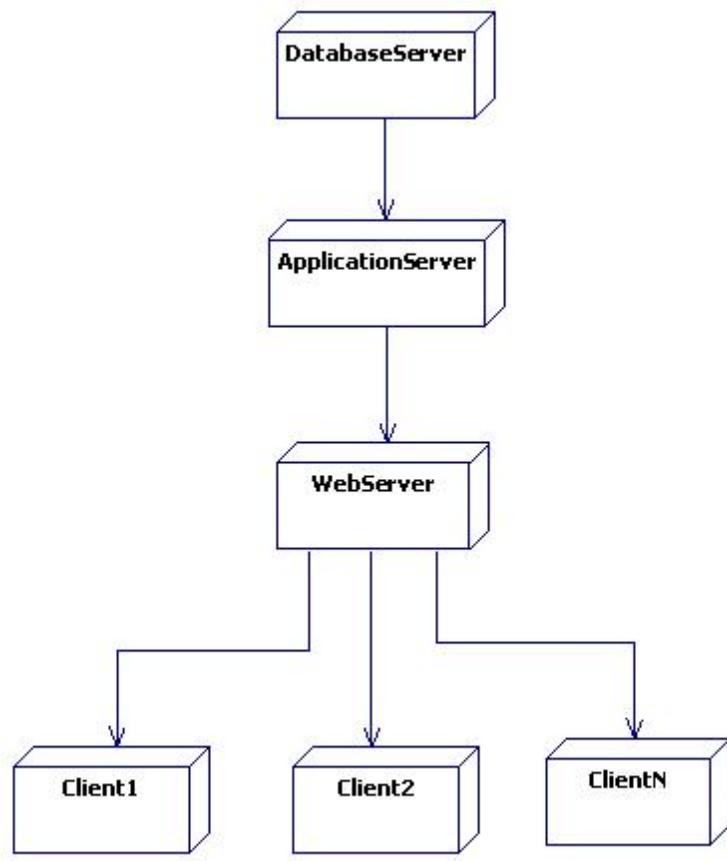
SEQUENCE DIAGRAM FOR RETURNING BOOK:



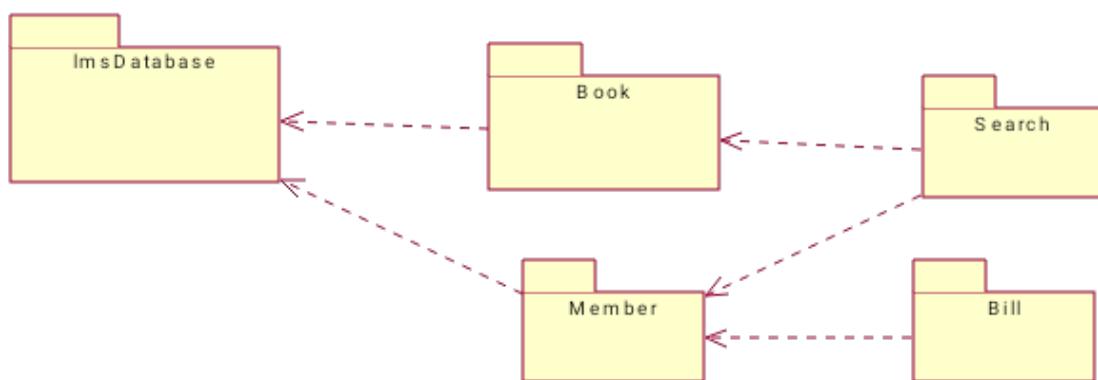
COMPONENT DIAGRAM:



DEPLOYMENT DIAGRAM:



PACKAGE DIAGRAM:



CODING:

```
//Source file: C:\\PROGRAM FILES\\JAVA\\JDK1.8.0_31\\bin\\MemberRecord.java
public class Member Record
{
    public int memberID;
    public int type;
    public int dateOfMembership;
    public int noBookIssued;
    public int maxBookLimit;
    public int name;
    public int address;
    public int phone No;
    /**
     * @roseuid 55F827C30138
    */
    public Member Record ()
    {
    }
    /**
     * @roseuid 55F821120121
    */
    public void retriveMember ()
    {
    }
    /**
     * @roseuid 55F8211D0250
    */
    public void increaseBookIssued ()
    {
    }
    /**
     * @roseuid 55F8212702D6
    */
    public void decreaseBookIssued ()
    {
    }
    /**
     * @roseuid 55F821360320
    */
    public void payBill ()
    {
    }
}
```

Viva Questions:

1. Identify the use cases in library management system
Register member, issue book, enquiry, verify member, return book, calculate fine
2. List the actors involved in the library management system
Librarian, member
3. Write the problem statement for library management system
To create Library Management System software that will meet the needs of the applicant and help them to register and buy the book for the Library, modification in database and cancellation for the registered project.

RESULT:

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



EX. NO:15

STUDENT INFORMATION SYSTEM

DATE:

AIM:

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

PROBLEM ANALYSIS AND PROJECT PLANNING:

A Student information system (SIS) 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. Cheap
- c. Better Service

UML DIAGRAMS:

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

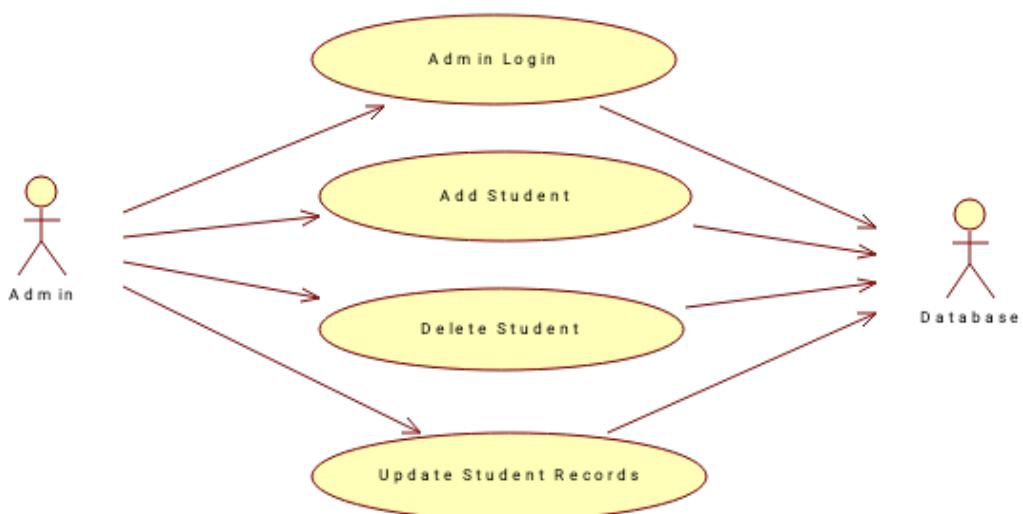
- a. Use case diagram
- b. Class diagram
- c. Sequence diagram
- d. Collaboration diagram
- e. Activity diagram
- f. Component diagram

USE CASE DIAGRAM:

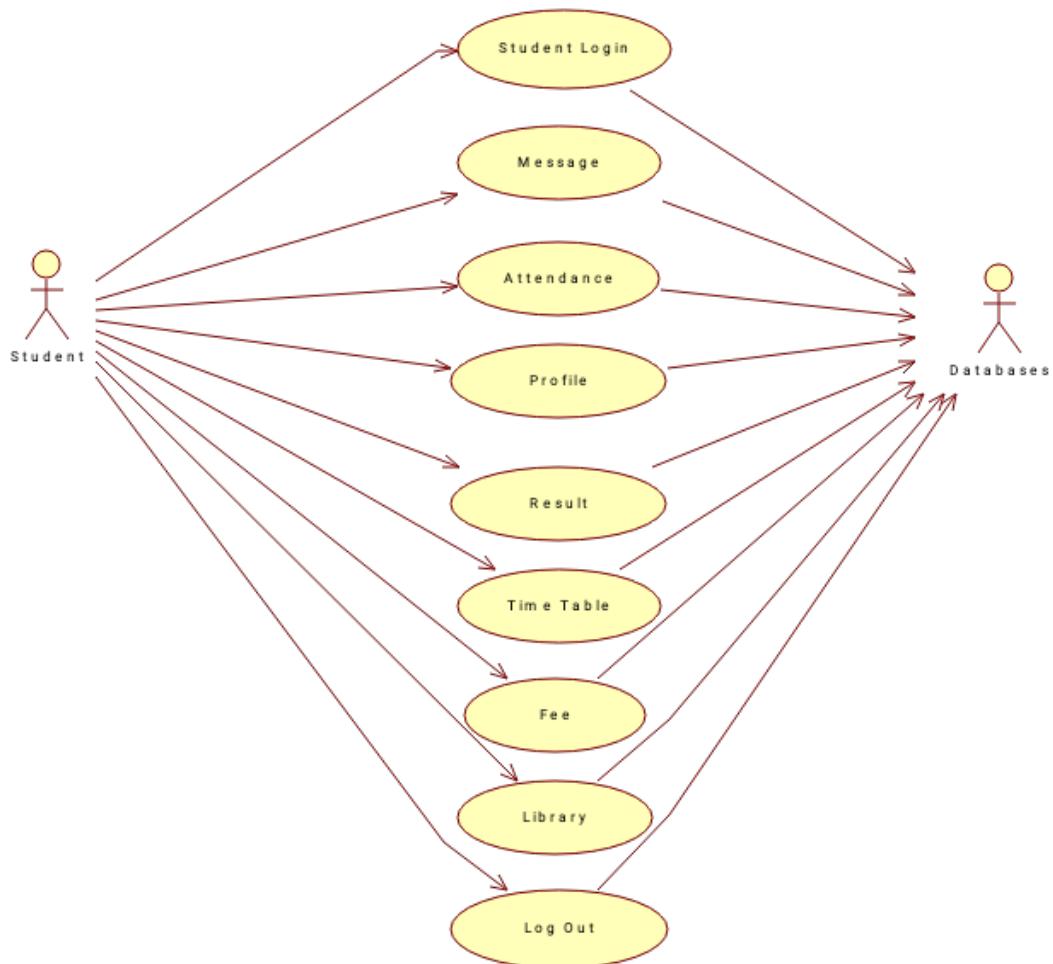
A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. The use case is made up of a set of possible sequences of interactions between systems and users in a particular environment and related to a particular goal. It is represented using ellipse. Actor 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:



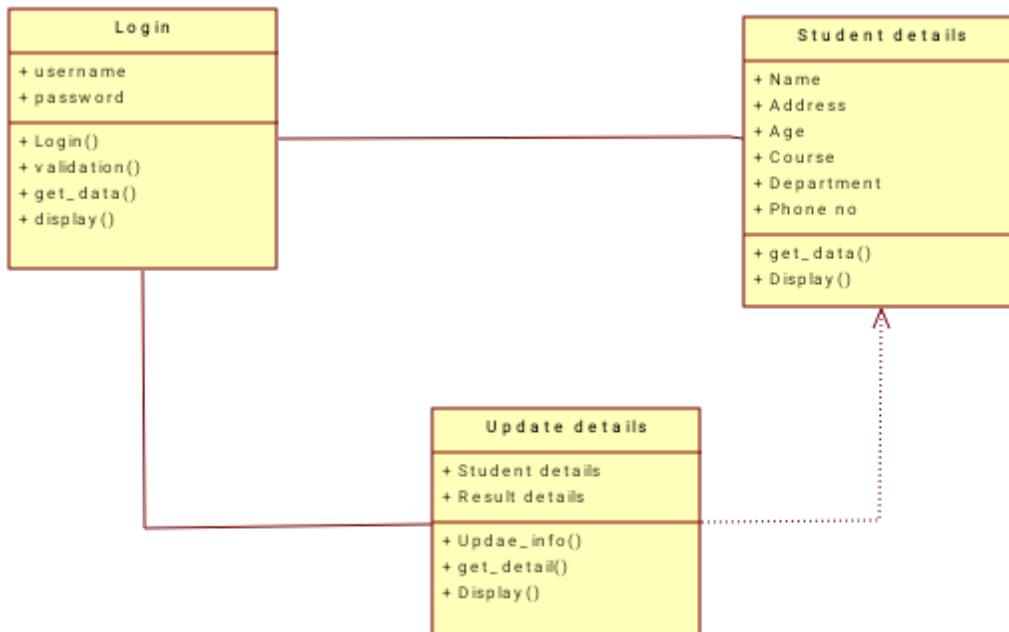
CLASS DIAGRAM:

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:

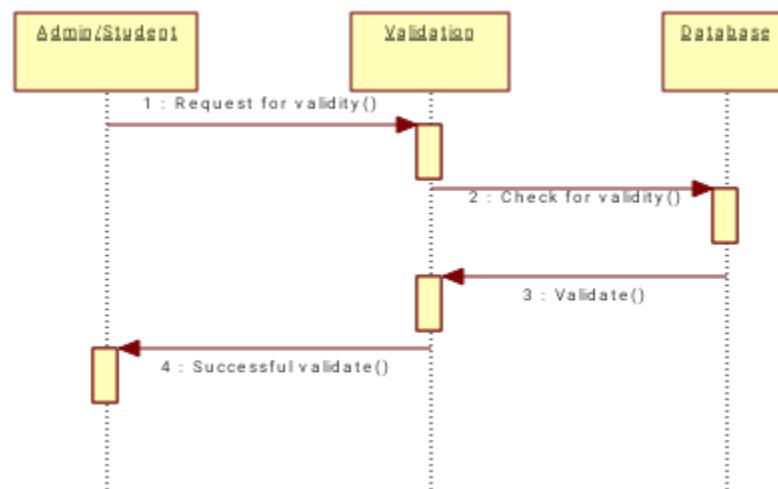
A sequence diagram in Unified Modeling Language (UML) is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. There are two dimensions.

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

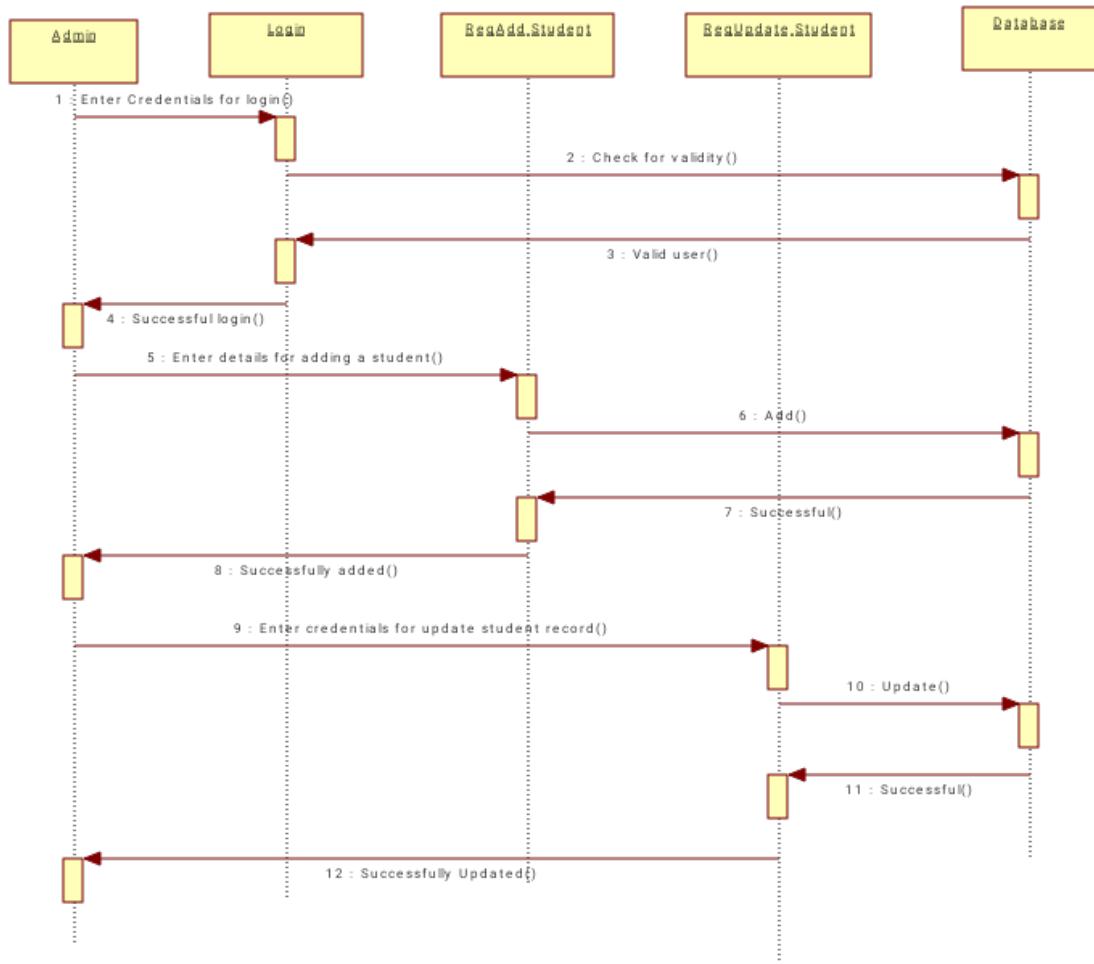
The sequence diagram describes the sequence of steps to show

- 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.

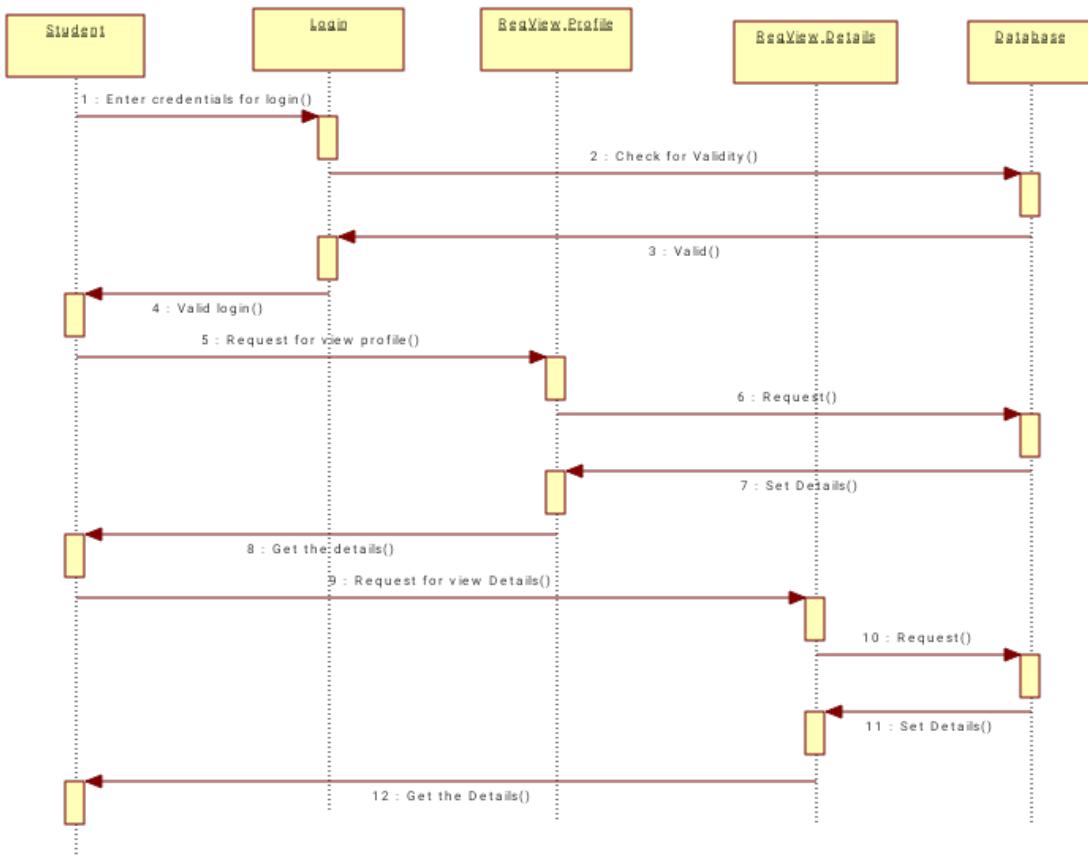
For Validity:



For Administrator:



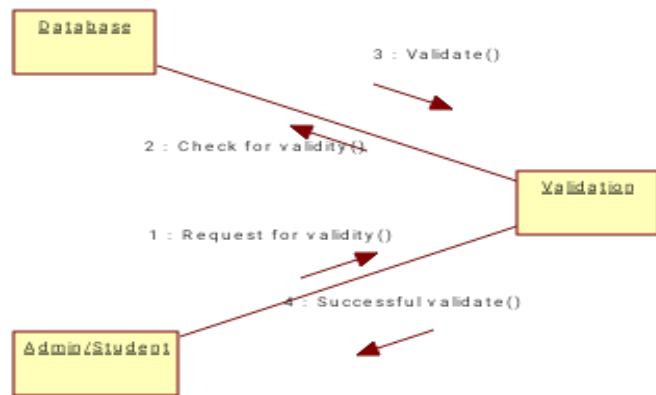
For Student:



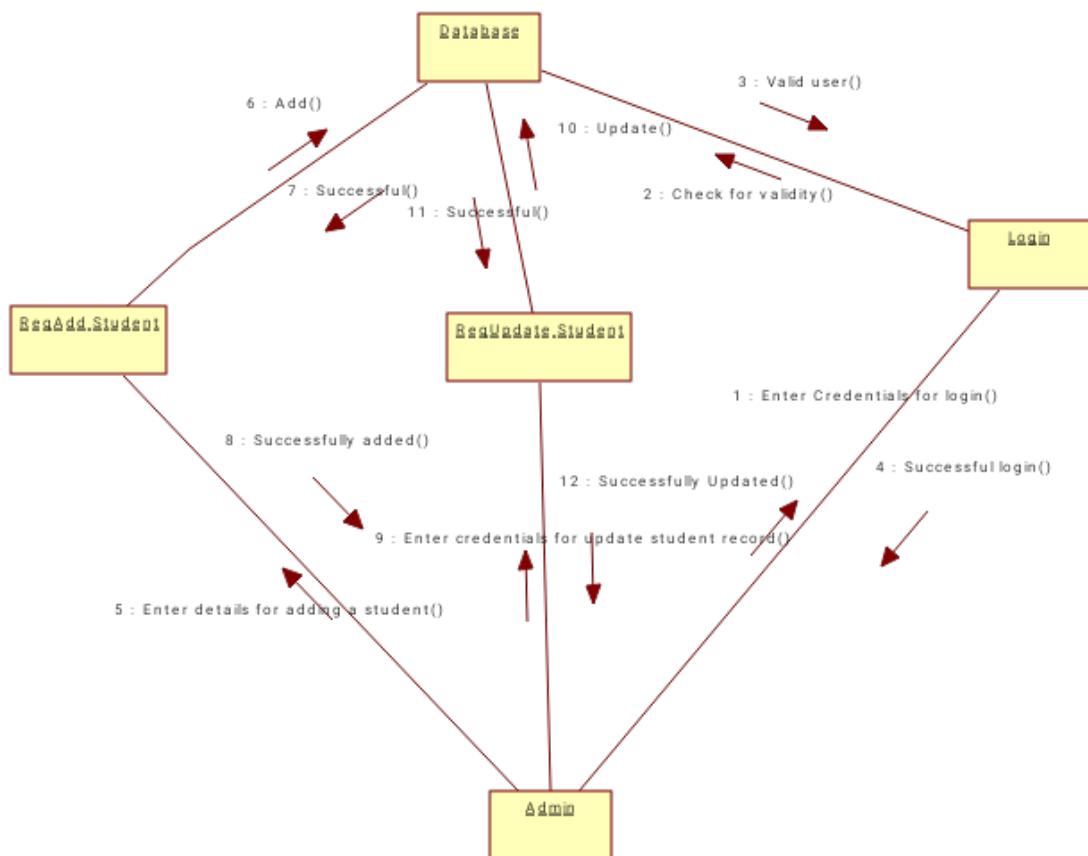
COLLABORATION DIAGRAM:

A collaboration diagram, also called a communication diagram or interaction diagram, a sophisticated modeling tool can easily convert a collaboration diagram into a sequence diagram and the vice. A collaboration diagram resembles a flowchart that portrays the roles, functionality and behavior of Individual objects as well as the overall operation of the system in real time. The collaboration diagram is to show how the Student registers and the authorities maintain the details of the registered students in the Information system. Here the sequence is numbered according to the flow of execution.

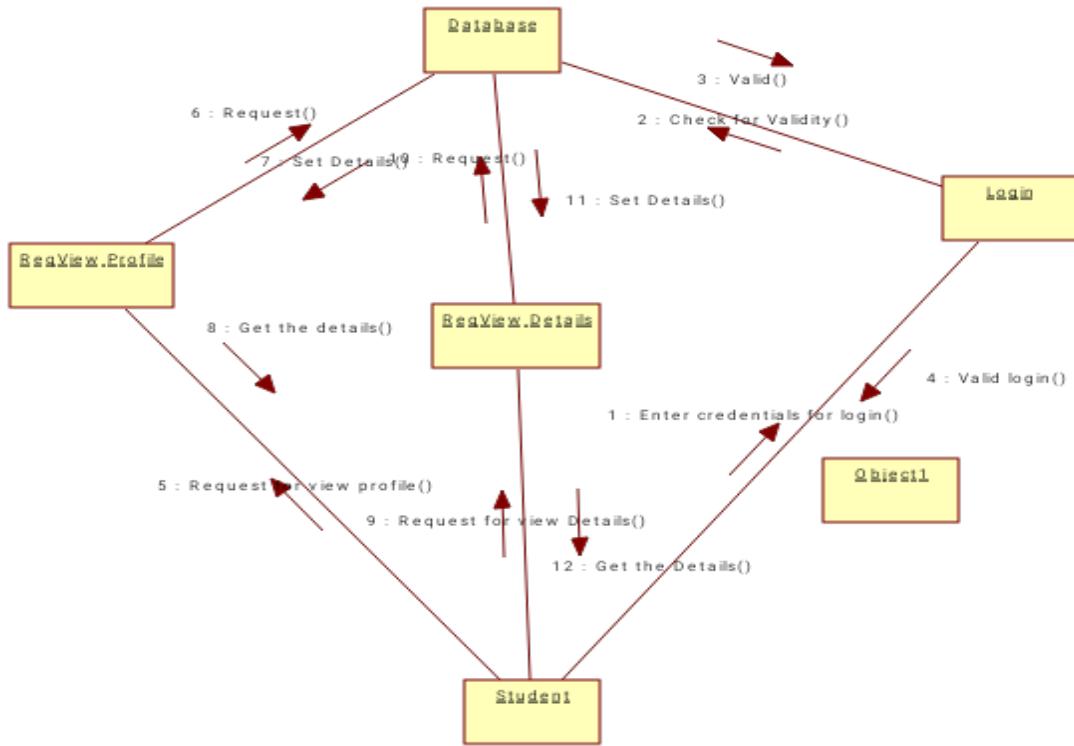
For Validity:



For Administrator:



For Student:

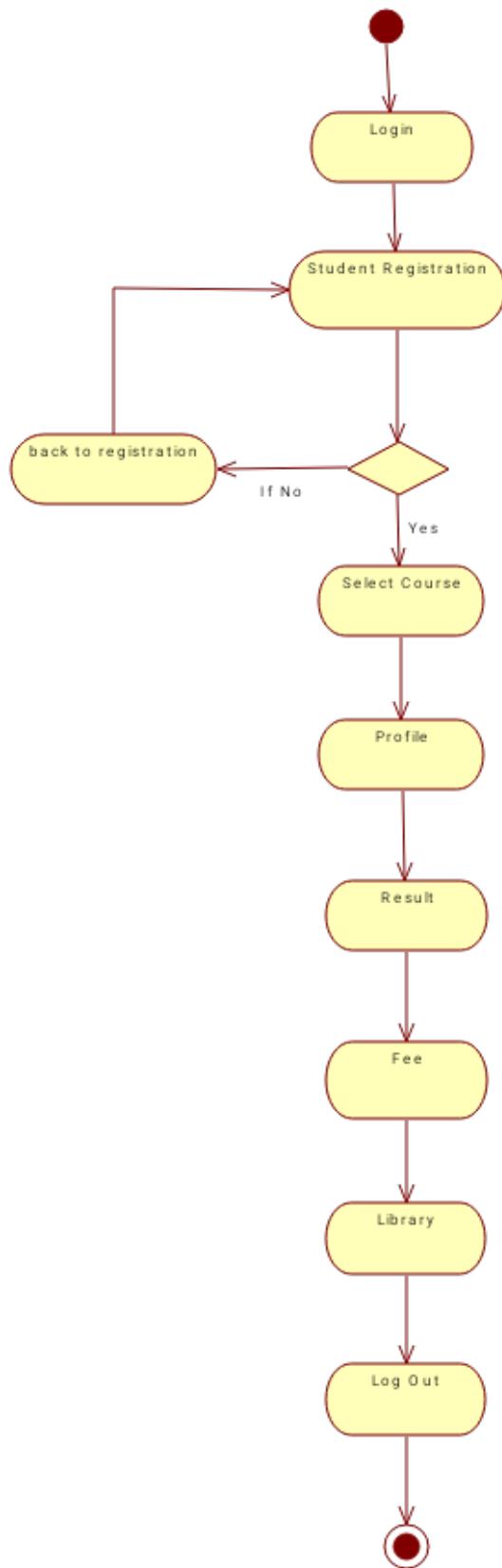


ACTIVITY DIAGRAM:

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.

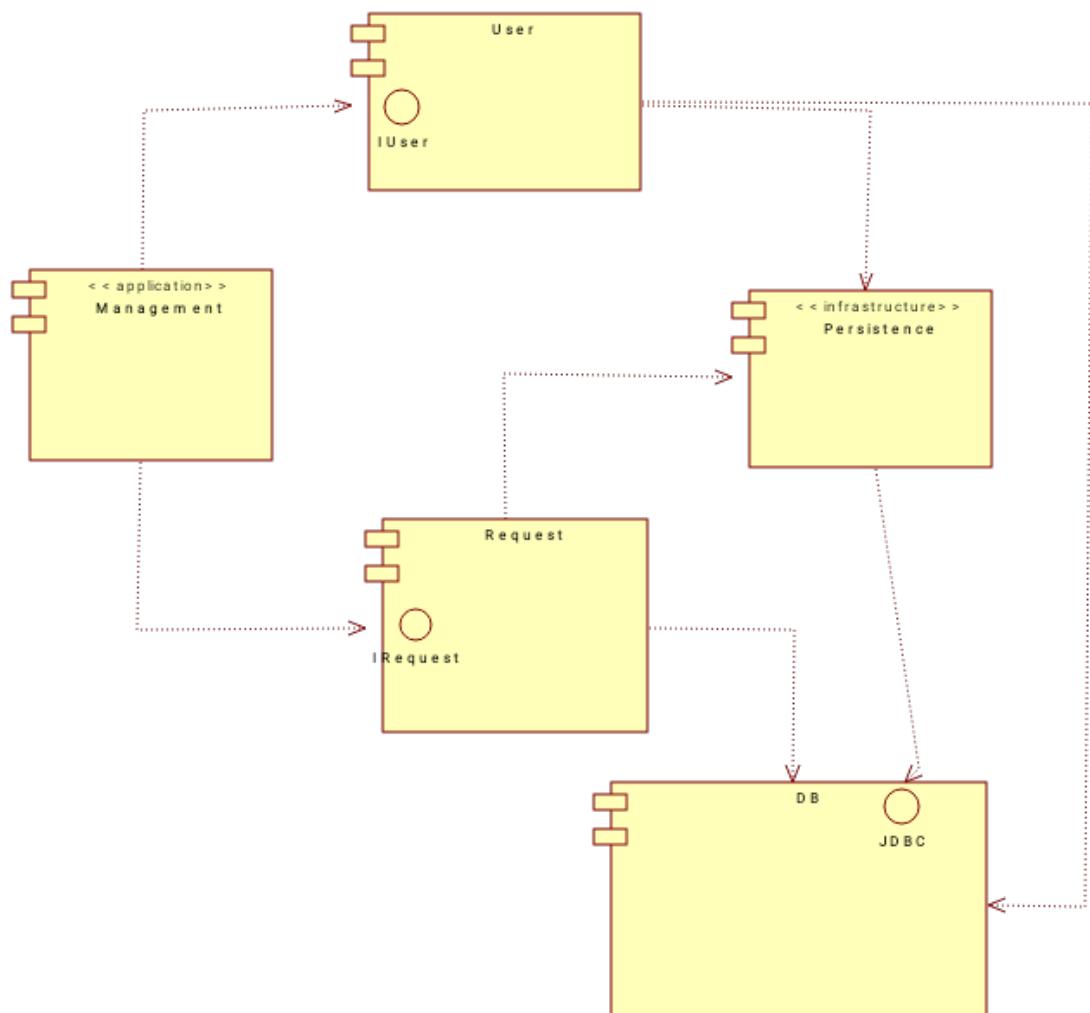
This activity diagram flow of stepwise activities performed in recruitment system.

- The student details are Add and stored in database.
- Select the course from the given Course by student.
- Search Profile and Result with login and if data present in the database.
- The searched data is displayed if available and then Log Out.



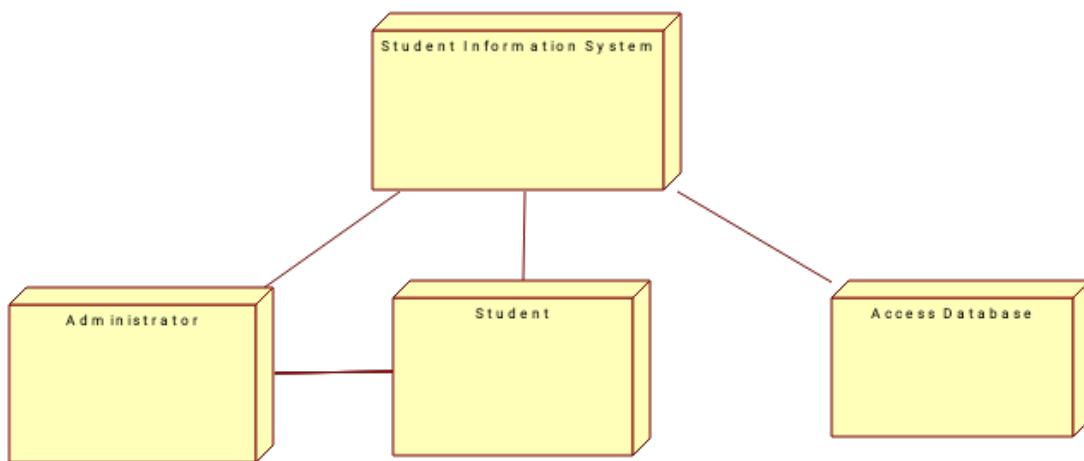
COMPONENT DIAGRAM:

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.



CODING:

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import java.sql.*;
public class jdbcframe1 extends JFrame implements ActionListener
{
    public JLabel l1, l2, l3, l4, l5;
    public JTextField t1,t2,t3,t4,t5;
    public JButton b1;
    Container c;
    public jdbcframe1()
    {
        setSize(180,400);
        setTitle("STUDENT DETAILS");
        setVisible(true);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        c=getContentPane();
        c.setLayout(new FlowLayout());
        l1=new JLabel("Regno");
        c.add(l1);
        t1=new JTextField(10);
        c.add(t1);
        l2=new JLabel("Name");
        c.add(l2);
        t2=new JTextField(10);
        c.add(t2);
        l3=new JLabel("Dept");
        c.add(l3);
        t3=new JTextField(10);
        c.add(t3);
        l4=new JLabel("Course");
        c.add(l4);
        t4=new JTextField(10);
        c.add(t4);
        l5=new JLabel("Contact");
        c.add(l5);
        t5=new JTextField(12);
        c.add(t5);
        b1=new JButton("SAVE");
        c.add(b1);
        b1.addActionListener(this);
    }
    public void actionPerformed(ActionEvent ae)
    {
        if(ae.getSource()==b1)
        {
            try
            {
```



```
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
Connection con=DriverManager.getConnection("jdbc:odbc:student");
Statement st=con.createStatement();
PreparedStatement ps,ps1;
ps1=con.prepareStatement("select * from student where regno="+t1.getText());

ps=con.prepareStatement("insert into
student(regno,name,dept,course,contact)values(?,?,?,?,?)");
ps.setString(1,t1.getText());
ps.setString(2,t2.getText());
ps.setString(3,t3.getText());
ps.setString(4,t4.getText());
ps.setString(5,t5.getText());
ps.executeUpdate();
JOptionPane.showMessageDialog(null,"RECORD SAVED");
}
catch(SQLException sq)
{
System.out.println(sq);
System.out.println("\nHai this place is error occur");
}
catch(Exception e)
{
System.out.println(e);
}
}
}

public static void main(String args[])
{
jdbcframe1 f=new jdbcframe1();
}
}
```



Viva Questions:

1. Identify the use cases in student information system
Admin,login,add student,delete student,update student record,message,attendance,profile,result,fee,library,logout
2. List the actors involved in the student information system
Admin,database,student
3. Write the problem statement for student information system

A Student information system (SIS) 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.

RESULT:

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

