



# OOSE Lab Manual

computer science and engineering (Anna University)



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# **CCS 356 – OBJECT ORIENTED SOFTWARE ENGINEERING LAB MANUAL**

**VI SEMESTER CSE**

## **SYLLABUS**

### **CS2357 OOAD LAB (COMMON TO CSE & IT)**

**OBJECTIVE: To develop a mini-project following the 12 exercises listed below.**

1. Identify a software system that needs to be developed
2. Document the Software Requirements Specification (SRS) for the identified system
3. Identify use cases and develop the Use Case model.
4. Identify the conceptual classes and develop a Domain Model and also derive a Class Diagram from that.
5. Using the identified scenarios, find the interaction between objects and represent them using UML Sequence and Collaboration Diagrams
6. Draw relevant Statechart and Activity Diagrams for the same system.
7. Implement the system as per the detailed design
8. Test the software system for all the scenarios identified as per the use case diagram
9. Improve the reusability and maintainability of the software system by applying appropriate design patterns.
10. Implement the modified system and test it for various scenarios.

#### **Suggested domains for Mini-project.**

10. Passport automation system.
11. Book bank
12. Exam Registration
13. Stock maintenance system.
14. Online course reservation system
15. E-ticketing
16. Software personnel management system
17. Credit card processing
18. e-book management system
19. Recruitment system
20. Foreign trading system
21. Conference Management System
22. BPO Management System

#### **Suggested SoftwareTools**

ArgoUML, Eclipse IDE, Visual Paradigm, Visual case, and Rational Suite, Star UML

<b>EX.NO: 1</b>	<b><u>PASSPORT AUTOMATION SYSTEM</u></b>
<b>DATE:</b>	

### **AIM:**

To draw the diagrams[use case, activity, sequence, collaboration, class] for the Passport automation system.

### **HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

### **SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

### **PROJECT DESCRIPTION:**

This software is designed for the verification of the passport details of the applicant by the central computer. The details regarding the passport will be provided to the central computer and the computer will verify the details of applicant and provide approval to the office. Then the passport will issue from the office to the applicant.

### **USE CASE DIAGRAM:**

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

**Actors:** Applicant, Enquiry officer.

**Use case:** Applicant details, Applicant proof, Verification of proof, Issue of passport, Cancellation of the passport.

### **ACTIVITY DIAGRAM:**

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

**Activities:** Enter applicant details, Submission of proof, Verification of details, issue of passport.

**Decision box:** Check details whether it is correct or not.

### **CLASS DIAGRAM:**

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

<b>CLASSES</b>	<b>ATTRIBUTES</b>	<b>OPERATIONS</b>
Passport management system	Verify details, store proof	Verification of proof()
Enquiry officer	Applicant Details	Issue of passport()
Applicant	Name, details	Apply passport()

### **SEQUENCE DIAGRAM:**

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

**Object:** Applicant, Enquiry officer, Passport management 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**

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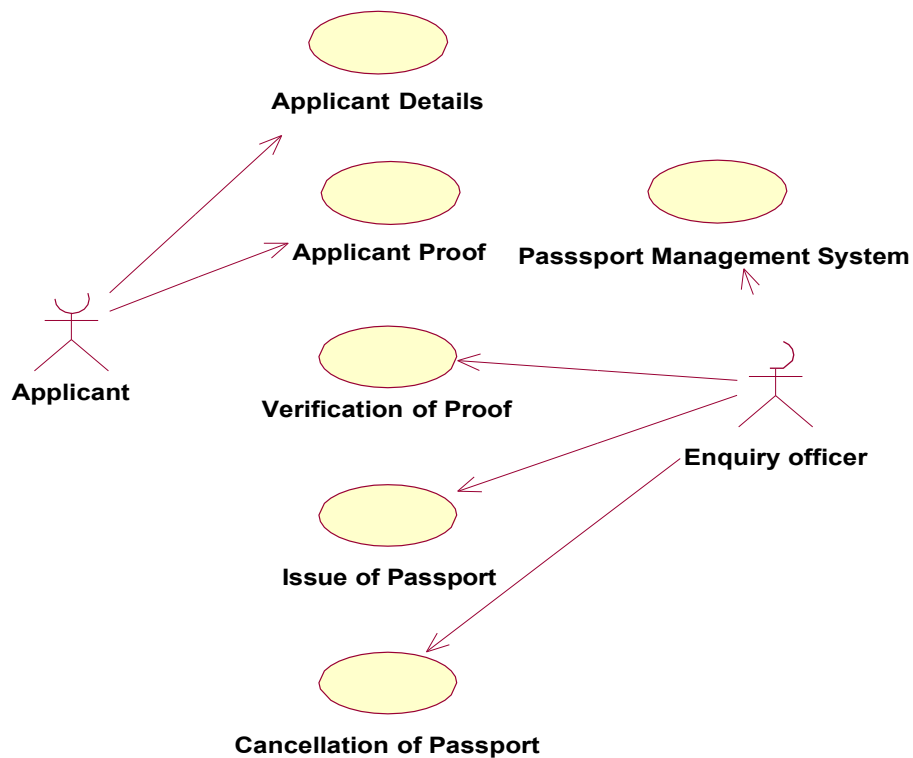
- Provides convenience.
- Easy usage.
- User friendliness.

### **DEMERITS:**

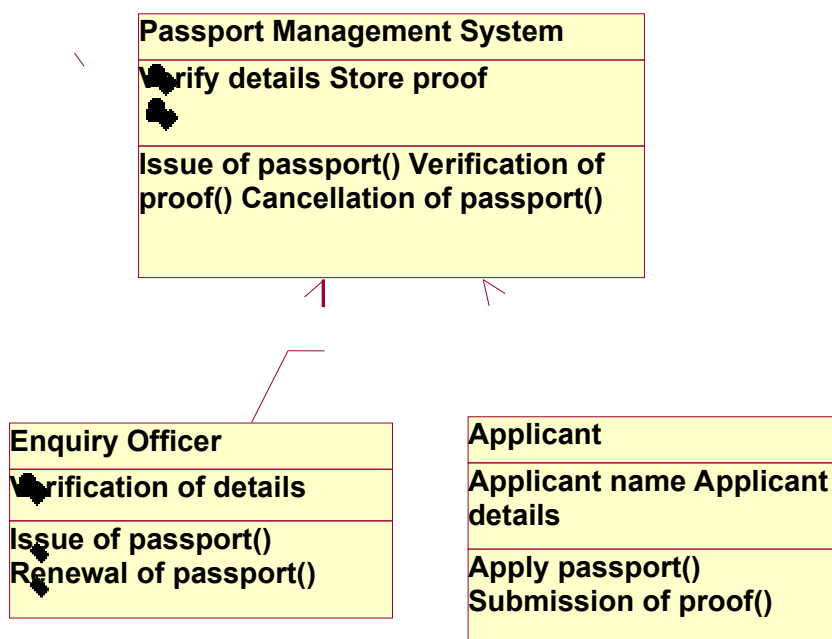
- Need computer knowledge

# PASSPORT AUTOMATION SYSTEM

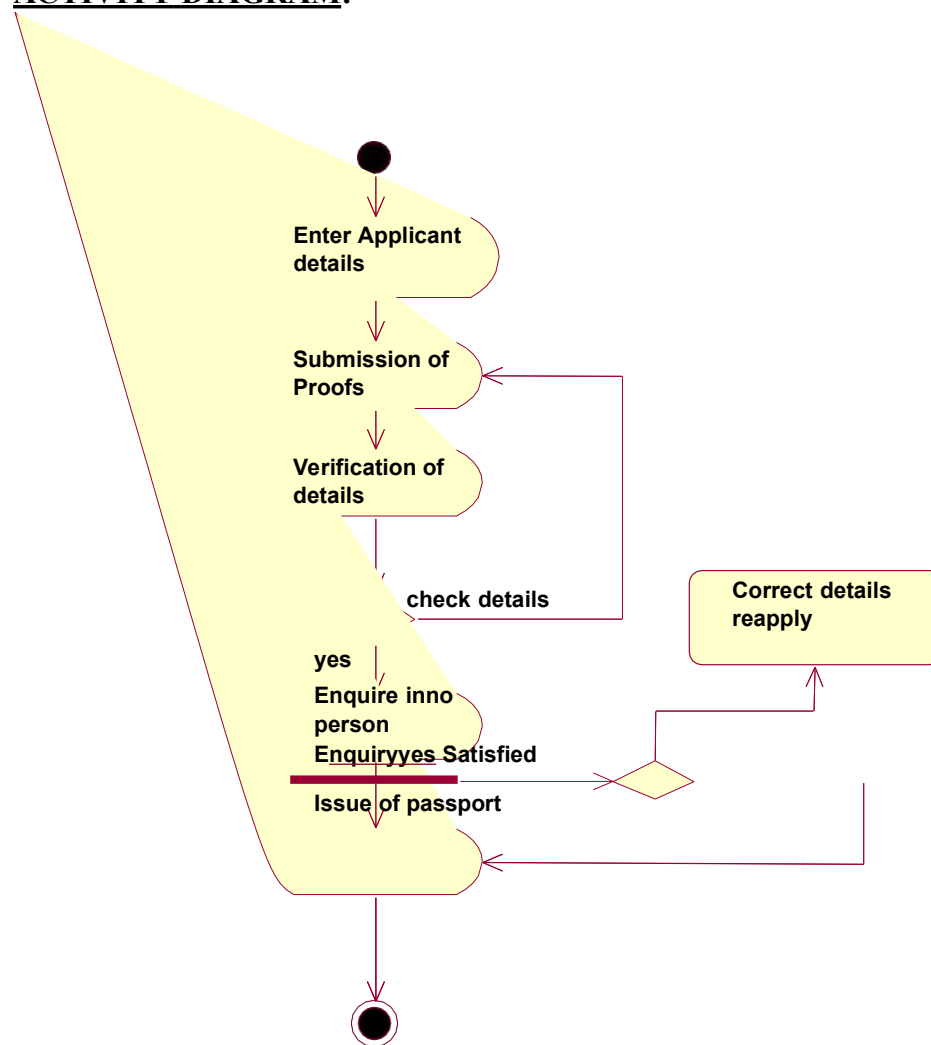
## USE CASE DIAGRAM:



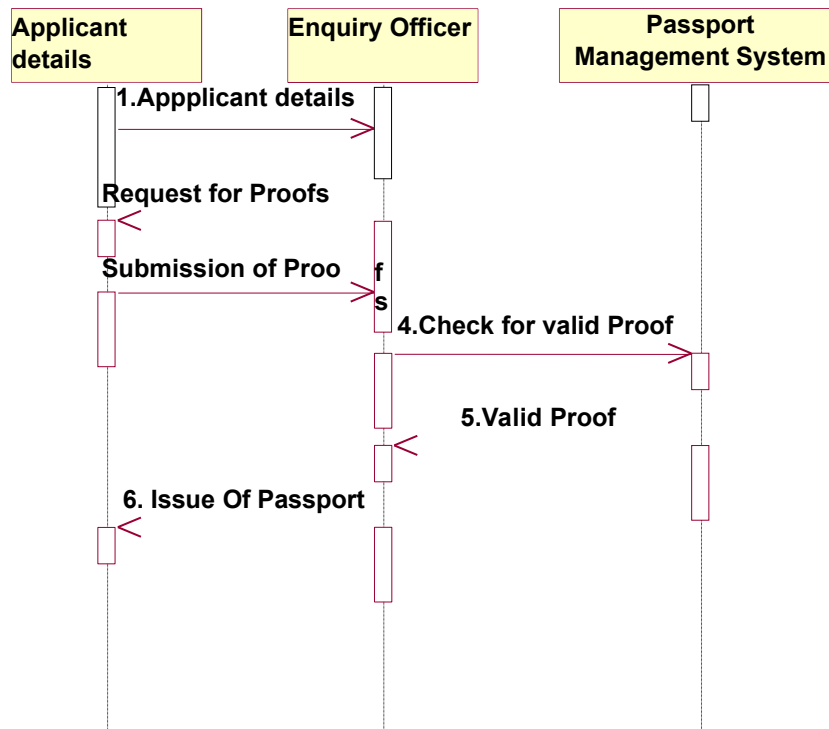
## CLASS DIAGRAM:



## ACTIVITY DIAGRAM:

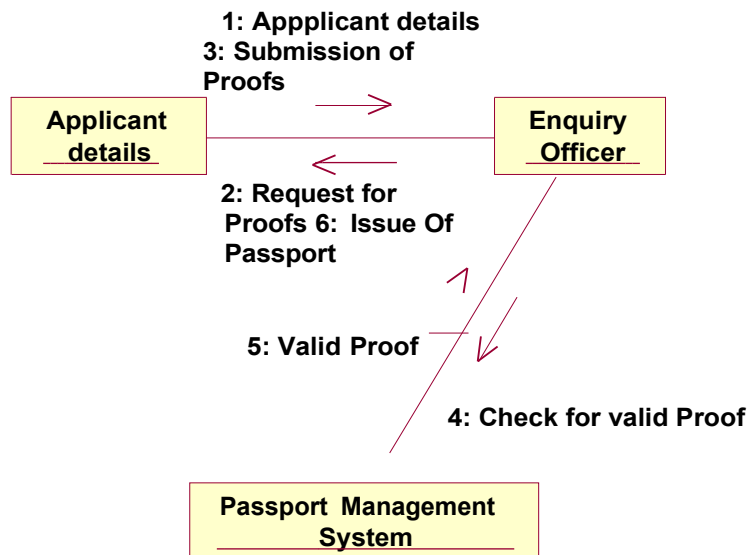


## SEQUENCE DIAGRAM:





### **COLLABORATION DIAGRAM:**



### **RESULT:**

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the passport automation system has been designed ,executed and output is verified.

<b>EX.NO: 2</b>	<b><u>BOOK BANK REGISTRATION SYSTEM</u></b>
<b>DATE:</b>	

**AIM:**

To draw the diagrams[use case, activity, sequence, collaboration, class] for the Book bank registration system.

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed for the verification of the details of the student by the central computer. The details regarding the student will be provided to the central computer through the administrator in the book bank and the computer will verify the details of student and provide approval to the office. Then the books that are needed by the student will issue from the office to the him.

**USE CASE DIAGRAM:**

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

**Actors:** Student, book bank admin.

**Use case:** Student details, register, verify student id, return previous books, request of books, issue of books, check of book availability.

**ACTIVITY DIAGRAM:**

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

**Activities:** Verify id, return books, request for books, enter book issue details in system, issue books

**Decision box:** Check availability of books whether it is present or not.

### **CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Computer	Student record, booklist	Enter issue(),check availability()
Stud	Student Details	Request for books(), register()
Admin	Student Details, book list	Verify student id(), issue books()

### **SEQUENCE DIAGRAM:**

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

**Object:** Stud, admin, computer

### **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**

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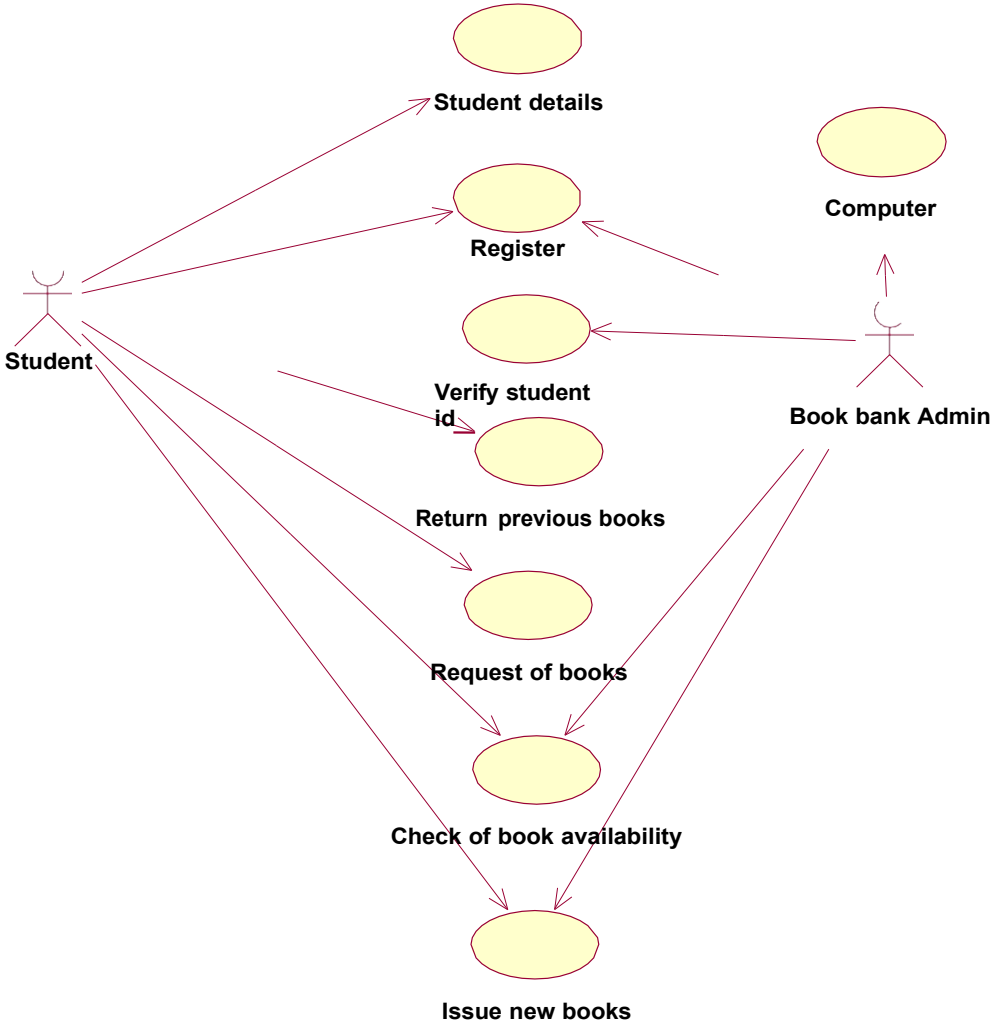
- Provides convenience.
- Easily understandable.
- User friendliness.

### **DEMERITS:**

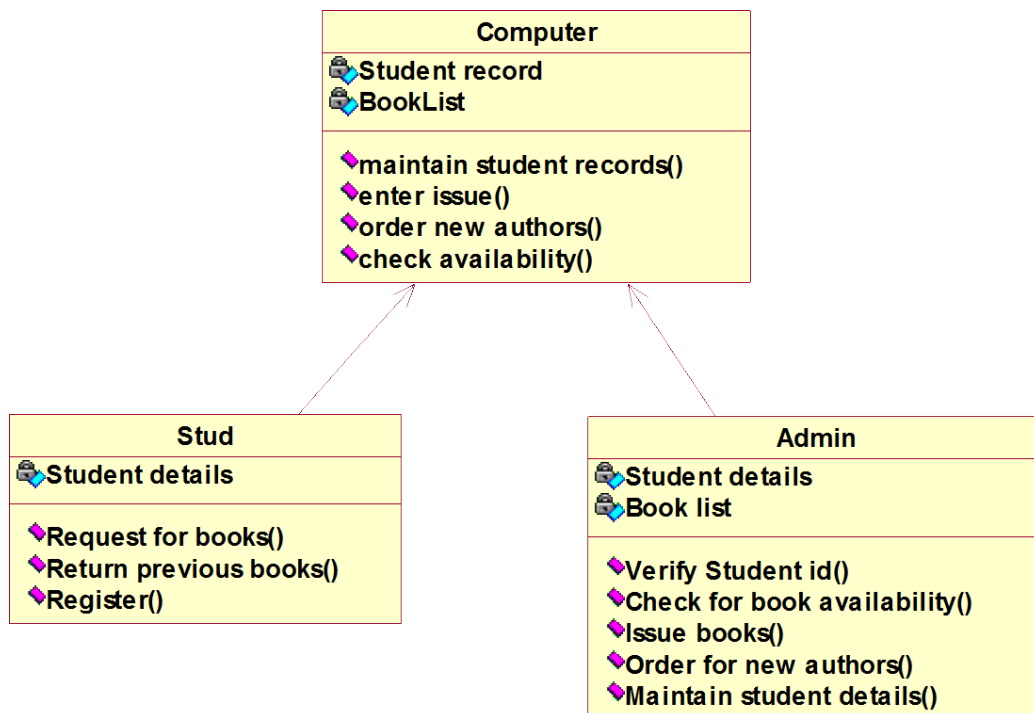
- Need computer knowledge.
- It is complex for large scale products.

## BOOK BANK RESISTRATION

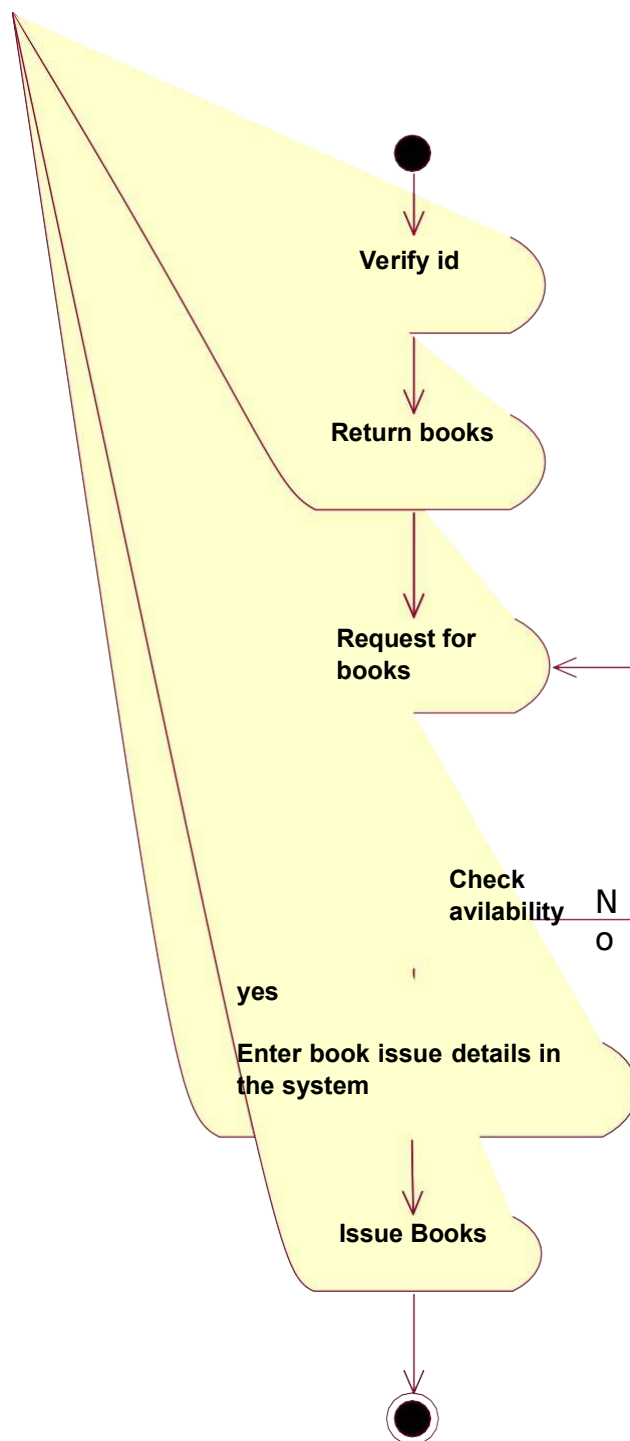
## USE CASE DIAGRAM:



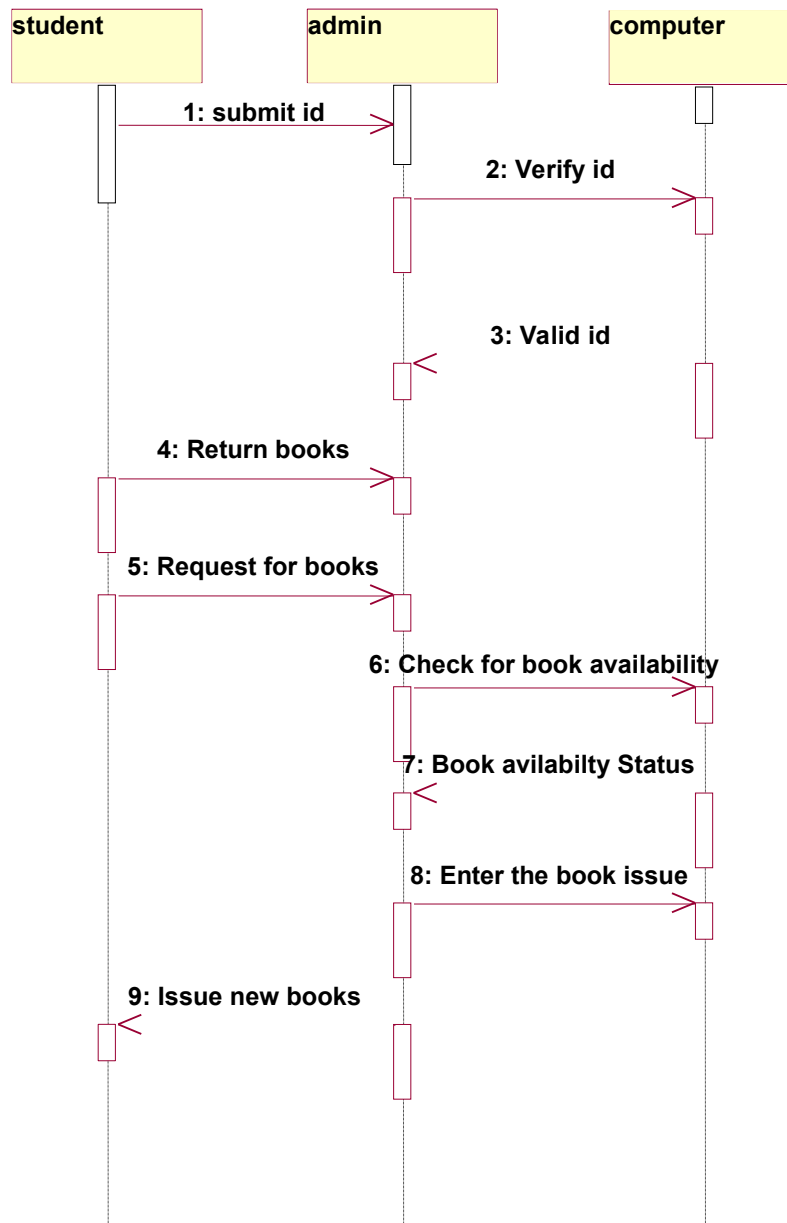
## CLASS DIAGRAM:



### ACTIVITY DIAGRAM:

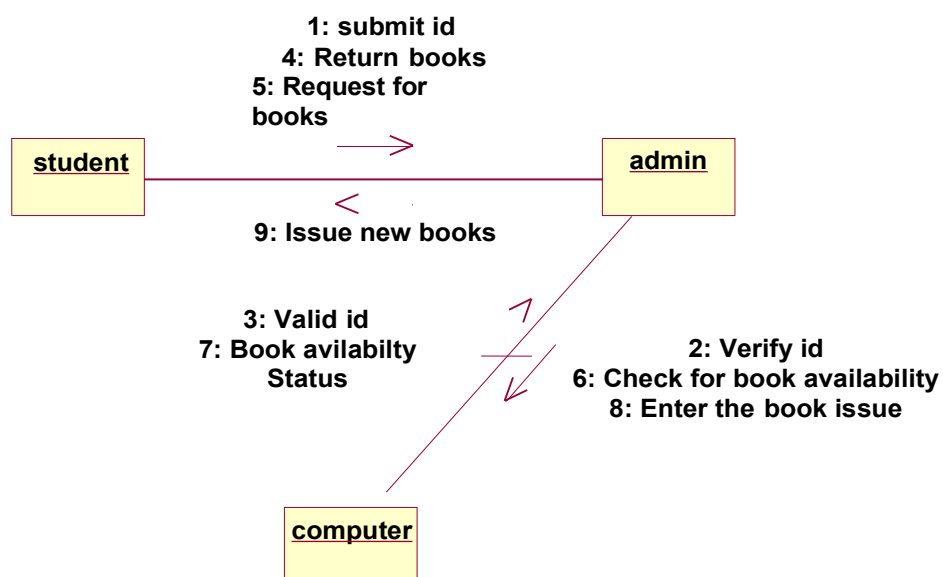


## SEQUENCE DIAGRAM:



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### COLLABORATION DIAGRAM:



### RESULT:

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the Book bank registration system has been designed , executed and output is verified.

<b>EX.NO: 3</b>	<b><u>EXAM REGISTRATION SYSTEM</u></b>
<b>DATE:</b>	



**AIM:**

To draw the diagrams [use case, activity, sequence, collaboration, class] for the Exam registration system.

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed for the verification of the details of the candidate by the central computer. The details regarding the candidate will be provided to the central computer through the administrator and the computer will verify the details of candidate and provide approval .Then the hall ticket will be issued from the office to the candidate..

**USE CASE DIAGRAM:**

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

**Actors:** Student, educational officer..

**Use case:** Student details, student photo, student proof submission of proof ,verification of proof, payment of fees, issue of hall ticket.

**ACTIVITY DIAGRAM:**

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

**Activities:** Enter student details , submit student proof and photo, payment of fees, issue of hall ticket.

**Decision box:** Verification of proof.

**CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
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Central educational system	Student details	Print hall ticket(), issue hall ticket()
Stud	Submit details(),submit photo()	Payment of fees()
Eduofficer	Enter details	Issue hall ticket(), verify proof()

### **SEQUENCE DIAGRAM:**

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

**Object:** student, educational officer, central education 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**

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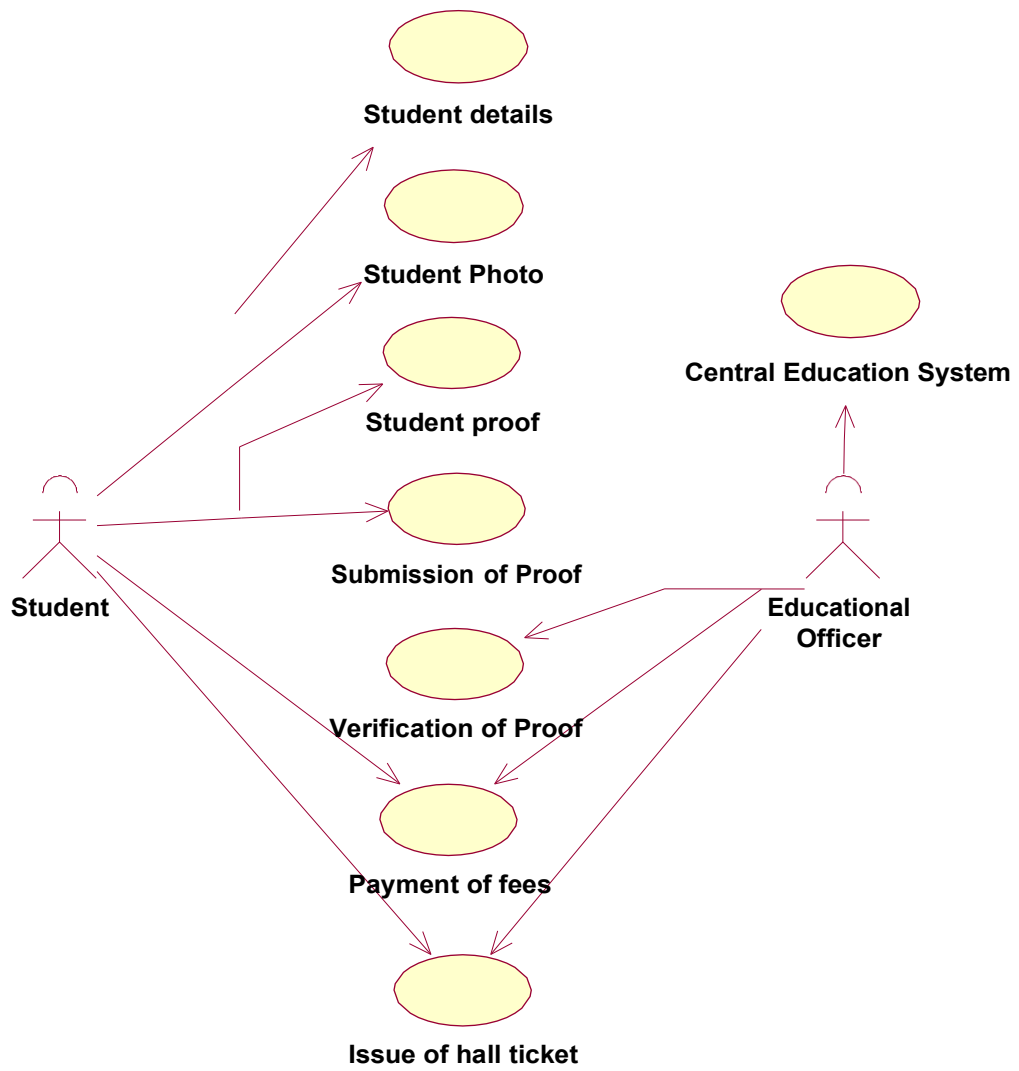
- Provides convenience for issuing the hall ticket for the candidate.
- Processing the request will be fast.

### **DEMERITS:**

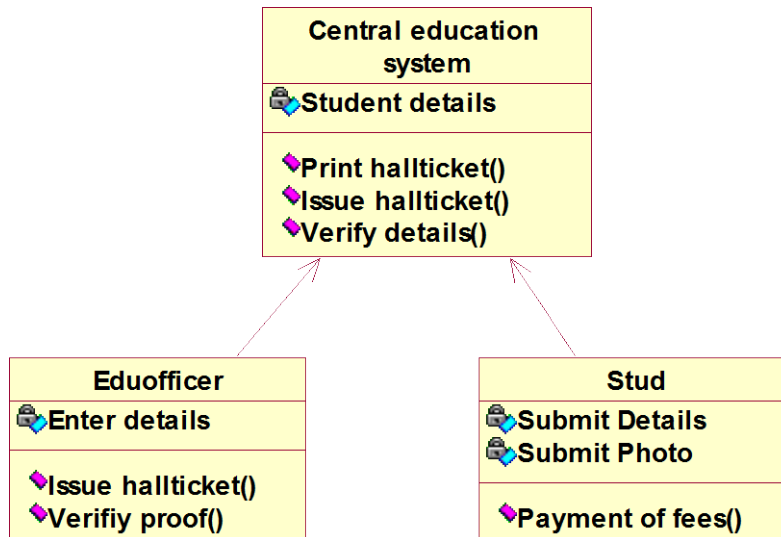
- Need computer knowledge.

## **EXAM REGISTRATION**

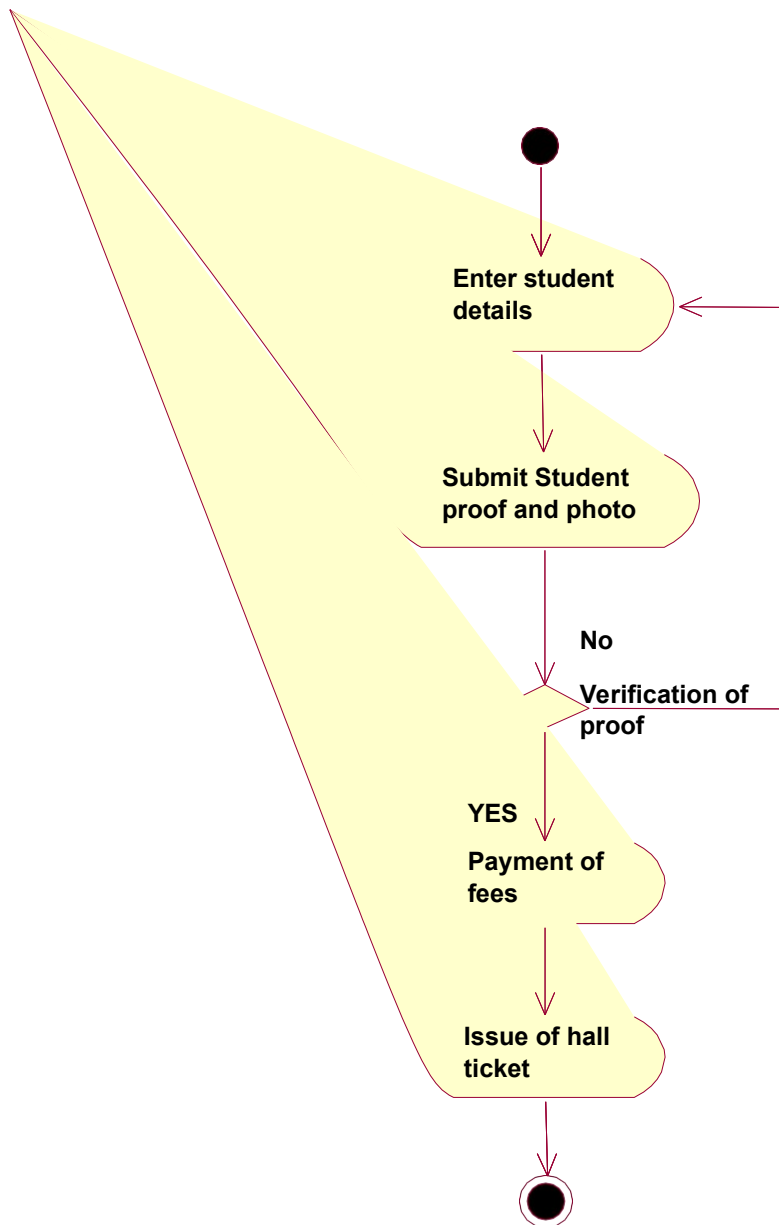
### **USE CASE DIAGRAM:**



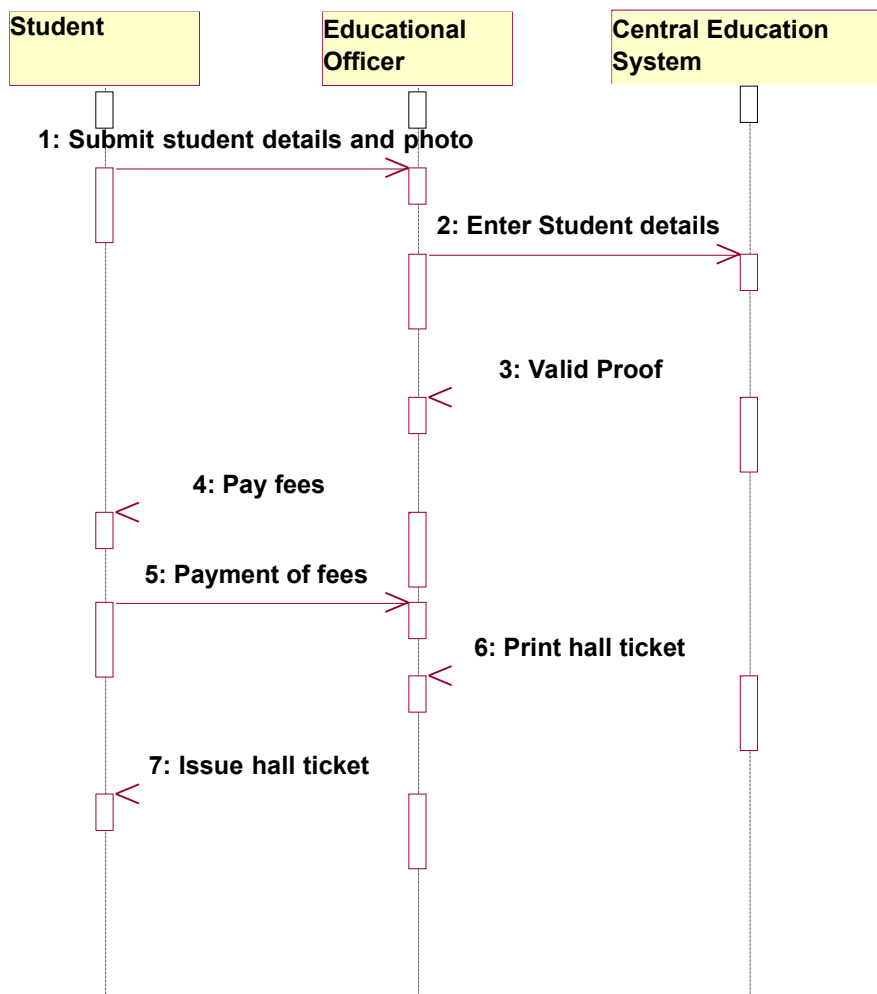
### CLASS DIAGRAM:



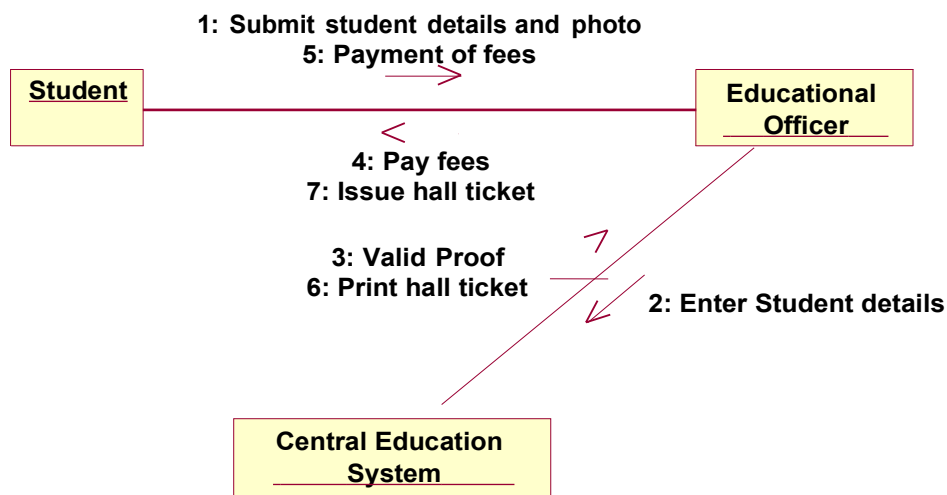
### ACTIVITY DIAGRAM:



**SEQUENCE DIAGRAM:**



### **COLLABORATION DIAGRAM:**



### **RESULT:**

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the Exam registration system has been designed ,executed and output is verified.

<b>EX.NO: 4</b>	<u><b>STOCK MAINTAINENCE SYSTEM</b></u>
<b>DATE:</b>	

**AIM:**

To draw the diagrams[usecase, activity, sequence, collaboration, class] for the Stock maintenance system.

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed for supporting the computerized stock maintenance System .In this system, the customer can place order and purchase items with the aid of the stock dealer and central stock system. This orders are verified and the items are delivered to the customer.

**USE CASE DIAGRAM:**

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

**Actors:** Customer, Stock dealer, central stock system.

**Use case:** purchase order, verification of order, payment ,delivery of items..

**ACTIVITY DIAGRAM:**

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

**Activities:** Purchase order, payment , delivery of items.

**Decision box:** Valid or not

**CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Central stock system	Store stock details	Print bill()
Stock dealer	Take order	Deliver item()
Customer	Place order	Payment()

**SEQUENCE DIAGRAM:**

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

**Object:** Customer, Stock dealer, Central stock 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**

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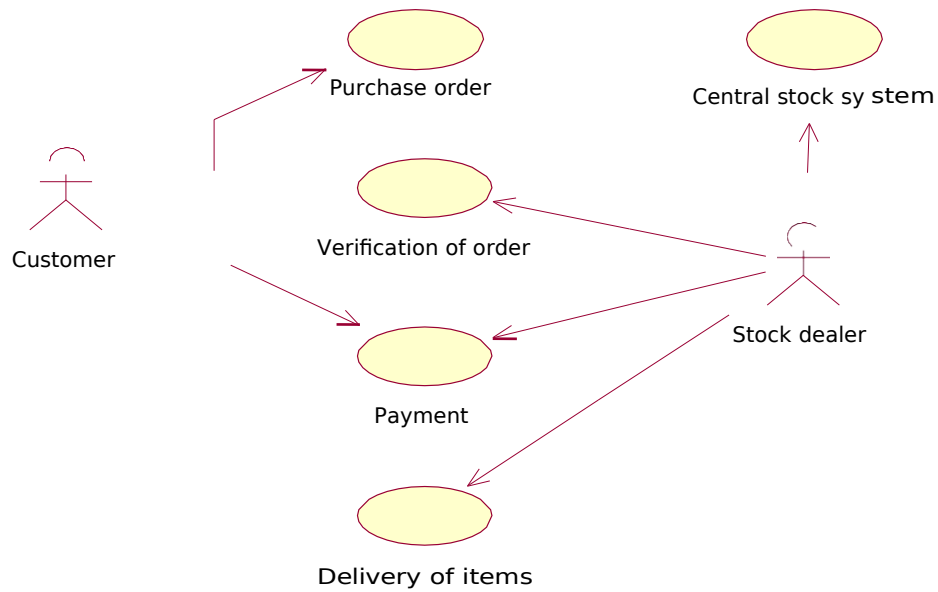
- Provides convenience.
- Easy usage.
- User friendliness.

### **DEMERITS:**

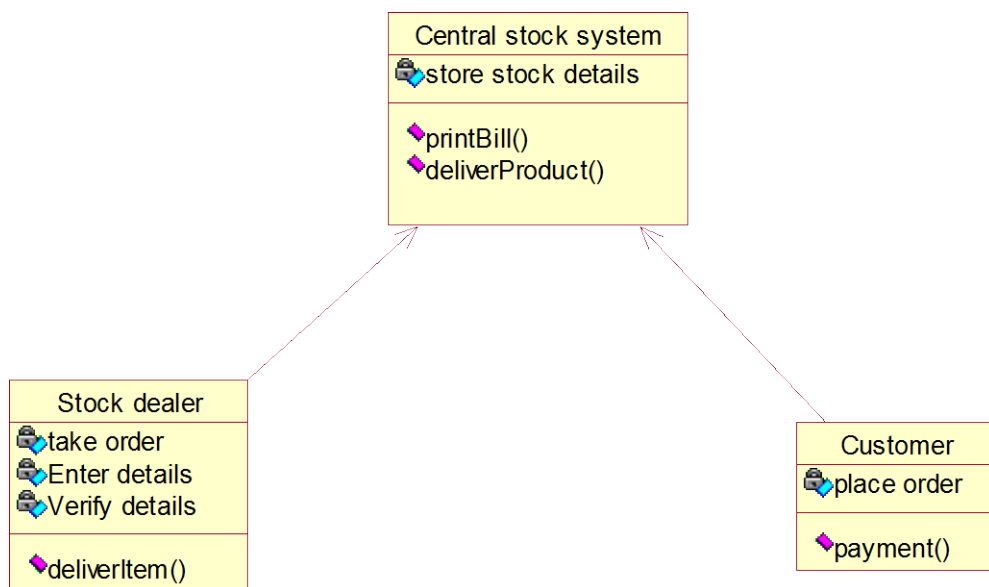
- Need computer knowledge

## **STOCK MAINTAINENCE SYSTEM**

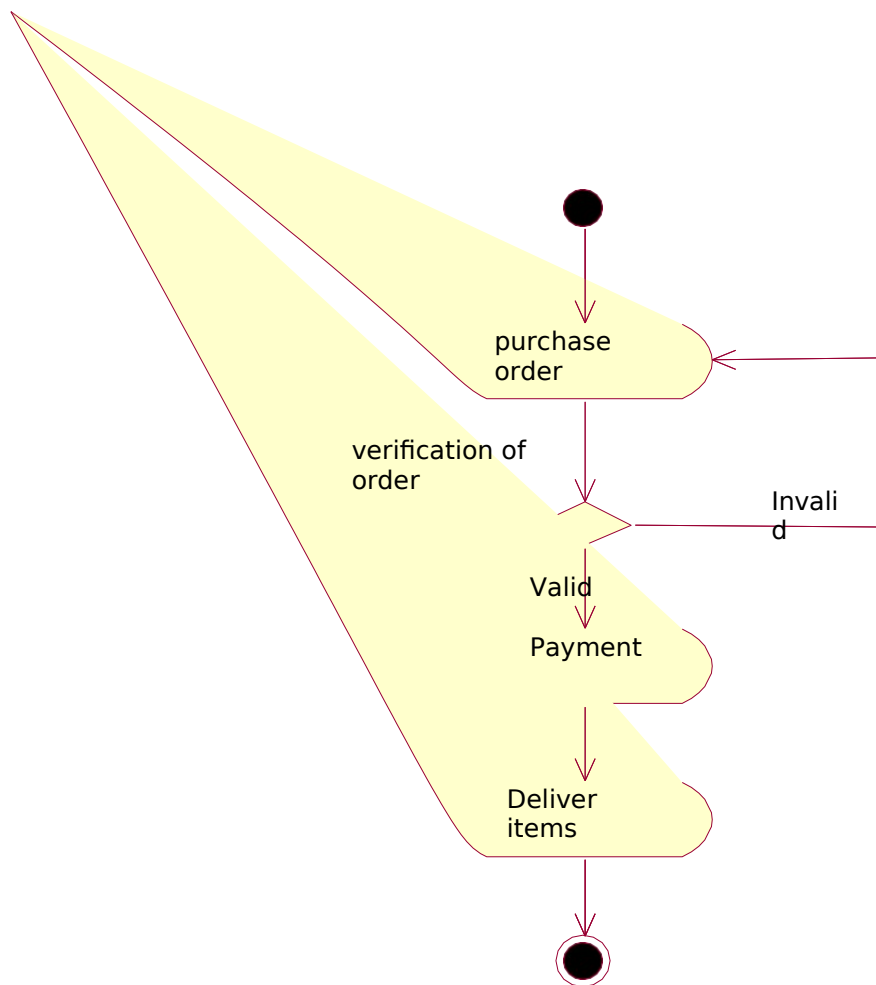
### **USE CASE DIAGRAM:**



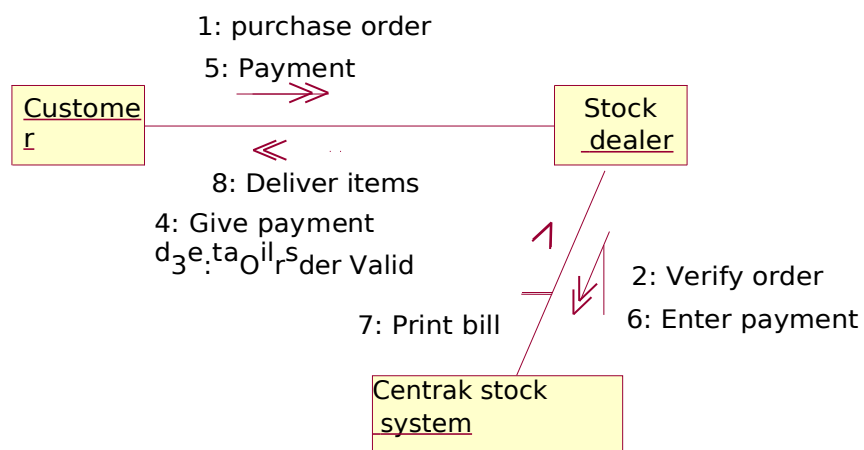
### CLASS DIAGRAM:



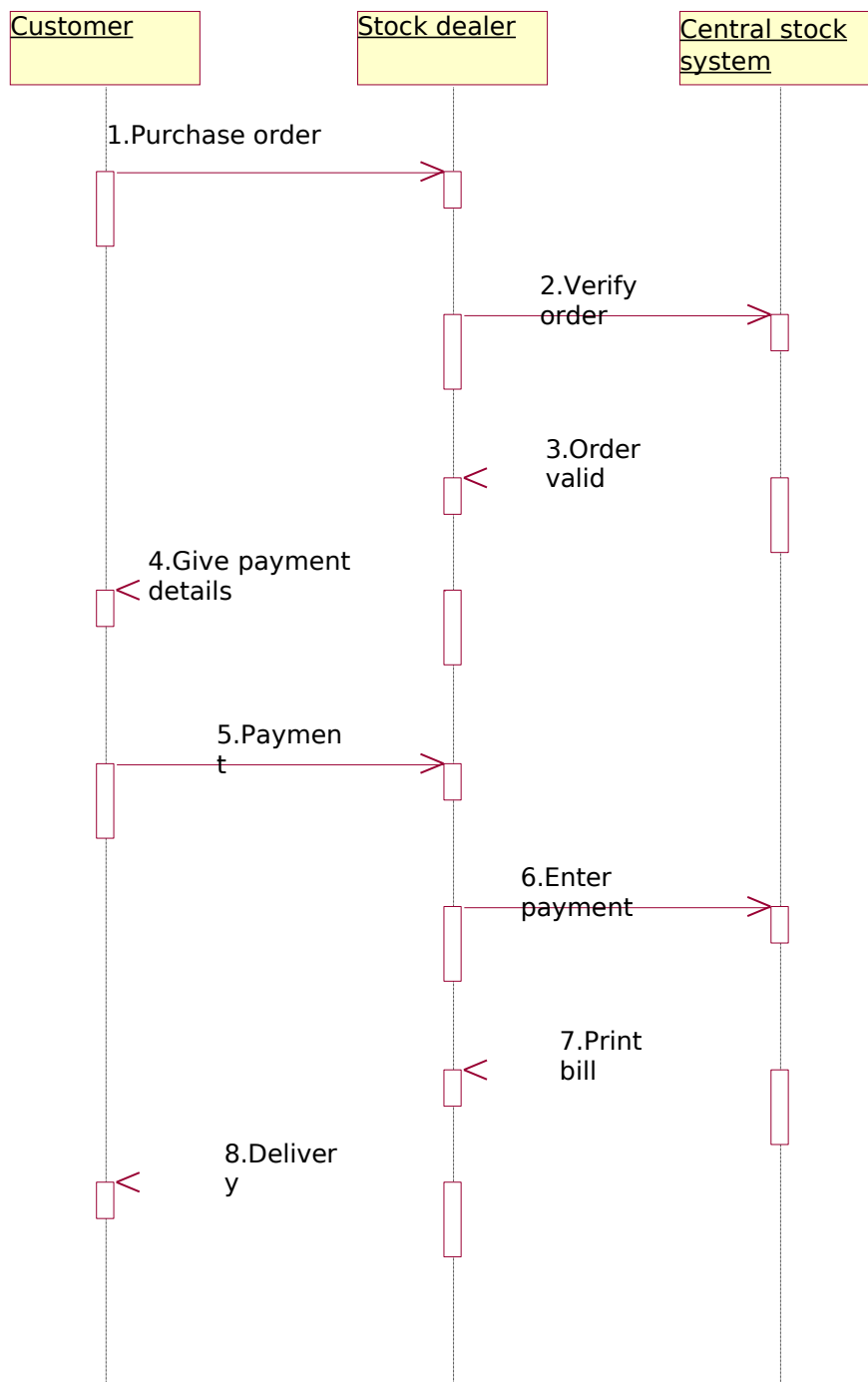
### ACTIVITY DIAGRAM:



### COLLABORATION DIAGRAM:



### SEQUENCE DIAGRAM:



### **RESULT:**

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

**EX.NO: 5**

**ONLINE COURSE RESERVATION SYSTEM**

DATE:	
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**AIM:**

To draw the diagrams[usecase, activity, sequence, collaboration, class] for the Online course reservation system.

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed for supporting online course reservation system. This system is organized by the central management system . The student first browses and select the desired course of their choice. The university then checks the availability of the seat if it is available the student is enrolled for the course.

**USE CASE DIAGRAM:**

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

**Actors:** Student, University.

**Use case:** Browse course, select course, register, submit details, verify details, pay fees, enroll student..

**ACTIVITY DIAGRAM:**

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

**Activities:** Browse course, select course, register course, submit details

**Decision box:** check availability or not

**CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Central management system	Store details	Verify()
Student	Name and address	Browse()
University	Store details	Verify()

**SEQUENCE DIAGRAM:**

This diagram consists of the objects, messages and return messages.  
**Object:** Student, University, Central management 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**

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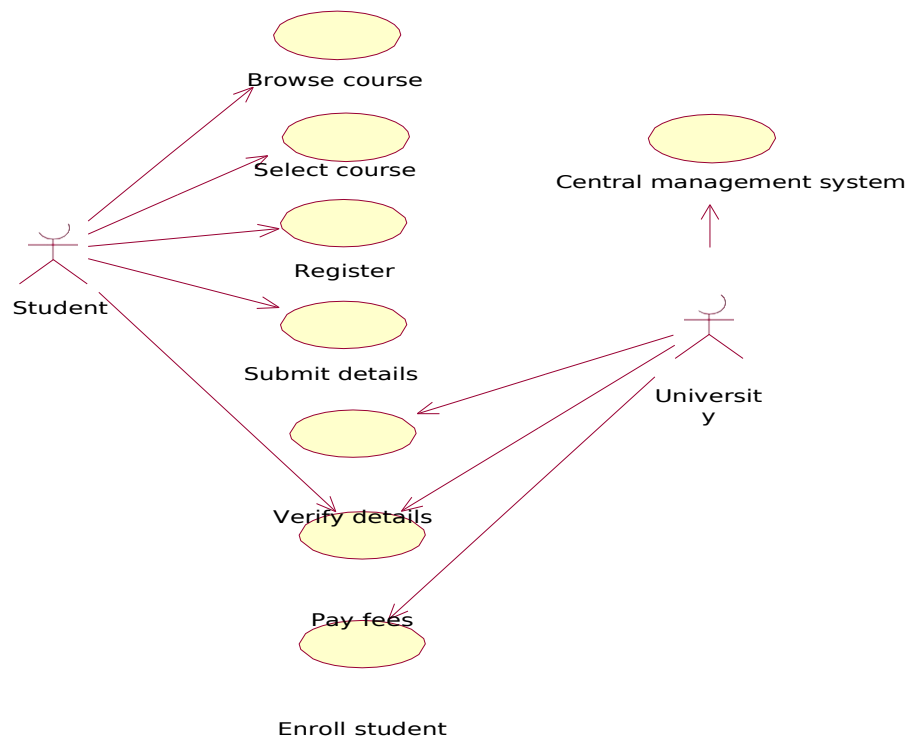
- Provides convenience.
- Easy usage.
- User friendliness.

### **DEMERITS:**

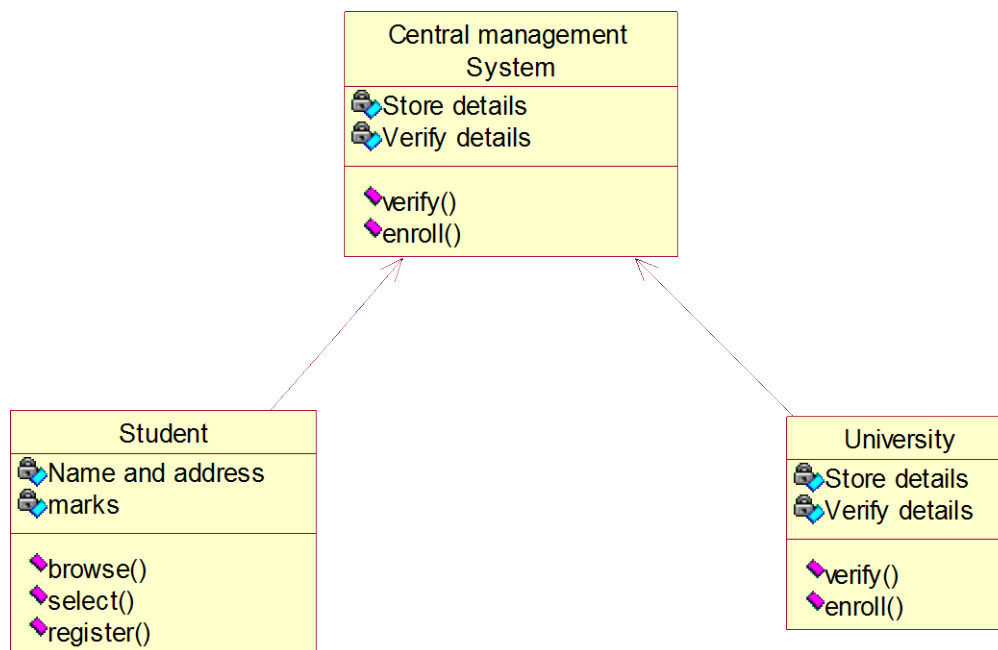
- Need computer knowledge

## **ONLINE COURSE RESERVATION SYSTEM**

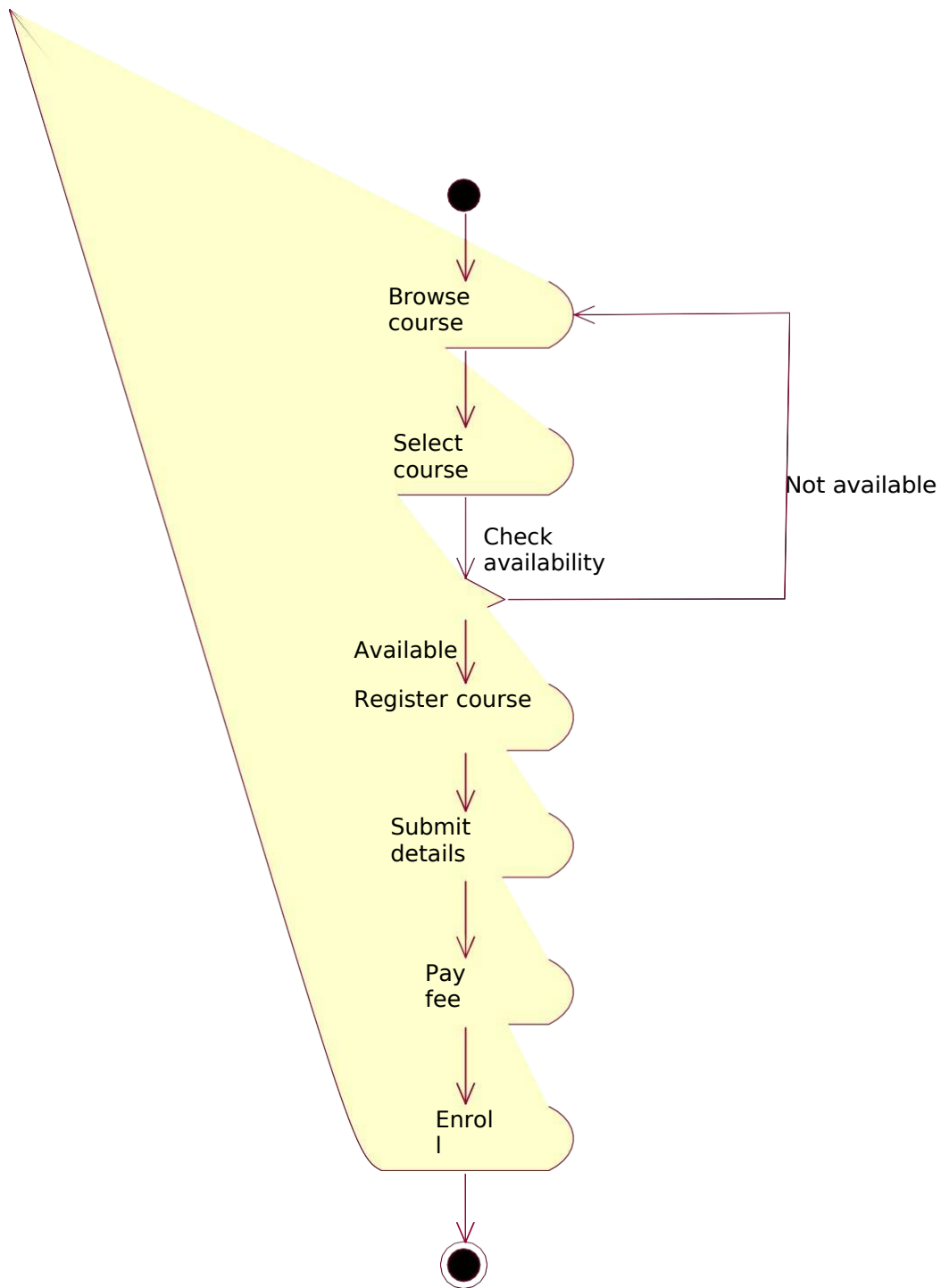
### **USE CASE DIAGRAM:**



### CLASS DIAGRAM:

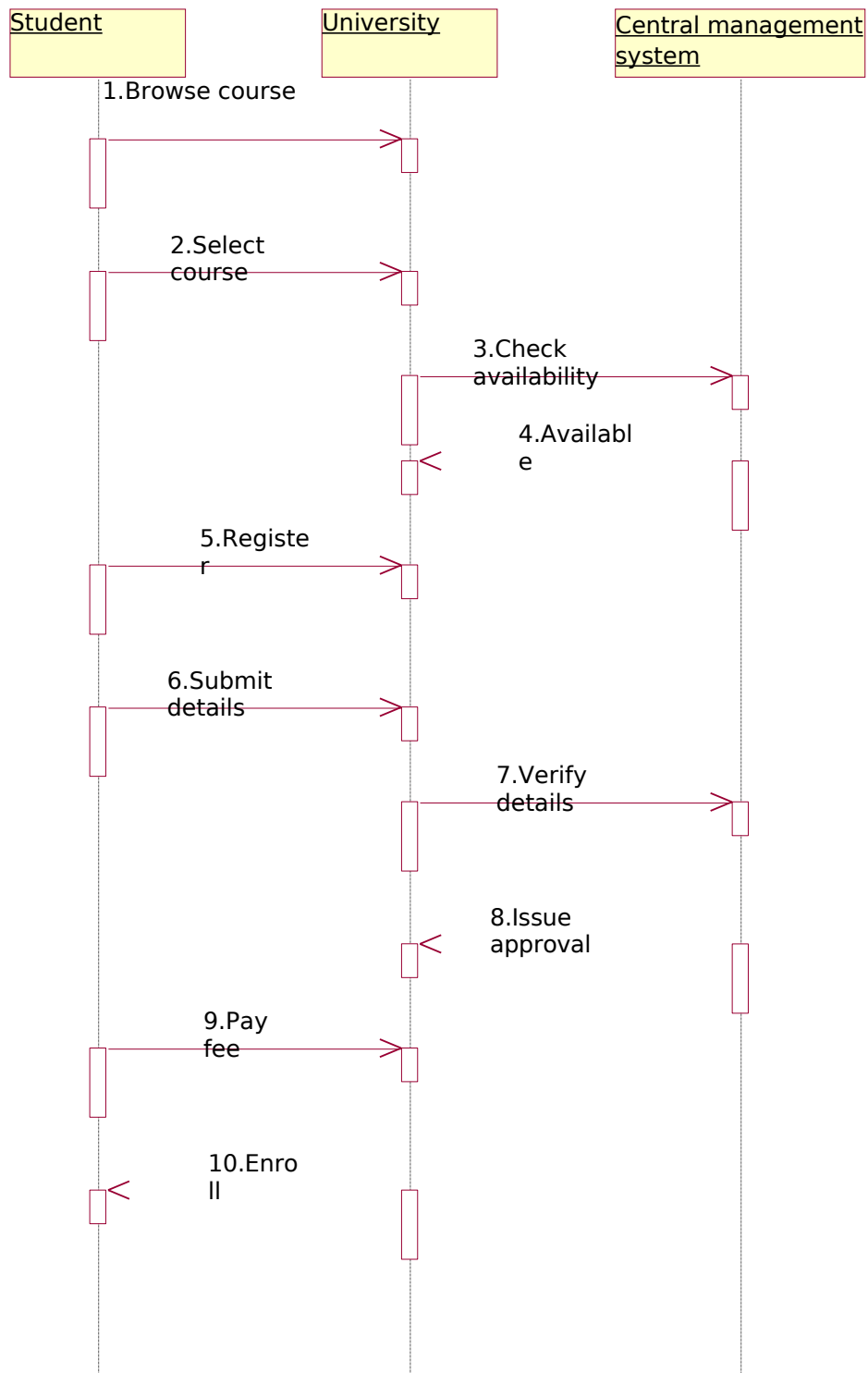


### ACTIVITY DIAGRAM:

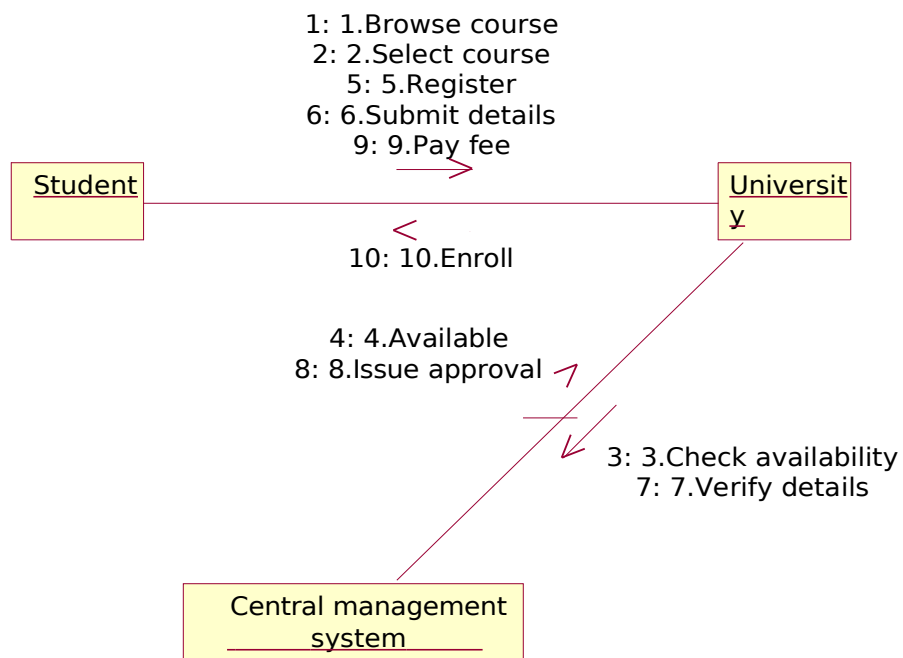




## SEQUENCE DIAGRAM:



## COLLABORATION DIAGRAM:



### **RESULT:**

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the Online course reservation system has been designed, executed and output is verified.

<b>EX.NO: 6</b>	<b><u>E-TICKETING</u></b>
<b>DATE:</b>	

**AIM:**

To draw the diagrams[use case, activity, sequence, collaboration, class] for the E-tickreting system.

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed for supporting the computerized e-ticketing. This is widely used by the passenger for reserving the tickets for their travel. This E-ticketing is organized by the central system. The information is provided from the railway reservation system.

**USE CASE DIAGRAM:**

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

**Actors:** Passenger, Railway reservation system..

**Use case:** Status, reservation, cancellation, enter the train number, enter the number of seats, availability of seats, acceptance of ticket.

**ACTIVITY DIAGRAM:**

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

**Activities:** enter the train number, enter the number of seats, acceptance of ticket ,accept seat.

**Decision box:** Check availability of seats whether it is present or not.

**CLASS DIAGRAM:**

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

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CLASSES	ATTRIBUTES	OPERATIONS
Central computer	Train name, passenger name	Reservation(),login()
Passenger	Passenger age	Login()
R\ailway reservation system	Train number	Cancellation()

**SEQUENCE DIAGRAM:**

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

**Object:** Passenger, Railway reservation system, Central computer

**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**

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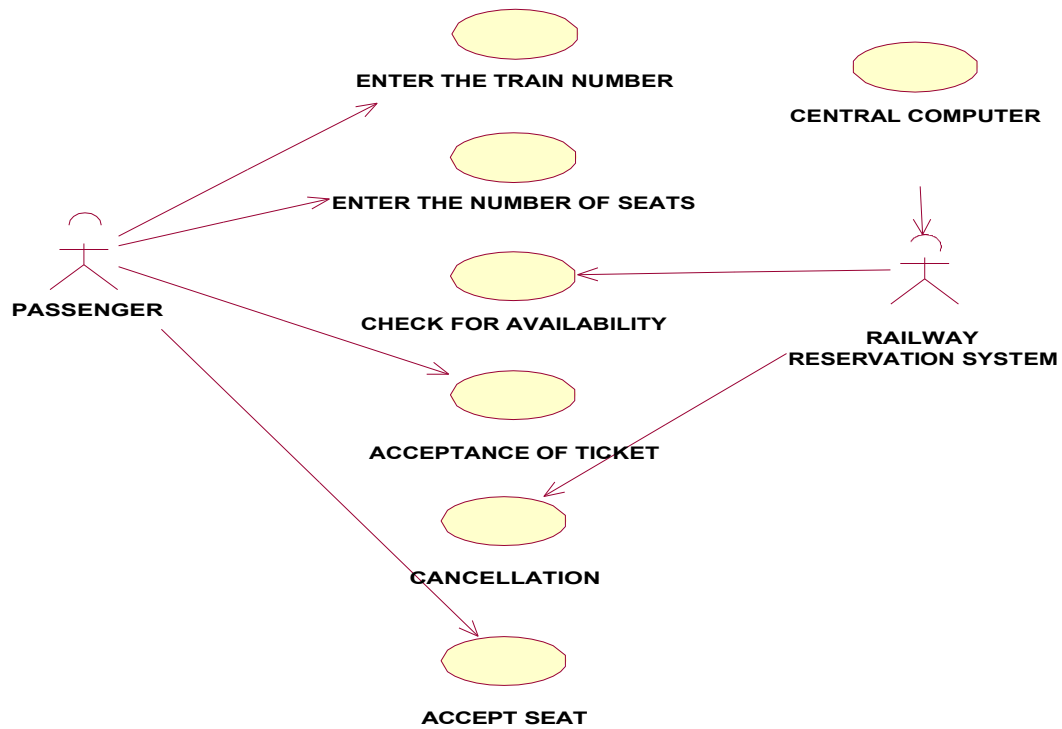
- Provides convenience.
- Easily understandable.
- User friendliness.

**DEMERITS:**

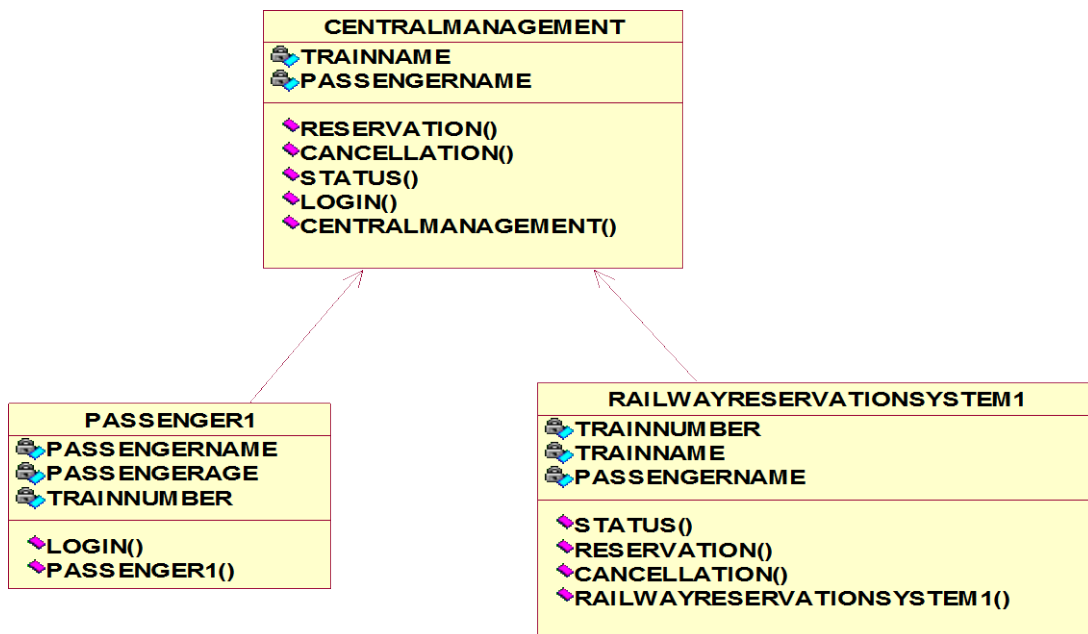
- Need computer knowledge.
- It is complex for large scale products.

**E-TICKETING**

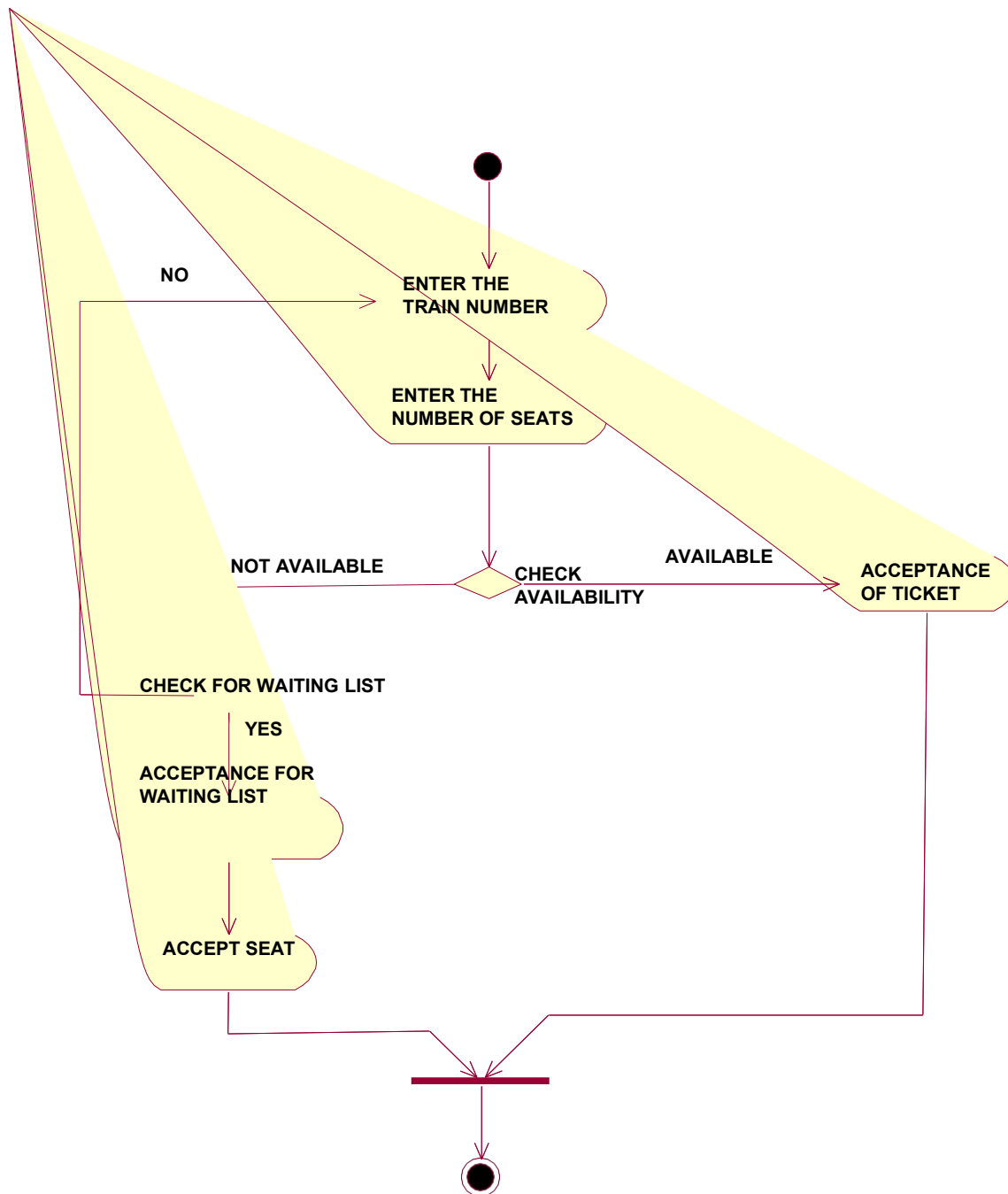
## USE CASE DIAGRAM:



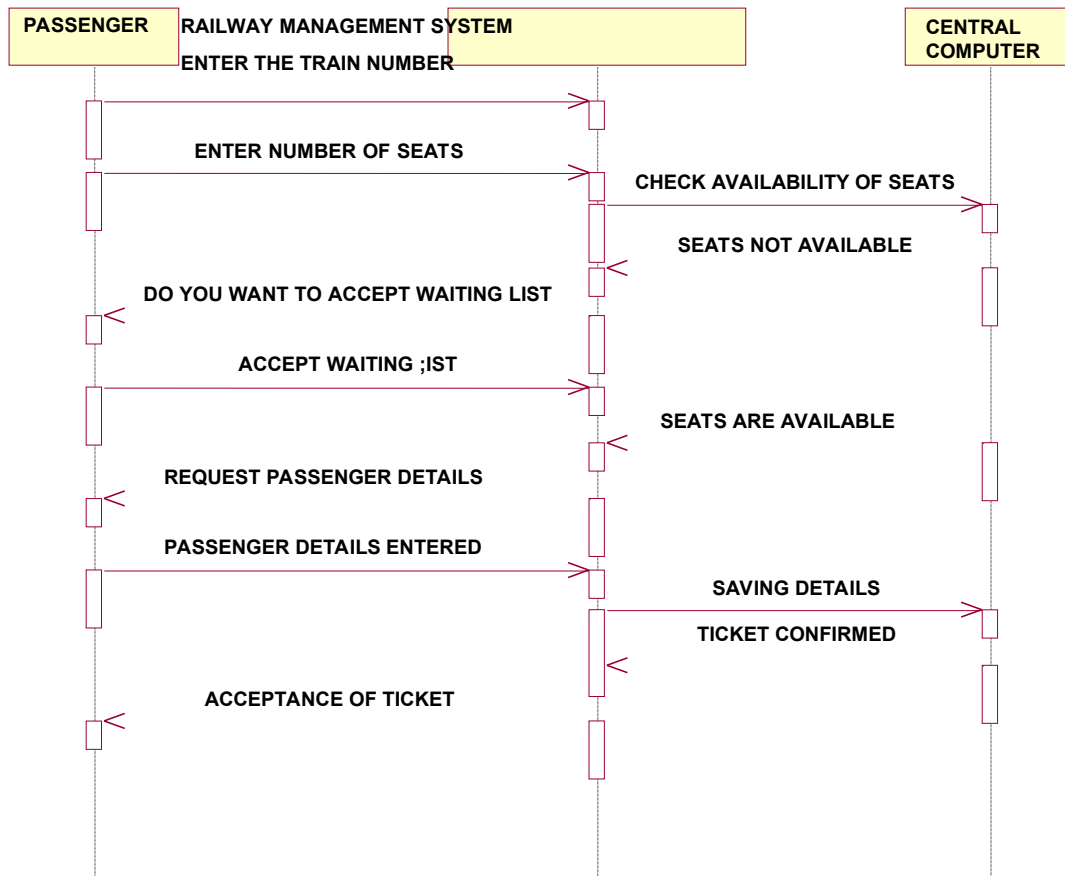
## CLASS DIAGRAM:



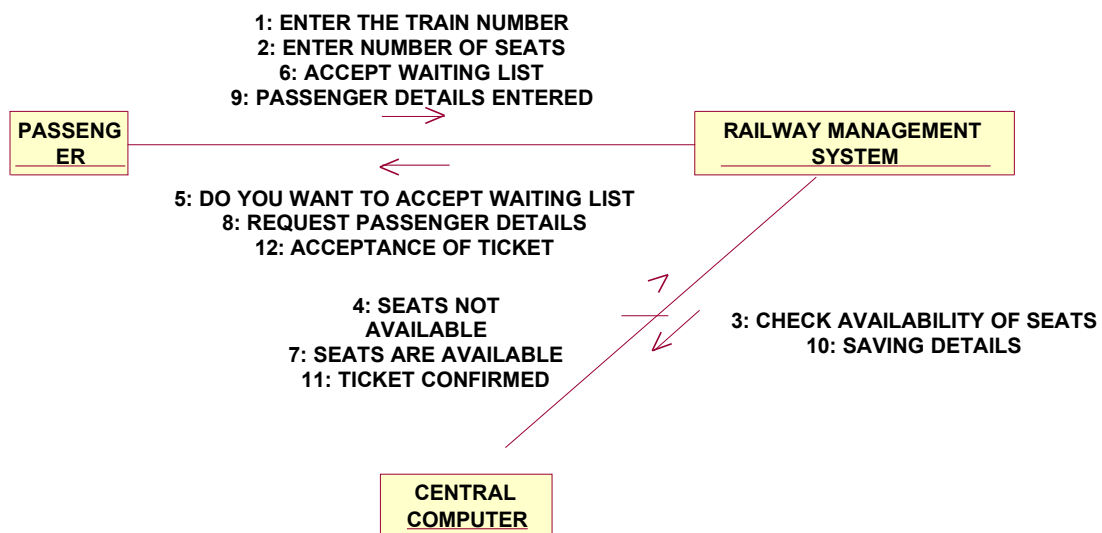
## ACTIVITY DIAGRAM:



### SEQUENCE DIAGRAM:



### COLLABORATION DIAGRAM:



**RESULT:**

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the E-ticketing has been designed, executed and output is verified.

<b>EX.NO: 7</b>	<b><u>CREDIT CARD PROCESSING</u></b>
<b>DATE:</b>	



**AIM:**

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

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**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 Product details	Print bill() Validate card()
Cashier	Product name Cost of the product	Enter amount() Swipe Card() Print Bill() Deliver Product()
CardHolder	Items Purchased Validate Card	Give 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**

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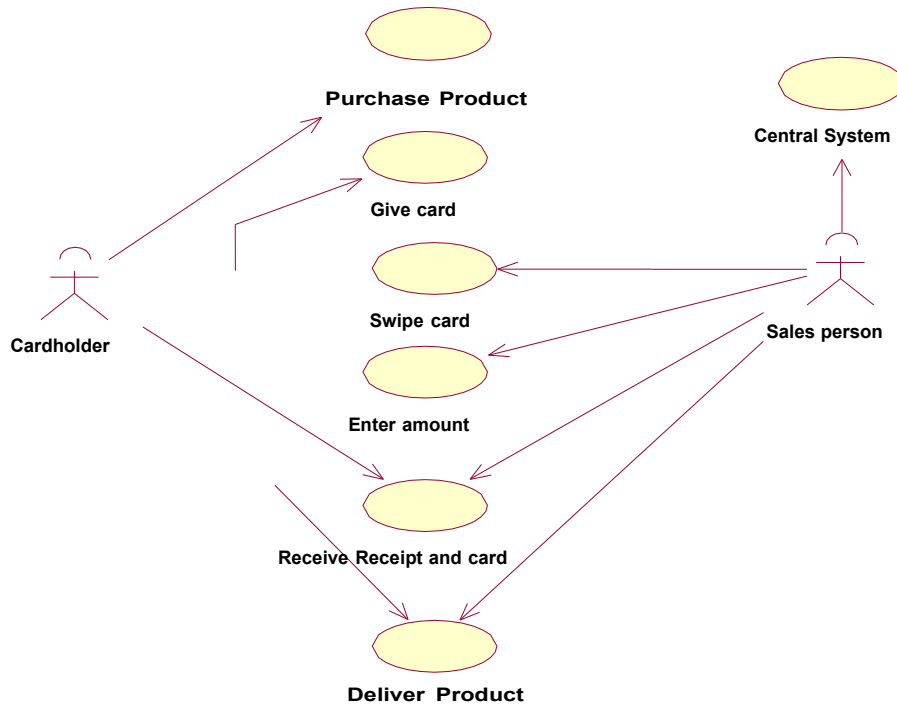
- Provides convenience.
- Easily understandable.
- User friendliness.

### **DEMERITS:**

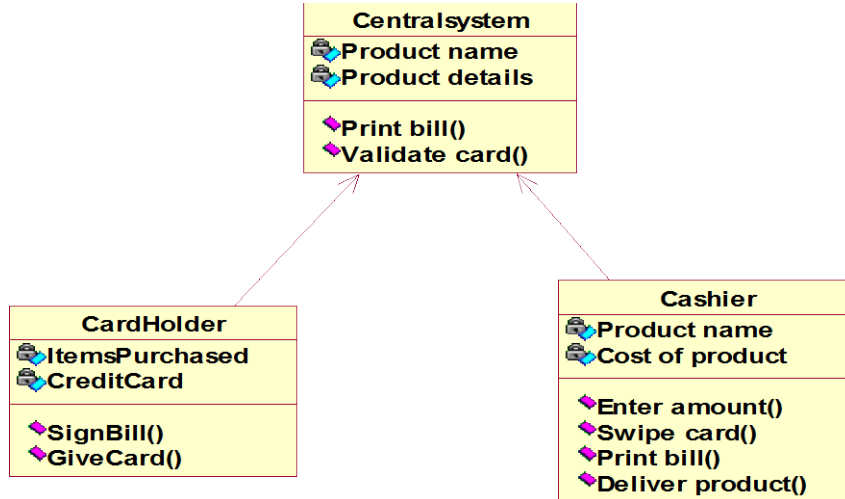
- Need computer knowledge.
- It is complex for large scale products.

## **CREDIT CARD PROCESSING**

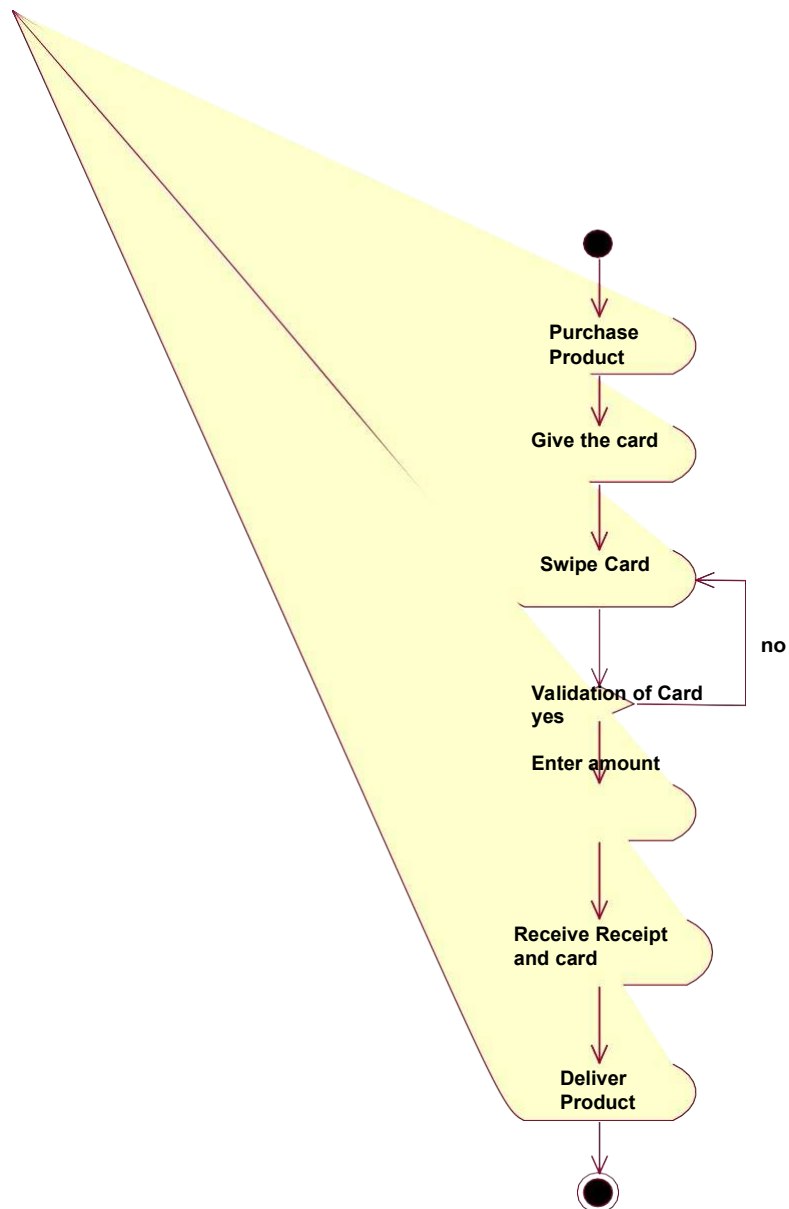
### **USE CASE DIAGRAM:**



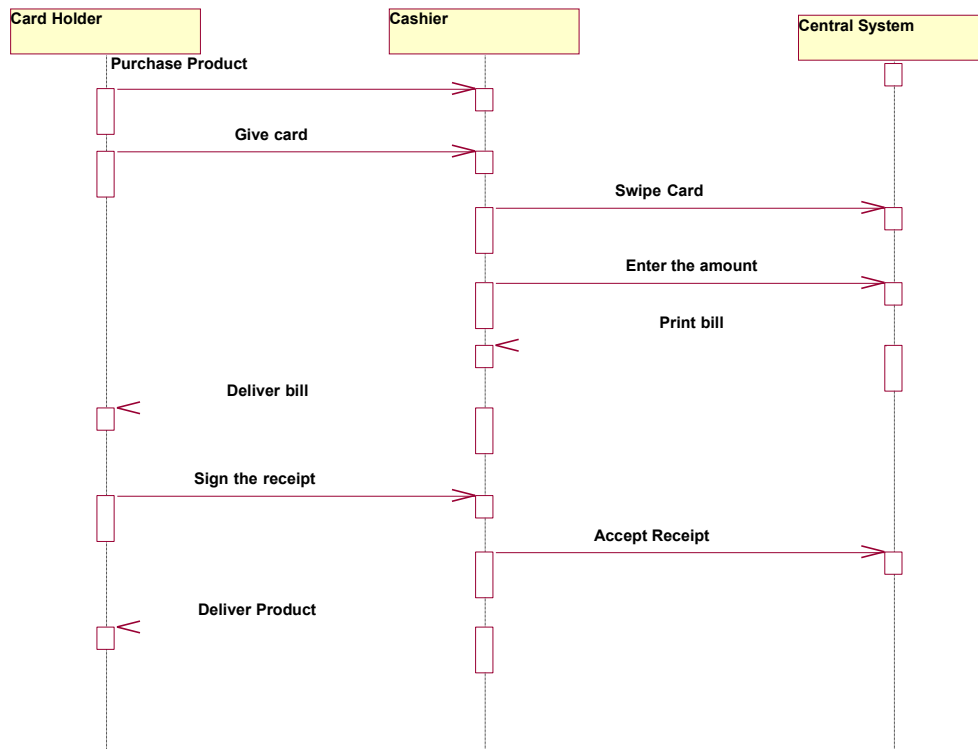
### CLASS DIAGRAM:



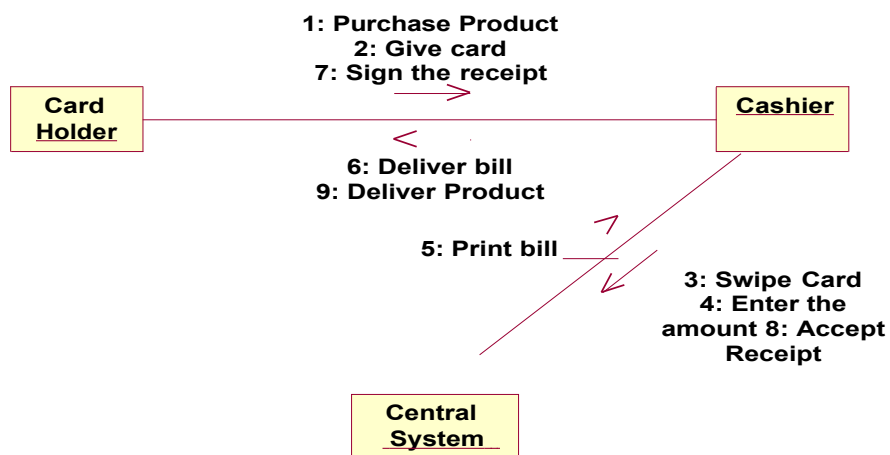
### ACTIVITY DIAGRAM:



**SEQUENCE DIAGRAM:**



## COLLABORATION DIAGRAM



## RESULT:

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

<b>EX.NO: 8</b>	<b><u>SOFTWARE PERSONNEL MANAGEMENT SYSTEM</u></b>
<b>DATE:</b>	

**AIM:**

To draw the diagrams [usecase, activity, sequence, collaboration, class] for Software personnel management system

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed for the process of knowing the details of a person works in a software company. The details are being stored in the central management system for the crosschecking the person's details.

**USE CASE DIAGRAM:**

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

**Actors:** Employee, HR, Central system.

**Use case:** Name and address ,qualification ,experience, internet, loan, verification

**ACTIVITY DIAGRAM:**

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

**Activities:** Enter the option to check, enter the salary, enter the working days ,leave taken ,loss of pay

**Decision box:** Option to check

**CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Central management system	Employee name, Employee number	Tax() Loan()
Employee1	Employee details	Leave taken()
HR	check details	Loss of pay()

**SEQUENCE DIAGRAM:**

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

**Object :**Employee, HR, 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**

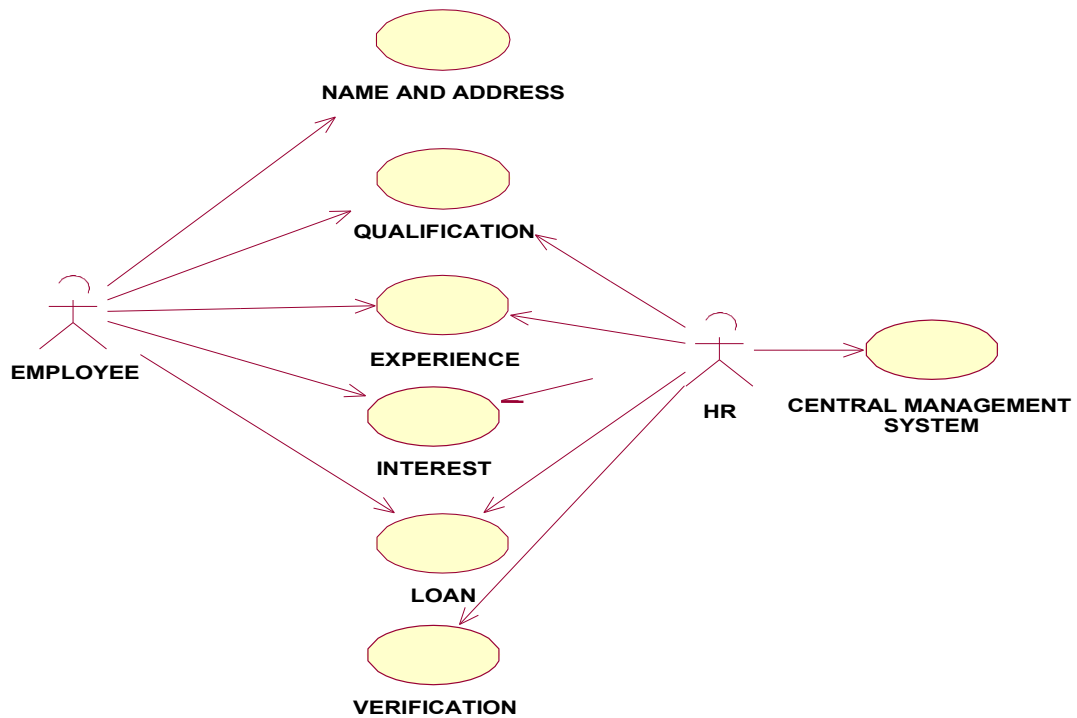
:

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

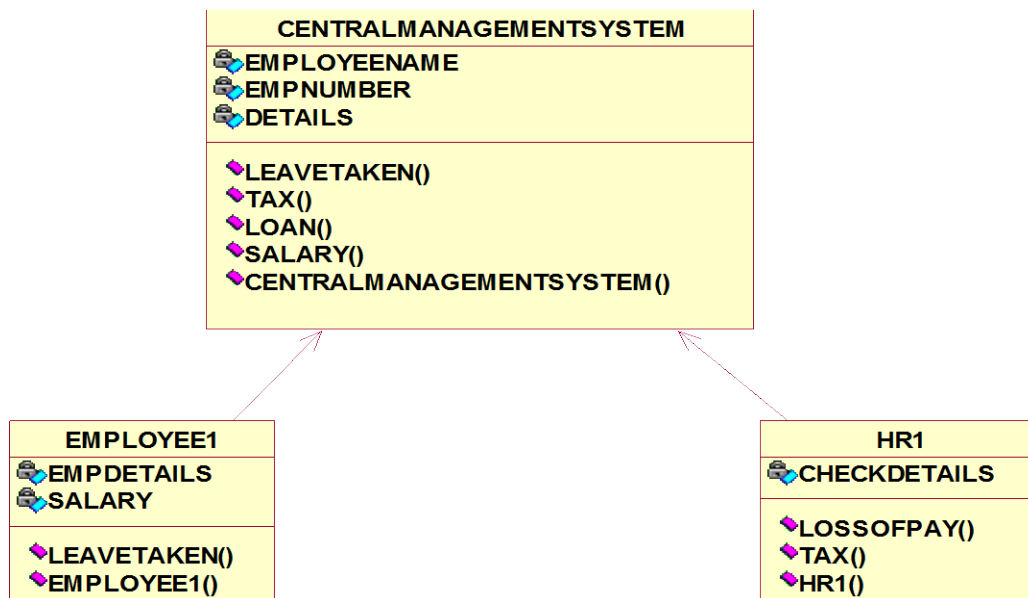
### **DEMERITS:**

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

### **SOFTWARE PERSONNEL MANAGEMENT SYSTEM.** **USE CASE DIAGRAM:**

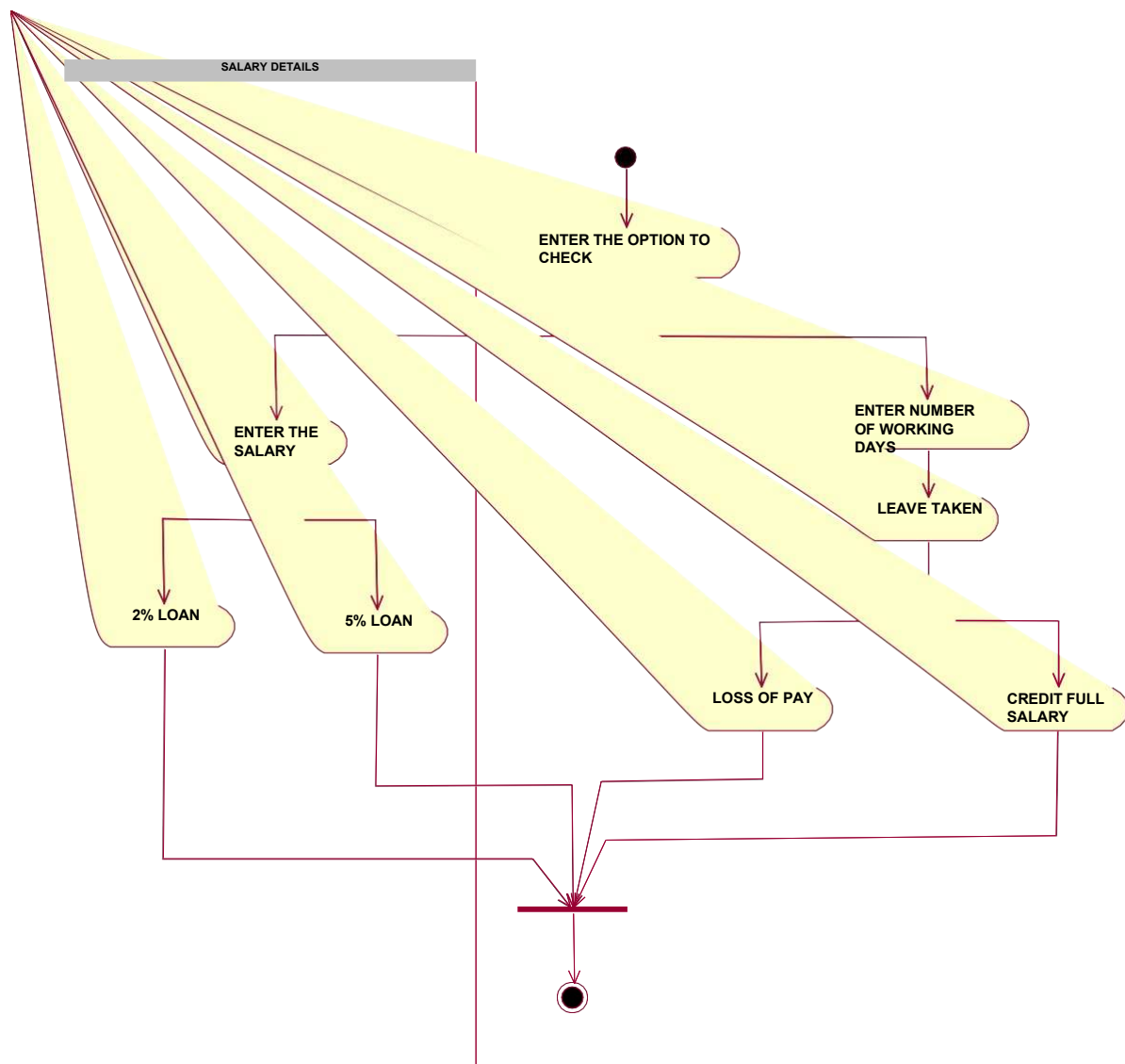


### CLASS DIAGRAM:

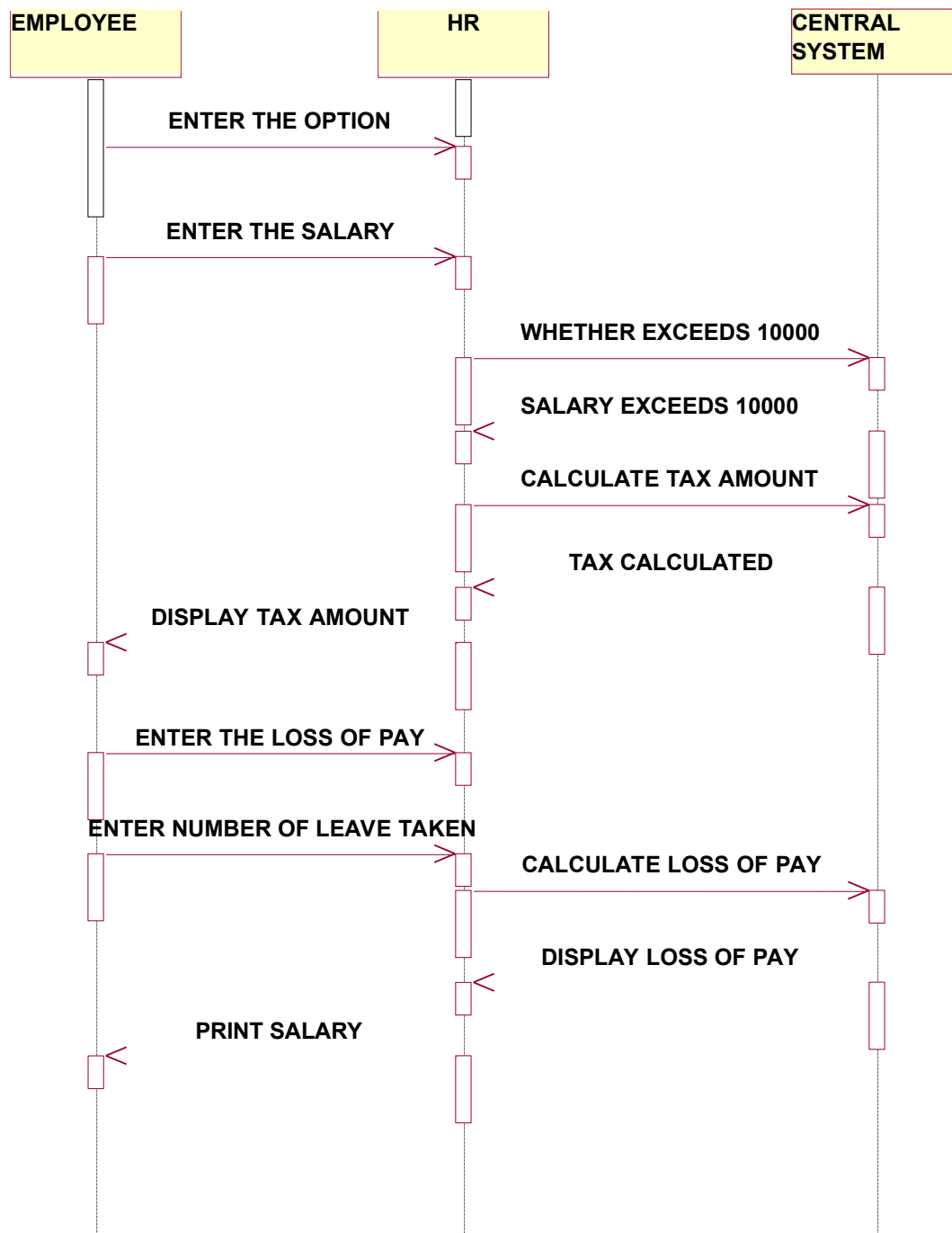




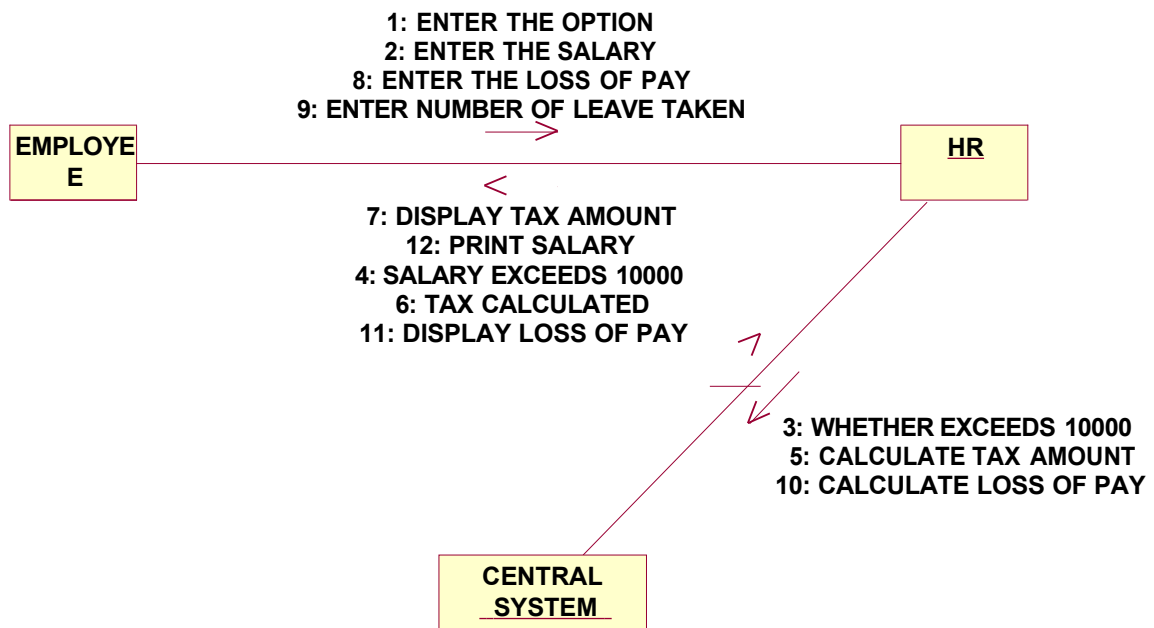
**ACTIVITY DIAGRAM:**



**SEQUENCE DIAGRAM:**



### COLLABORATION DIAGRAM:



### **RESULT:**

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

<b>EX.NO: 9</b>	<b><u>E-BOOK MANAGEMENT SYSTEM</u></b>
<b>DATE:</b>	

### **AIM:**

To draw the diagrams [usecase, activity, sequence, collaboration, class] for E-book management system

### **HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

### **SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

### **PROJECT DESCRIPTION:**

This software is designed to manage the books that were read through the internet. This consists of the details of the e-book that were read by the user online. It will be controlled by the central system. This system act as a backup of all details together.

### **USE CASE DIAGRAM:**

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

**Actors:** user, e-book management

**Use case:** login ,search books, download ,pay for the books, logout

### **ACTIVITY DIAGRAM:**

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

**Activities:** Search for the e-book site,search for the book,download book

**Decision box:** check availability

### **CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Internet	Enter id Login, logout	Surf books()
User	Login ,logout	Surf books()
E-book management	Verify user	Check availability()

### **SEQUENCE DIAGRAM:**

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

**Object:** User ,E-book management ,Internet

### **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**

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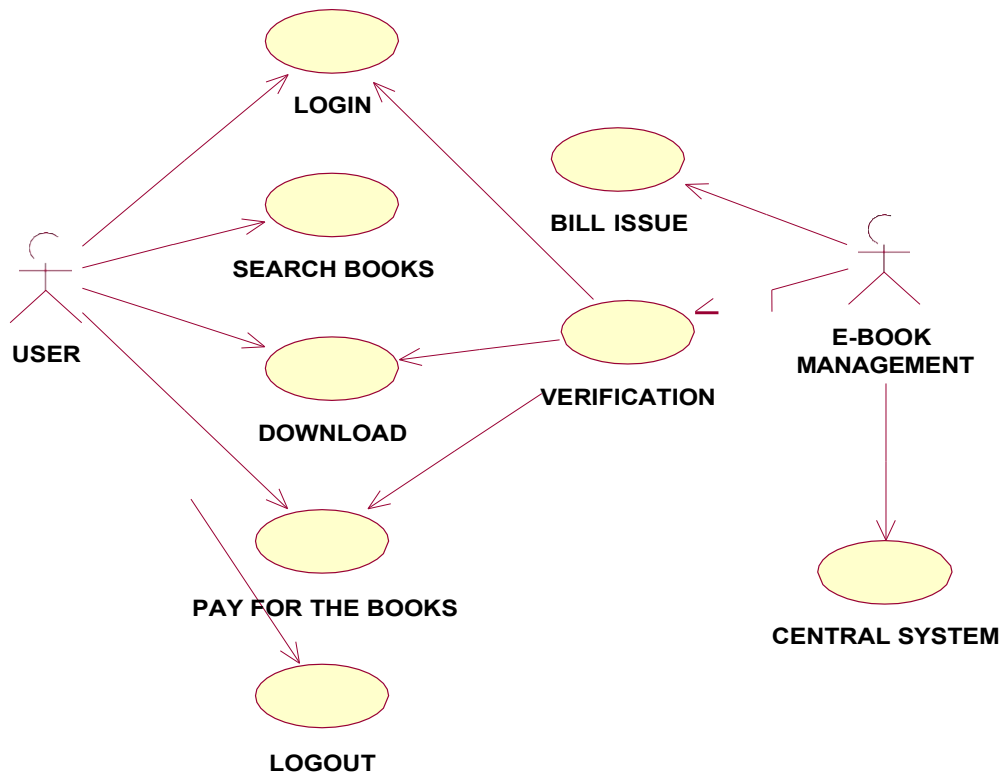
- Provides convenience.
- Easily understandable.
- User friendliness.

### **DEMERITS:**

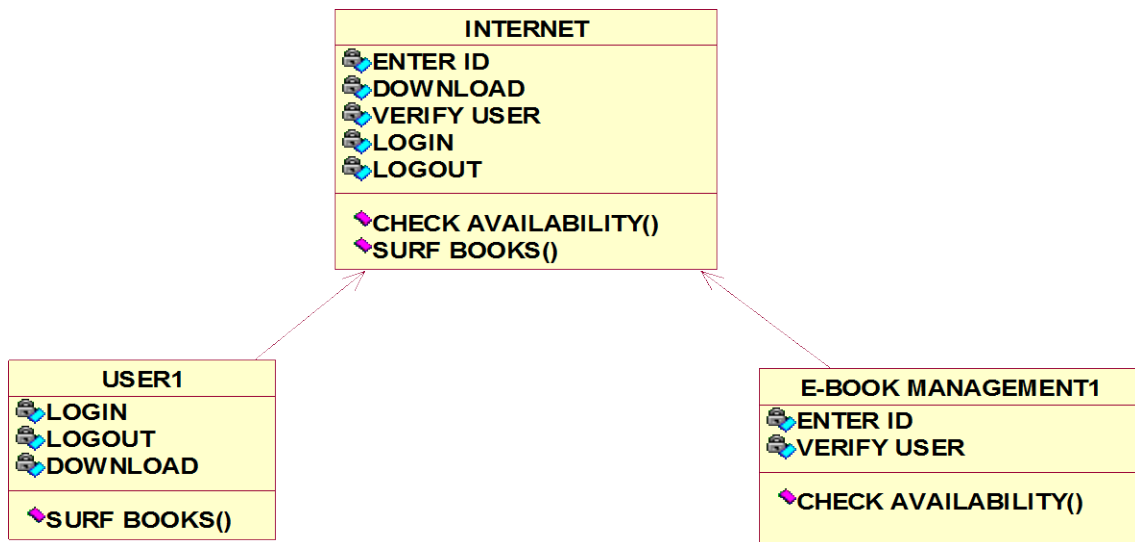
- Need computer knowledge.
- It is complex for large scale products.

## **E-BOOK MANAGEMENT SYSTEM**

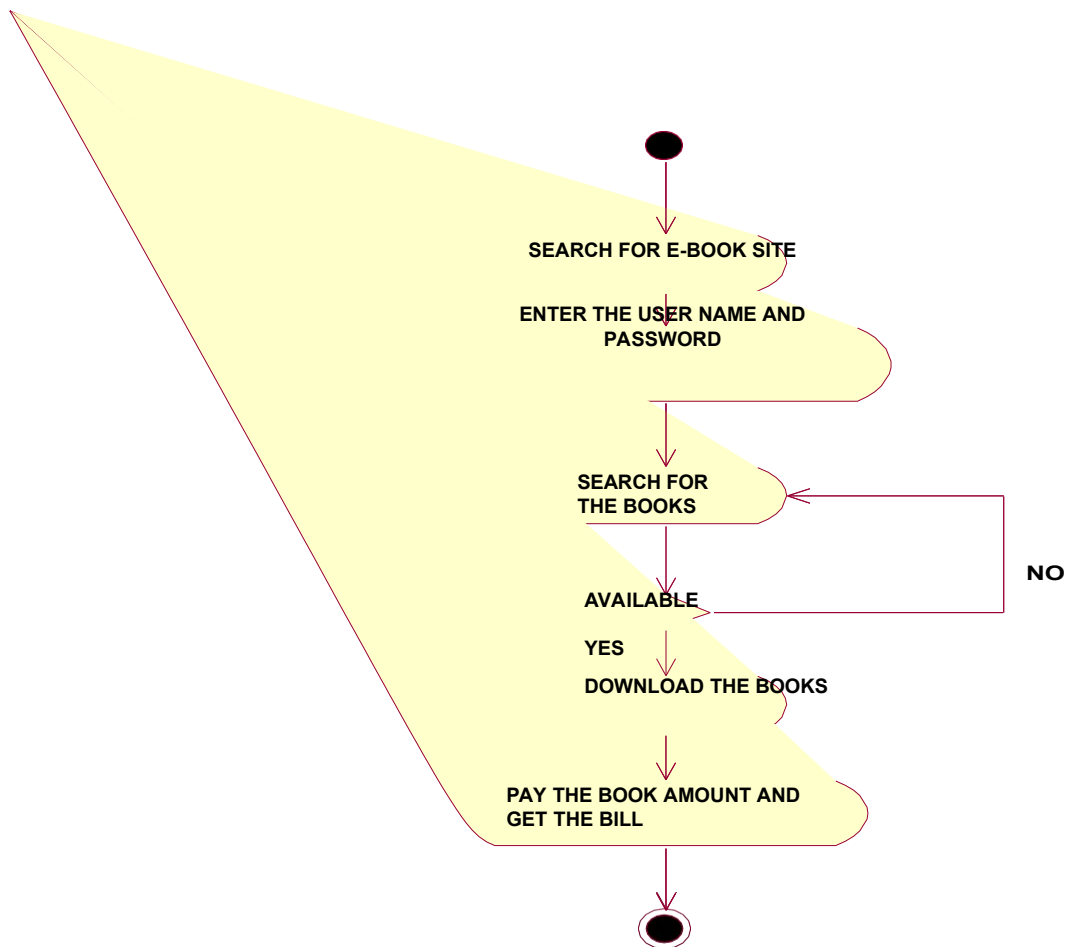
### **USECASE DIAGRAM:**



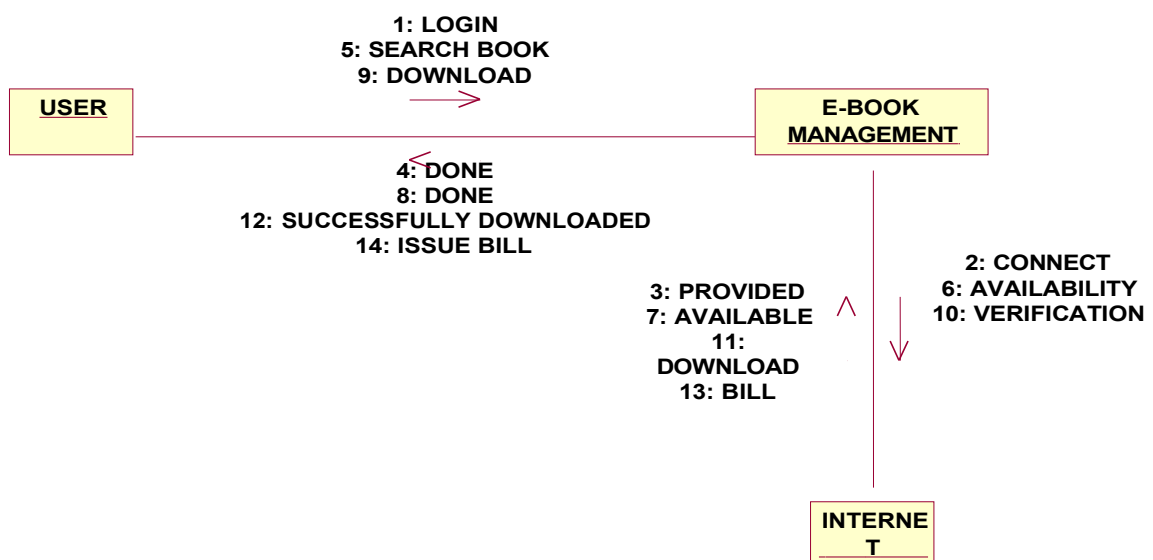
### CLASS DIAGRAM:



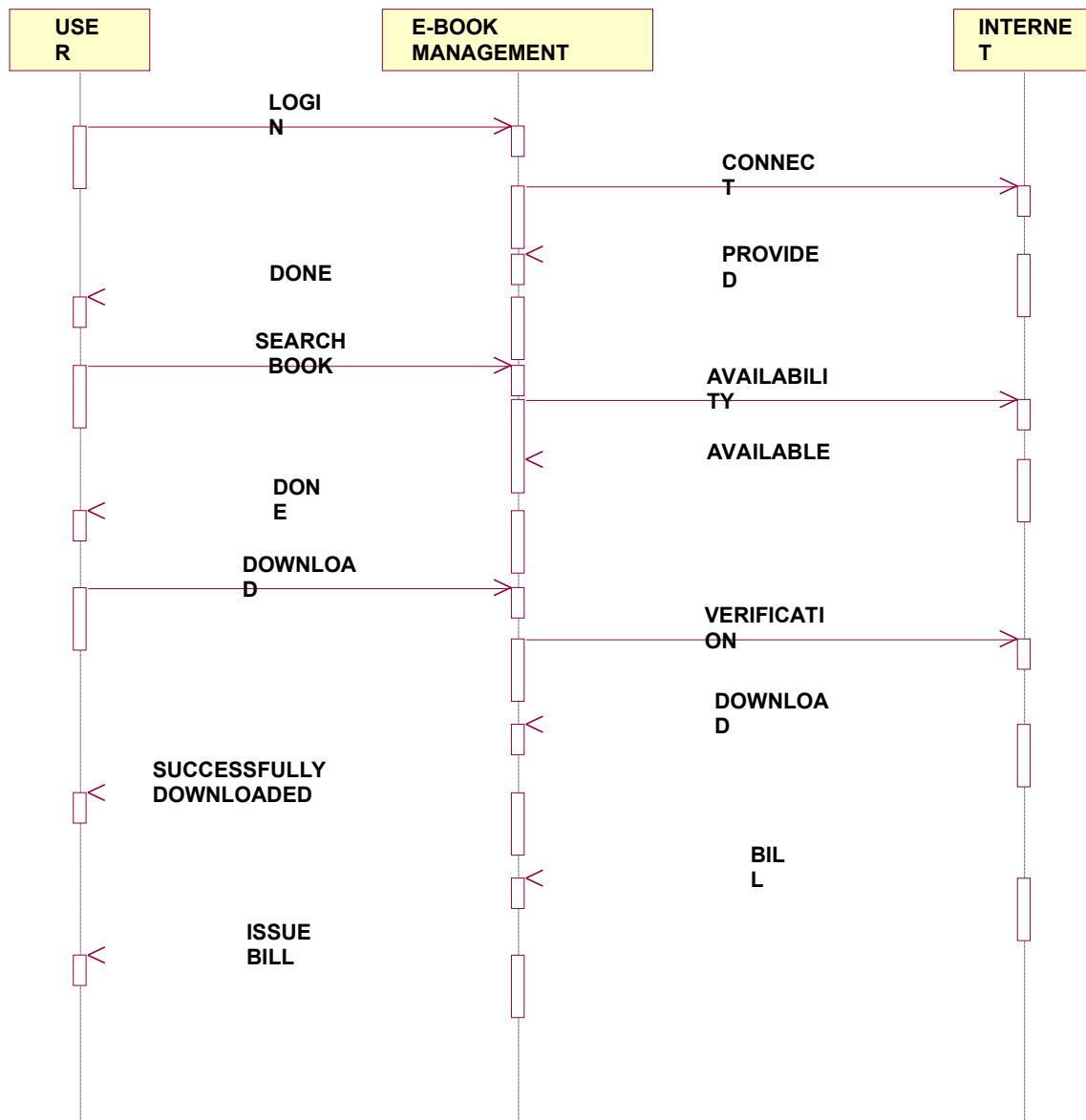
### ACTIVITY DIAGRAM:



### COLLOBORATION DIAGRAM:



### SEQUENCE DIAGRAM:





**RESULT:**

Thus the diagrams[Use case, class, activity, sequence, collaboration] for the E-Book management system has been designed ,executed and output is verified

<b>EX.NO: 10</b>	<b><u>RECRUITMENT SYSTEM</u></b>
<b>DATE:</b>	

**AIM:**

To draw the diagrams [usecase, activity, sequence, collaboration, class] for Recruitment system

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This system is designed to recruit the particular job to the person in a company .It was controlled by the central management system to manage the details of the particular candidate that one has to be recruited for a company.

**USE CASE DIAGRAM:**

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

**Actors:** Applicant, HR, Central management system.

**Use case:** Aptitude, Group discussion, Technical skills, Personal specification, Short list, Result

**ACTIVITY DIAGRAM:**

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

**Activities:** Aptitude, Group discussion ,Technical skills,HR

**Decision box:** Verification of the qualities

**CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Candidate	Name, qualification	Verify()
HR	Verification ,resume	Select()
Central system	Store, update	Update()

**SEQUENCE DIAGRAM:**

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

**Object:** Candidate, HR, 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**

:

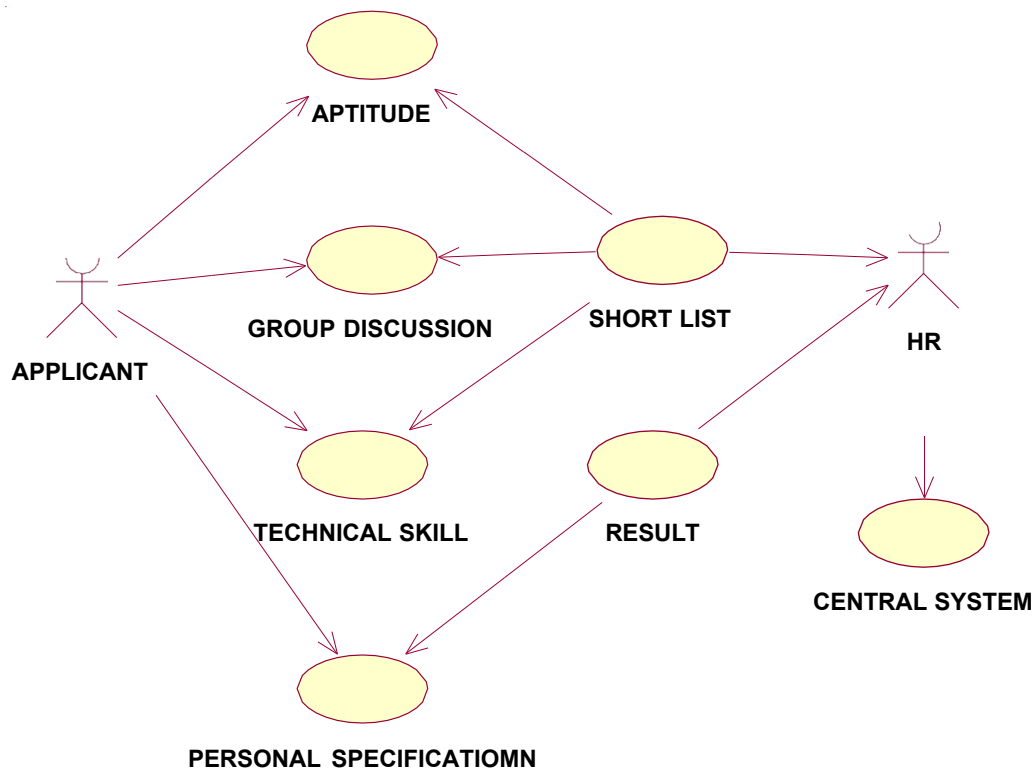
- Provides convenience.
- Easily understandable.
- User friendliness.

**DEMERITS:**

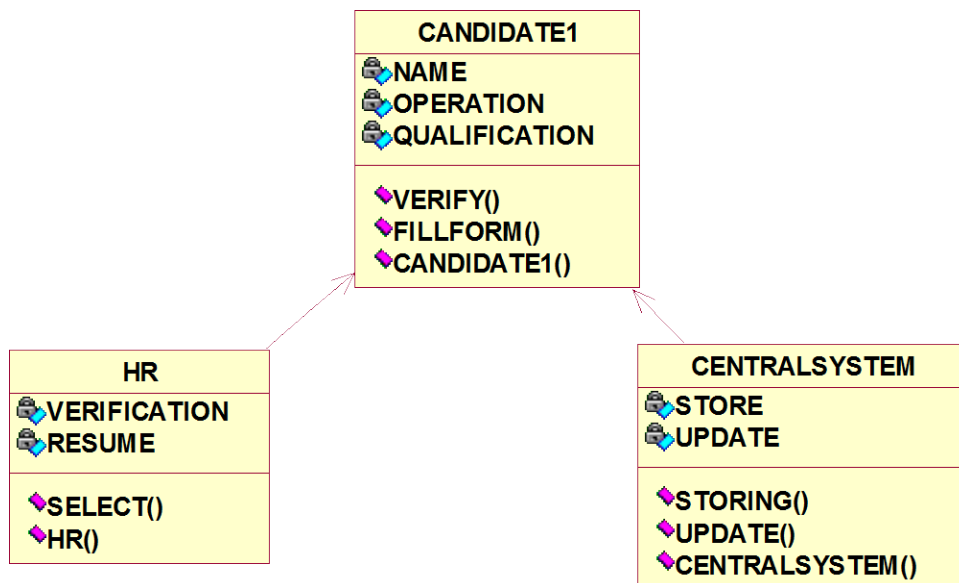
- Need computer knowledge.
- It is complex for large scale products.

**RECRUITMENT SYSTEM**

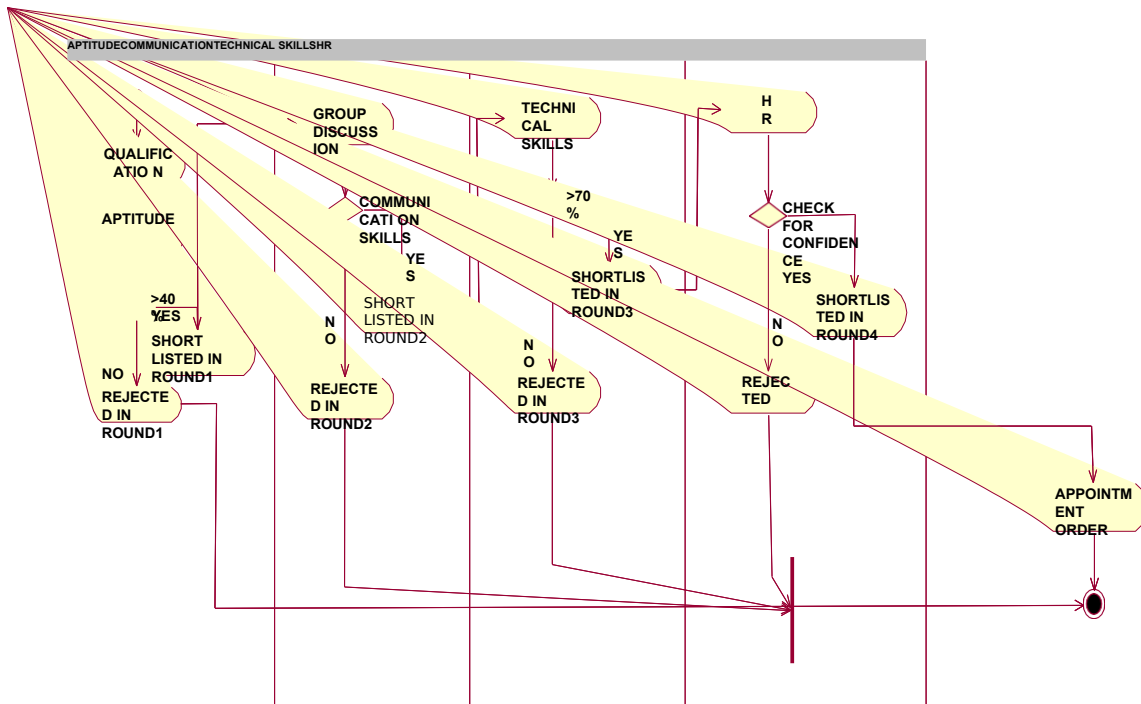
**USECASE DIAGRAM:**



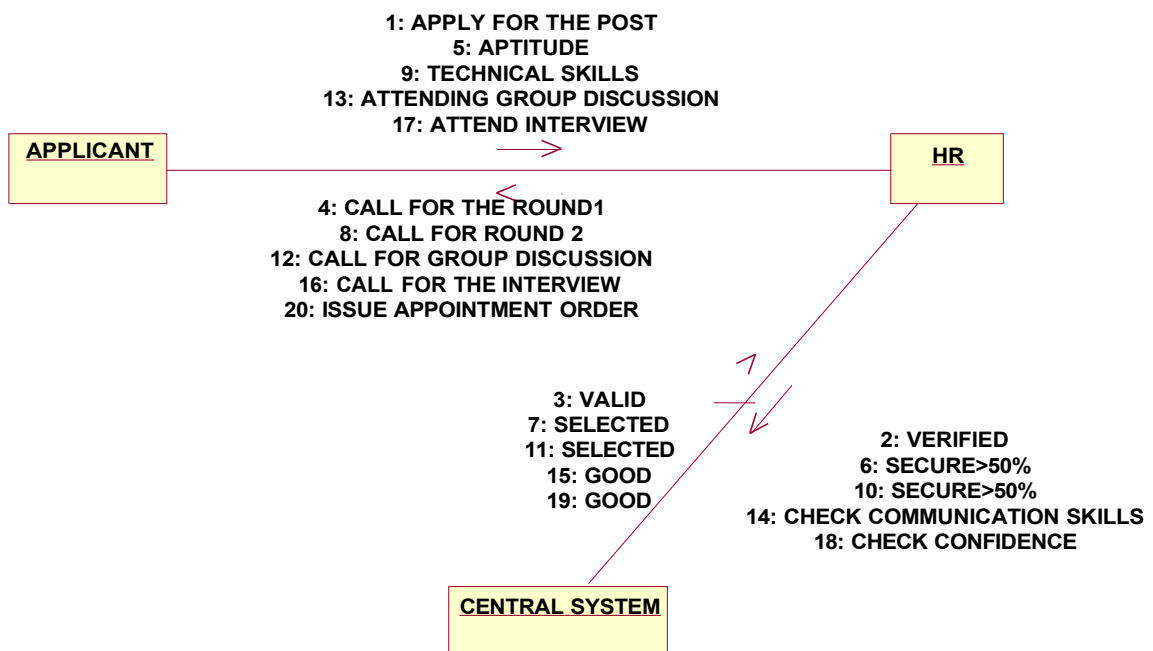
### CLASS DIAGRAM:



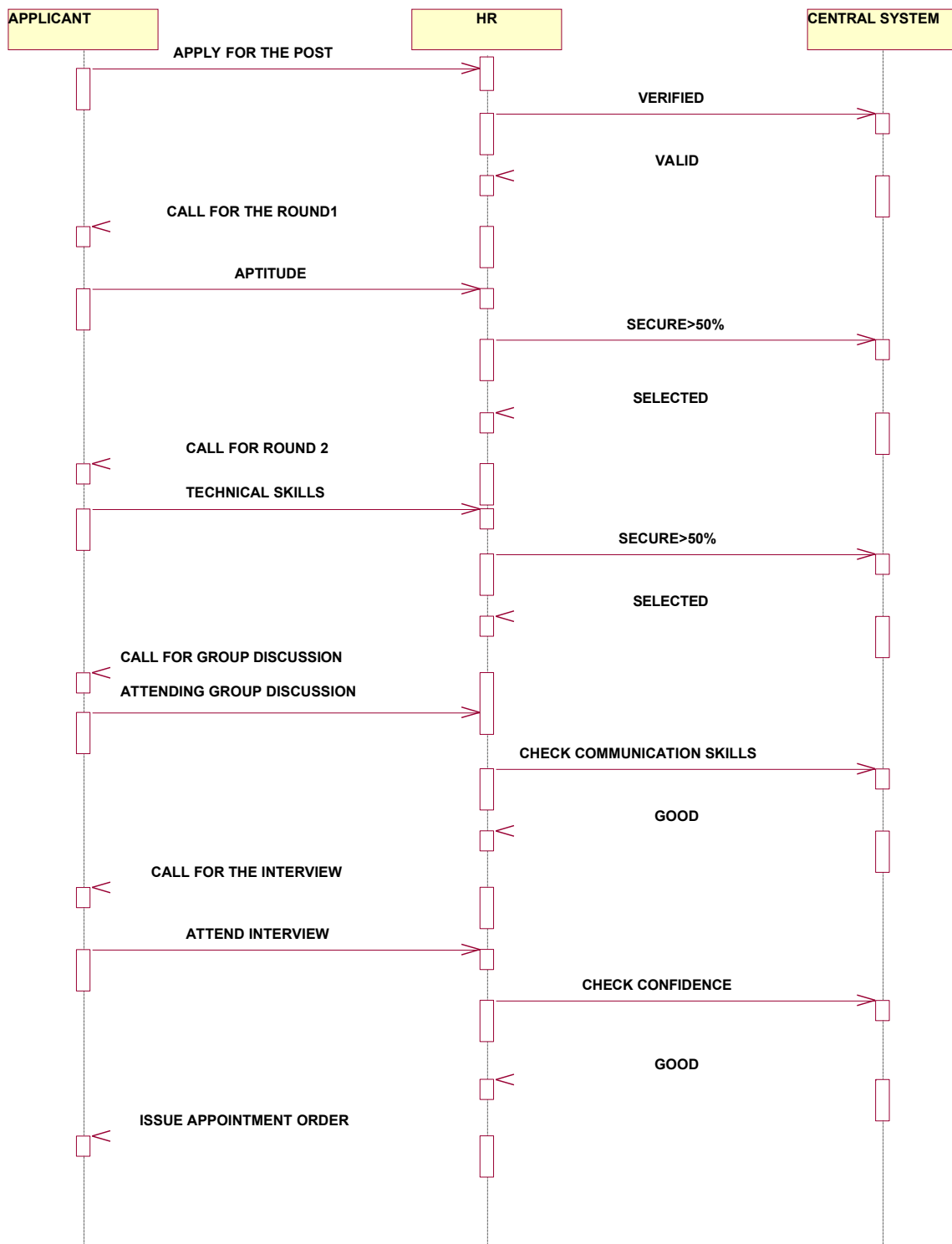
### ACTIVITY DIAGRAM:



### COLLABORATION DIAGRAM:



### SEQUENCE DIAGRAM:



**RESULT:**

Thus the diagrams [Use case, class, activity, sequence, collaboration] for the Recruitment system has been designed ,executed and output is verified

<b>EX.NO: 11</b>	<b><u>CONFERENCE MANAGEMENT SYSTEM</u></b>
<b>DATE:</b>	

**AIM:**

To draw the diagrams [usecase, activity, sequence, collaboration, class] for Conference management system

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed to manage the details of the process that will be taken place in the conference in a place. It works along with the organizer ,who arranges all these program and central management system, which consists of the all the details of the member who participates in the presentation

**USE CASE DIAGRAM:**

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

**Actors:** Member, Organizer, Central system

**Use case:** planning, invite delegates, allocate seats, presenting paper, prize distribution

**ACTIVITY DIAGRAM:**

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

**Activities:** Invite delegates, Allocate seats, Presenting paper, Choose the winner

**Decision box:** Whether it is reserved or not, Whether the presentation is good or not

**CLASS DIAGRAM:**

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

CLASSES	ATTRIBUTES	OPERATIONS
Member	Name, id	Presenting paper()
Organiser	Member details	Allocating seats()
Central management system	Member details	Updating()

**SEQUENCE DIAGRAM:**

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

**Object:** Member, Organiser, Central management 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**

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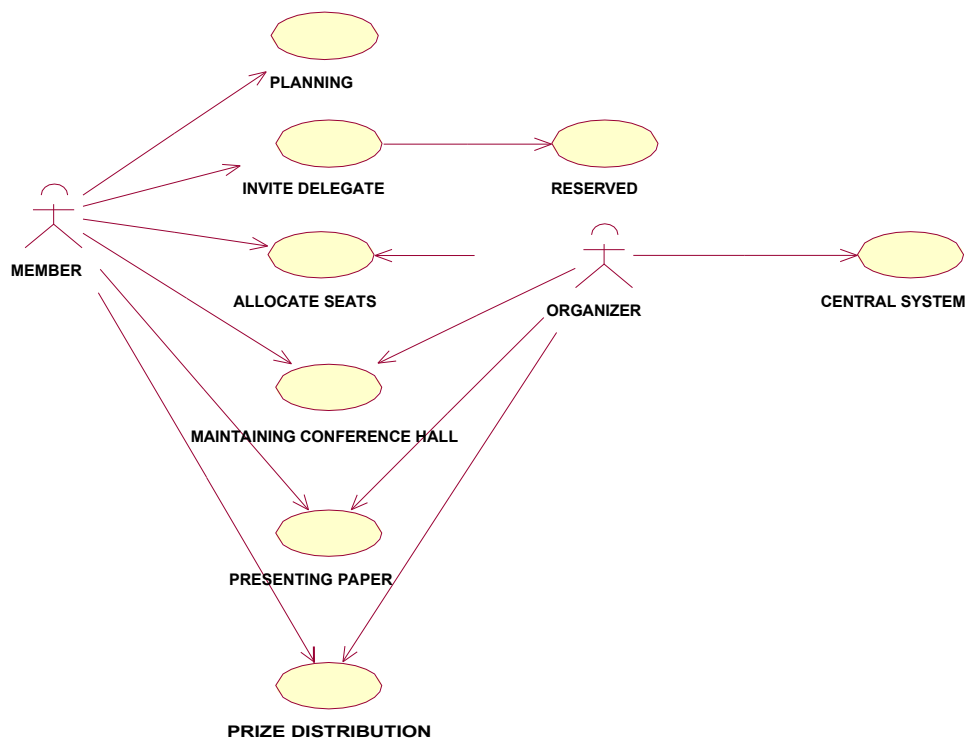
- Provides convenience.
- Easily understandable.
- User friendliness.

### **DEMERITS:**

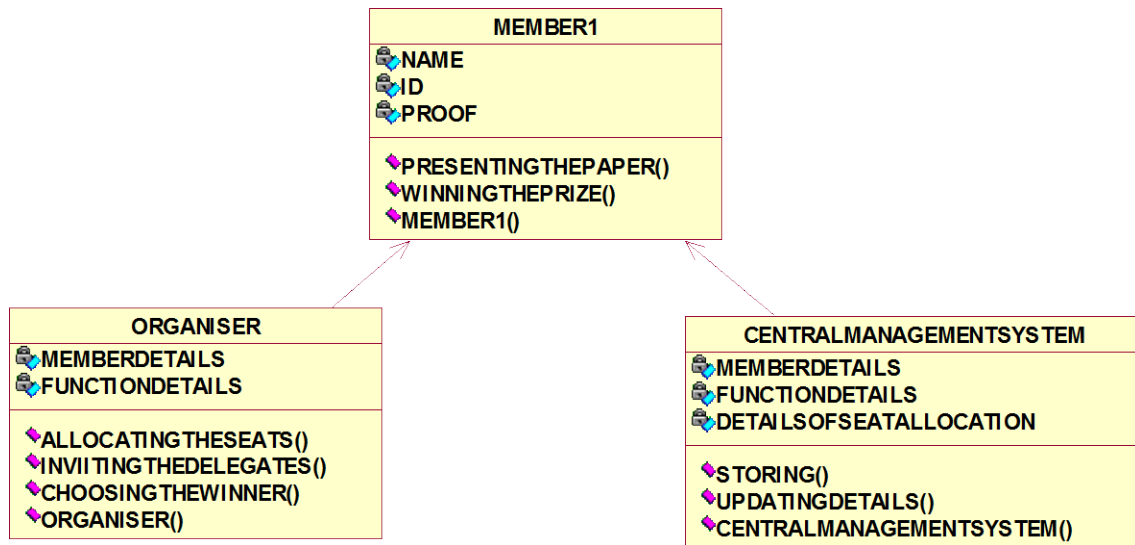
- Need computer knowledge.
- It is complex for large scale products.

## **CONFERENCE MANAGEMENT SYSTEM**

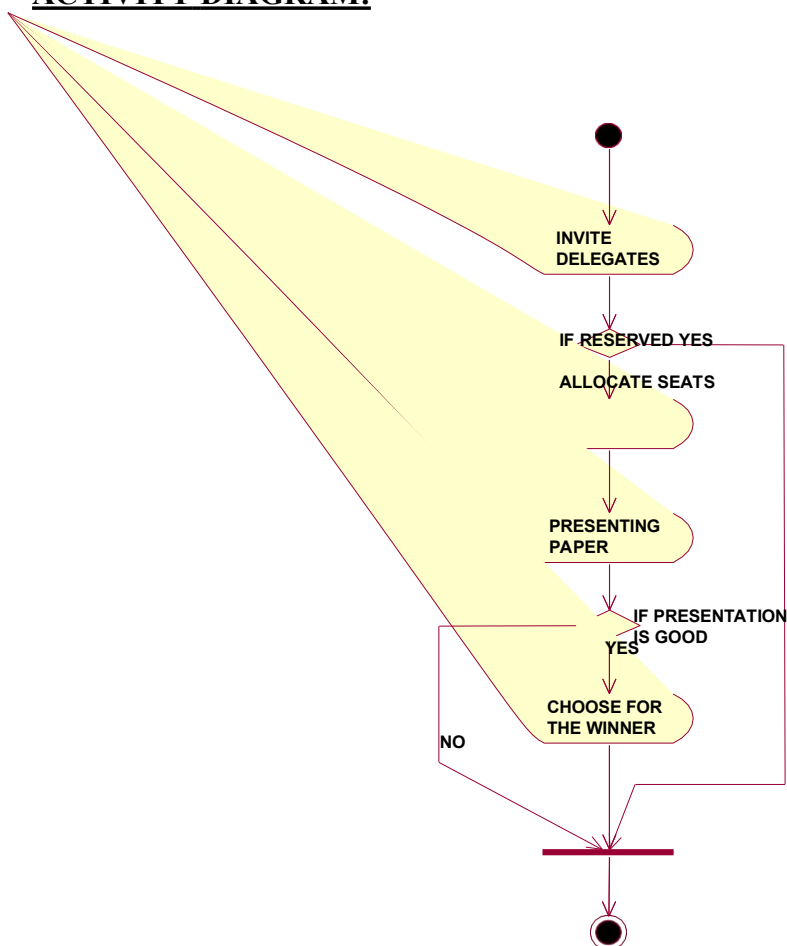
### **USECASE DIAGRAM:**



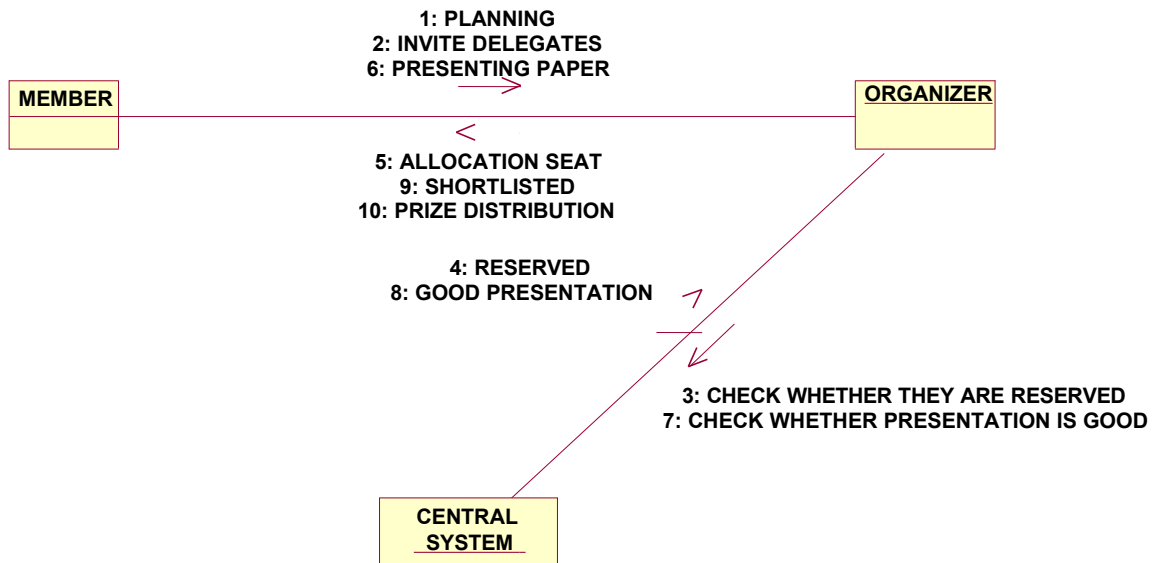
### **CLASS DIAGRAM:**



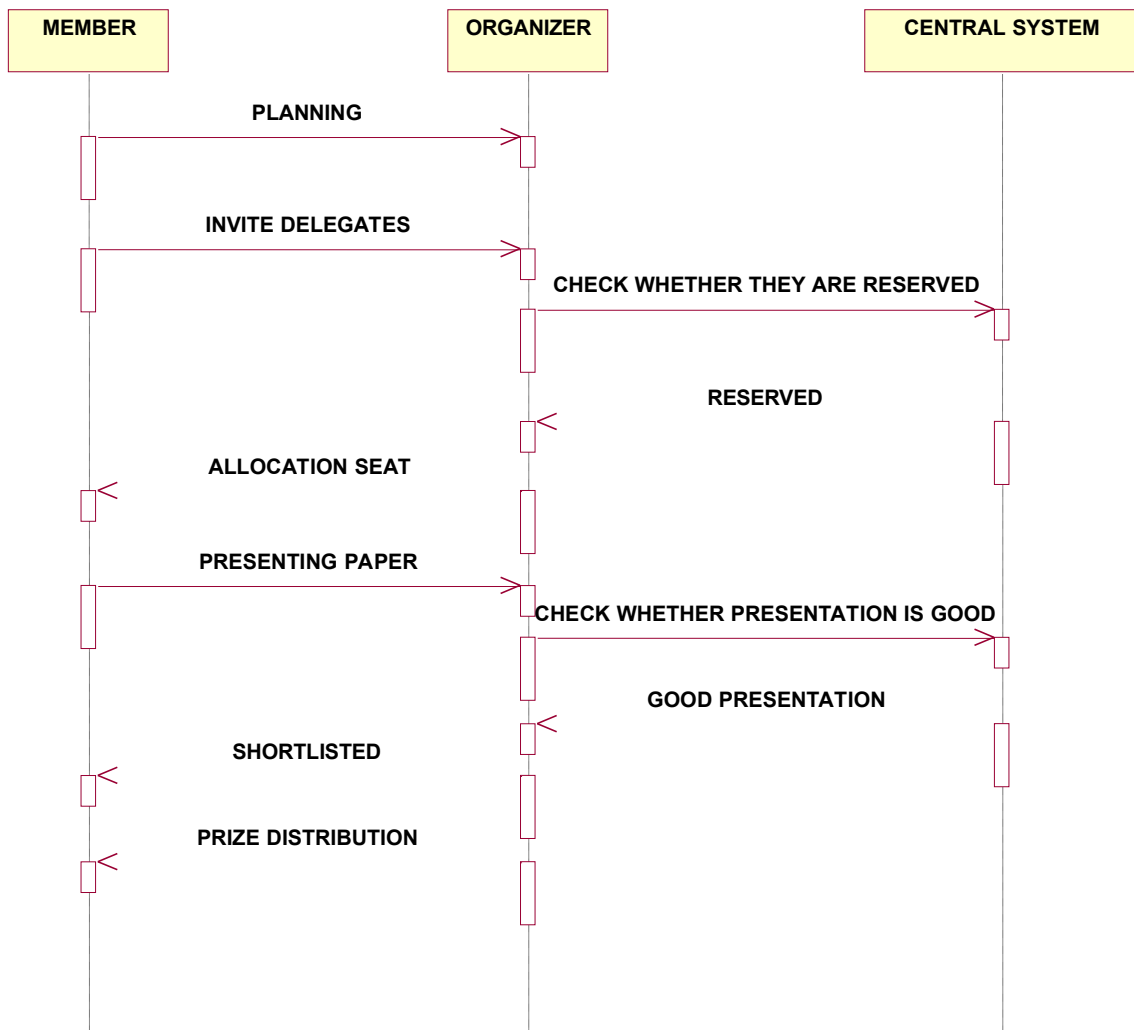
### ACTIVITY DIAGRAM:



### COLLABORATION DIAGRAM:



### SEQUENCE DIAGRAM:



**RESULT:**

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

EX.NO: 12	
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<b>DATE:</b>	<b><u>FOREIGN TRADING SYSTEM</u></b>
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**AIM:**

To draw the diagrams [usecase, activity, sequence, collaboration, class] for Foreign trading system

**HARDWARE REQUIREMENTS:**

- Intel Pentium Processor 3

**SOFTWARE REQUIREMENTS:**

- Rational rose / Visual Basic

**PROJECT DESCRIPTION:**

This software is designed to maintain the details about the trading system that exists between the foreign countries. This details are hold by the trading management system. The details to the system are provided by the customer and the supplier

**USE CASE DIAGRAM:**

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

**Actors:** Customer, Supplier, Custom officer

**Use case:** Order of product, Quantity, Specify the amount

**ACTIVITY DIAGRAM:**

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

**Activities:** Order of the product, Specify amount, Payment, Money transfer

**Decision box:** Check for availability

**CLASS DIAGRAM:**

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

<b>CLASSES</b>	<b>ATTRIBUTES</b>	<b>OPERATIONS</b>
Trading management system	Verify product	Transport()
Customer	Quality	Payment()
Supplier	Product supply	Money transfer()

**SEQUENCE DIAGRAM:**

This diagram consists of the objects, messages and return messages.  
**Object:** Customer, Supplier, Trading management 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:**

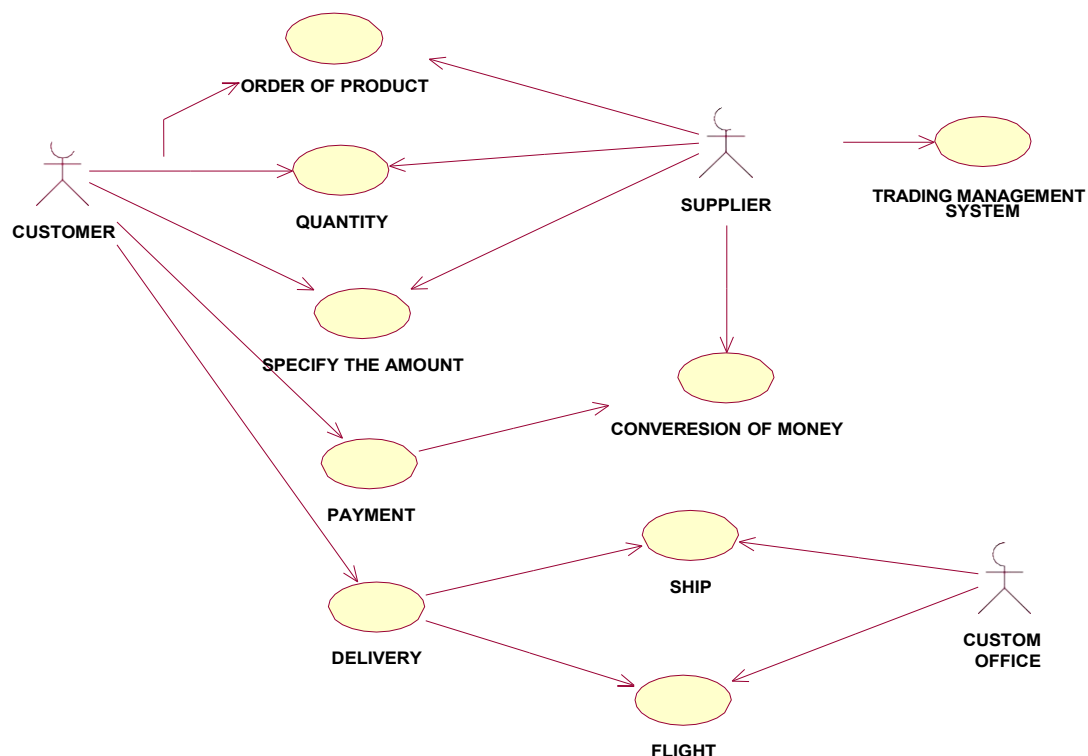
- Provides convenience.
- Easily understandable.
- User friendliness.

### **DEMERITS:**

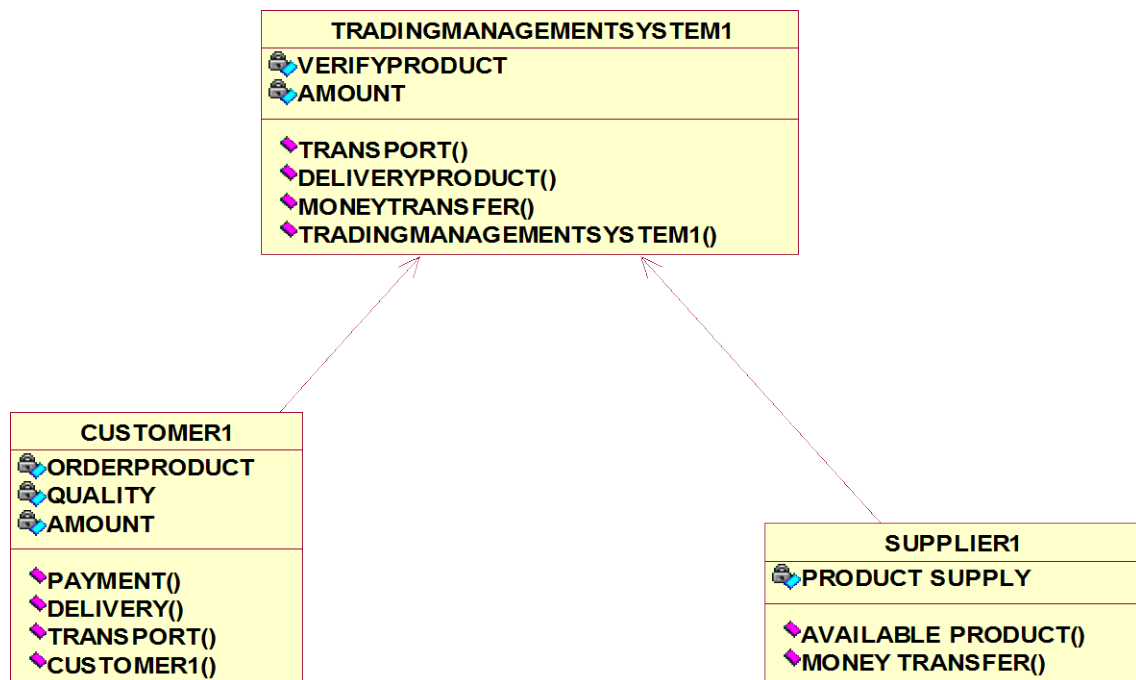
- Need computer knowledge.
- It is complex for large scale products.

## **FOREIGN TRADING SYSTEM**

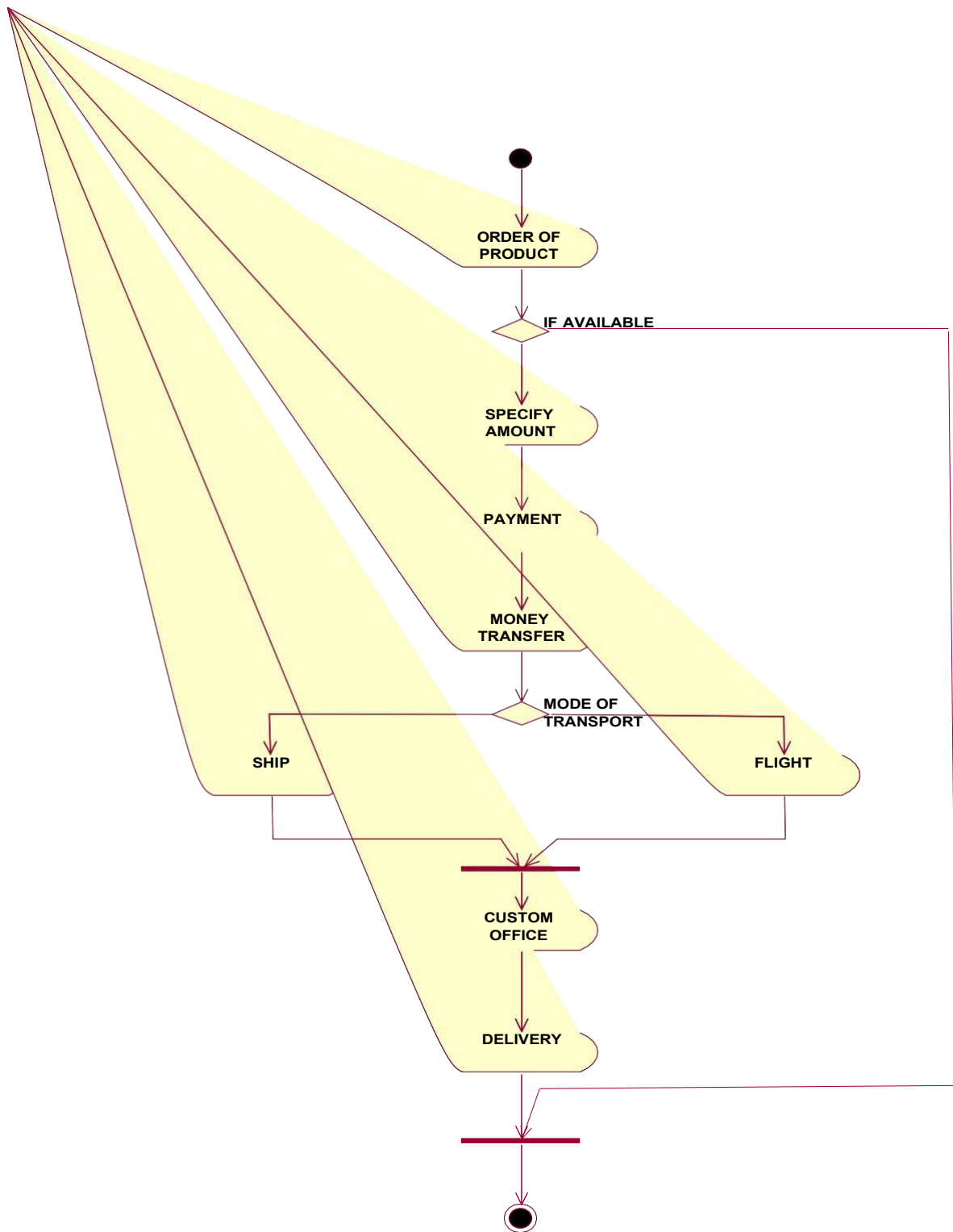
### **USECASE DIAGRAM:**



### **CLASS DIAGRAM:**

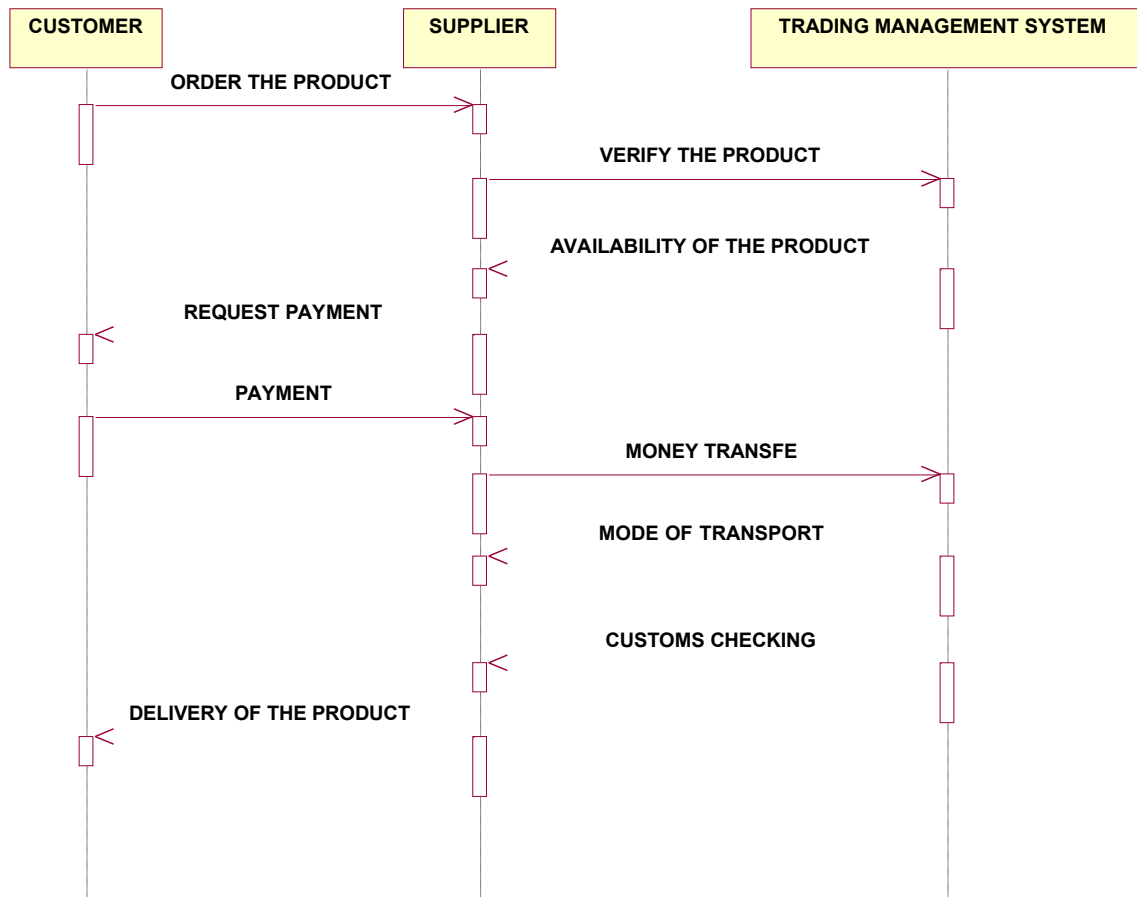


**ACTIVITY DIAGRAM:**

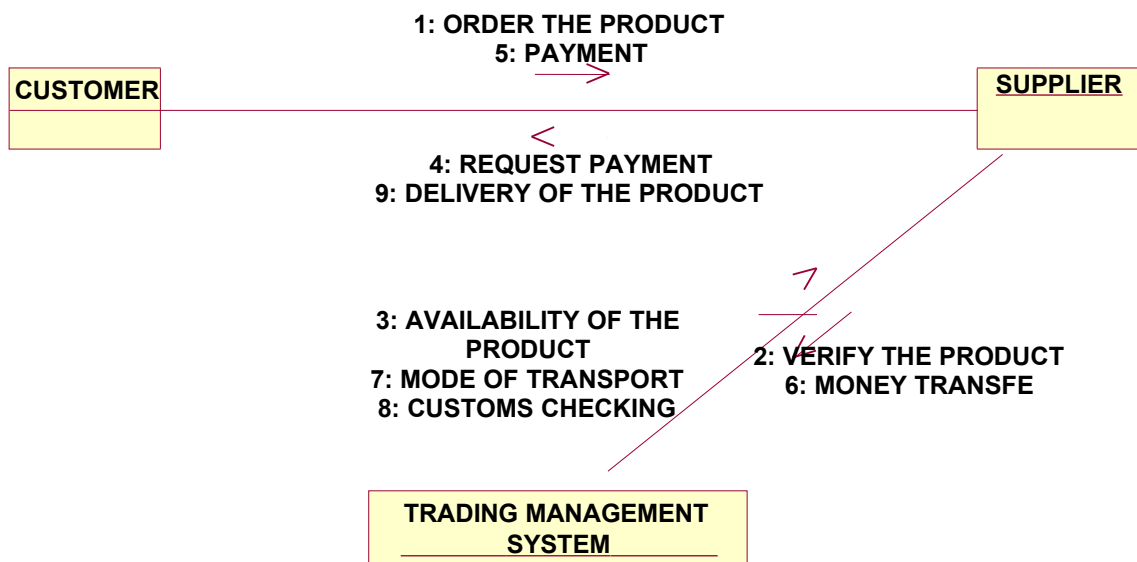


**SEQUENCE DIAGRAM:**





### COLLOBORATION DIAGRAM:



### RESULT:

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

<b>NO: 13</b>	<b><u>BPO MANAGEMENT SYSTEM</u></b>
<b>DATE:</b>	

**AIM:**

To draw the diagrams [usecase, 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 were 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

**Usecase:** Product, Voice, NonVoice,Indianoffice,Employee,Feedback.

**ACTIVITY DIAGRAM:**

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

**Activities:** Purchase product, oncall, onchat

**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**

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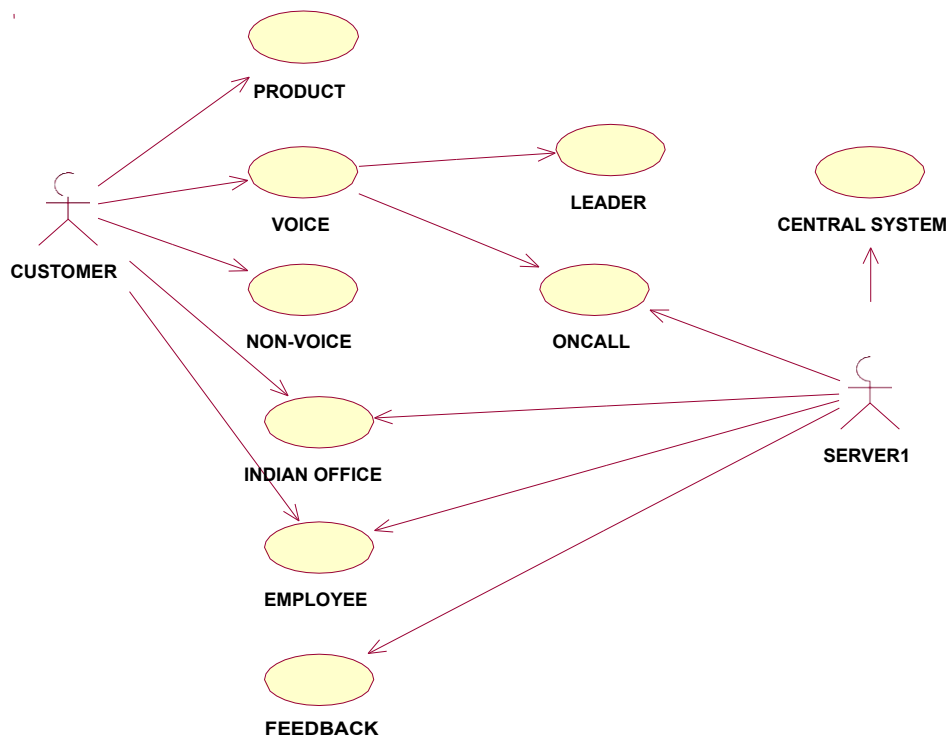
- Provides convenience.
- Easily understandable.
- User friendliness.

### **DEMERITS:**

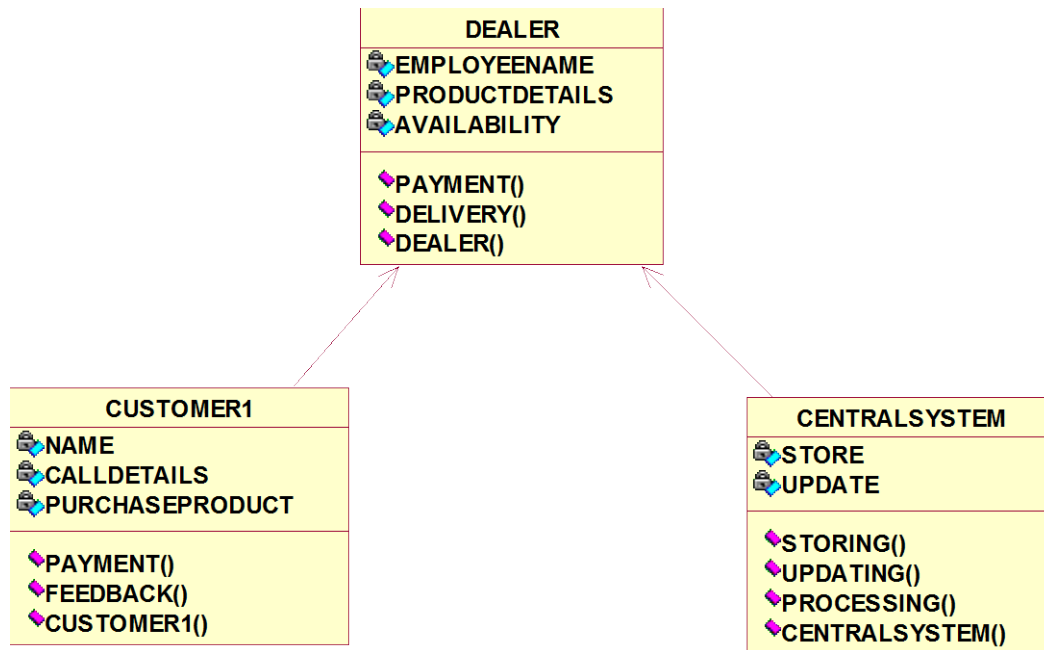
- Need computer knowledge.
- It is complex for large scale products.

## **BPO MANAGEMENT SYSTEM**

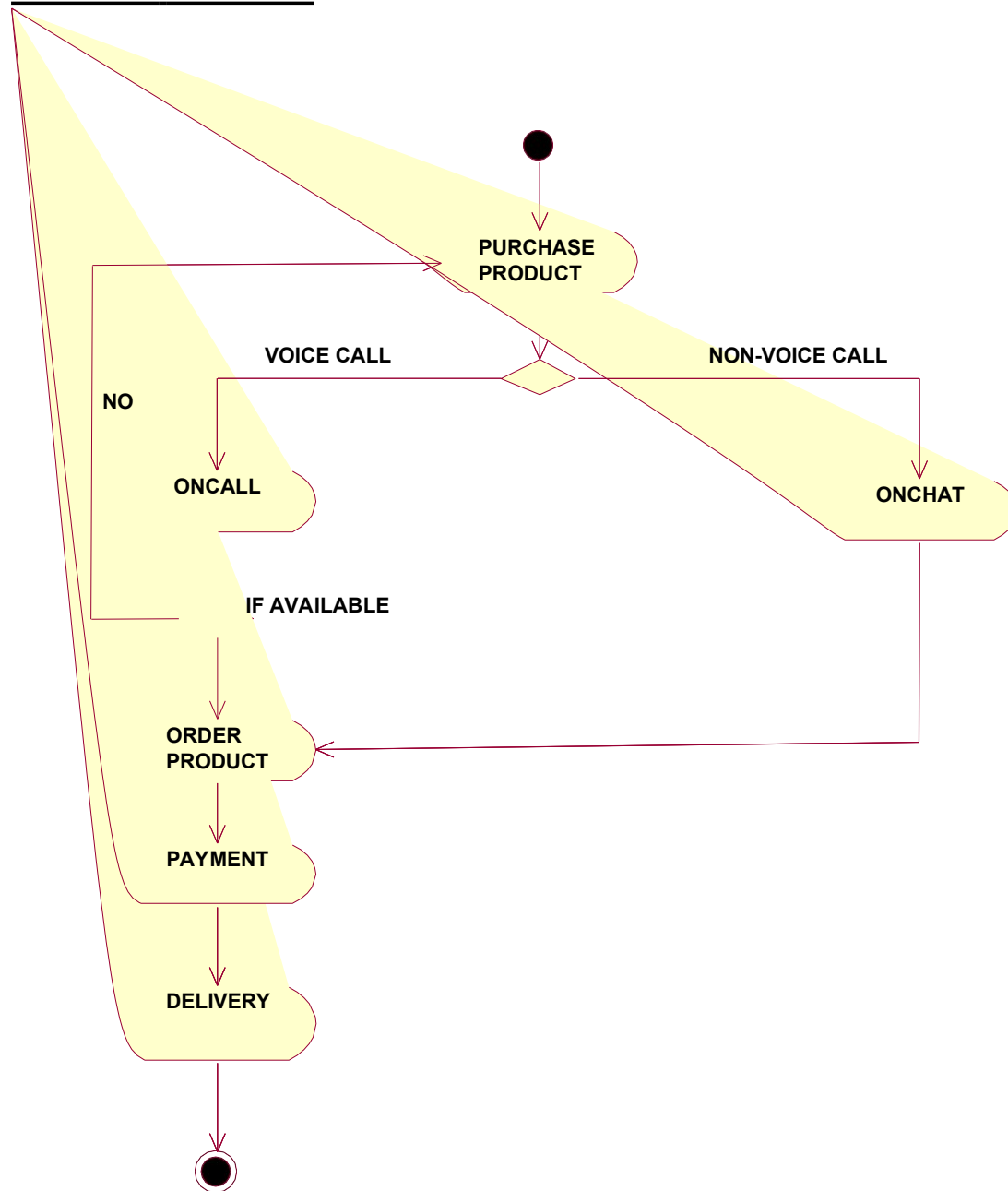
### **USECASE DIAGRAM:**



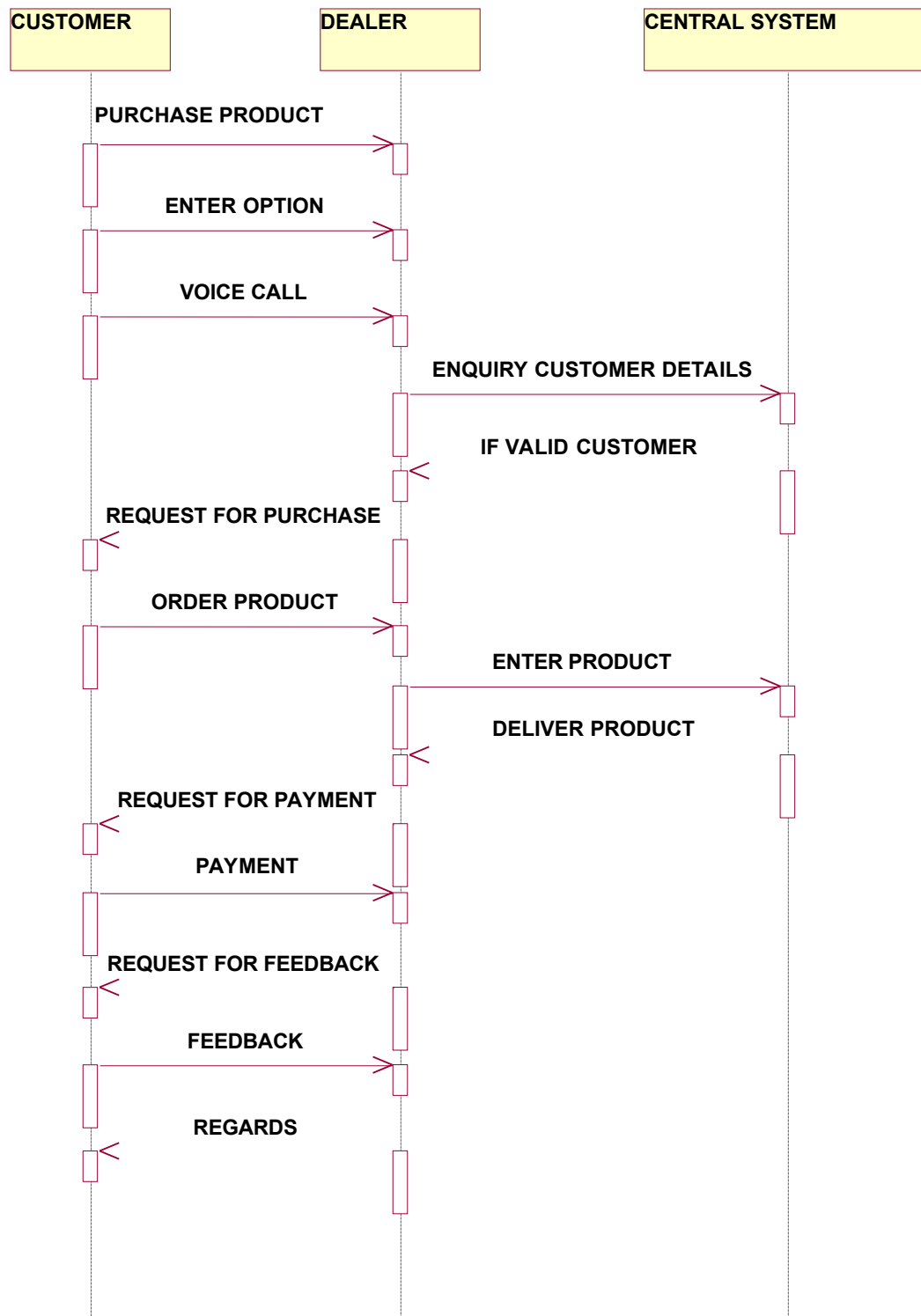
### **CLASS DIAGRAM**



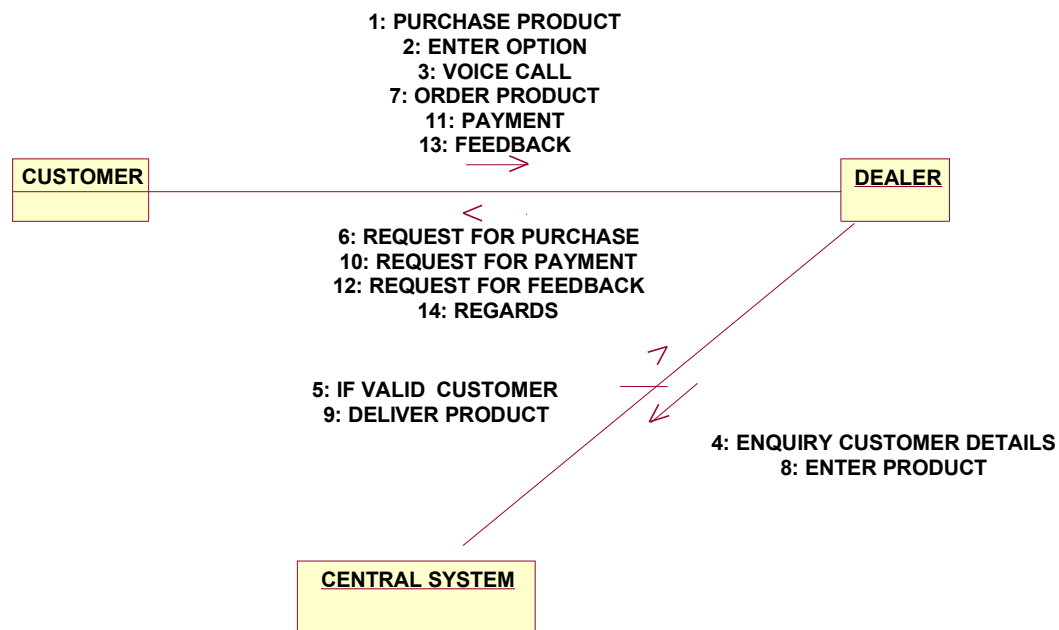
## ACTIVITY DIAGRAM:



## SEQUENCE DIAGRAM:



## COLLABORATION DIAGRAM:



## **RESULT:**

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