

EXNO: 1

PASSPORT AUTOMATION SYSTEM

DATE:

AIM

To develop the Passport Automation System using rational rose tools, visual basic and MS access

PROBLEM ANALYSIS AND PROJECT PLAN

To simplify the process of applying passport, software has been created by designing through rational rose tool, using visual basic as a front end and Microsoft access as a back end. Initially the applicant login the passport automation system and submits his details. These details are stored in the database and verification process done by the passport administrator, regional administrator and police the passport is issued to the applicant.

PROBLEM STATEMENT

- Passport Automation System is used in the effective dispatch of passport to all of the applicants. This system adopts a comprehensive approach to minimize the manual work and schedule resources, time in a cogent manner.
- The core of the system is to get the online registration form (with details such as name, address etc.) filled by the applicant whose testament is verified for its genuineness by the Passport Automation System with respect to the already existing information in the database.
- This forms the first and foremost step in the processing of passport application. After the first round of verification done by the system, the information is in turn forwarded to the regional administrator's (Ministry of External Affairs) office.
- The application is then processed manually based on the report given by the system, and any forfeiting identified can make the applicant liable to penalty as per the law.
- The system forwards the necessary details to the police for its separate verification whose report is then presented to the administrator. After all the necessary criteria have been met, the original information is added to the database and the passport is sent to the applicant.

SOFTWARE REQUIREMENTS SPECIFICATION

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1.0 INTRODUCTION

Passport Automation System is an interface between the Applicant and the Authority responsible for the Issue of Passport. It aims at improving the efficiency in the Issue of Passport and reduces the complexities involved in it to the maximum possible extent.

1.1 PURPOSE

If the entire process of 'Issue of Passport' is done in a manual manner then it would take several months for the passport to reach the applicant. Considering the fact that the number of applicants for passport is increasing every year, an Automated System becomes

essential to meet the demand. So this system uses several programming and database techniques to elucidate the work involved in this process. As this is a matter of National Security, the system has been carefully verified and validated in order to satisfy it.

1.2 SCOPE

- The System provides an online interface to the user where they can fill in their personal details
- The authority concerned with the issue of passport can use this system to reduce his workload and process the application in a speedy manner.
- Provide a communication platform between the applicant and the administrator.
- Transfer of data between the Passport Issuing Authority and the Local Police for verification of applicant's information.

1.3 DEFINITIONS, ACRONYMS AND THE ABBREVIATIONS

- Administrator - Refers to the super user who is the Central Authority who has been vested with the privilege to manage the entire system. It can be any higher official in the Regional Passport Office of Ministry of External Affairs.
- Applicant - One who wishes to obtain the Passport.
- PAS - Refers to this Passport Automation System.

1.4 REFERENCES

IEEE Software Requirement Specification format.

1.5 TECHNOLOGIES TO BE USED

- Microsoft Visual Basic 6.0

1.6 TOOLS TO BE USED

- Rational Rose tool (for developing UML Patterns)

1.7 OVERVIEW

SRS includes two sections overall description and specific requirements - Overall description will describe major role of the system components and inter-connections. Specific

requirements will describe roles & functions of the actors.

2.0 OVERALL DESCRIPTION

2.1 PRODUCT PERSPECTIVE

The PAS acts as an interface between the 'applicant' and the 'administrator'. This system tries to make the interface as simple as possible and at the same time not risking the security of data stored in. This minimizes the time duration in which the user receives the passport.

2.2 SOFTWARE INTERFACE

- **Front End Client** - The applicant and Administrator online interface is built using Microsoft Visual Basic 6.0.
- **Back End** – MS Access database.

2.3 HARDWARE INTERFACE

The server is directly connected to the client systems. The client systems have access to the database in the server.

2.4 SYSTEM FUNCTIONS

- Secure Registration of information by the Applicants.
- Message box for Passport Application Status Display by the Administrator.
- Administrator can generate reports from the information and is the only authorized personnel to add the eligible application information to the database.

2.5 USER CHARACTERISTICS

- **Applicant** - They are the people who desires to obtain the passport and submit the information to the database.
- **Administrator** - He has the certain privileges to add the passport status and to approve the issue of passport. He may contain a group of persons under him to verify the documents and give suggestion whether or not to approve the dispatch of passport.
- **Police** - He is the person who upon receiving intimation from the PAS, perform a personal verification of the applicant and see if he has any criminal case against him before or at

present. He has been vetoed with the power to decline an application by suggesting it to the Administrator if he finds any discrepancy with the applicant. He communicates via this PAS.

2.6 CONSTRAINTS

- The applicants require a computer to submit their information.
- Although the security is given high importance, there is always a chance of intrusion in the web world which requires constant monitoring.
- The user has to be careful while submitting the information. Much care is required.

2.7 ASSUMPTIONS AND DEPENDENCIES

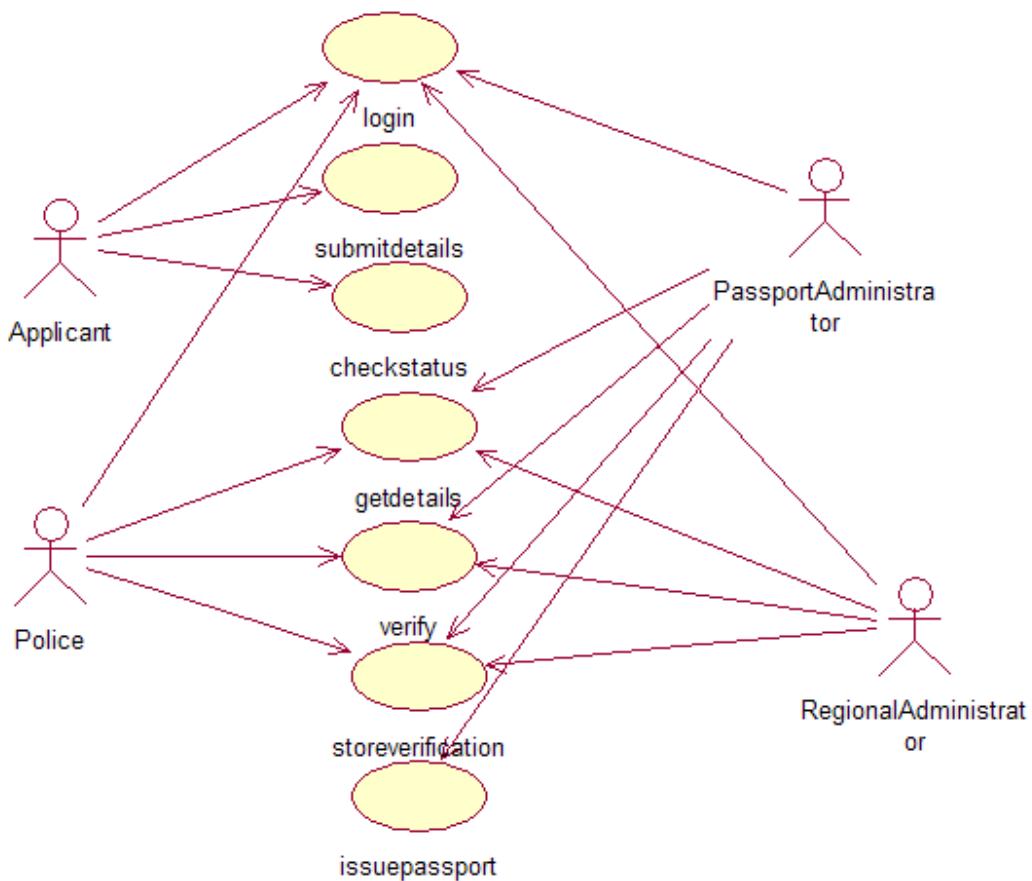
- The Applicants and Administrator must have basic knowledge of computers and English Language.
- The applicants may be required to scan the documents and send.

UML DIAGRAMS

Sno	UML DIAGRAMS
1	Use Case diagram
2	Class diagram
3	Interaction diagram
4	Sequence diagram
5	Collaboration diagram
6	State Chart diagram
7	Activity diagram
8	Component diagram
9	Deployment diagram
10	Package diagram

USE CASE DIAGRAM

Use case is shown as an ellipse containing the name of use case .An actor is shown as a stick figure with the name below it. Use case diagram is a graph of actors.



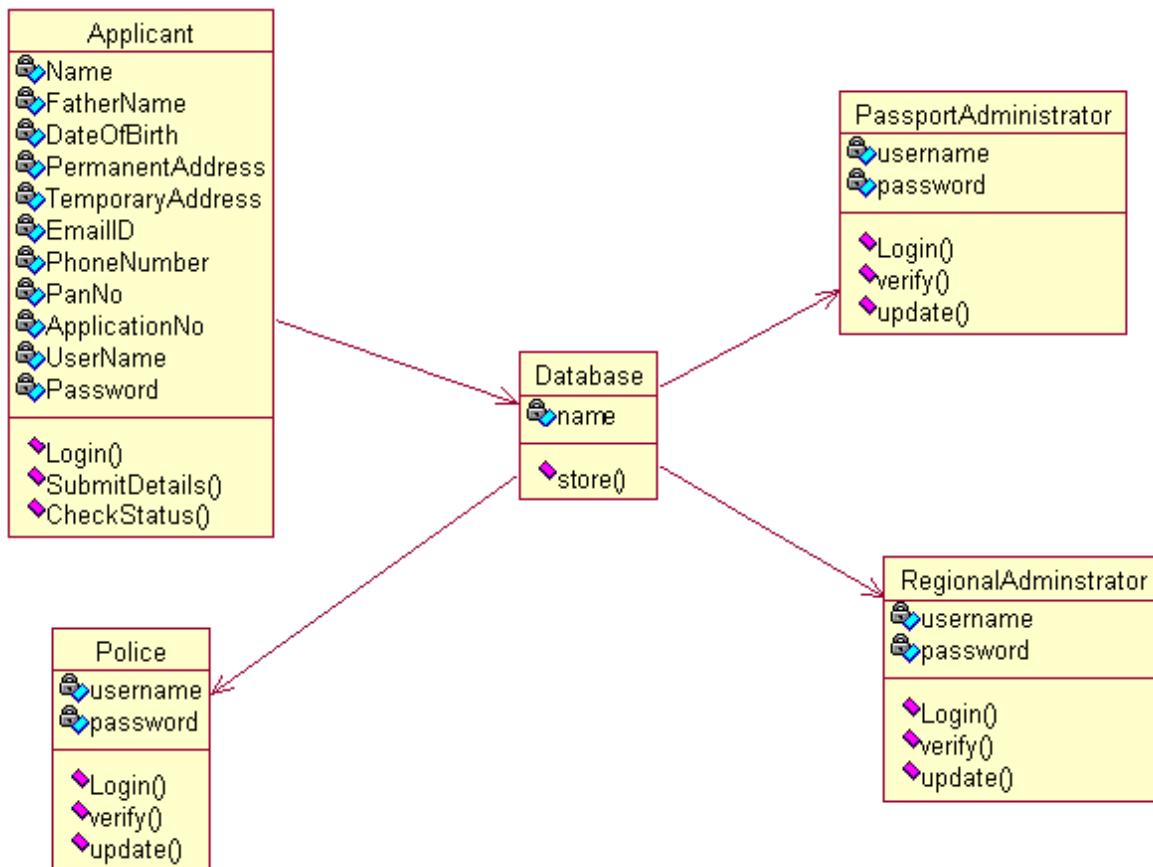
DOCUMENTATION OF USECASE DIAGRAM

- The actors in use case diagram are Applicant, regional administrator, database, passport Administrator, Police.
- The use cases are Login, givedetails, logout, collectdetails, verification, issue.
- The actors use the use case are denoted by the arrow
- The login use case checks the username and password for applicant, regional administrator, passport administrator and police.
- The submit details use case is used by the applicant for submitting his details
- The check status use case is used by the applicant for checking the status of the application process.
- The get details, verify and store verification use case is used by passport administrator, regional administrator, and police.
- The details use case is used for getting the details form the database for verification

- The verify use case is used for verifying the details by comparing the data in the database.
- The store verification use case is to update the data in the database
- And finally the issue passport use case is used by the passport administrator for issuing passport who's application verified successfully by all the actor

CLASSDIAGRAM

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



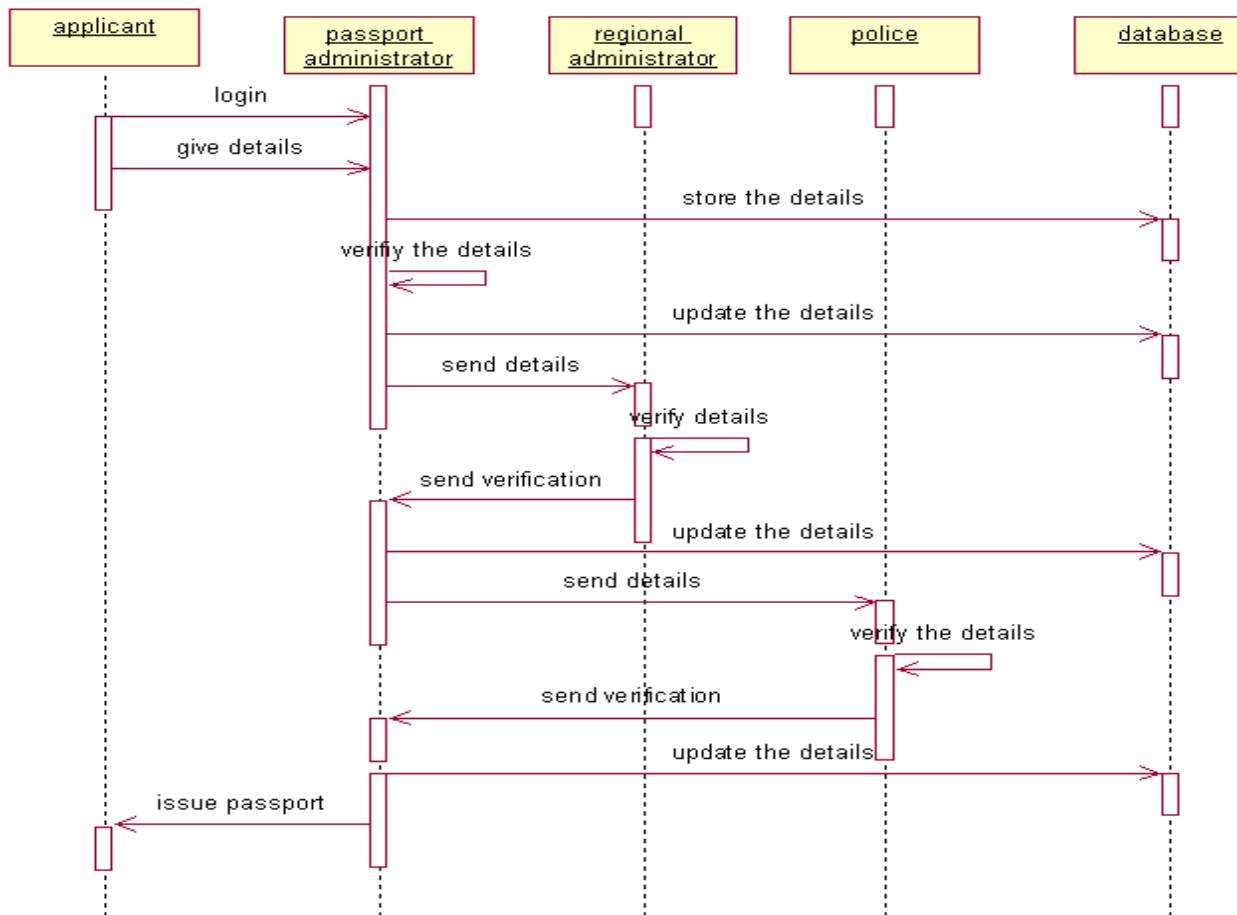
DOCUMENTATION OF CLASS DIAGRAM

- **APPLICANT**-The applicant has attribute such as name and password and operations are login, givedetails and logout. The applicant login and fill the details that are required for applying the passport .After applying the person can view the status of the passport verification process

- **THE DATABASE**-The database has attributed such as name and operation is store. The purpose is to store the data.
- **REGIONAL ADMINISTRATOR**- The regional administrator has attribute such as name and operation are get details, verify details and send. The regional administrator get the details form database and verify with their database
- **PASSPORT ADMINISTRATOR**-The passport administrator has attributed such as name and operation are get details, verify details and issue. The passport administrator get the details form database and verify with their database , update the verification and issue the passport
- **THE POLICE**-The police has attribute such as name and operation are get details, verify details and send. The police get the details form database and verify with their database , update the verification in the database

SEQUENCE DIAGRAM

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



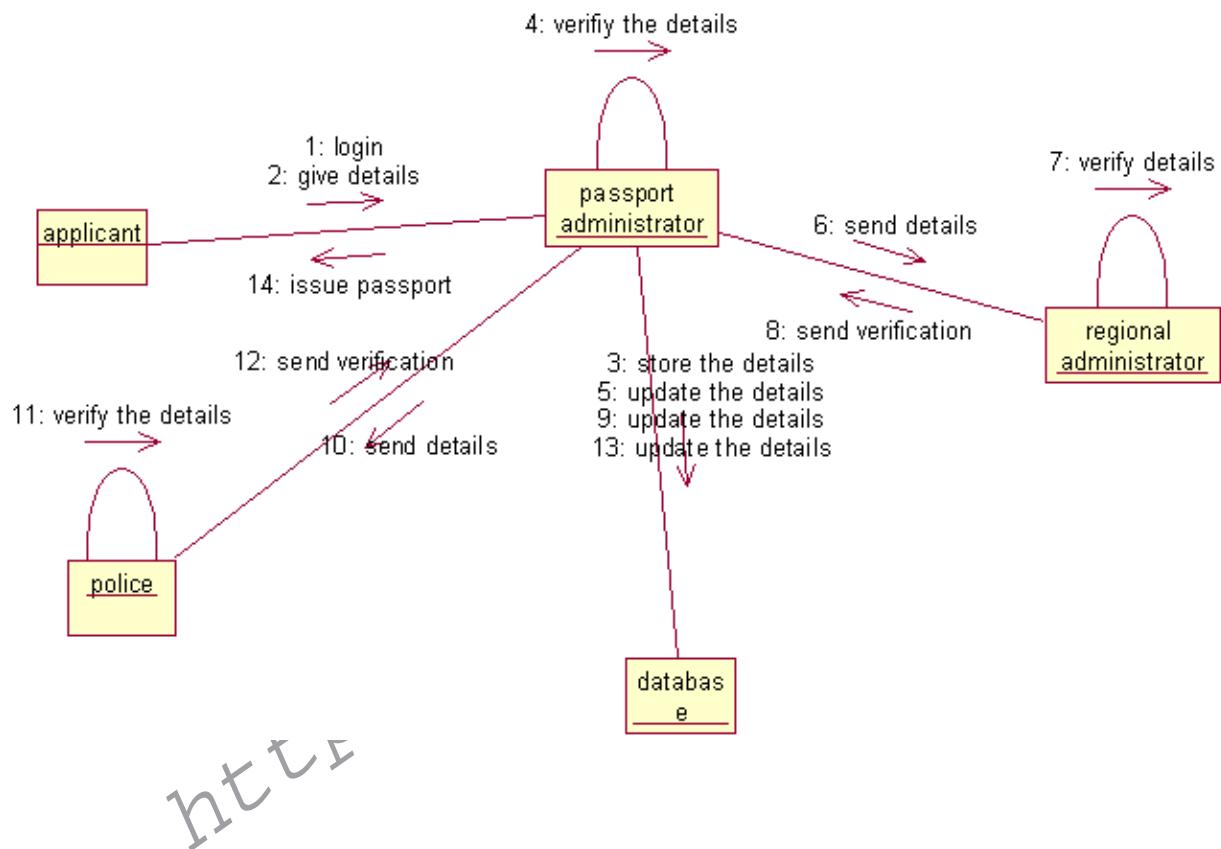
DOCUMENTATION OF SEQUENCE DIAGRAM.

- The applicant login the database and give his details and database store the details.
- The passport administrator get the details from the database and do verification and the forward to regional administrator.
- The regional administrator get details form passport administrator and perform verification and send report to passport administrator.
- The police get the details form passport administrator and perform verification and send report to passport administrator

COLLABORATION DIAGRAM

A collaboration diagram is similar to sequence diagram but the message in number format. In a collaboration diagram sequence diagram is indicated by the numbering the message. 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 versa. 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



DOCUMENTATION OF COLLABORATION DIAGRAM

- The applicant, passport administrator, regional administrator, police and database functions are show in sequence number
- The applicant first login the passport automation system and submit his details the passport administrator, regional administrator and police verification are denoted.

STATE CHART DIAGRAM

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

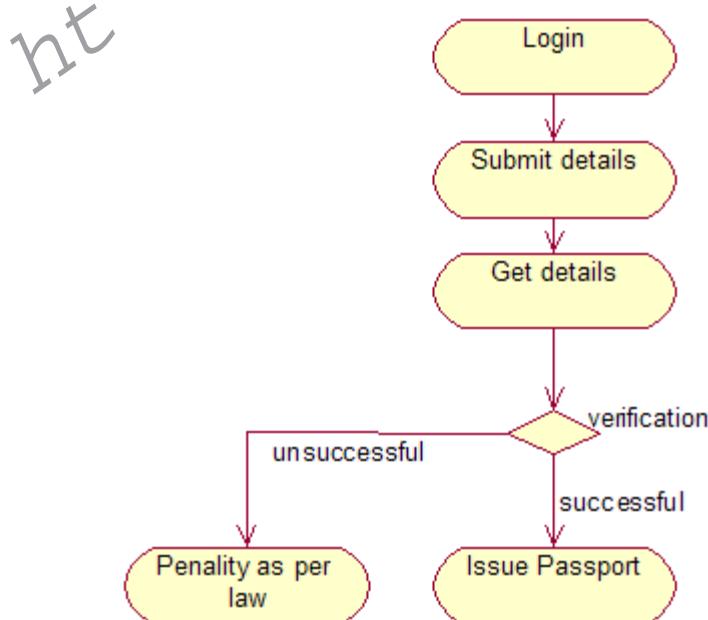


DOCUMENTATION OF STATE CHART DIAGRAM

- The states of the passport automation system are denoted in the state chart diagram
- Login state represent authentication for login the passport automation system.
- In this state, it checks whether the applicant has provided all the details that is required.
- Police, regional administrator and passport administrator get necessary details and verification of the applicant are denoted from the Get detail state and verification state

ACTIVITY DIAGRAM

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

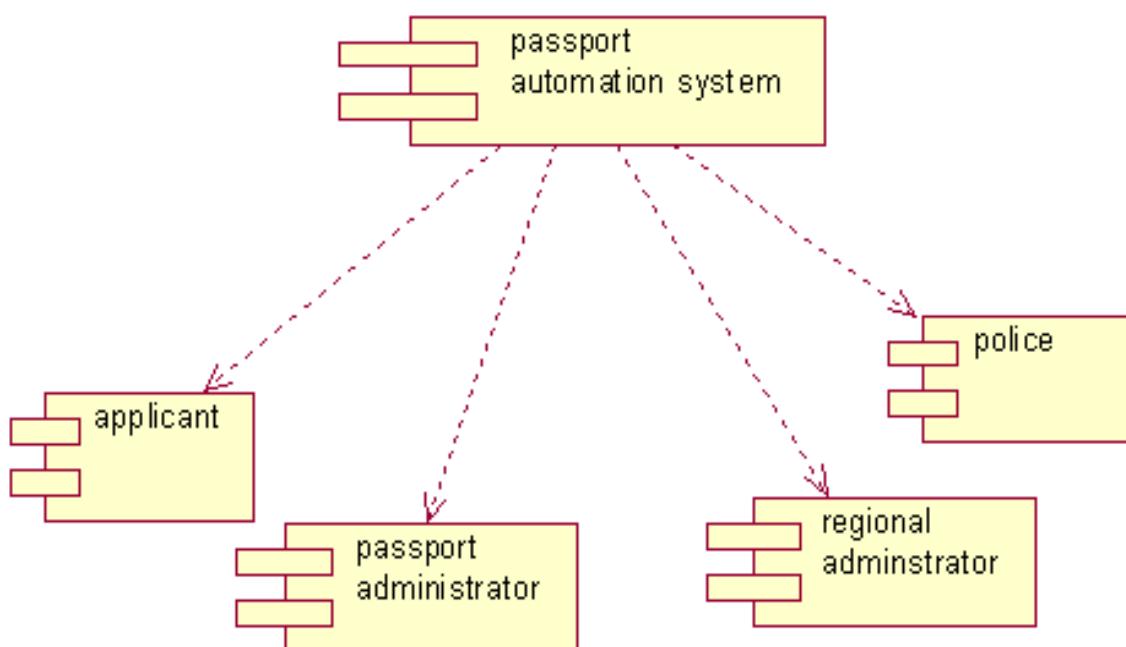


DOCUMENTATION OF ACTIVITY DIAGRAM

- The activities in the passport automation system are login, submit details, get details, issue passport and penalty and verification.
- In the login activity applicant give username and password and then login into the passport automation system after then fill the details that are required for application.
- After the verification procedure completed successfully the passport is issued to the applicant.

COMPONENT DIAGRAM

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



DOCUMENTATION OF COMPONENT DIAGRAM

- The components in the passport automation system are passport automation system, applicant, passport administrator, regional administrator, and police.

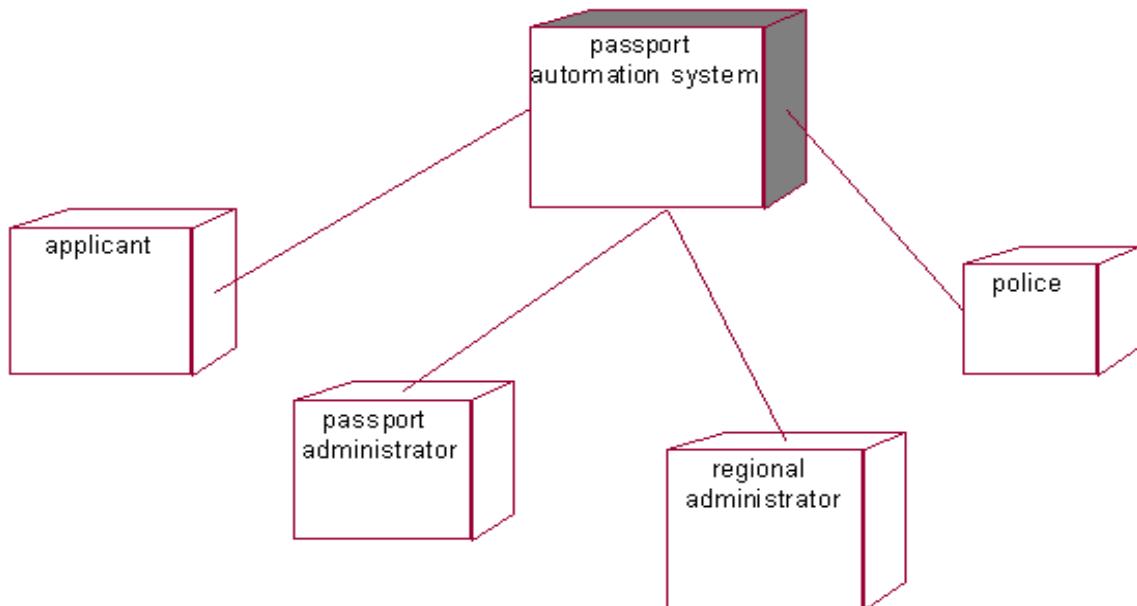
- Applicant ,passport administrator, regional administrator and police are dependent on passport automation system are shown by the dotted arrow

DEPLOYMENT DIAGRAM

It is a graph of nodes connected by communication association. It is represented by a three dimensional box. 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 basic element of a deployment diagram is a node of two types

DEVICE NODE – A physical computing resource with processing and memory service to execute software, such as a typical computer or a mobile phone.

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



DOCUMENTATION OF DEPLOYMENT DIAGRAM

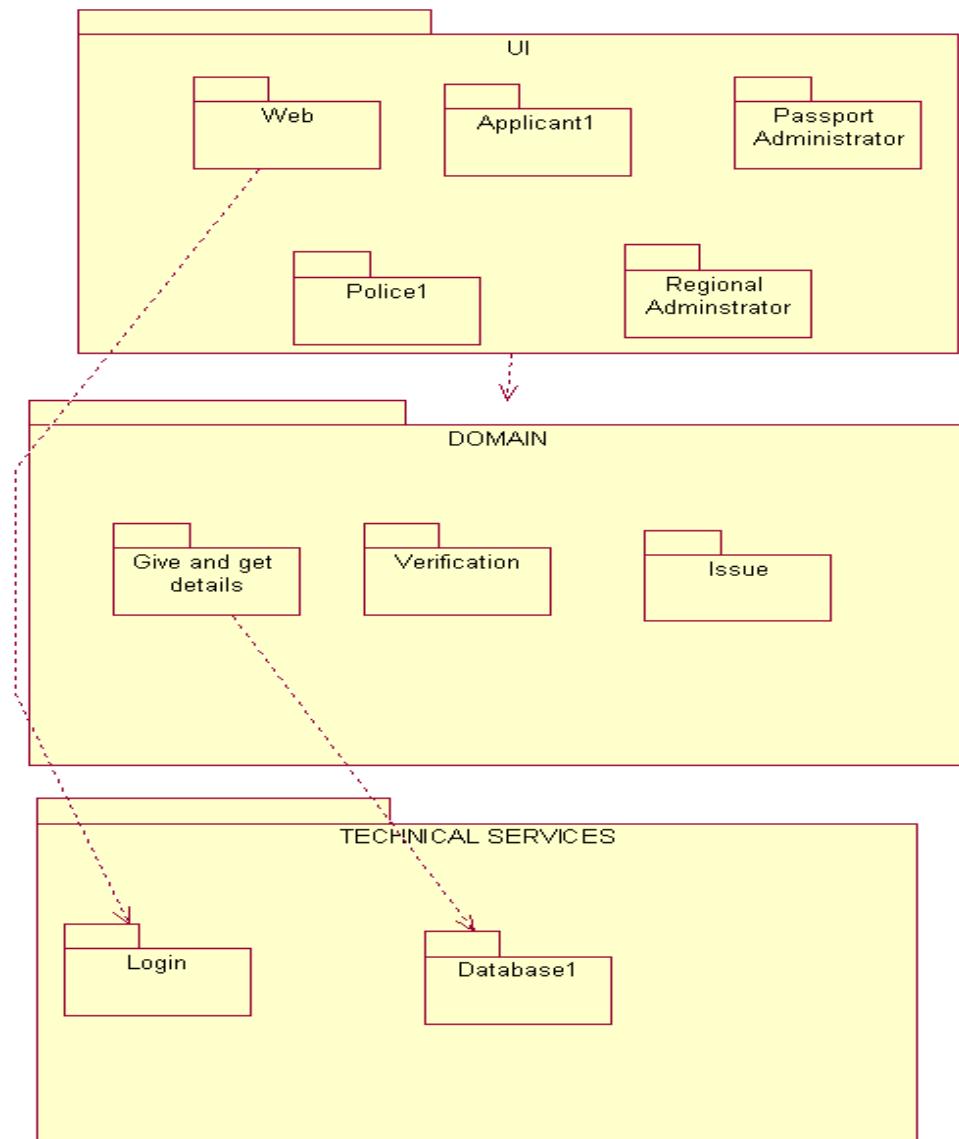
The device node is passport automation system and execution environment node are applicant passport administrator, regional administrator, and police.

PACKAGE DIAGRAM

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

There are three types of layer. They are

- User interface layer
- Domain layer
- Technical services layer



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the passport automation system are user interface layer, domain layer, technical service layer

- **The user interface layer-** represents the user interface components such as web, applicant, passport administrator, police, and regional administrator.
- **The domain layer-** has major actions such as give and get details, verification and issues.
- **Technical service layer-** authenticated user only can access the technical services.

FORMS:**FORM1:**

Form1

WELCOME TO ONLINE PASSPORT AUTOMATION SYSTEM

USERNAME: passadmin

PASSWORD: ****

APPLICANT PASSPORT ADMINISTRATOR REGIONAL ADMINISTRATOR POLICE STATUS

EXIT

FORM2:

Form2

GIVE YOUR DETAILS

NAME: palani

FATHERNAME: parthasarathi

DATE OF BIRTH: 27/2/1990

PERMANENT ADDRESS: neelangarai

TEMPORARY ADDRESS: neelangarai

PHONE NO: 9445310441

EMAILID: palani@gmail.c

PAN: 1000

SUBMIT

CANCEL

Data1

FORM3:

PASSPORT ADMINISTRATOR

APPLICATION NO	1	NAME	palani
PAN	1000	FATHER NAME	sarathi
NAME	palani		
FATHER NAME	sarathi		
DOB	2/27/1990		
PERMANENT ADDRESS	neelangarai		

SEARCH VERIFY GRANT DONOT GRANT

PREVIOUS NEXT FIRST LAST

CLOSE

This screenshot shows the 'PASSPORT ADMINISTRATOR' form (Form3). It contains fields for Application No (1), PAN (1000), Name (palani), Father Name (sarathi), DOB (2/27/1990), and Permanent Address (neelangarai). Below the form are buttons for SEARCH, VERIFY, GRANT, and DONOT GRANT, along with navigation buttons for PREVIOUS, NEXT, FIRST, and LAST. A CLOSE button is also present. The window has standard Windows-style title bar and control buttons.

FORM4:

REGIONAL ADMINISTRATOR

APPLICATION NO	1	NAME	palani
PAN	1000	FATHER NAME	sarathi
NAME	palani	DOB	2/27/1990
FATHER NAME	sarathi	PERMANENT ADDRESS	neelangarai
DOB	2/27/1990		
PERMANENT ADDRESS	neelangarai		

SEARCH VERIFY GRANT DONOT GRANT

PREVIOUS NEXT FIRST LAST

CLOSE

This screenshot shows the 'REGIONAL ADMINISTRATOR' form (Form4). It contains fields for Application No (1), PAN (1000), Name (palani), Father Name (sarathi), DOB (2/27/1990), and Permanent Address (neelangarai). Below the form are buttons for SEARCH, VERIFY, GRANT, and DONOT GRANT, along with navigation buttons for PREVIOUS, NEXT, FIRST, and LAST. A CLOSE button is also present. The window has standard Windows-style title bar and control buttons.

FORM5:

POLICE

PAN	1000	APPLICATION NO	1
NAME	palani		

PanNo	Name	FatherName	DateOfBirth	PermanentA	FIR
1000	palani	pathasarathy	2/27/1990	neelangarai	Allowed
1001	matraj	murali	11/2/1990	mambalam	Allowed
1002	pandi	raja	4/3/1990	madurai	Allowed
1003	prem	murugan	8/9/1991	ennore	Allowed
1004	karthi	rajendran	3/28/1990	madipakkam	Allowed
1005	anand	selvish	8/6/1990	kovai	Notallowed

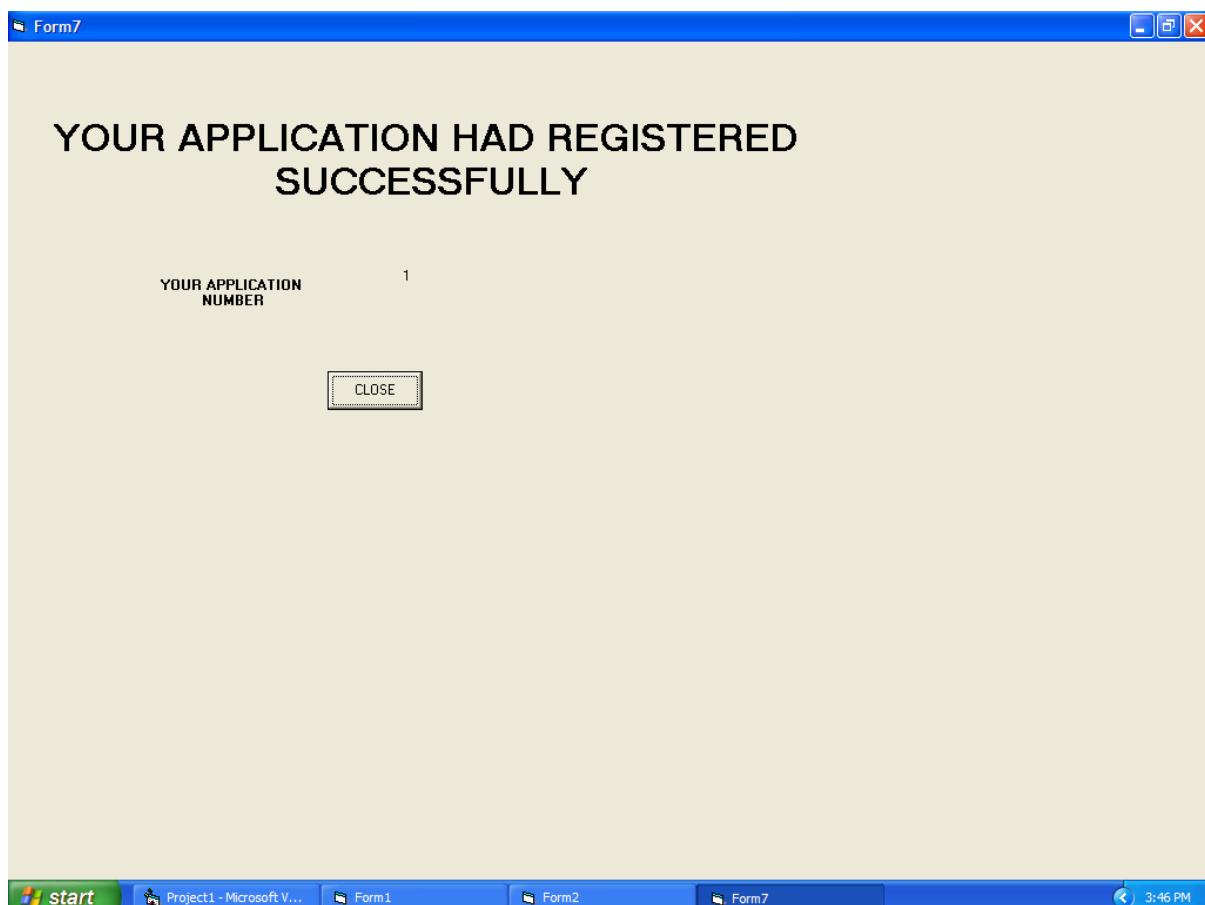
◀◀▶▶

FORM6:

STATUS OF THE PASSPORT

APPLICATION NO	<input type="text" value="1"/>	<input type="button" value="SUBMIT"/>
NAME	palani	
PASSPORT ADMINISTRATOR	successful	
REGIONAL ADMINISTRATOR	successful	
POICE	successful	

◀◀
Data1
▶▶

FORM7:**SOURCE CODE:****FORM1**

```
Private Sub Command1_Click()
Dim app As Applicant
Set app = New Applicant
app.Login
End Sub
```

```
Private Sub Command2_Click()
Dim pass As PassportAdministrator
Set pass = New PassportAdministrator
pass.Login
End Sub
```

```
Private Sub Command3_Click()
Dim reg As RegionalAdministrator
Set reg = New RegionalAdministrator
reg.Login
End Sub
```

```
Private Sub Command4_Click()
Dim pol As Police
Set pol = New Police
pol.Login
End Sub
```

```
Private Sub Command5_Click()
If Form1.Text1.Text = "" And Form1.Text2.Text = "" Then
MsgBox "LOGIN SUCCESSFUL"
Form6.Show
Else
MsgBox "INVALID USERNAME AND PASSWORD"
Unload Me
End If
End Sub
```

```
Private Sub Command6_Click()
End
End Sub
```

FORM2:

```
Private Sub Command1_Click()
Dim subdetails As Applicant
Set subdetails = New Applicant
subdetails.SubmitDetails
End Sub
```

```
Private Sub Command3_Click()
Data1.Recordset.Edit
End Sub
```

```
Private Sub Command4_Click()
Data1.Recordset.update
End Sub
```

```
Private Sub Form_Load()
Text1.Text = ""
Text2.Text = ""
Text3.Text = ""
Text4.Text = ""
Text5.Text = ""
Text6.Text = ""
Text7.Text = ""
Text8.Text = ""
```

End Sub

FORM3:

```
Private Sub a_Click()
```

```
  Data2.Recordset.AddNew
```

```
End Sub
```

```
Private Sub Command1_Click()
```

```
  Dim search As PassportAdministrator
```

```
  Set search = New PassportAdministrator
```

```
  search.update
```

```
End Sub
```

```
Private Sub Command2_Click()
```

```
  If Data1.Recordset.BOF Then
```

```
    MsgBox "NO DATA FOUND"
```

```
  Else
```

```
    Data1.Recordset.MovePrevious
```

```
  End If
```

```
End Sub
```

```
Private Sub Command3_Click()
```

```
  If Data1.Recordset.EOF Then
```

```
    MsgBox "NO DATA FOUND"
```

```
  Else
```

```
    Data1.Recordset.MoveNext
```

```
  End If
```

```
End Sub
```

```
Private Sub Command4_Click()
```

```
  Form1.Show
```

```
  Unload Me
```

```
End Sub
```

```
Private Sub Command5_Click()
```

```
  Data1.Recordset.MoveFirst
```

```
End Sub
```

```
Private Sub Command6_Click()
```

```
  Data1.Recordset.MoveLast
```

```
End Sub
```

```
Private Sub Command7_Click()
```

```
  Data1.Recordset.Edit
```

```
Data1.Recordset.Fields(9) = "successful"  
Data1.Recordset.update  
End Sub
```

```
Private Sub Command8_Click()  
Data1.Recordset.Edit  
Data1.Recordset.Fields(9) = "unsuccessful"  
Data1.Recordset.update  
End Sub
```

```
Private Sub ve_Click()  
Dim verify As PassportAdministrator  
Set verify = New PassportAdministrator  
verify.update  
End Sub
```

FORM4:

```
Private Sub Command1_Click()  
Dim search As RegionalAdministrator  
Set search = New RegionalAdministrator  
search.verify  
End Sub
```

```
Private Sub Command2_Click()  
Data1.Recordset.Edit  
Data1.Recordset.Fields(10) = "successful"  
Data1.Recordset.update  
End Sub
```

```
Private Sub Command3_Click()  
Data1.Recordset.Edit  
Data1.Recordset.Fields(10) = "unsuccessful"  
Data1.Recordset.update  
End Sub
```

```
Private Sub Command4_Click()  
Form1.Show  
Unload Me  
End Sub
```

```
Private Sub Command5_Click()  
Dim update As RegionalAdministrator  
Set update = New RegionalAdministrator  
update.update
```

```
End Sub
```

```
Private Sub Command6_Click()  
Data1.Recordset.MoveLast  
End Sub
```

```
Private Sub Command7_Click()  
Data1.Recordset.MoveFirst  
End Sub
```

```
Private Sub Command8_Click()  
If Data1.Recordset.BOF Then  
MsgBox "NO DATA FOUND"  
Else  
Data1.Recordset.MovePrevious  
End If  
End Sub
```

```
Private Sub Command9_Click()  
If Data1.Recordset.EOF Then  
MsgBox "NO DATA FOUND"  
Else  
Data1.Recordset.MoveNext  
End If  
End Sub
```

FORM5:

```
Private Sub Command1_Click()  
Dim search As Police  
Set search = New Police  
search.verify  
End Sub
```

```
Private Sub Command2_Click()  
Data2.Recordset.Edit  
Data2.Recordset.Fields(11) = "successful"  
Data2.Recordset.update  
End Sub
```

```
Private Sub Command3_Click()  
Data2.Recordset.Edit  
Data2.Recordset.Fields(11) = "unsuccessful"  
Data2.Recordset.update  
End Sub
```

```
Private Sub Command4_Click()
Form1.Show
Unload Me
End Sub
```

```
Private Sub Command6_Click()
Data2.Recordset.MoveLast
End Sub
```

```
Private Sub Command7_Click()
Data2.Recordset.MoveFirst
End Sub
```

```
Private Sub Command8_Click()
If Data2.Recordset.BOF Then
MsgBox "NO DATA FOUND"
Else
Data2.Recordset.MovePrevious
End If
End Sub
```

```
Private Sub Command9_Click()
If Data2.Recordset.EOF Then
MsgBox "NO DATA FOUND"
Else
Data2.Recordset.MoveNext
End If
End Sub
```

FORM6:

```
Private Sub Command1_Click()
Dim checkstate As Applicant
Set checkstate = New Applicant
checkstate.CheckStatus
End Sub
```

```
Private Sub Command2_Click()
Form1.Show
Unload Me
End Sub
```

UML CODINGS:

APPLICANT:

```
Option Explicit
##ModelId=4D7521E80271
Private Name As Variant
##ModelId=4D7521EE02CE
Private FatherName As Variant
##ModelId=4D7521F3009C
Private DateOfBirth As Variant
##ModelId=4D75220B01A5
Private PermanentAddress As Variant
##ModelId=4D752220033C
Private TemporaryAddress As Variant
##ModelId=4D75224101E4
Private EmailID As Variant
##ModelId=4D75224701E4
Private PhoneNumber As Variant
##ModelId=4D75224E031C
Private PanNo As Variant
##ModelId=4D7522590242
Private ApplicationNo As Variant
##ModelId=4D75225D038A
Private UserName As Variant
##ModelId=4D75226300CB
Private Password As Variant
##ModelId=4D7523300271
Public NewProperty As Database
##ModelId=4D7522690109
Public Sub Login()
If Form1.Text1.Text = "" And Form1.Text2.Text = "" Then
    MsgBox "LOGIN SUCCESSFUL"
    Form2.Show
Else
    MsgBox "INVALID USERNAME AND PASSWORD"
    Unload Me
End If
End Sub
```

```
##ModelId=4D752271032C
Public Sub SubmitDetails()
Dim ap As Integer
Form1.Data1.Recordset.MoveLast
ap = Data1.Recordset.Fields(0)
Data1.Recordset.AddNew
ap = ap + 1
Form1.Data1.Recordset.Fields(0) = ap
```

```
Form1.Data1.Recordset.Fields(1) = Text1.Text
Form1.Data1.Recordset.Fields(2) = Text2.Text
Form1.Data1.Recordset.Fields(3) = Text3.Text
Form1.Data1.Recordset.Fields(4) = Text4.Text
Form1.Data1.Recordset.Fields(5) = Text5.Text
Form1.Data1.Recordset.Fields(6) = Text6.Text
Form1.Data1.Recordset.Fields(7) = Text7.Text
Form1.Data1.Recordset.Fields(8) = Text8.Text
Form1.Data1.Recordset.Fields(9) = "Under Process"
Form1.Data1.Recordset.Fields(10) = "Under Process"
Form1.Data1.Recordset.Fields(11) = "Under Process"
Form1.Data1.Recordset.update
Form1.Show
Unload Me
End Sub
```

```
'##ModelId=4D7522760261
Public Sub CheckStatus()
Dim Currentdb As Database
Set Currentdb = OpenDatabase("D:\PASSPORTPROJECT1\PASSPORT.mdb")
Dim Data As Recordset
Set Data = Currentdb.OpenRecordset("applicant", dbOpenDynaset)
Data.FindFirst "[ApplicationNo] = " & Form6.Text1.Text
If Data.NoMatch Then
    MsgBox "No such record"
Else
    MsgBox "success"
Form6.Text1.Text = Data.Fields(0)
Form6.Label5 = Data.Fields(1)
Form6.Label7 = Data.Fields(9)
Form6.Label9 = Data.Fields(10)
Form6.Label11 = Data.Fields(11)
End If
Data.Close
End Sub
```

DATA BASE:

```
Option Explicit
'##ModelId=4D7522A30222
Private Name As Variant
'##ModelId=4D75233C005D
Public NewProperty As PassportAdministrator
'##ModelId=4D75233E006D
```

```
Public NewProperty2 As RegionalAdminstrator  
'##ModelId=4D75234202BF  
Public NewProperty3 As Police  
'##ModelId=4D7522A50186  
Public Sub store()  
  
End Sub
```

PASSPORT ADMINSTRATOR:

```
Option Explicit
```

```
'##ModelId=4D7522A90128  
Private UserName As Variant  
'##ModelId=4D7522F9035B  
Private Password As Variant  
'##ModelId=4D7522B20232  
Public Sub Login()  
If Form1.Text1.Text = "passadmin" And Form1.Text2.Text = "12345" Then  
MsgBox "LOGIN SUCCESSFUL"  
Form1.Text1.Text = ""  
Form1.Text2.Text = ""  
Form1.Text1.SetFocus  
Form3.Show  
Else  
MsgBox "INVALID USERNAME OR PASSWORD"  
Form1.Text1.Text = ""  
Form1.Text2.Text = ""  
Form1.Text1.SetFocus  
End If  
End Sub
```

```
'##ModelId=4D7522BA004E  
Public Sub verify()  
Set Currentdb = OpenDatabase("D:\PASSPORTPROJECT1\passport.mdb")  
Dim Data As Recordset  
Set Data = Currentdb.OpenRecordset("PassportAdministrator", dbOpenDynaset)  
If Form3.Text1.Text = "" Then  
MsgBox "select any data"  
Else  
Data.FindFirst "([PanNo])=" & Form3.Text1.Text  
If Data.NoMatch Then  
MsgBox "No such record"  
Else  
MsgBox "success"  
Form3.Text7.Text = Data.Fields(1)
```

```
Form3.Text8.Text = Data.Fields(2)
End If
End If
End Sub

##ModelId=4D7522BF01D4
Public Sub update()
If Form3.Text2.Text = Form3.Text7.Text And Form3.Text3.Text = Form3.Text8.Text Then
    Form3.Data1.Recordset.Edit
    Form3.Data1.Recordset.Fields(9) = "successful"
    Form3.Data1.Recordset.update
    MsgBox "success"
Else
    MsgBox "no "
    Form3.Text7.Text = ""
    Form3.Text8.Text = ""
End If
End Sub
```

POLICE:

```
Option Explicit
##ModelId=4D7522E1001F
Private UserName As Variant
##ModelId=4D75232601D4
Private Password As Variant
##ModelId=4D7522E30251
Public Sub Login()
If Form1.Text1.Text = "poladmin" And Form1.Text2.Text = "12345" Then
    MsgBox "LOGIN SUCCESSFUL"
    Form1.Text1.Text = ""
    Form1.Text2.Text = ""
    Form1.Text1.SetFocus
    Form5.Show
Else
    MsgBox "INVALID USERNAME OR PASSWORD"
    Form1.Text1.Text = ""
    Form1.Text2.Text = ""
    Form1.Text1.SetFocus
End If
End Sub
##ModelId=4D7522E8008C
Public Sub verify()
Dim Currentdb As Database
Set Currentdb = OpenDatabase("D:\PASSPORTPROJECT1\passport.mdb")
Dim Data As Recordset
```

```
Set Data = Currentdb.OpenRecordset("Police", dbOpenDynaset)
If Form5.Text1.Text = "" Then
    MsgBox "select any data"
Else
    Data.FindFirst "([PanNo])=" & Form5.Text1.Text
    If Data.NoMatch Then
        MsgBox "No such record"
    Else
        MsgBox "success"
        If Data.Fields(5) = "Notallowed" Then
            MsgBox "not allowed"
        Else
            MsgBox "allowed"
        End If
    End If
End If
Data.Close
End Sub
##ModelId=4D7522EA02BF
Public Sub update()
End Sub
```

REGIONAL ADMINISTRATOR:

```
Option Explicit
##ModelId=4D7522C80222
Private UserName As Variant
##ModelId=4D75231A0109
Private Password As Variant

##ModelId=4D7522CB02CE
Public Sub Login()
If Form1.Text1.Text = "regadmin" And Form1.Text2.Text = "12345" Then
    MsgBox "LOGIN SUCCESSFUL"
    Form1.Text1.Text = ""
    Form1.Text2.Text = ""
    Form1.Text1.SetFocus
    Form4.Show
Else
    MsgBox "INVALID USERNAME OR PASSWORD"
    Form1.Text1.Text = ""
    Form1.Text2.Text = ""
    Form1.Text1.SetFocus
End If
End Sub
```

```
'##ModelId=4D7522CE01A5
Public Sub verify()
Dim Currentdb As Database
Set Currentdb = OpenDatabase("D:\PASSPORTPROJECT1\passport.mdb")
Dim Data As Recordset
Set Data = Currentdb.OpenRecordset("RegionalAdministrator", dbOpenDynaset)
If Form4.Text1.Text = "" Then
    MsgBox "select any data"
Else
    Data.FindFirst "([PanNo])=" & Form4.Text1.Text
    If Data.NoMatch Then
        MsgBox "No such record"
    Else
        MsgBox "success"
    End If
End If
End Sub
```

```
'##ModelId=4D7522D002BF
Public Sub update()
If Form4.Text2.Text = Text6.Text And Form4.Text3.Text = Form4.Text7.Text And
Form4.Text4.Text = Form4.Text8.Text And Form4.Text5.Text = Form4.Text9.Text Then
    MsgBox "Details match"
Else
    MsgBox "Details donot match"
End If
End Sub
```

RESULT:

Thus the project to develop passport automation system was developed using Rational Rose Software and to implement the software in Visual Basic is done successfully

EX NO:2

DATE:

BOOK BANK MANAGEMENT SYSTEM

AIM

To develop a project of Book bank management system using Rational Rose Software and to implement the software in Visual Basic.

PROBLEM ANALYSIS AND PROJECT DESIGN

The book bank management system is an software in which a member can register themselves and then he can borrow books from the book bank. It mainly concentrates on providing books for engineering students.

PROBLEM STATEMENT

The process of members registering and purchasing books from the book bank are described sequentially through following steps:

- First the member registers himself if he was new to the book bank.
- Old members will directly select old member button..
- They select their corresponding year.
- After selecting the year they fill the necessary details and select the book and he will be directed towards administrator
- The administrator will verify the status and issue the book.

SOFTWARE REQUIREMENT SPECIFICATION

S.NO	CONTENTS
1.	INTRODUCTION
2.	OBJECTIVE
3.	OVERVIEW
4.	GLOSSARY
5.	PURPOSE
6.	SCOPE
7.	FUNCTIONALITY

8.	USABILITY
9.	PERFORMANCE
10.	RELIABILITY
	FUNCTIONAL REQUIREMENTS
11.	EXTERNAL INTERFACE REQUIREMENTS

1. INTRODUCTION

This system would be used by members who are students of any college to check the availability of the books and borrow the books, and then the databases are updated. The purpose of this document is to analyze and elaborate on the high-level needs and features of the book bank management system. It also tells the usability, reliability defined in use case specification.

2. OBJECTIVE

The main objective of the system are was to design an online book-bank monitoring system to enable a central monitoring mechanism of the book-bank be more faster and less error prone. Apart from this,

- To help the students acquire the right books for the syllabus at the right time.
- To ensure availability of basic textbooks to students against limited funds and
- To develop students ability to handle property loaned to them

3. OVERVIEW

The overview of this project is to design a tool for book bank so that it can be used by any book banks to lend their books as well as colleges.

4. GLOSSARY

TERMS	DESCRIPTION

MEMBER	The one who registers himself and purchase books from the bank.
DATABASE	Database is used to store the details of members and books.
ADMINISTRATOR	The one who verifies the availability of book and issue them
USER	Member
SOFTWARE REQUIREMENT SPECIFICATION	This software specification documents full set of features and function for online recruitment system that is performed in company website.

5. PURPOSE

The purpose of the book bank management system is to reduce the manual intervention.

6. SCOPE

The scope of this book bank management system is to act as a tool for book bank administrator for quick reference, availability of the books.

7. FUNCTIONALITY

Many members will be waiting to take the book from the book bank at a single day. To serve all the members

8. USABILITY

User interface makes the Recruitment system to be efficient. That is the system will help the member to register easily and helps them to get their books easily. The system should be user friendly.

9. PERFORMANCE

It describes the capability of the system to perform the recruitment process of the applicant without any error and performing it efficiently.

10. RELIABILITY

The book bank management system should be able to serve the applicant

with correct information and day-to-day update of information.

11. FUNCTIONAL REQUIREMENTS

Functional requirements are those refer to the functionality of the system.

That is the services that are provided to the member who borrows book.

12. EXTERNAL INTERFACE REQUIREMENTS

SOFTWARE REQUIREMENTS

Front end: IBM rational rose enterprise edition.

Back end: visual basic 8.0.

HARDWARE REQUIREMENTS

Processor : pentium 4.

RAM : 256 mb

Operating system : Microsoft windows xp.

Free disk space : 1gb

UML DIAGRAMS

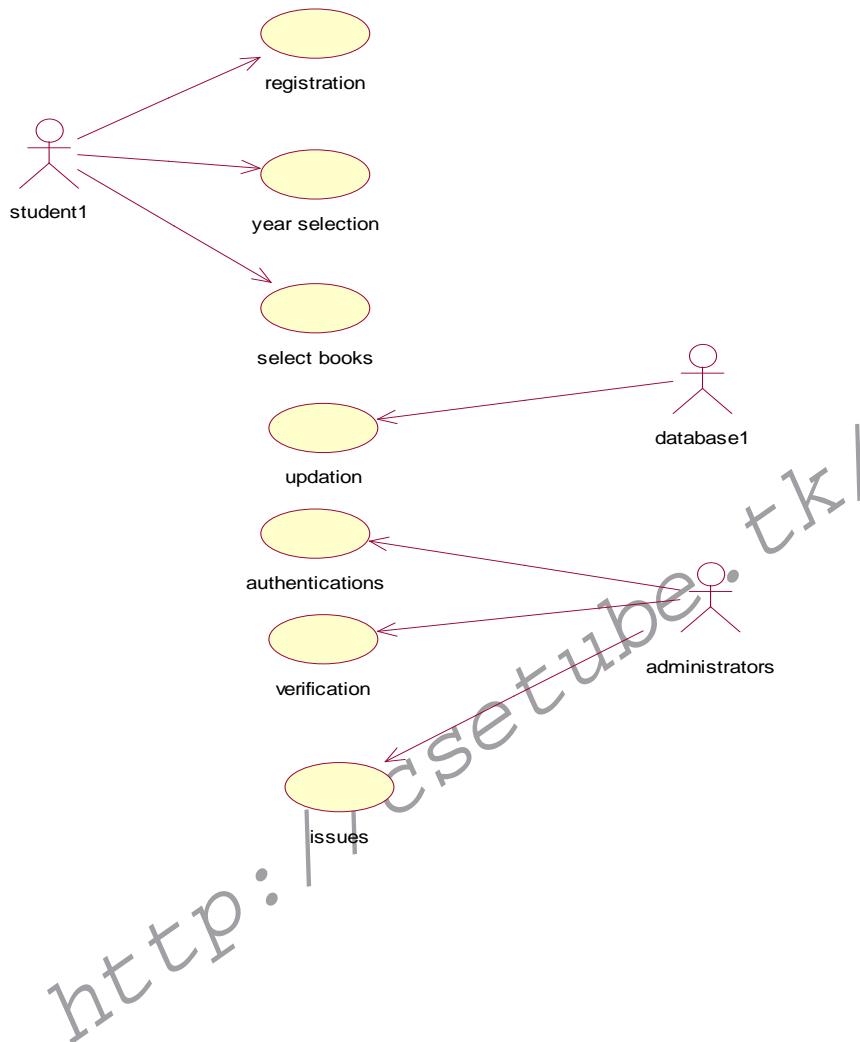
The following UML diagrams describe the process involved in the online recruitment system

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 is represented using stick figure.



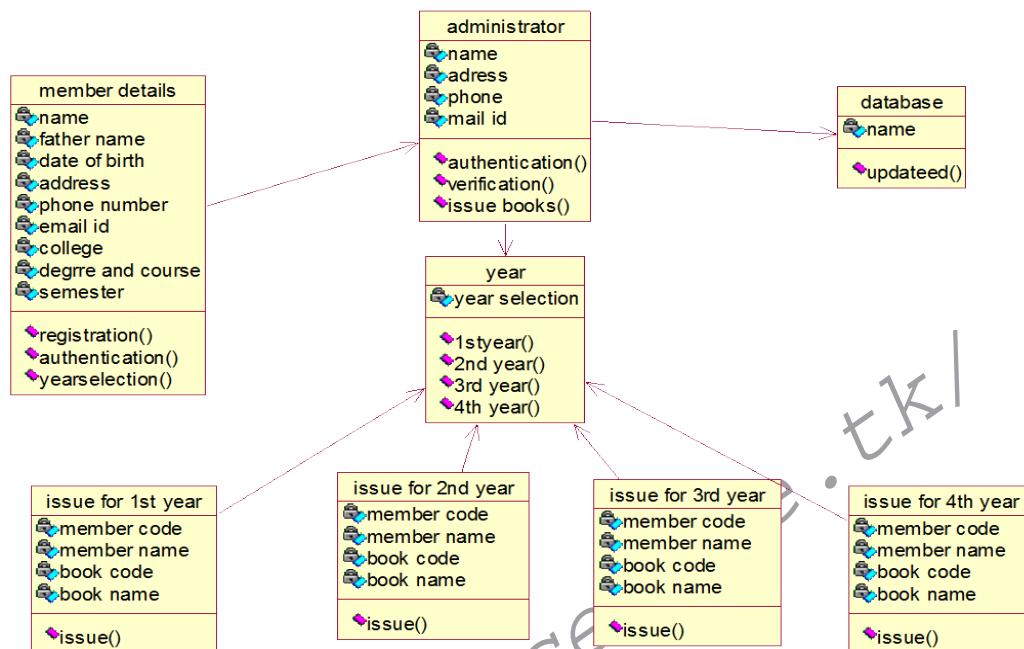
DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are member and database. The use cases are the activities performed by actors.

- The member will register himself in the book bank.
- After registration he will select the year to which he belongs
- After selecting he will select books
- Database will verify the status of book and the books will be given.

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 is represented using a rectangle with three compartments. Top compartment have the class name, middle compartments the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

This class diagram has 8 classes:

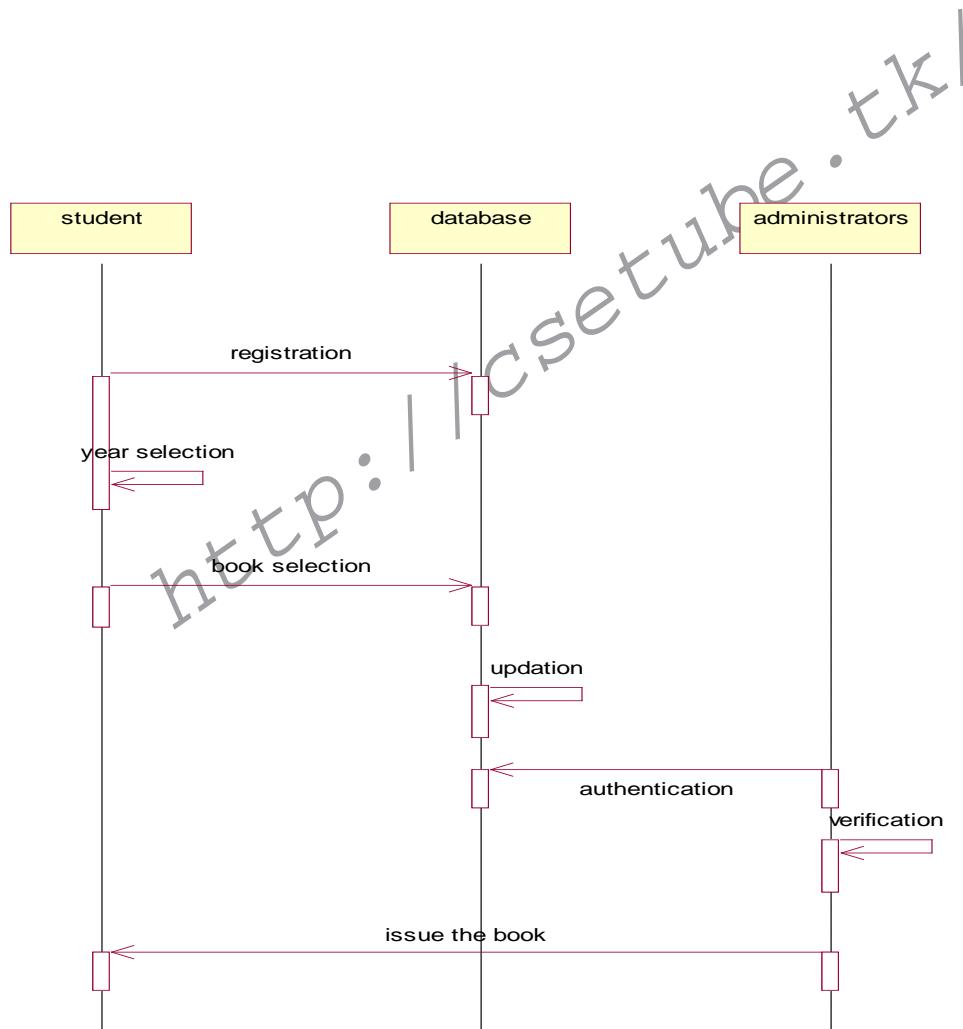
- **Member details class-** is the class name. Its attributes are name, father name, date of birth, address, phone number, member id, college, degree, course and semester. Its operations are registration, authentication, and year selection.
- **Administrator-** is the class name. Its attributes are name, address, phone, mail id. Its operations are authentication, verification and issue books.
- **Year-**is the class name. Its attribute is year selection. Its operations are 1st year,2nd year, 3rd year,4th year.
- **Issue for 1st year-**is the class name. Its attributes are member code, member name, book code, book name, and quantity. Its operation is issue

- **Issue for 2nd year**-is the class name. Its attributes are member code, member name, book code, book name, and quantity. Its operation is issue
- **Issue for 3rd year**-is the class name. Its attributes are member code, member name, book code, book name, and quantity. Its operation is issue

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.



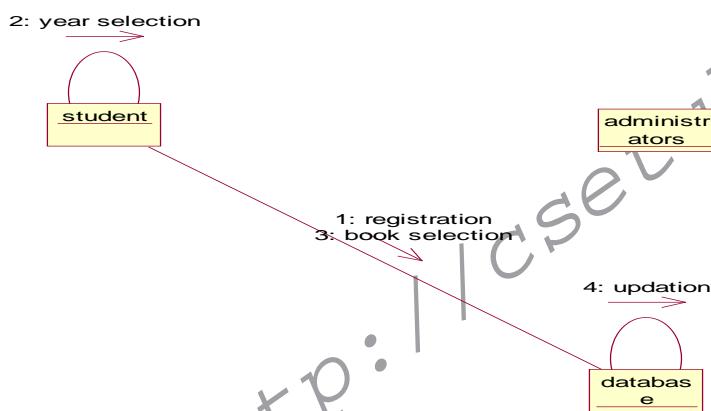
DOCUMENTATION OF SEQUENCE DIAGRAM

The sequence diagram describes the sequence of steps to show

- The member registers himself in book bank
- He will select the year
- He select the books given and the database will update the status of book.
- Then administrator will log in and verify the status of books.
- If the book is available he will issue the book.

COLLABRATION 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 versa. 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



DOCUMENTATION OF COLLABORATION DIAGRAM

The collaboration diagram is to show how the member registers himself and borrow the book from the book bank. Here the sequence is numbered according to the flow of execution.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. An final state is represented as circle surrounding a small dot.

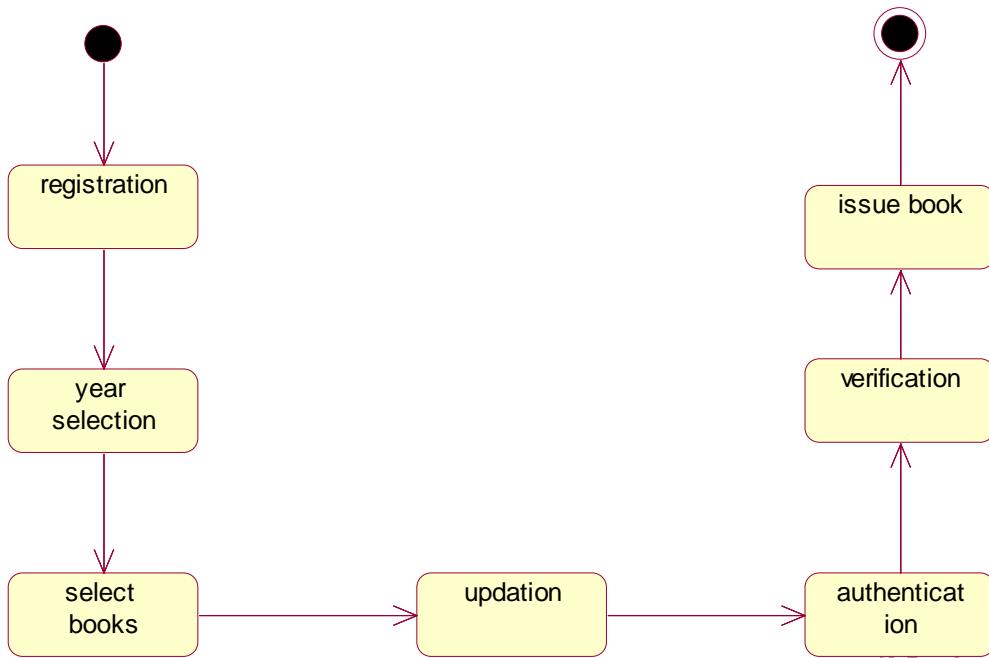
DOCUMENTATION OF STATE CHART DIAGRAM

This state diagram describes the behavior of the system.

- In the first state the member registers himself in book bank
- After that he will select the year in next state.
- In the next state he will select the books.
- In the next state database will update the status of book.
- In the next state administrator will log in.
- After authentication he will verify the availability of book.
- If available he will issue the book.

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 an rounded box containing the name of the operation



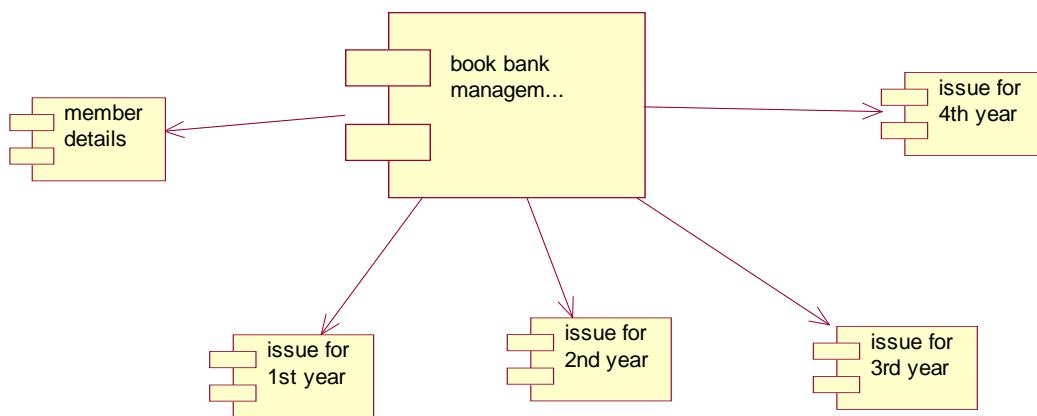
DOCUMENTATION OF ACTIVITY DIAGRAM

This activity diagram flow of stepwise activities performed in book bank management system.

- The member registers himself in book bank
- After that he will select the year.
- He will select the books.
- Database will update the status of book.
- Database will update the details
- Then the administrator will log in to his account.
- After authentication he will verify the availability of book.
- If available he will issue the book.

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

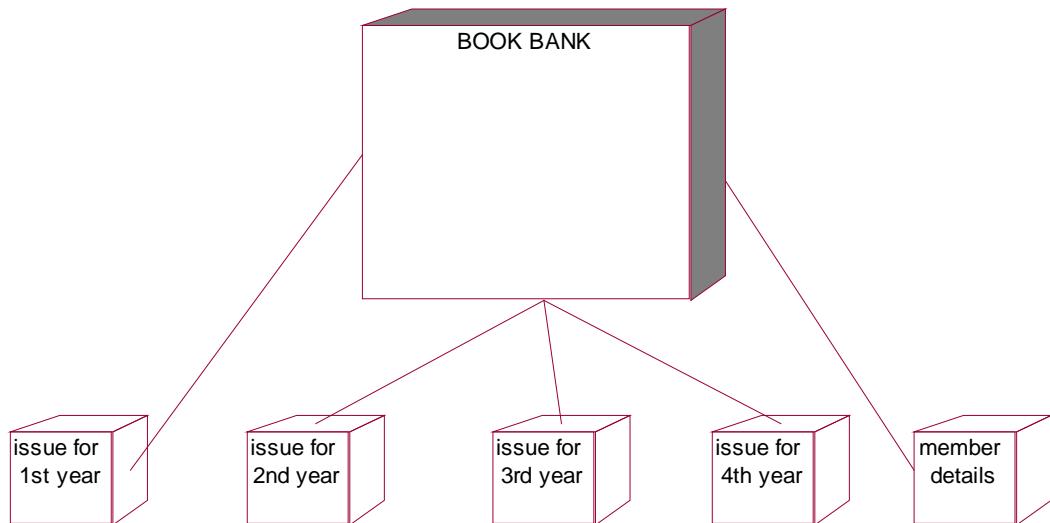


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is online book bank management systems. And member details, issue for first year, issue for second year issue for third year and issue for fourth year are components comes under the main component

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.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

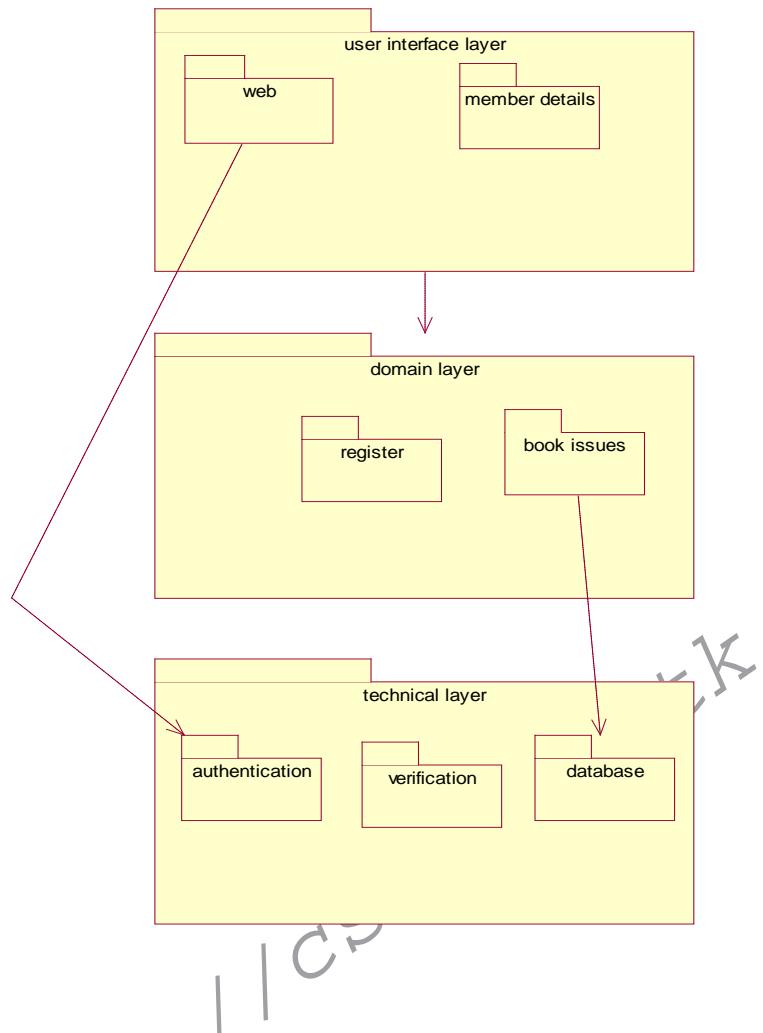
The processor in this deployment diagram is the book bank which is the main part and which are the some of the main activities performed in the system. And issue for first year, issue for second year issue for third year and issue for fourth year are some activities performed in this system.

PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

- User interface layer
- Domain layer
- Technical services layer

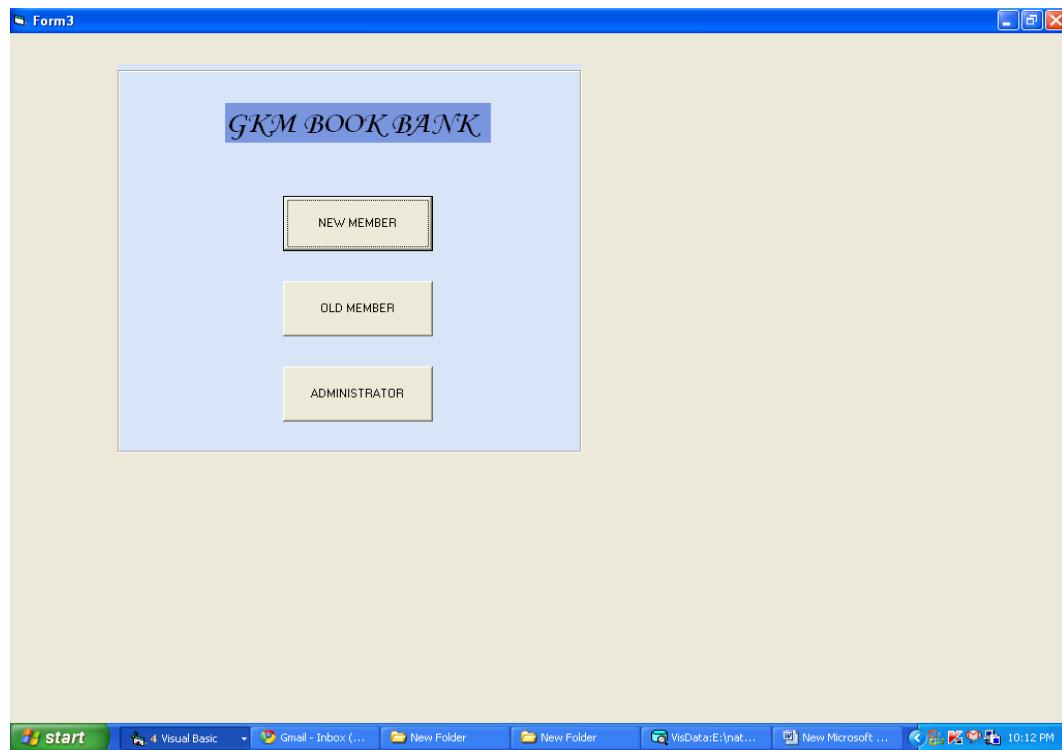


DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the online recruitment system are

- **The User interface layer** - consists of the web and member details. This layer describes how the member goes to book bank and registers himself..
- **The Domain layer** – shows the activities that are performed in the book bank management system. The activities are register and book issues..
- **The Technical service layer** - the member details and verification details are stored in the database.

FORMS FORM 1



FORM 2

http://csetube.weebly.com/

http://csetube.weebly.com/

MEMBERSHIP FORM

NAME	natraj
FATHER NAME	murali
DATE OF BIRTH	02-11-1991
ADDRESS	t nagar
PHONE NUMBER	9677297890
MEMBER ID	201
COLLEGE NAME	srm
DEGREE AND COURSE	be cse
SEMESTER	4

ADD **SUBMIT**

Data1

FORM 3

YEAR SELECTION

Form5

1ST YEAR
2ND YEAR
3RD YEAR

Start Control Panel BOOK BANK Microsoft... Project1 - Mi... Project1 - Mi... Form5 RAGAVAN » 12:35 PM

FORM 4

Form4

ISSUE FOR 1ST YEAR

AVAILABLE BOOKS	
MEMBER ID	100
MEMBER NAME	natraj
BOOK NAME	maths

NUMBER OF BOOKS NUMBER OF TRIES

SUBMIT ADD 1 4

[◀◀ Data1 ▶▶]

start 6 Visual Basic RAJAN says... - Google New Folder VisData:E:\natu pro... 10:10 PM

FORM 5

Form4

ISSUE FOR 1ST YEAR

AVAILABLE BOOKS	
MEMBER ID	
MEMBER NAME	
BOOK NAME	

NUMBER OF BOOKS NUMBER OF TRIES

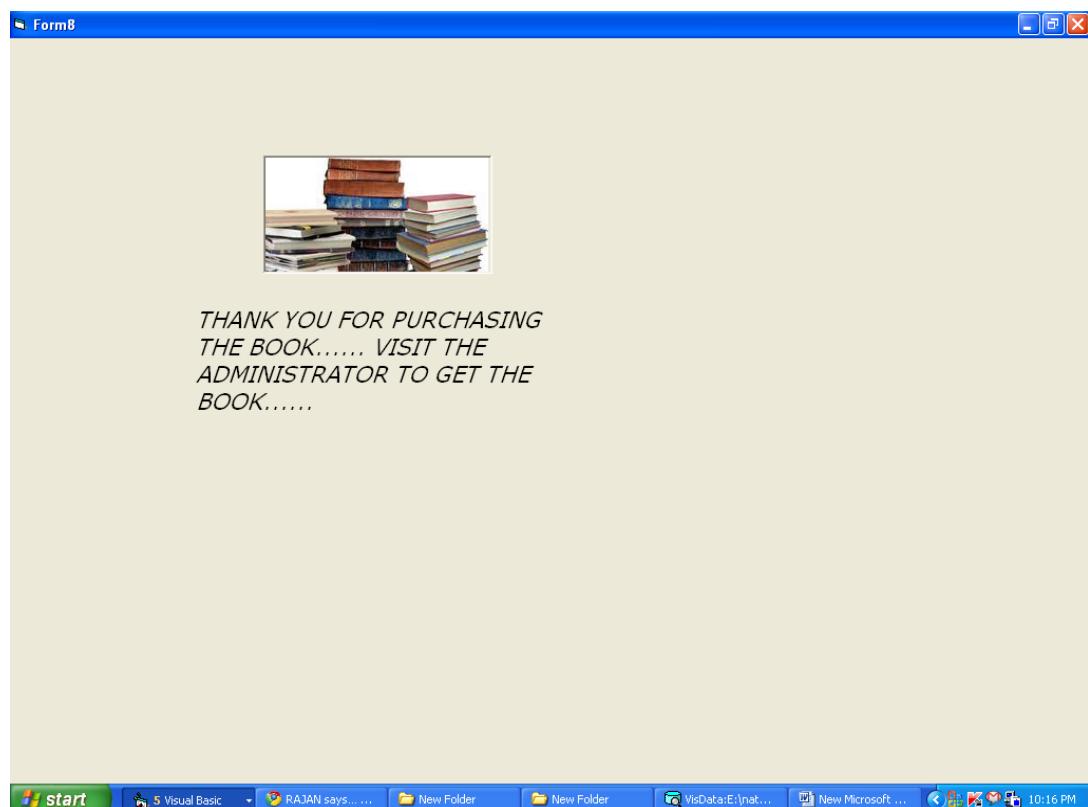
Project1
only four books can be selected

SUBMIT ADD 5 OK

[◀◀ Data1 ▶▶]

start 6 Visual Basic RAJAN says... - Google New Folder VisData:E:\natu pro... New Microsoft... 10:15 PM

FORM 6



FORM 7

A screenshot of a Windows application window titled "Form6". The title bar also includes the text "ISSUE FOR 2ND YEAR". The interface has several input fields and buttons. On the right, there is a dropdown menu titled "AVAILABLE BOOKS" containing the following items:

- operating system
- dbms
- maths 3
- data structures** (selected item)
- oops
- adc
- dpsd
- cob
- maths 4

Below the dropdown are two buttons: "SUBMIT" and "ADD". Further down are two input fields labeled "NUMBER OF BOOKS" and "NUMBER OF TRIES", each with a value of "1". At the bottom left is a navigation control with arrows and the text "Data1". The taskbar at the bottom shows various open applications.

FORM 8

Form7

ISSUE FOR 3rd YEAR

MEMBER ID	<input type="text" value="309"/>	AVAILABLE BOOKS
MEMBER NAME	<input type="text" value="shyam"/>	computer networks advanced database artificial intelligence aids load web technology compiler pqt
BOOK NAME	<input type="text" value="computer networks"/>	

NUMBER OF BOOKS NUMBER OF TRIES

<input type="button" value="SUBMIT"/>	<input type="button" value="ADD"/>	<input type="text" value="1"/>	<input type="text" value="4"/>
---------------------------------------	------------------------------------	--------------------------------	--------------------------------

[◀◀ Data1 ▶▶]

FORM 9

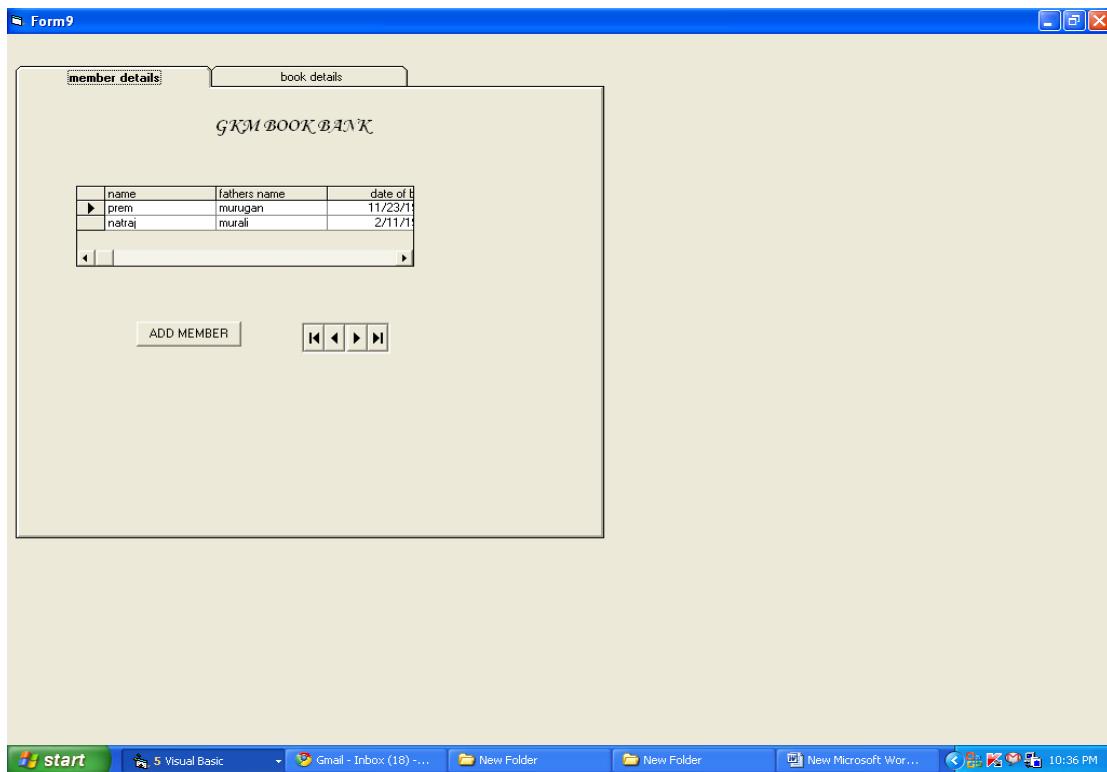
Form10

ADMINISTRATOR LOG IN

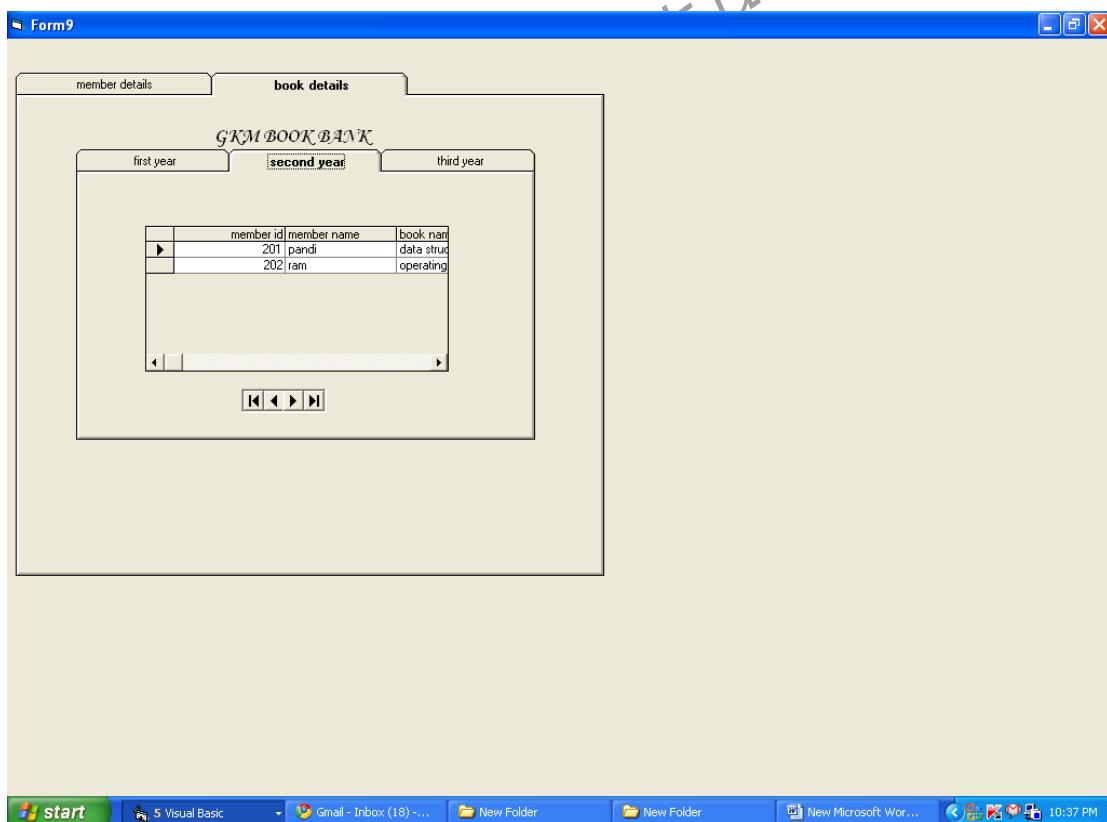
USER ID	<input type="text" value="admin"/>
PASSWORD	<input type="text" value="1234"/>

Project1
 login successfully

FORM 10



FORM 11



SOURCE CODE:

Administrator. class

<http://csetube.weebly.com/>

```
Option Explicit
##Model Id=4D5A2FC4038A
Private name As Variant
##Model Id=4D6CB83B006D
Private address As Variant
##Model Id=4D6CB84902DE
Private phone As Variant
##Model Id=4D6CB8510000
Private mail id As Variant
##Model Id=4D5A34780280
Public New Property As year
##Model Id=4D5A348B0290
Public NewProperty2 As database
##Model Id=4D5A31B30119
Public Sub authentication ()
    On Error Go To ErrorHandler
    ## your code goes here...
    If Form10.Text1.Text = "admin" And Form10.Text2.Text = "1234" Then
        MsgBox "login successfully"
        Form9.Show
    Else
        MsgBox "invalid password"
    End If
    Exit Sub
ErrorHandler:
    Call Raise Error (My Unhandled Error, "authentication Sub")
End Sub
##Model Id=4D5A31E402BF
Public Sub verification ()
    On Error Go To ErrorHandler
    ## your code goes here...
    Exit Sub
ErrorHandler:
    Call Raise Error (My Unhandled Error , "verification Sub")
End Sub
##Model Id=4D6CB8E403B9
Public Sub issue_books()
    On Error Go To ErrorHandler
    ## your code goes here...
    Exit Sub
ErrorHandler:
    Call Raise Error (My Unhandled Error, "issue_books Sub")
End Sub
```

Database .class

```
Option Explicit
##Model Id=4D5A2FB00128
Private name As Variant
```

```
'##Model Id=4D51082601C5
Public Sub update ()
    On Error Go To ErrorHandler
    ## your code goes here...
    Exit Sub
ErrorHandler:
    Call Raise Error (My Unhandled Error , "update Sub")
End Sub
```

Year . Class

```
Option Explicit
'##Model Id=4D5A317F00DA
Private year_selection As Variant
'##Model Id=4D5A319B0128
Public Sub 1styear()
    On Error GoTo ErrorHandler
    ## your code goes here...
    Exit Sub
ErrorHandler:
    Call RaiseError(MyUnhandledError, "styear Sub")
End Sub
'##ModelId=4D5A319F00CB
Public Sub 2nd_year()
    On Error GoTo ErrorHandler
    ## your code goes here...
    Exit Sub
ErrorHandler:
    Call RaiseError(MyUnhandledError, "nd_year Sub")
End Sub
'##ModelId=4D5A31A2032C
Public Sub 3rd_year()
    On Error GoTo ErrorHandler
    ## your code goes here...
    Exit Sub
ErrorHandler:
    Call RaiseError(MyUnhandledError, "rd_year Sub")
End Sub
```

Issue for first year. class

```
Option Explicit
'##ModelId=4D5A3381006F
Private member_code As Variant
'##ModelId=4D5A33810070
Private member_name As Variant
```

```
'##ModelId=4D5A33810072
Private book_name As Variant
'##ModelId=4D5A347B03B9
Public NewProperty As year
'##ModelId=4D5A3381006E
Public Sub issue_for_first()
    On Error GoTo ErrorHandler
    ## your code goes here...
    Form6.Data1.Recordset.AddNew
    Form6.Text5.Text = Form6.Text5.Text + 1
    Form6.Text4.Text = Form6.Text4.Text - 1
    If (Form6.Text4.Text <= 0) Then
        MsgBox "only four books can be selected"
        Form8.Show
    End If
    Exit Sub
ErrorHandler:
    Call RaiseError(MyUnhandledError, "issue_for_first Sub")
End Sub
```

Issue for second year class

```
Option Explicit
'##ModelId=4D5A33D902EE
Private member_code As Variant
'##ModelId=4D5A33DC03D8
Private member_name As Variant
'##ModelId=4D5A33E30167
Private book_name As Variant
'##ModelId=4D5A347C03D8
Public NewProperty As year
'##ModelId=4D5A33ED00BB
Public Sub issue_for_second()
    On Error GoTo ErrorHandler
    ## your code goes here...
    Data1.Recordset.AddNew
    Form7.Text5.Text = Form7.Text5.Text + 1
    Form7.Text4.Text = Text4.Text - 1
    If (Form7.Text4.Text <= 0) Then
        MsgBox "only four books can be selected"
        Form8.Show
    End If
    Exit Sub
ErrorHandler:
    Call RaiseError(MyUnhandledError, "issue_for_second Sub")
End Sub
```

Issue for third year class

```
Option Explicit
```

```
'##ModelId=4D5A33F2036B
Private member_code As Variant
'##ModelId=4D5A33FA00EA
Private member_name As Variant
'##ModelId=4D5A34010399
Private book_name As Variant
'##ModelId=4D5A347E0138
Public NewProperty As year
'##ModelId=4D5A340F01B5
Public Sub issue_for_third()
    On Error GoTo ErrorHandler
    ## your code goes here...
    Form8.Data1.Recordset.AddNew
    Form8.Text5.Text = Form8.Text5.Text + 1
    Form8.Text4.Text = Form8.Text4.Text - 1
    If (Form8.Text4.Text <= 0) Then
        MsgBox "only four books can be selected"
        Form8.Show
    End If
    Exit Sub
ErrorHandler:
    Call RaiseError(MyUnhandledError, "issue_for_third Sub")
End Sub
```

Form 1

```
Private Sub Command1_Click()
Form1.Show
End Sub
Private Sub Command2_Click()
Form9.Show
End Sub
Private Sub Command3_Click()
Form5.Show
End Sub
```

Form 2

```
Private Sub Command1_Click()
Data1.Recordset.AddNew
End Sub
Private Sub Command2_Click()
Data1.Recordset.update
Form2.Show
End Sub
```

Form 3

```
Private Sub Command1_Click()
Form4.Show
End Sub
Private Sub Command2_Click()
Form6.Show
End Sub
```

```
End Sub  
Private Sub Command3_Click()  
Form7.Show  
End Sub
```

Form 4

```
Private Sub Command2_Click()  
Dim fi As Issue for first year  
Set fi =new Issue for first year  
fi.issue_for_first  
End Sub  
Private Sub Command3_Click()  
Data1.Recordset.update  
End Sub  
Private Sub Form_Load()  
Text4.Text = 5  
Text5.Text = 0  
End Sub  
Private Sub List1_Click()  
Text3.Text = List1.Text  
End Sub
```

Form 5

```
Private Sub Command2_Click()  
Dim se As Issue for second year  
Set se =new Issue for second year  
se.issue_for_second  
End Sub  
Private Sub Command3_Click()  
Data1.Recordset.update  
End Sub  
Private Sub Form_Load()  
Text4.Text = 5  
Text5.Text = 0  
End Sub  
Private Sub List1_Click()  
Text3.Text = List1.Text  
End Sub
```

Form 6

```
Private Sub Command2_Click()  
Dim th As Issue for third year  
Set th =new Issue for third year  
th.issue_for_third  
End Sub  
Private Sub Command3_Click()  
Data1.Recordset.update  
End Sub  
Private Sub Form_Load()  
Text4.Text = 5
```

```
Text5.Text = 0
End Sub
Private Sub List1_Click()
Text3.Text = List1.Text
End Sub
```

Form 7

```
private Sub Command1_Click()
Dim au As Administrator
Set au = new Administrator
au.authentication
End Sub
Private Sub Command2_Click()
Unload Me
End Sub
```

~ .tk |

RESULT

Thus the project to develop book bank management system using Rational Rose Software and to implement the software in Visual Basic was done successfully.

EXNO:3

DATE:

EXAM REGISTRATION SYSTEM

AIM

To develop a project Exam Registration using Rational Rose Software and to implement the software in Visual Basic.

PROBLEM ANALYSIS AND PROJECT PLANNING

The Exam Registration is an application in which applicant can register themselves for the exam. The details of the students who have registered for the examination will be stored in a database and will be maintained. The registered details can then be verified for any fraudulent or duplication and can be removed if found so. The database which is verified can be used to issue hall tickets and other necessary materials to the eligible students.

PROBLEM STATEMENT

The process of students accessing the registration application and applying for the examination by filling out the form with proper details and then the authorities verify those details given for truth and correctness are sequenced through steps

- The students access exam registration application.
- They fill out the form with correct and eligible details.
- They complete the payment process.
- The authorities verify or check the details.
- After all verification the exam registration database is finalized.

SOFTWARE REQUIREMENT SYSTEM

12. INTRODUCTION
13. OBJECTIVE
14. OVERVIEW
15. GLOSSARY
16. PURPOSE
17. SCOPE
18. FUNCTIONALITY
19. USABILITY
20. PERFORMANCE
21. RELIABILITY
22. FUNCTIONAL REQUIREMENTS

1. INTRODUCTION

Exam Registration application is an interface between the Student and the Authority responsible for the Exams. It aims at improving the efficiency in the registration of exams and reduces the complexities involved in it to the maximum possible extent.

2. OBJECTIVE

The main objective of Exam Registration System is to make applicants register themselves and apply for the exam. Exam Registration System provides easy interface to all the users to apply for the exam easily.

3. OVERVIEW

The overview of the project is to design an exam registration tool for the registration process which makes the work easy for the applicant as well as the Authorities of Exam.

Authorities of the exam can keep track of and maintain the database of the registered applicants for the exams.

4. GLOSSARY

TERMS	DESCRIPTION
APPLICANT OR STUDENT	Applicant can register himself by filling out the registration form and finally paying the payment for attending the exam.
DATABASE	Database is used to maintain and store the details of registered applicants.
SOFTWARE REQUIREMENT SPECIFICATION	This software specification documents full set of features and function for online recruitment system that is performed in company website.

5. PURPOSE

The purpose of exam registration system is to register for the exam in an easier way and to maintain the registered details in an effective manner.

6. SCOPE

The scope of this Exam Registration process is to provide an easy interface to the applicants where they can fill their details and the authorities maintain those details in an easy and effective way.

7. FUNCTIONALITY

The main functionality of registration system is to make the registration and database for it to be maintained in an efficient manner.

8. USABILITY

User interface makes the Exam Registration system to be efficient. That is the system will help the applicant to register easily and helps the authorities to maintain details effectively. The system should be user friendly.

9. PERFORMANCE

It describes the capability of the system to perform the registration process of the applicant without any error and performing it efficiently.

10. RELIABILITY

The Exam Registration system should be able to serve the applicant with correct information and day-to-day update of information.

11. FUNCTIONAL REQUIREMENTS

Functional requirements are those refer to the functionality of the system. That is the services that are provided to the applicant who apply for the Exam.

12. EXTERNAL INTERFACE REQUIREMENTS

SOFTWARE REQUIREMENTS

Front end: IBM rational rose enterprise edition.

Back end: visual basic 8.0.

HARDWARE REQUIREMENTS

Processor : pentium 4.

RAM : 256 mb

Operating system : Microsoft windows xp.

Free disk space : 1gb

UML DIAGRAMS

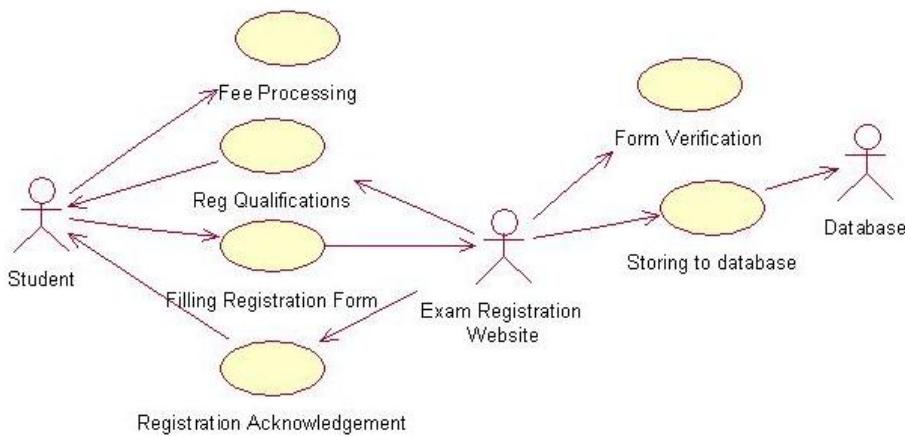
The following UML diagrams describe the process involved in the online recruitment system

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 modelled. It is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

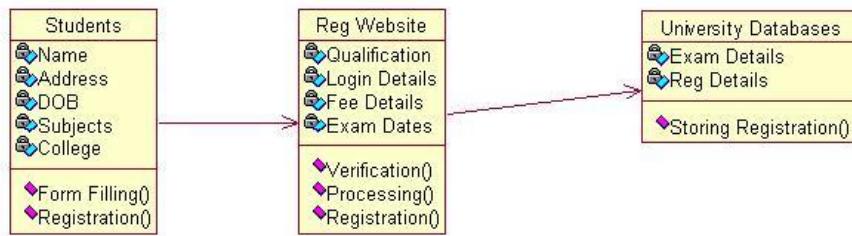
The actors in this use case diagram are Student, Interface and Database. The usecases are the activities performed by actors.

- Student Fills out the form in the form filling process.
- The interface checks and validates registered details.
- Then the database is searched for details and verified.
- Database stores the details and returns acknowledgement.

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 is represented using a rectangle with three compartments. Top compartment have the class name, middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

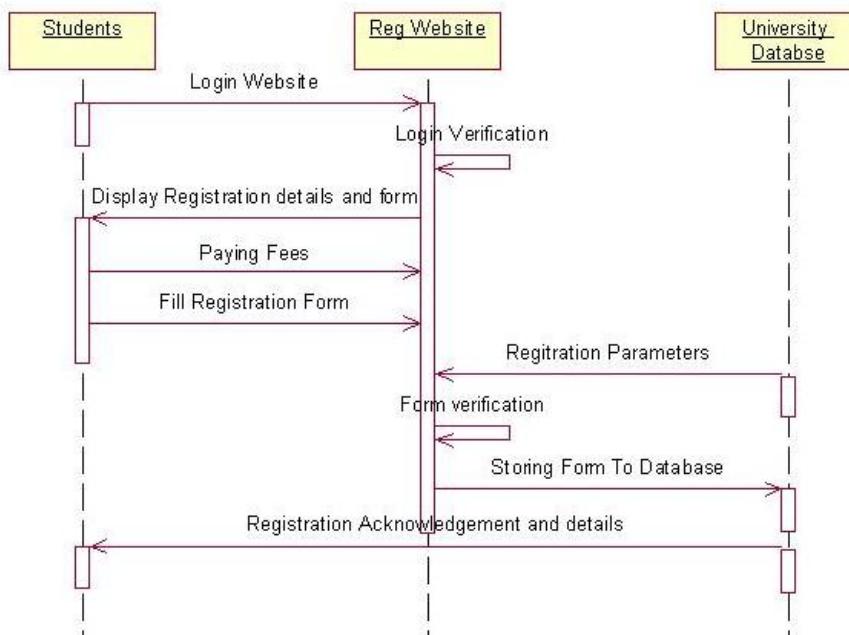
This class diagram has three classes applicant, recruiter and database.

- **Students** – is the class name. Its attributes are name, Address, DOB, Gender, College, Subjects, Semester, Year, Degree, Branch and Payment. The operations performed in the students class are form filling, search database and receiving acknowledgement.
- **Registrations Interface** – is the class name. Its attributes are Login, Password and database. The operations performed are form verification, store in database and send acknowledgement.
- **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.



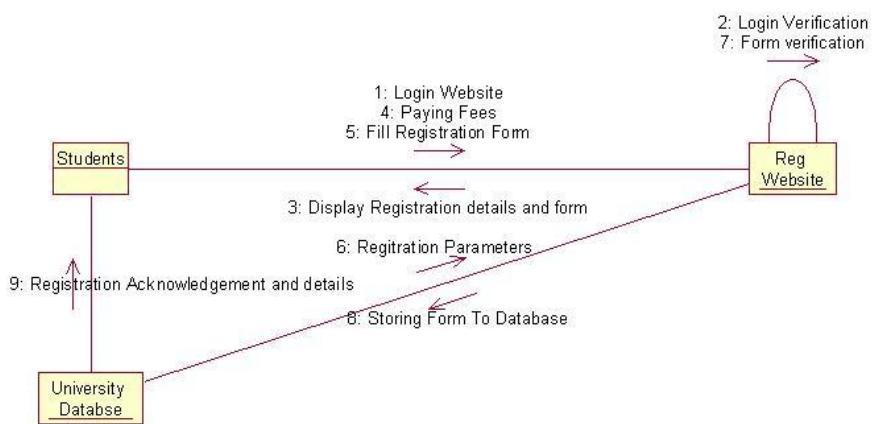
DOCUMENTATION OF SEQUENCE DIAGRAM

The sequence diagram describes the sequence of steps to show

- The applicant filling form and registering for exam.
- The verification done by the interface and sending acknowledgement for registration.
- Searching the database with login and displaying it for maintenance.

COLLABRATION 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 versa. 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

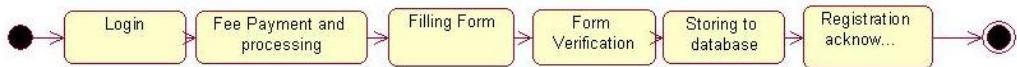


DOCUMENTATION OF COLLABRATION DIAGRAM

The collaboration diagram is to show how the Student registers and the authorities maintains the details of the registered students in the registration system. Here the sequence is numbered according to the flow of execution.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. A final state is represented as circle surrounding a small dot.



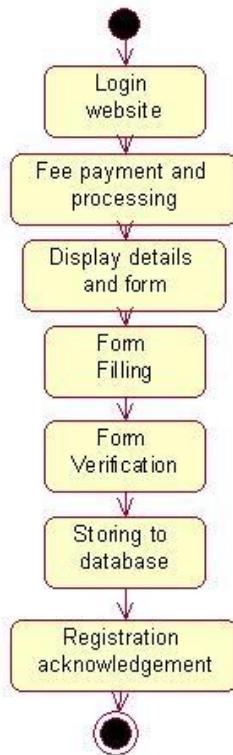
DOCUMENTATION OF STATE CHART DIAGRAM

This state diagram describes the behaviour of the system.

- First state is form filling where the student fill the form to registration system.
- The next state is form verification by the interface.
- Then store the details in the database.
- The student receives acknowledgement for registering.
- Search database with login information.
- Display the searched data in the interface.

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 an rounded box containing the name of the operation.



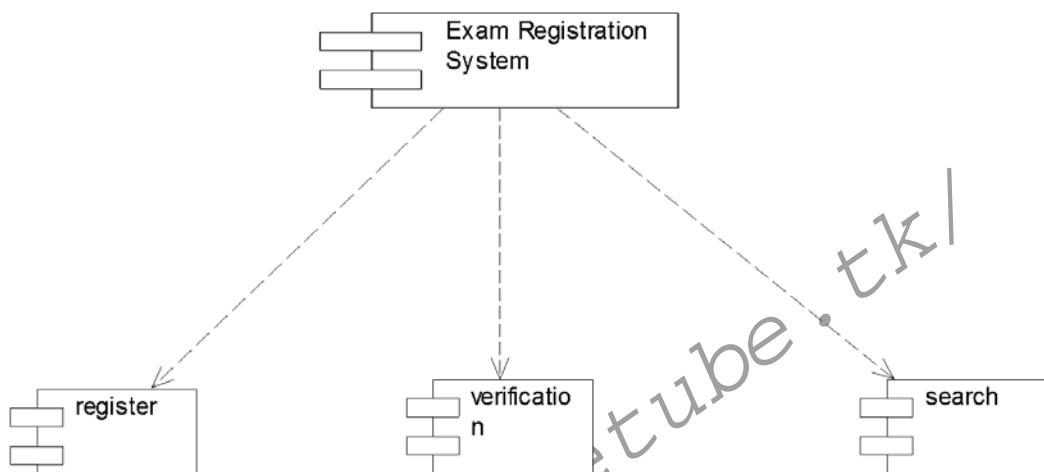
DOCUMENTATION OF ACTIVITY DIAGRAM

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

- First the student fills the form.
- The student details are verified and stored in database.
- Acknowledgement sent is received by student.
- Search database with login and if data present in the database.
- The searched data is displayed if available.

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.

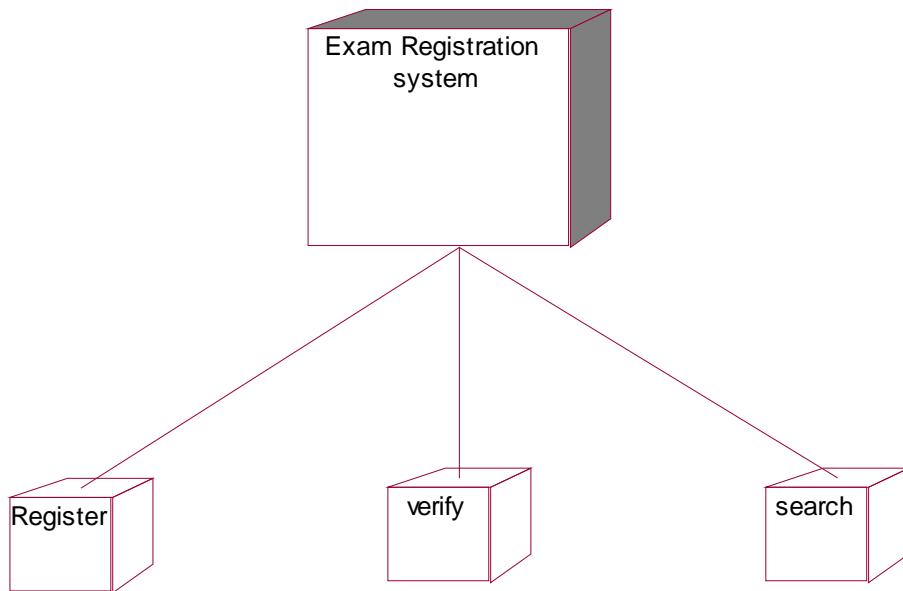


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is Exam Registration system. And register, verification and search details are the components comes under the main component.

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 assosiation.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

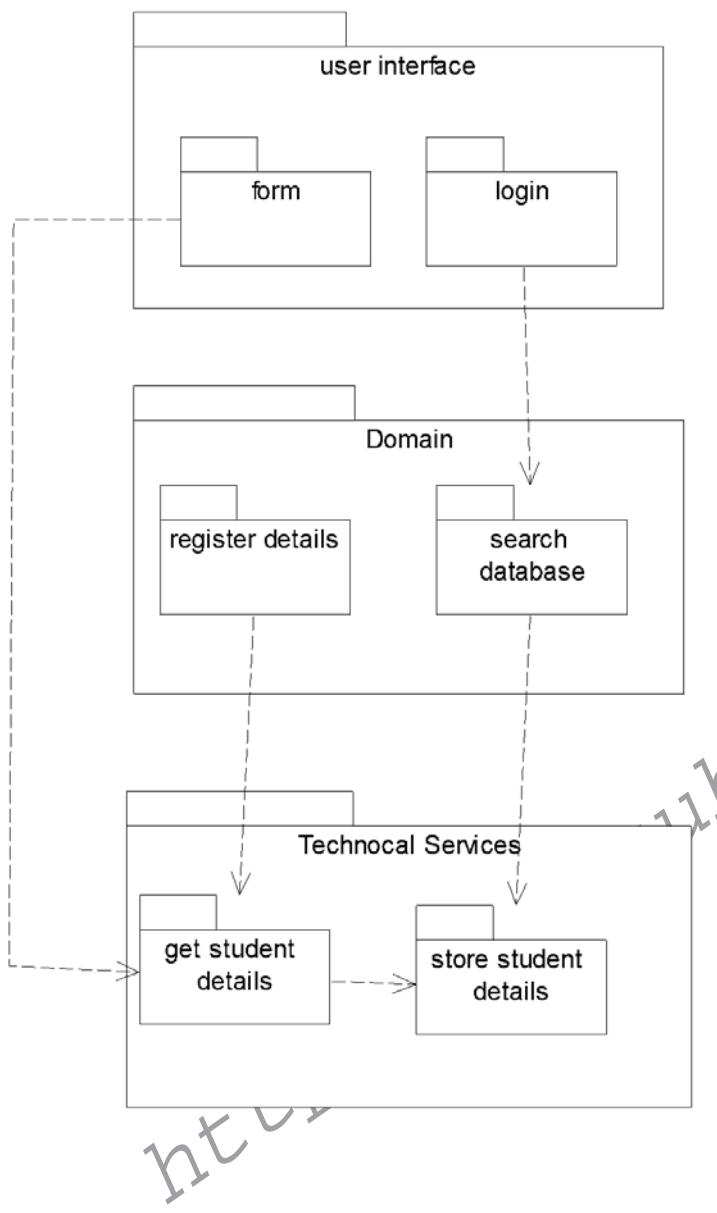
The processor in this deployment diagram is the Exam Registration system which is the main part and the devices are the register, verify and search which are the some of the main activities performed in the system.

PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

- User interface layer
- Domain layer
- Technical services layer



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the online recruitment system are

- **The User interface layer** - consists of the form and login. This layer describes how the applicant logins to the search and apply for the exam.
- **The Domain layer** – shows the activities that are performed in the Exam Registration system. The activities are register and search the database.
- **The Technical service layer** – get student details and the selected applicant details are stored in the database.

FORMS

Form1

NAME:	<input type="text"/>	Data1		<input type="button" value=" <"/>	<input type="button" value=" > "/>
ADDRESS:	<input type="text"/>	32			
D.O.B:	<input type="text"/>				
GENDER:	<input type="text"/>				
COLLEGE NAME:	<input type="text"/>				
SUBJECTS:	<input type="text"/> <input type="text"/>				
BRANCH:	<input type="text"/>	DEGREE:	<input type="text"/>	YEAR:	<input type="text"/>
PAYMENT:	<input type="text"/>				
<input type="button" value="NEW"/> <input type="button" value="SAVE"/> <input type="button" value="DELETE"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>					

http://

Form1

NAME: parthy

ADDRESS: Annanagr

D.O.B: 16/10/1990

GENDER: Male

COLLEGE NAME: GKMCE

SUBJECTS:

OOAD	AI	ACA	ADB	WT
PCD	PCDLAB	OOLAB	IPLAB	

BRANCH: CSE DEGREE: B.E YEAR: III SEMESTER: 06

PAYMENT: 1100

NEW SAVE DELETE NEXT PREVIOUS

start Project_load Project1 - Microsoft V... Form1 12:26 PM

Form1

NAME: paplo

ADDRESS: 8 FOXEN ST TAMBARAN CHENNAI 6

D.O.B: 08-11-1990

GENDER: MALE

COLLEGE NAME: GKM COLLEGE OF ENGG

SUBJECTS:

ACA	ADT	AI	WT	OOLAB
PCD	OOLAB	WT LAB	ENG LAB	

BRANCH: CSE DEGREE: B.E YEAR: 2011 SEMESTER: 6

PAYMENT: 1000

NEW SAVE DELETE NEXT PREVIOUS

start Project_load Document1 - Microsoft V... Project1 - Microsoft V... Form1 12:28 PM

Form1

NAME:	pablo				Data1
ADDRESS:	8 KANNAN NAGAR AYANAVARM CH				4
D.O.B:	07-08-1990				
GENDER:	MALE				
COLLEGE NAME:	G.K.M.COLLEGE OF ENGG				
SUBJECTS:					
ACADEMIC PERIOD:	00AD	PCD	AI	ADT	
WORKING TIME:	WT LAB	00AD LAB	ENG LAB		
BRANCH:	CSE	DEGREE:	B.E	YEAR:	2011
			SEMESTER	6	
PAYMENT:	1000				
<input type="button" value="NEW"/> <input type="button" value="SAVE"/> <input type="button" value="DELETE"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>					

Form1

NAME:	PARTHI				Data1
ADDRESS:	ANNANGAR				33
D.O.B:	16.10.90				
GENDER:	MALE				
COLLEGE NAME:	GKMCET				
SUBJECTS:					
ACADEMIC PERIOD:	00AD	PCD	AI	ADT	
WORKING TIME:	WT	LAB1	ENG LAB		
BRANCH:	CSE	DEGREE:	B.E	YEAR:	2011
			SEMESTER	6	
PAYMENT:	1100				
<input type="button" value="NEW"/> <input type="button" value="SAVE"/> <input type="button" value="DELETE"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>					

Confirm

Are you sure you want to save this record?

Microsoft Access - [REGISTRATION : Table]

File Edit View Insert Format Records Tools Window Help Type a question for help

SNO NAME ADDRESS DOB GENDER COLLEGENAME SUBJECT1 SUBJECT2 SUBJECT3 SUBJECT4

1	PARTHI	8 KANNAN NAGAR A	07-08-1990	MALE	G.K.M.COLLEGE OF ENGG	ACA	OOD	PCD	AI
2	PAPLO	8 FOXEN ST TAMBAF	08-11-1990	MALE	GKM COLLEGE OF ENGG	ACA	ADT	AI	WT
3	PUGAL	18 BHARTAHI NAGAR	07-08-1990	MALE	GKM COLLEGE OF ENNG	ACA	ADT	PCD	WT
4	vijay	tambaram	07-08-1990	male	gkm	aca	adt	ai	wt
5	selva	1182 kk.nagar	7-8-90	male	srm	ooad	wt	os	mp
	(AutoNumber)								

Record: 6 of 6 Datasheet View CAPS NUM

start Project_oad New Folder ... Project1 - ... Form1 FORM FILLI... EXAMREG : ... REGISTRAT... 12:33 PM

7. Source Code

Students:

Option Explicit

'##ModelId=4D2137EC15D6

Private name As Variant

'##ModelId=4D3627BF0157

Private address As Variant

'##ModelId=4D424904184B

Private dob As Variant

'##ModelId=4D413519007D

Private subjects As Variant

'##ModelId=4D4136D9037A

Private college As Variant

'##ModelId=4D41381923B5

Public NewProperty As reg website

Dim v1 As reg website

'##ModelId=4D91482B0167

```
'##ModelId=4C71253D02AF
Public Sub Form Filling()
End Sub
'##ModelId=4598050E03D8
Public Sub Registration()
End Sub
```

Registration Website:

```
Option Explicit
'##ModelId=4D4135610399
Private qualification As Variant
'##ModelId=4D413565000F
Private login details As Variant
'##ModelId=4D41356F0203
Private fee details As Variant
'##ModelId=4D4136E200EA
Private exam dates As Variant
'##ModelId=4D4136E200EA
Public NewProperty As university database
'##ModelId=4598067E032C
Public NewProperty2 As university database
'##ModelId=4598069501B5
Public NewProperty3 As university database
'##ModelId=459805A10128
Public Sub verification()
End Sub
'##ModelId=459805A10128
Public Sub processing()
End Sub
'##ModelId=4D5A317F00DA
Public Sub registration()
End Sub
```

University Database:

```
Option Explicit
'##ModelId=459806A30280
Public NewProperty As students
'##ModelId=4598060A02BF
Public Sub verify_the_details()
End Sub
'##ModelId=45980463F57B5
Public Sub storing registration()
End Sub
```

Form1:

```
Dim ob1 as students
Private sub cmdregistrationform_click()
Set ob1=new students
ob1.Form_Filling
End sub
Public Sub Form_Filling()
datcollege.Recordset.AddNew
cmdSaveRecord.Enabled = True
cmdMovePrevious.Enabled = False
cmdMoveNext.Enabled = False
cmdNewRecord.Enabled = False
cmdDeleteRecord.Enabled = False
Form1.Show
End Sub
```

```
Dim ob2 as students
Private sub cmdregistrationform_click()
Set ob2=new students
ob2.Next
End sub
Private Sub cmdMoveNext_Click()
Form1.Show
End Sub
Private Sub next()
datcollege.Recordset.MoveNext
If datcollege.Recordset.EOF = True Then
datAuthors.Recordset.MoveLast
End If
Form1.Show
End Sub
```

```
Dim ob3 as students
Private sub cmdregistrationform_click()
Set ob3=new students
ob3.Previous
End sub
Private Sub previous()
Form1.show
End Sub
```

```
Dim ob4 as students
Private sub cmdregistrationform_click()
Set ob4=new students
ob4. Storing_registration
End Sub
Public Sub Storing_registration()
If MsgBox("Are you sure you want to save this record?", _
vbQuestion + vbYesNo + vbDefaultButton2, _
```

```
"Confirm") = vbNo Then
datcollege.Recordset.Update
Exit Sub
End If
cmdSaveRecord.Enabled = False
cmdMovePrevious.Enabled = True
cmdMoveNext.Enabled = True
cmdDeleteRecord.Enabled = True
cmdNewRecord.Enabled = True
Form1.Show
End Sub

Private Sub cmdSaveRecord_Click()
Form1.Show
End Sub
Public Sub Processing()
datcollege.Recordset.MovePrevious
Form1.show
End Sub

Dim ob5 as students
Private sub cmdregistrationform_click()
Set ob5=new students
ob5. Delete
End Sub

Public Sub Delete()
On Error GoTo Delete_Error
If MsgBox("Are you sure you want to delete this record?", _
vbQuestion + vbYesNo + vbDefaultButton2, _
"Confirm") = vbNo Then
Exit Sub
End If
datcollege.Recordset.Delete
cmdMoveNext_Click
Exit Sub
Delete_Error:
MsgBox "This record cannot be deleted. Error code = " _
& Err.Number & vbCrLf & Err.Description, _
vbCritical, "Cannot Delete"
End Sub
Private Sub cmdDeleteRecord_Click()
form1.show
End Sub
```

RESULT

Thus the project to develop Exam Registration system using Rational Rose Software and to implement the software in Visual Basic is done successfully.

Ex. No: 4

Date:

STOCK MAINTENANCE SYSTEM

AIM

To develop a project stock maintenance system using Rational Rose Software and to implement the software in Visual Basic.

PROBLEM ANALYSIS AND PROJECT PLANNING

The Stock Maintenance System, initial requirement to develop the project about the mechanism of the Stock Maintenance System is caught from the customer. The requirement are analyzed and refined which enables the end users to efficiently use Stock Maintenance System. The complete project is developed after the whole project analysis explaining about the scope and the project statement is prepared.

PROBLEM STATEMENT

The process of stock maintenance system is that the customer login to the particular site to place the order for the customer product. The stock maintenance system are described sequentially through steps

- The customer login to the particular site.
- They fill the customer details.
- They place the orders for their product.
- The vendor login and views the customer details and orders.

SOFTWARE REQUIREMENT SPECIFICATION

S.NO	CONTENT
1	INTRODUCTION
2	OBJECTIVE
3	OVERVIEW
4	GLOSSARY
5	PURPOSE
6	SCOPE
7	FUNCTIONALITY
8	USABILITY
9	PERFORMANCE
10	RELIABILITY
11	FUNCTIONAL REQUIREMENTS

1. INTRODUCTION

This software specification documents full set of features and function for online stock maintenance system that is performed in company website. In this we give specification about the customer orders. It tells the usability, reliability defined in use case specification.

2. OBJECTIVE

The main objective of the stock maintenance system is to maintain the stock. It provides the vendor to maintain the stock in an precise manner.

3. OVERVIEW

The overview of the project is to design an online tool for the recruitment process which eases the work for the customer as well as the companies. Companies can create their company forms according to their wish in which the applicant can register.

4. GLOSSARY

TERMS	DESCRIPTION
CUSTOMER	The customer can have the username and password after login to the system. After login they directed to fill the customer details. And the customer places their order. After placing orders they lead to verify all the details in a single form. Then they places the order successfully.
VENDOR	Vendor has the login id. After login vendor verify the customer details and orders. And maintain the stocks.
DATABASE	Database is used to verify the customer details and orders.
SOFTWARE REQUIREMENT SPECIFICATION	This software specification documents full set of features and function for stock maintenance system that is performed in company website.

5. PURPOSE

The purpose of stock maintenance system is to maintain the stock in an precise manner.

6. SCOPE

The scope of this stock maintenance system is to maintain the stock.

7. FUNCTIONALITY

The main functionality of the stock maintenance system is to maintain the stock.

8. USABILITY

User interface makes the stock maintenance system to be efficient. That is the system will help the customer to place the details and orders easily and helps the vendor to maintain the stock accurate. The system should be user friendly.

9. PERFORMANCE

It describes the capability of the system to maintain the stock without any loss of stock and performing it efficiently.

10. RELIABILITY

The stock maintenance system should be able to maintain the stock with correct updates from day to day placement of new orders from customer.

11. FUNCTIONAL REQUIREMENTS

Functional requirements are those refer to the functionality of the system. That is the services that are provided to the customer who places the orders.

UML DIAGRAMS

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

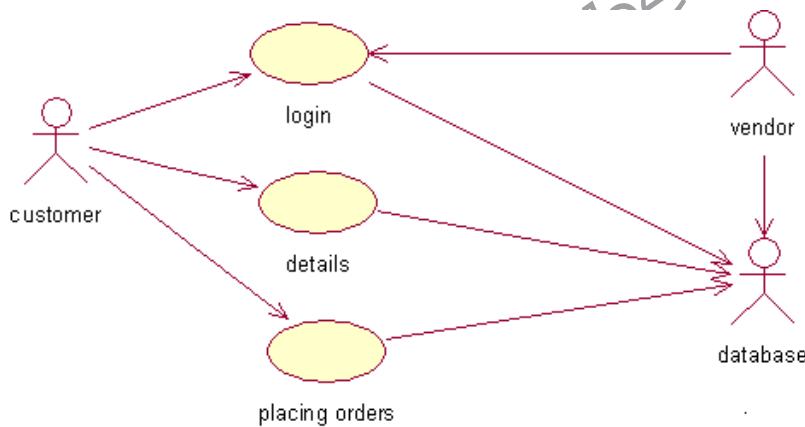
- Use case diagram
- Class diagram
- Sequence diagram

- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are customer, vendor and database. The use cases are the activities performed by actors.

CUSTOMER:

- Customer logs in to the particular system and fills the customer details and places the orders.

DATABASE:

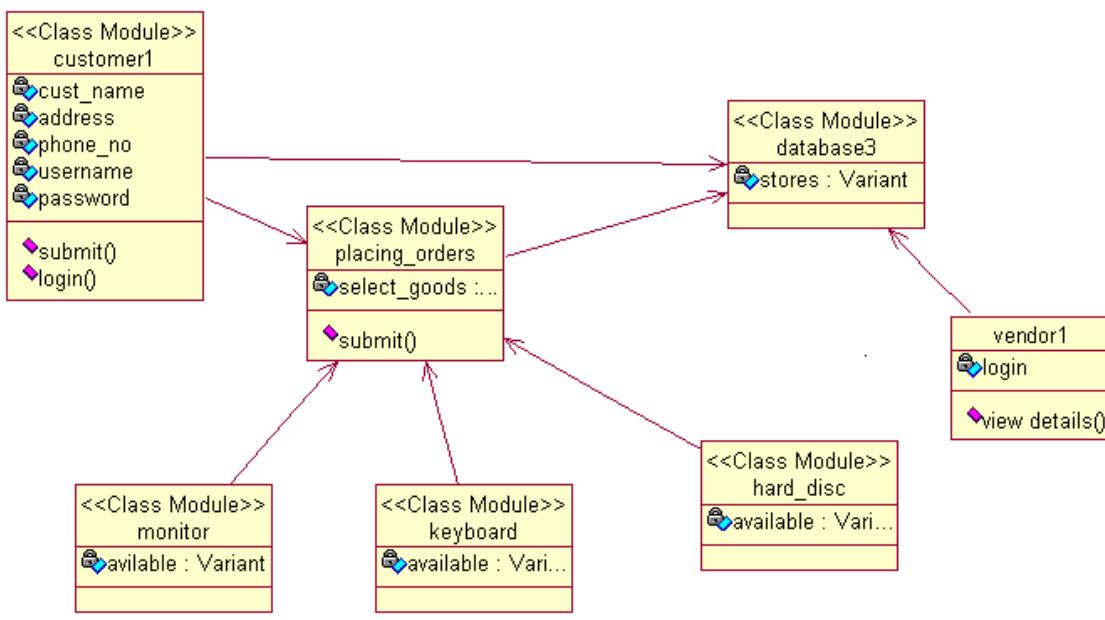
- All the details and orders given by customer are updated in the database.

VENDOR:

- Vendor logs in and verifies the customer orders and the stock details.

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 is represented using a rectangle with three compartments. Top compartment have the class name, middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

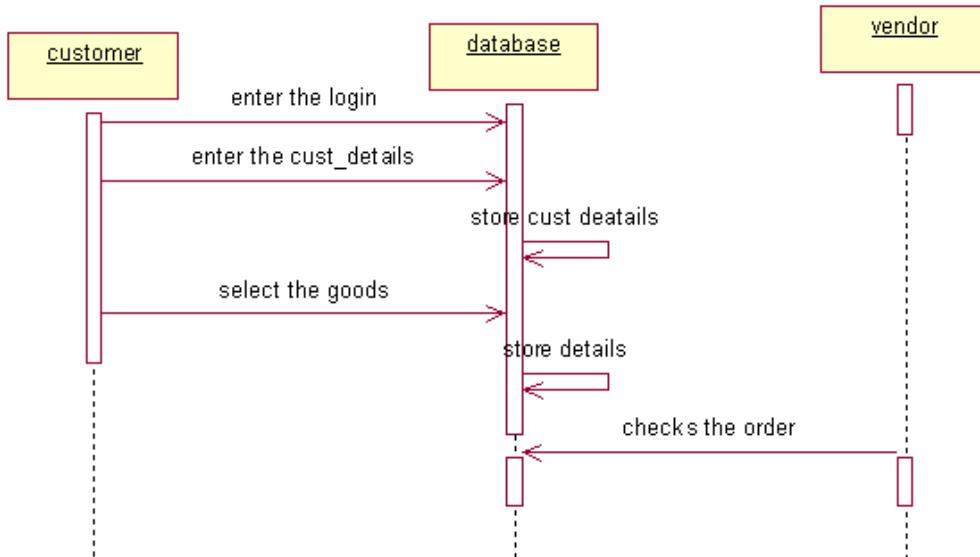
This class diagram has three classes' customer, vendor and database.

- **Customer** – is the class name. Its attributes are username, password, name, phone no and address. The operations performed in the customer class are login and places the orders.
- **Vendor** – is the class name. Its attributes are views the database.
- **Database** – is the class name. The operations performed are storing customer details, and their orders.

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.



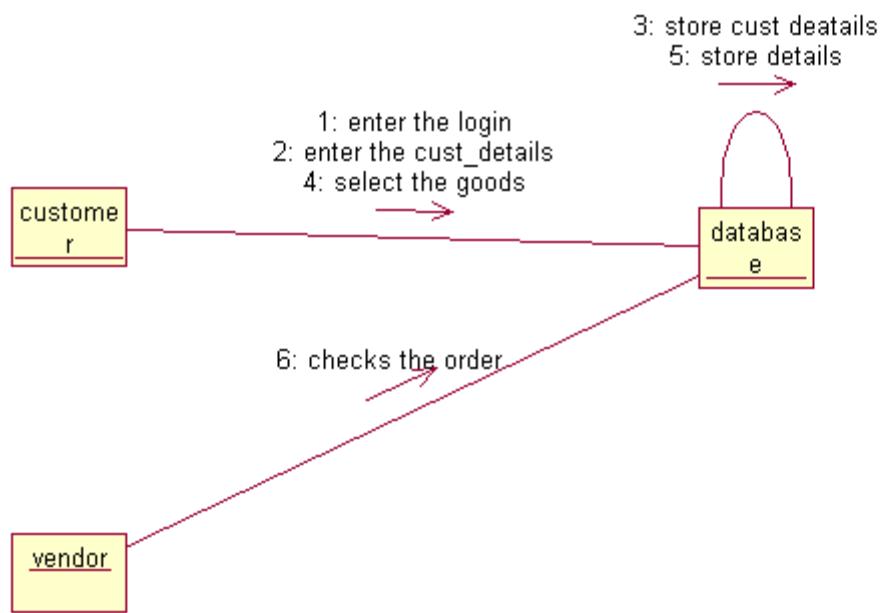
DOCUMENTATION OF SEQUENCE DIAGRAM

The sequence diagram describes the sequence of steps to show

- The customer login in to the system and fills the customer details.
- Then the customer places the order. It updated to the database.
- The vendor login to the system and views the customer orders and the stock details.

COLLABRATION 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 versa. 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

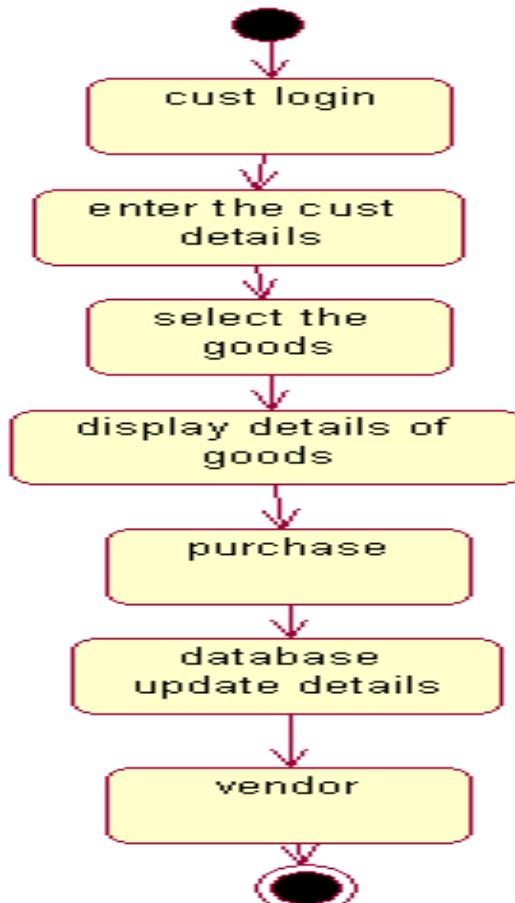


DOCUMENTATION OF COLLABRATION DIAGRAM

The collaboration diagram is to show how the customer login and places the orders in the system. Here the sequence is numbered according to the flow of execution.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. A final state is represented as circle surrounding a small dot.



DOCUMENTATION OF STATE CHART DIAGRAM

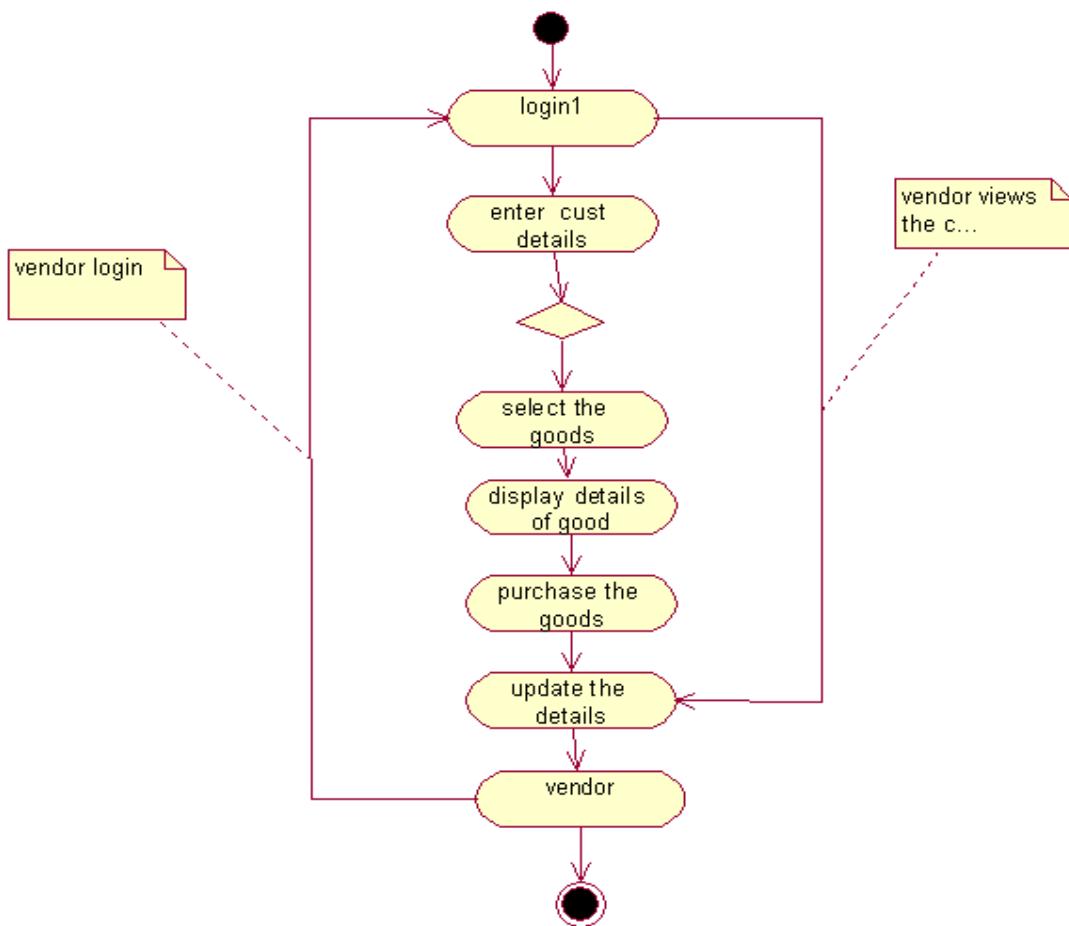
This state diagram describes the behavior of the system.

- First state is login where the customer login to the system.
- The next state is to fill the customer details.
- And the next state is to place the orders.

Update database with the orders and details of customer

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 an rounded box containing the name of the operation.



DOCUMENTATION OF ACTIVITY DIAGRAM

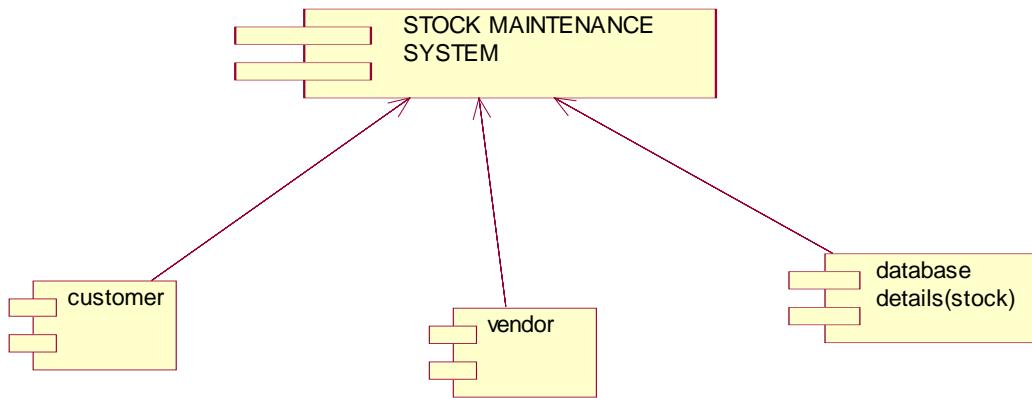
This activity diagram flow of stepwise activities performed in stock maintenance system.

First the customer login then fills the details.

- The customer places the order according to their needs.
- After placing the order the database is updated.
- Vendor login to the system and verifies the customer orders and stock details.

COMPONENT DIAGRAM

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

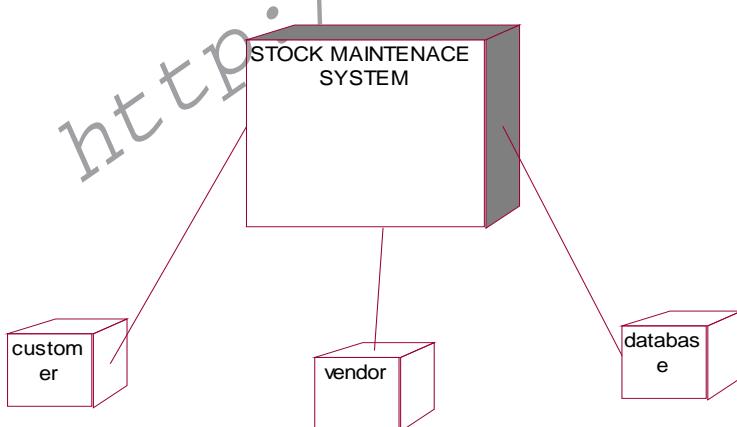


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is stock maintenance systems. And customer database details and update database then vendor views the database are the components comes under the main component.

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 assosiation.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

The processor in this deployment diagram is the stock maintenance system which is the main part and the devices are the filling customer details and placing orders then vendor views which are the some of the main activities performed in the system.

PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

User interface layer

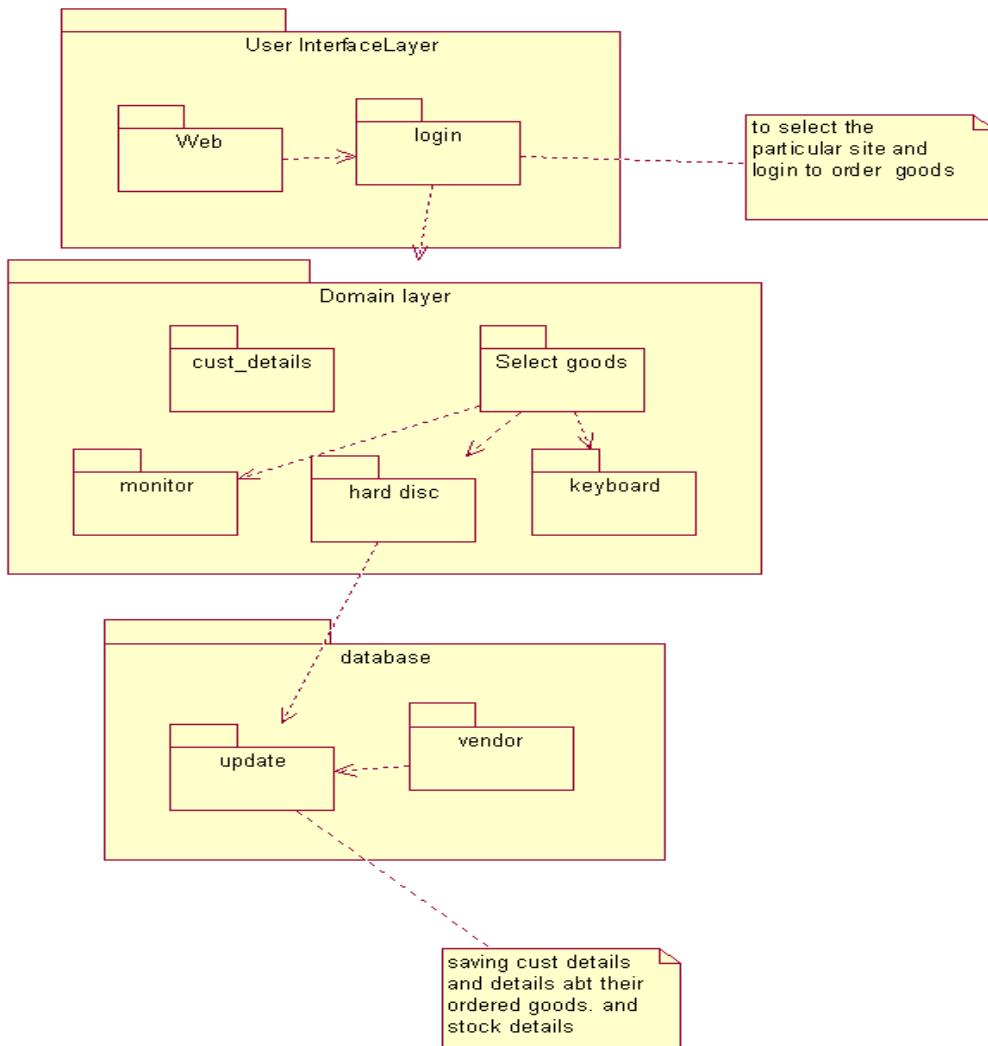
Software objects representing domain concepts that fulfill application requirements, such as calculation of a sale total.

Domain layer

Layer that contains domain objects to handle application logic work

Technical services layer

General purpose object and sub system that provide supporting technical services, such as interfacing with a database logging



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the online recruitment system are

- **The User interface layer** - consists of the web and login. This layer describes how the applicant logs in to the website and places the order.
- **The Domain layer** – shows the activities that are performed by the customer to place the orders.
- **The Technical service layer** - the vendor logs in and verifies the customer orders and stock details

FORMS

FORM 1

Form9

LOGIN

USER NAME

PASS WORD

FORM 2

Form1

CUSTOMER DETAILS

CUSTOMER NAME

ADDRESS

PHONE NUMBER

FORM 3

Form3

MONITOR

	AVAILABLE	REQUIRED	
ACER	<input type="text" value="50"/>	<input type="text" value="5"/>	<input type="button" value="DONE"/>
SAMSUNG	<input type="text" value="50"/>	<input type="text" value="5"/>	<input type="button" value="DONE"/>

Adodc1

FORM 4

Form4

HARD DISC

	AVAILABLE	REQUIRED	
TRANSCEND	<input type="text" value="50"/>	<input type="text" value="5"/>	<input type="button" value="DONE"/>
KINGSTON	<input type="text" value="50"/>	<input type="text" value="5"/>	<input type="button" value="DONE"/>

Adodc1

FORM 5

Form5

KEYBOARD

	AVAILABLE	REQUIRED	
LOGITECH	50	5	DONE
LG	50	5	DONE

Adodc1

BACK

FORM 6

Form6

CUSTOMER NAME	<input type="text" value="prem"/>
ADDRESS	<input type="text" value="ennur"/>
PHONE NO	<input type="text" value="9840743280"/>
GOODS NAME	<input type="text" value="HARD DISC"/>
COMPANY NAME	<input type="text" value="KINGSTON"/>
QUANTITY	<input type="text" value="5"/>
<p style="text-align: right;">◀ ▶ Add del</p>	
<input type="button" value="SUBMIT"/>	<input type="button" value="NEW PURCHASE"/>

FORM 7



FORM 8

STOCK MAINTANENCE

GOODS	COMPANY NAME	TOTAL STOCK	AVAILABLE STOCK	PRICE
MONITOR	ACER	50	45	10,000
MONITOR	SAMSUNG	50	45	9,000
HARDDISC	TRANSEND	50	45	5,000
HARDDISC	KINGSTON	50	45	6,000
KEYBOARD	LOGITECH	50	45	400
KEYBOARD	LG	50	45	450

EXIT

Adodc1
 Adodc2
 Adodc3

SOURCE CODE

CUSTOMER

```
Option Explicit
##ModelId=4D47C9A90242
```

```
Private cust_name As Variant  
'##ModelId=4D47C9B100EA  
Private address As Variant  
'##ModelId=4D47C9B5008C  
Private phone_no As Variant  
'##ModelId=4D47C93A008C  
Public NewProperty As placing_orders  
'##ModelId=4D47C947006D  
Public NewProperty2 As database3  
'##ModelId=4D47C98A01E4  
Public NewProperty3 As database3  
'##ModelId=4D47C98D036B  
Public NewProperty4 As placing_orders  
'##ModelId=4D47C9C00186  
Public Sub submit()  
End Sub
```

FORM 1

SUBMIT BUTTON

```
Private Sub Command1_Click()  
Form6.Text1.Text = Form1.sgs.Text  
Form6.Text2.Text = Form1.Text2.Text  
Form6.Text3.Text = Form1.Text3.Text  
Form2.Show  
End Sub
```

EXIT BUTTON

```
Private Sub Command2_Click()  
Unload Me  
End Sub
```

PLACING ORDERS

```
Option Explicit  
'##ModelId=4D47C9FE00AB  
Private select_goods As Variant  
'##ModelId=4D47C93D031C  
Public NewProperty As database3  
  
'##ModelId=4D47C9910222  
Public NewProperty2 As database3  
'##ModelId=4D47CA0E0232  
Public Sub submit()  
End Sub
```

FORM 2

```
SUBMIT COMMAND  
Private Sub Command1_Click()
```

```
Dim p As placing_orders
Set p = New placing_orders
p.submit
End Sub

Public Sub submit()
If (Form2.Combo1.Text = "MONITOR") Then
Form6.Text4.Text = Form2.Combo1.Text
Form3.Show
End If
If (Form2.Combo1.Text = "HARD DISC") Then
Form6.Text4.Text = Form2.Combo1.Text
Form4.Show
End If
If (Form2.Combo1.Text = "KEYBOARD") Then
Form6.Text4.Text = Form2.Combo1.Text
Form5.Show
End If
End Sub
```

DATABASE

```
'##ModelId=4D47C9A90242
Private cust_name As Variant
'##ModelId=4D47C9B100EA
Private address As Variant
'##ModelId=4D47C9B5008C
Private phone_no As Variant
'##ModelId=4D47C93A008C
Public NewProperty As placing_orders
'##ModelId=4D47C947006D

Public Sub submit()
End Sub
```

FORM 8

```
Private Sub Command1_Click()
Form2.Show
End Sub

Private Sub Command2_Click()
Text1.Text = Text1.Text - Text3.Text
Adodc1.Recordset.Fields(2) = Text1.Text
Form6.Text5.Text = Form5.Label2

Form6.Text6.Text = Form5.Text3.Text
Form6.Show
Form8.Text11.Text = Form3.Text1.Text
Adodc1.Recordset.Update
```

```
End Sub  
  
Private Sub Command3_Click()  
Text2.Text = Text2.Text - Text4.Text  
Adodc1.Recordset.Fields(3) = Text2.Text  
Form6.Text5.Text = Form5.Label3  
Form6.Text6.Text = Form5.Text4.Text  
Form6.Show  
Form8.Text12.Text = Form3.Text2.Text  
Adodc1.Recordset.Update  
End Sub
```

http://csetube.tk/

RESULT

Thus the project stock maintenance system using Rational Rose Software and implement the software in Visual Basic is executed successfully.

EXNO 5**DATE**

ONLINE COURSE RESERVATION SYSTEM

AIM

To design an object oriented model for course reservation system.

PROBLEM ANALYSIS AND PROJECT PLANNING:

The requirement form the customer is got and the requirements about the course registration are defined. The requirements are analyzed and defined so that is enables the student to efficiency select a course through registration system. The project scope is identified and the problem statement is prepared.

PROBLEM STATEMENT

- Whenever the student comes to join the course he/she should be provided with the list of course available in the college.
- The system should maintain a list of professor who is teaching the course. At the end of the course the student must be provided with the certificate for the completion of the course.

SYSTEM REQUIEMENT SPECIFICATION**GLOSSARY**

Generally a glossary is performed to define the entire domain used in the problem. It defines about the storage items that are familiar to the uses it provided these definitions and information about the attribute we are using in the particular project to the use,

DEFINITIONS

The glossary contain the working definition for the key concept in the course registration system

COURSE

The course which are offered by the institution

COURSE CATALOG

The un a bridged for all the course offered by the institution.

GRADE

The ranking of a particular student for a particular course offered

PROFESSOR

A person who reaches the course

CERTIFICATE

It is the proof for the completion the course

REGISTER

One who register the course for the student

OBJECTIVES

- The main purpose of creating the document about the software is to know about the list of the requirement in the software project part of the project to be developed.
- It specifies the requirement to develop a processing software part that completes the set of requirement.

SCOPE

- In this specification, we define about the system requirements that are about from the functionality of the system.
- It tells the users about the reliability defined in usecase specification

FUNCTIONALITY

Many members of the process line to check for its occurrences and transaction, we are have to carry over at sometimes

USABILITY

The user interface to make the transaction should be effectively

PERFORMANCE

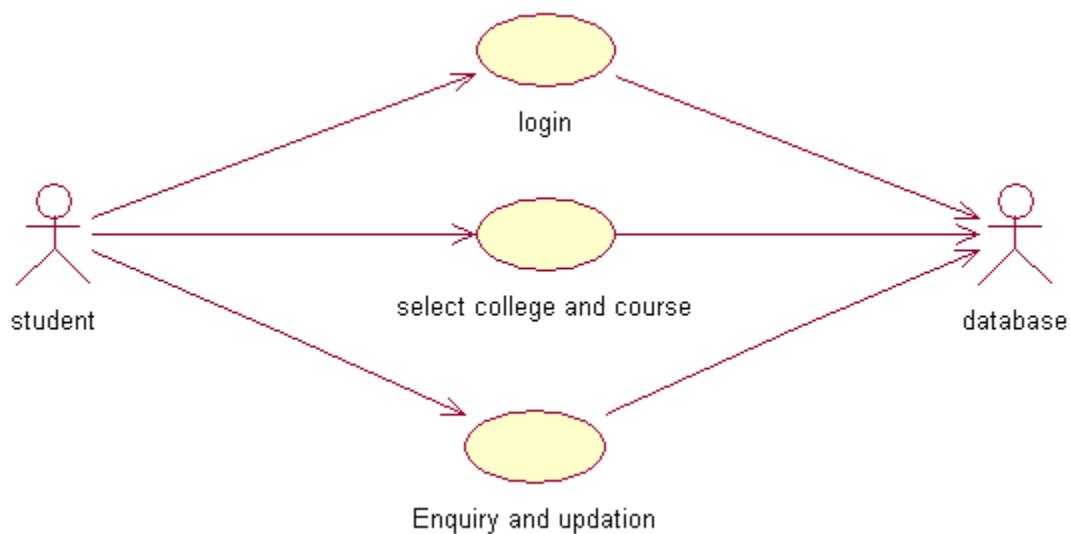
It is the capability about which it can performed function for many user at sometimes efficiently (ie) without any ever occurrences

RELIABILITY

The system should be able to the user through the day to day transaction

USERCASE DIAGRAM

- Use case is a sequence of transaction in a system whose task is to yield result of measurable value to individual author of the system
- Use case is a set of scenarios together by a common user goal
- A scenario is a sequence of step describing as interaction between a user and a system



DOCUMENTATION FOR USE CASE DIAGRAM

The use case diagram in the course registration system illustrates the sequence of steps followed in the system related to the actions of the system

LOGIN

This usecase gives a entry to the student,professor and the register

SELECT COLLEGE AND COURSE

This use case list out the various courses offered by the institution

SUBMIT GRADES

This usecase given the marks scored by the system

MAINTAIN PROFESSOR INFORMATION

This usecase maintain the information about professor in the system

MAINTAIN STUDENT INFORMATION

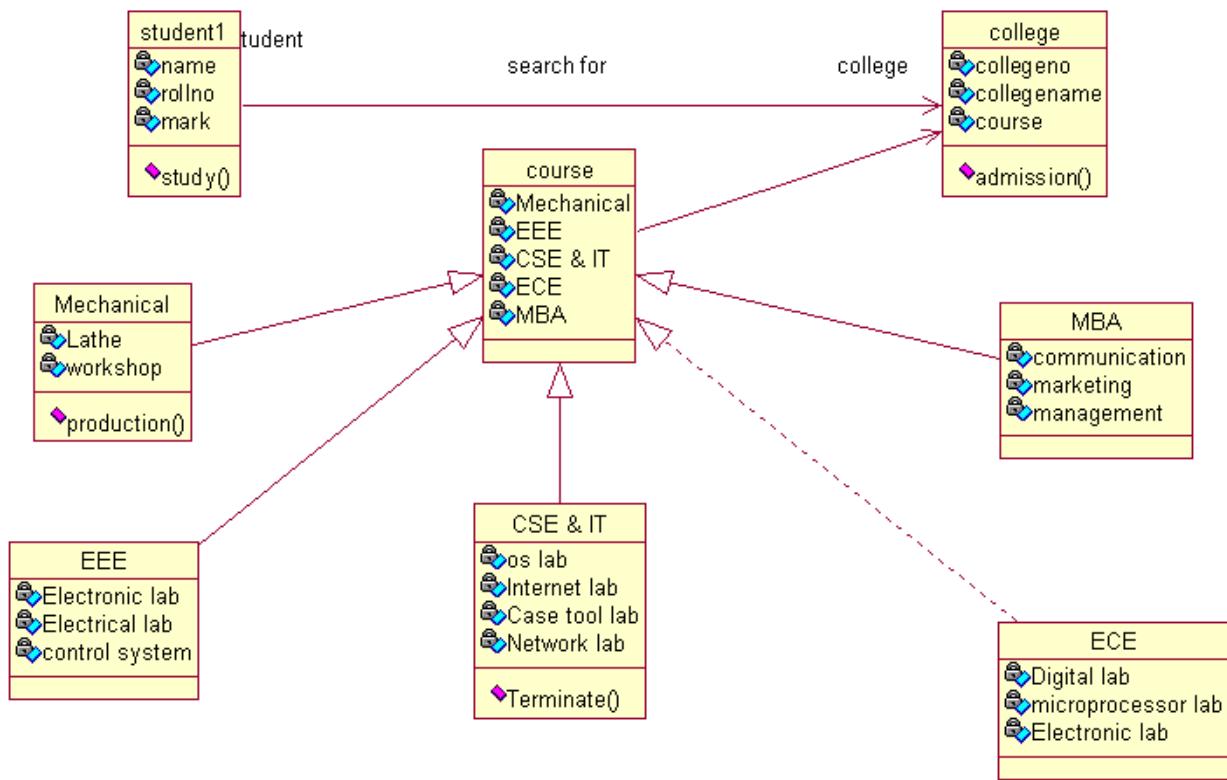
This usecase maintain the information about the professor in the system

CLOSE REGISTRATION

This usecase describes the certification of the student when he/she finishes the course

CLASS DIAGRAM:

A class diagram describes the type of objects in the system the various kinds of static relationship that exist among them.

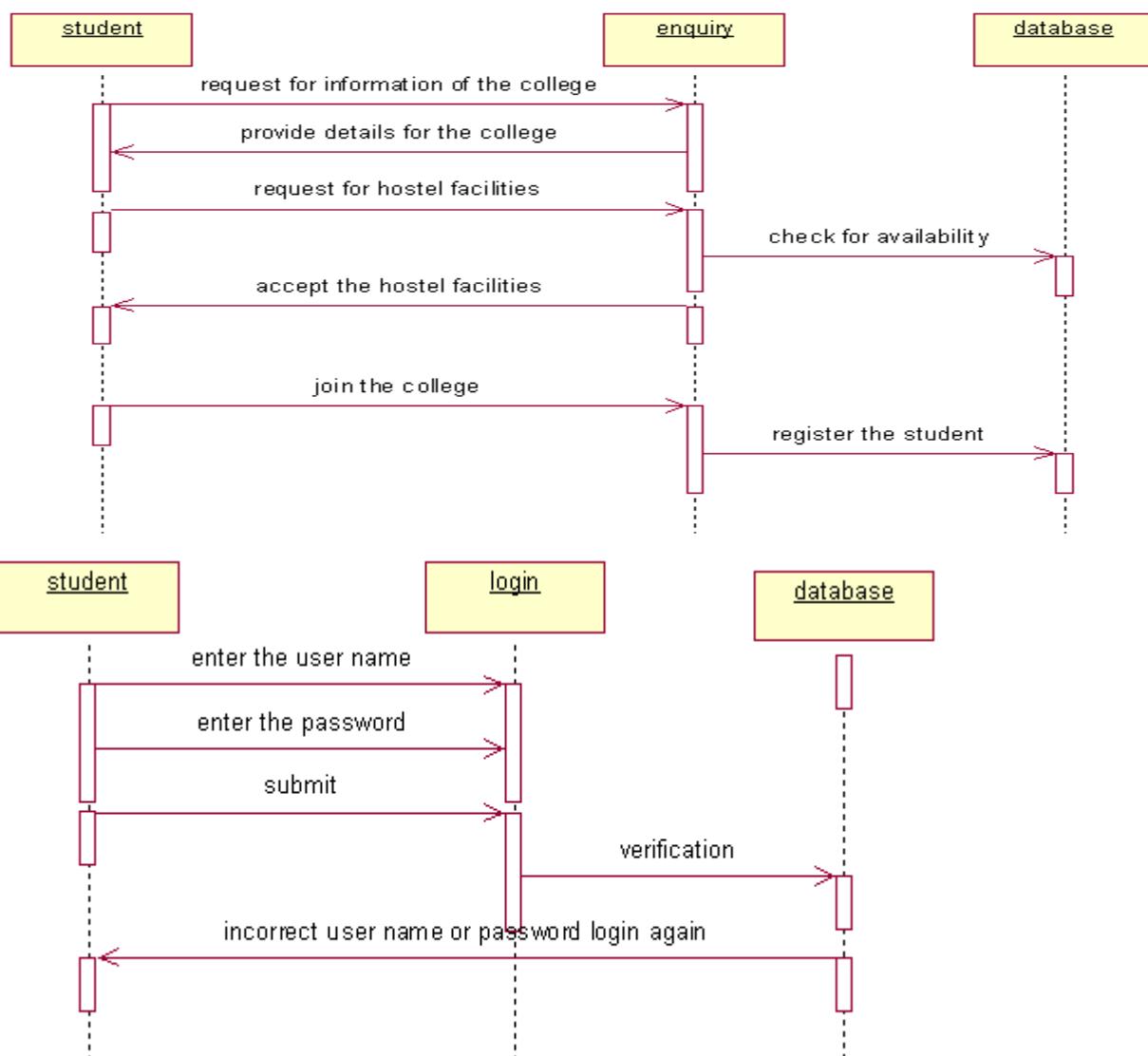


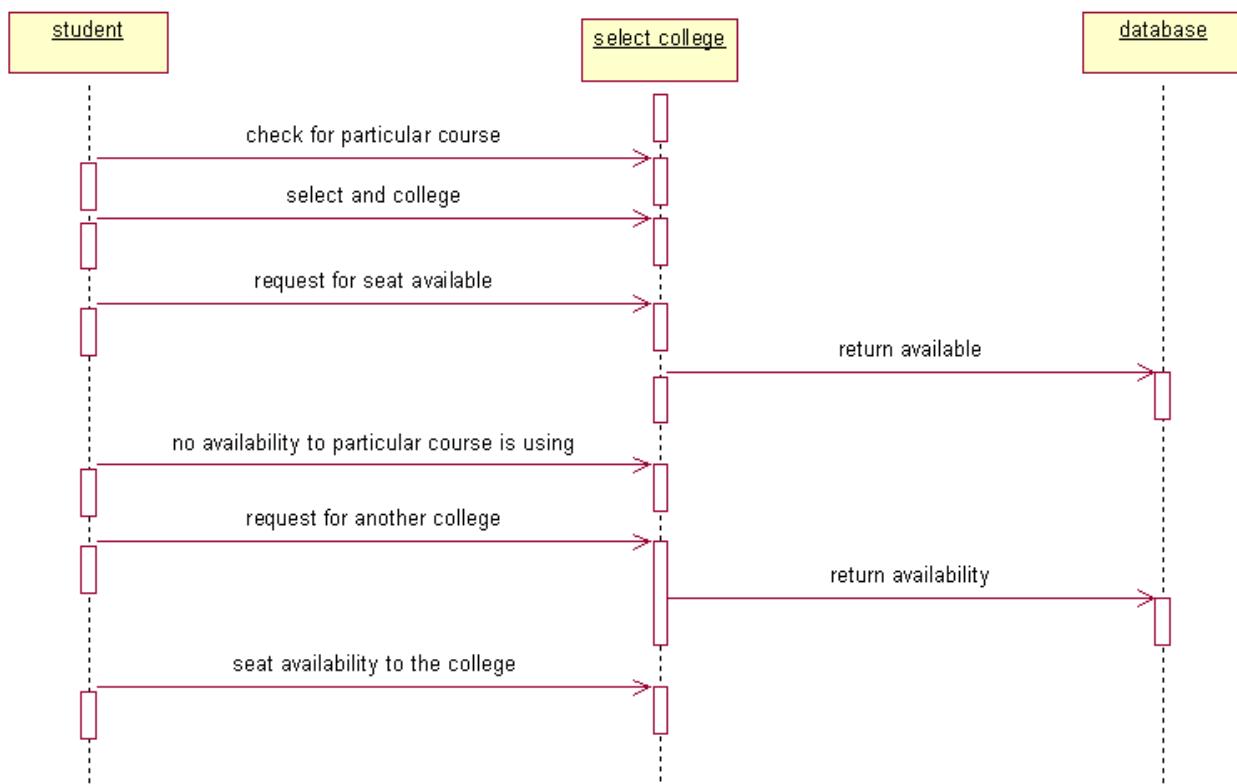
DOCUMENTATION OF CLASS DIAGRAM

- The various classes involved in the system are registered student record, professor record all admistration grade and close registration
- The student register for the course
- After the course gets over each student will be asked to write a test
- Test mark are analyzed for the issue grade sheet after certification the registration of the student in closes.

SEQUENCE DIAGRAM

A sequence diagram is one that includes the object of the projects and tells the lifetimes and also various action performed between objects.



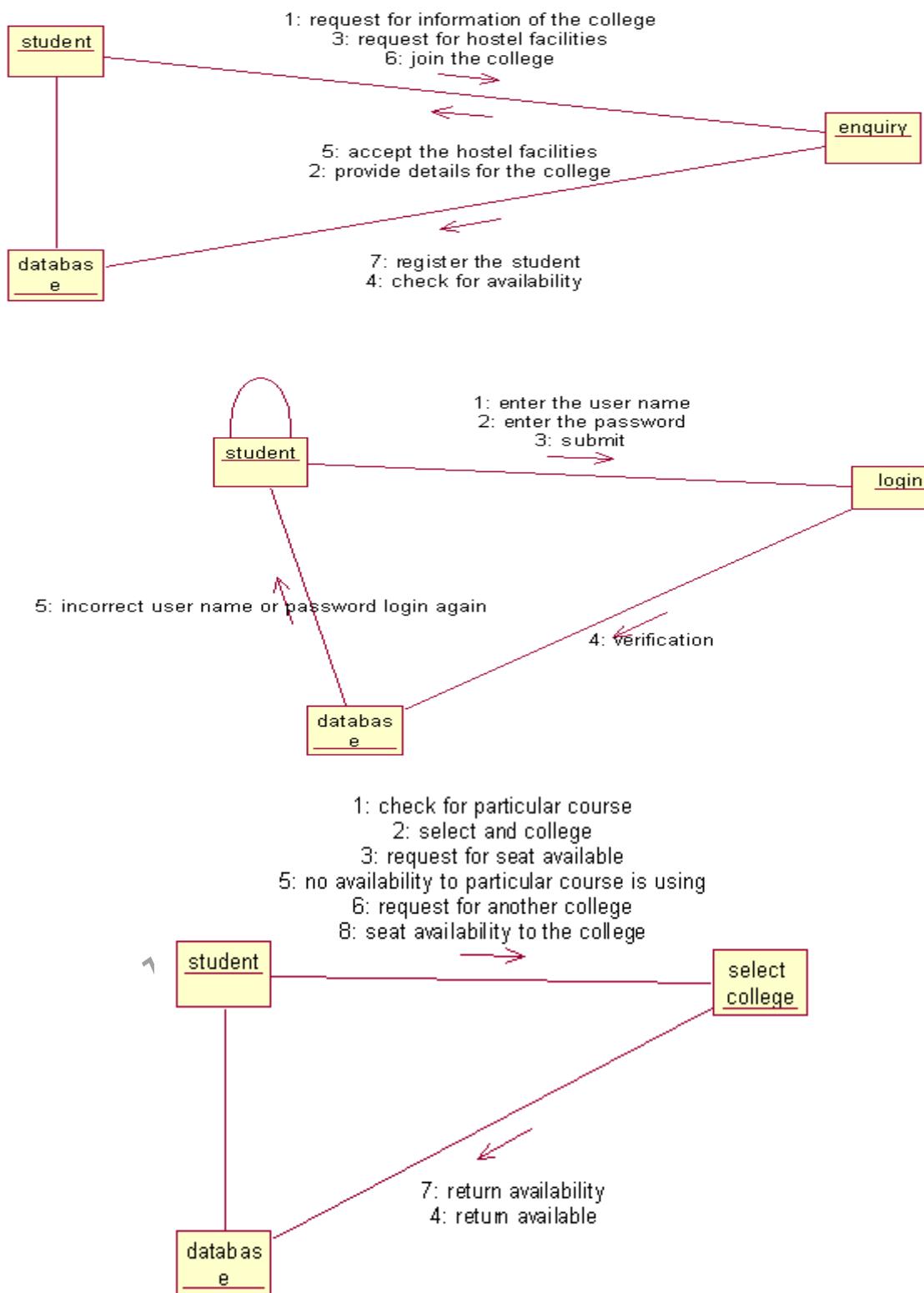


DOCUMENTATION OF SEQUENCE DIAGRAM

- The single use case in the course registration is taken and sequence of operation followed in the usecase
- In the registration for the course usecase diagram illustration on the process of registering and select a course
- The student enters the institution and gets a catalog about the list of course offered by the system
- The student can select a particular usecase and registration for the course
- In the record usecase submit grade at the end of each course each student will be asked to write a test. The result will evaluate for the issue of grade sheet and the grade are submitted

COLLABORATION DIAGRAM

It is same as the sequence diagram that involved the project with the only difference that we give the project with the only difference that we give sequence number to each process.



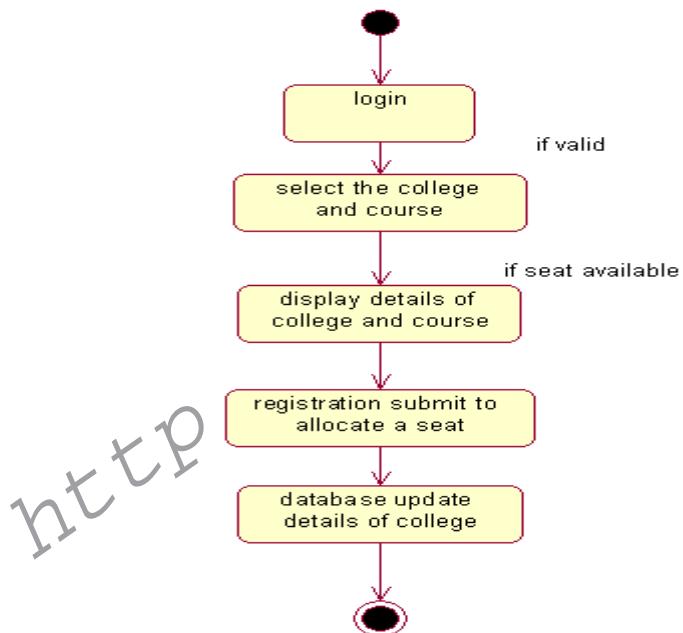
DOCUMENTATION OF COLLABORATION DIAGRAM

- The diagram is also similar to sequence diagram but the difference is the various operations involved in the particular use case will be numbered. In this diagram the sequence of steps.

- Getting the catalog to now about the course
- Selecting the course to study
- The final step is to register for the selected course
- In this submit garde usecase the sequence of step is:
- At the end of the course the student will write a test
- The test marks is validated to issue grade sheet
- The certification is done to the student for the particular courses.

STATE DIAGRAM

It is a technique to describe the behavior of the system. It describes all the possible states that a particular object gets into the object oriented technique. State diagram are drawn for a single class to show the lifetime behaviour of a single objects

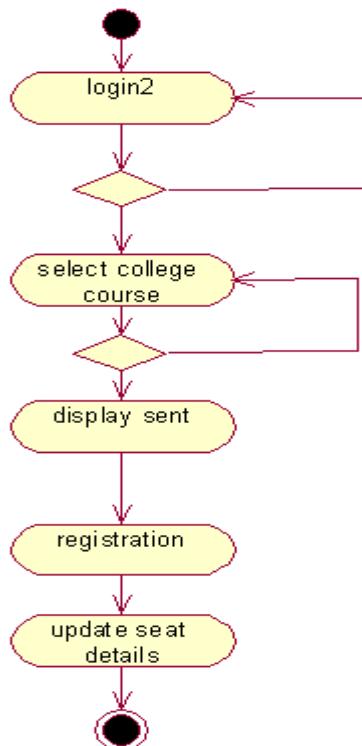


DOCUMENTATION OF THE STATE DIAGRAM

- The various states are login student, register for course, maintain student and professor record, submit grade and close registration
- The state diagram describes the behaviour of the system
- The main purpose of the system is to register the student for a course
- After the student enrolls the course maintain the record for the student and professor
- After the test being conducted each student mark will be analysed for the grade sheet purpose
- After the certification the registration is closed

ACTIVIY DIAGRAM

It includes all the activities of particular project and various steps using join and forks



DOCUMENTATION OF ACTIVITY DIAGRAM

- The user login in to the course registration system
- He/she select a particular course form the list of available course
- After the student register into the course the institution start the bill operation and record is maintain
- The professor also start maintains the student record
- At the end of the course based on the result grade the grade sheet or certificate is issued to the student
- The registration is closed for the particular student

SOFTWARE DEVELOPMENT AND DEBUGING

- Using rational rose software the software development and debugging is done
- This gives the over view of the project by the generation of defition and implementation of packages classes with all the relationship method and constructor

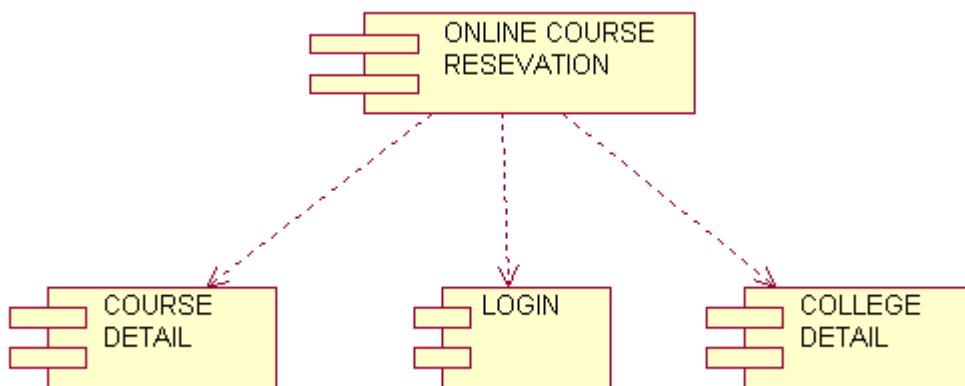
- We debug the diagram using log file and rectify the immoral relationship that exist among them and finally produce the project perfect diagram which gives exact print of the project

SOFTWARE TESTING

- In this step we prepare there plan for testing the diagram
- We perform the validation for the various data involved into the projects

COMPONENT DIAGRAM

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



DOCUMENTATION OF COMPONENT DIAGRAM

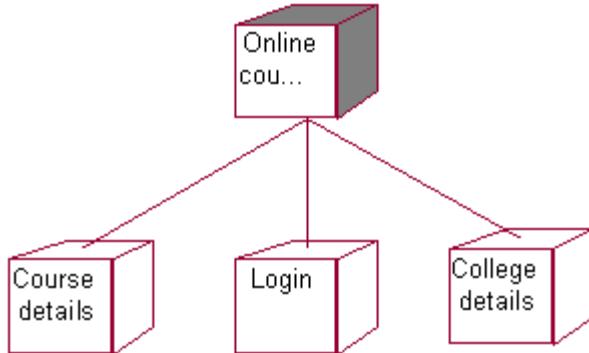
- The components of the online course reservation are course details, login, and college details
- The course details, login and college details are dependent on the online course reservation are show by the dotted arrows

DEPLOYMENT DIAGRAM

It is a graph of nodes connected by communication association. It is represented by a three dimensional box. 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 basic element of a deployment diagram is a node of two types

DEVICE NODE – A physical computing resource with processing and memory service to execute software, such as a typical computer or a mobile phone.

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



DOCUMENTATION OF DEPLOYMENT DIAGRAM

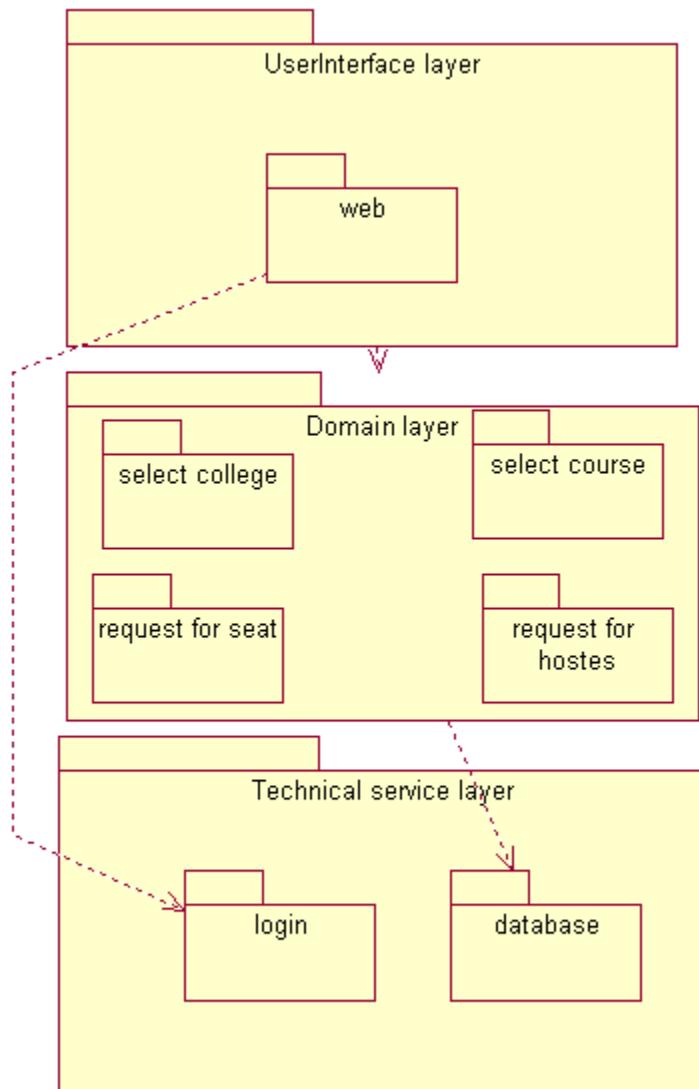
The device node is online course reservation and execution nodes are course details, login and college details

PACKAGE DIAGRAM

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

There are three types of layers. They are

- User interface layer
- Domain layer
- Technical services layer



DOCUMENTATION OF PACKAGE DIAGRAM

- The three layer of online course reservation are user interface layer, domain layer and technical service layer
- **The user interface layer-** represent the user interface component such as web where the student login
- **The domain layer-** has the major action such as select college, select course, request for seat and request for hostel.
- **Technical service layer-**only authenticated user can access the technical service

FORMS
FORM1

Form1

WELCOME TO ONLINE COURSE RESERVATION SYSTEM

LOGIN FORM

user name

password

start COURSE RESERVATI... Project1 - Microsoft V... Form1 Address 3:09 AM

FORM2

Form2

GKM COLLEGE

List of course

Facilities

start COURSE RESERVATI... Project1 - Microsoft... Form2 Form1 - Paint Address 3:10 AM

FORM3

Form2

GKM COLLEGE

List of course

Facilities
Hostel
Bus

Project1 - Microsoft Visual Basic [run]

start COURSE RESERVA... Project1 - Microsoft... Form2 Form21 - Paint Address 3:10 AM

FORM 4

Form3

DEPARTMENT OF CSE

Total seat available

management

counseling

start COURSE RESERVA... Project1 - Microsoft... Form3 Form22 - Paint Address 3:11 AM

FORM 5

Form4

DEPARTMENT OF ECE

Total seat available

management

councelling

start COURSE RESERVA... Project1 - Microsoft... Form4 form6 - Paint Address 3:12 AM

FORM 6

DEPARTMENT OF EEE

Total no of seat

management

councelling

start COURSE RESERVA... Project1 - Microsoft... Form4 - Paint Address 3:13 AM

FORM7



SOURCE CODE

FORM1

```
Private Sub Command1_Click()
Dim log As student1
Set log = New student1
log.study
End Sub

Private Sub Command2_Click()
Unload Me
End Sub
```

FORM2

```
Private Sub Command1_Click()
Dim course As college
Set course = New college
course.admission
End Sub

Private Sub Command2_Click()
End
End Sub
```

FORM3

```
Private Sub Command1_Click()
Text1.Text = Text1.Text - 1
Text2.Text = Text2.Text - 1
End Sub
```

```
Private Sub Command2_Click()
Text1.Text = Text1.Text - 1
Text3.Text = Text3.Text - 1
End Sub
Private Sub Command3_Click()
Form6.Show
Unload Me
End Sub
```

FORM4

```
Private Sub Command1_Click()
Text1.Text = Text1.Text - 1
Text2.Text = Text2.Text - 1
End Sub
Private Sub Command2_Click()
Text1.Text = Text1.Text - 1
Text3.Text = Text3.Text - 1
End Sub
Private Sub Command3_Click()
Form6.Show
Unload Me
End Sub
```

FORM5

```
Private Sub Command1_Click()
Text1.Text = Text1.Text - 1
Text2.Text = Text2.Text - 1
End Sub
Private Sub Command2_Click()
Text1.Text = Text1.Text - 1
Text3.Text = Text3.Text - 1
End Sub
Private Sub Command3_Click()
Form6.Show
Unload Me
End Sub
```

FORM6

```
Private Sub Command1_Click()
End
End Sub
```

UML CODES

COLLEGE

```
Option Explicit
##ModelId=4D18FCC202EE
Private collegeno As Variant
##ModelId=4D18FCFD004E
Private collegename As Variant
##ModelId=4D18FD0103C8
```

```
Private course As Variant  
##ModelId=4D18FD07033C  
Public Sub admission()  
If (Form2.Combo1.Text = "CSE") Then  
Form3.Show  
Unload Form2  
End If  
If (Form2.Combo1.Text = "ECE") Then  
Form4.Show  
Unload Me  
End If  
If (Form2.Combo1.Text = "EEE") Then  
Form5.Show  
Unload form2  
End If  
End Sub
```

COURSE

```
Option Explicit  
##ModelId=4D18FD5801D4  
Private Mechanical As Variant  
##ModelId=4D18FD5D0290  
Private EEE As Variant  
##ModelId=4D18FD630138  
Private CSE_IT As Variant  
##ModelId=4D18FD69034B  
Private ECE As Variant  
##ModelId=4D18FD6C02BF  
Private MBA As Variant  
##ModelId=4D18FE3F034B  
Public NewProperty As college
```

CSE_IT

```
Option Explicit  
##ModelId=4D18FE260203  
##ModelId=4D18FDC101C5  
Private os_lab As Variant  
##ModelId=4D18FDCA01E4  
Private Internet_lab As Variant  
##ModelId=4D18FDD30222  
Private Case_tool_lab As Variant  
##ModelId=4D18FDD9033C  
Private Network_lab As Variant  
##ModelId=4D22343E0186  
Private mcourseObject As New course  
##ModelId=4D18FDE501E4  
Public Sub Terminate()  
End Sub  
##ModelId=4D22343E01A5  
Private Property Set course_(ByVal RHS As college)
```

```
' Set mcourseObject. = RHS
End Property
##ModelId=4D22343E01E4
Private Property Get course_() As college
    'Set course_ = mcourseObject.
End Property
```

ECE

```
Option Explicit
##ModelId=4D18FE2E006D
##ModelId=4D18FDF4030D
Private Digital_lab As Variant
##ModelId=4D18FDDB0157
Private microprocessor_lab As Variant
##ModelId=4D18FE0102DE
Private Electronic_lab As Variant
##ModelId=4D22343E007D
Private Property Set course_(ByVal RHS As college)
End Property
##ModelId=4D22343E00BB
Private Property Get course_() As college
End Property
```

EEE

```
Option Explicit
##ModelId=4D18FE230000
##ModelId=4D18FD98006D
Private Electronic_lab As Variant
##ModelId=4D18FDA8001F
Private Electrical_lab As Variant
##ModelId=4D18FDAE01F4
Private control_system As Variant
##ModelId=4D22343E02BF
Private mcourseObject As New course
##ModelId=4D22343E02CE
Private Property Set course_(ByVal RHS As college)
    Set mcourseObject. = RHS
End Property
##ModelId=4D22343E030D
Private Property Get course_() As college
    Set course_ = mcourseObject.
End Property
```

MBA

```
Option Explicit
##ModelId=4D18FE5503A9
##ModelId=4D18FD7E0148
Private communication As Variant
##ModelId=4D18FD8500AB
```

```
Private marketing As Variant  
'##ModelId=4D18FD8A01C5  
Private management As Variant  
'##ModelId=4D22343E03A9  
Private mcourseObject As New course  
'##ModelId=4D22343E03C8  
Private Property Set course_(ByVal RHS As college)  
    Set mcourseObject. = RHS  
End Property  
'##ModelId=4D22343F000F  
Private Property Get course_() As college  
    Set course_ = mcourseObject.  
End Property
```

MECHANICAL

```
Option Explicit  
'##ModelId=4D18FE4B001F  
Implements course  
'##ModelId=4D18FD28036B  
Private Lathe As Variant  
'##ModelId=4D18FD3F0119  
Private workshop As Variant  
'##ModelId=4D22343F0157  
Private mcourseObject As New course  
'##ModelId=4D18FD4500AB  
Public Sub production()  
End Sub  
'##ModelId=4D22343F0167  
Private Property Set course_NewProperty(ByVal RHS As college)  
    Set mcourseObject.NewProperty = RHS  
End Property  
'##ModelId=4D22343F01A5  
Private Property Get course_NewProperty() As college  
    Set course_NewProperty = mcourseObject.NewProperty  
End Property
```

STUDENT

```
Option Explicit  
'##ModelId=4D223035000F  
Private name As Variant  
'##ModelId=4D2230380222  
Private rollno As Variant  
'##ModelId=4D22303C0242  
Private mark As Variant  
'##ModelId=4D22304102CE  
Public Sub study()  
If Form1.Text1.Text = "palani" And Form1.Text2.Text = "123456" Then  
    MsgBox "login successful"  
    Form2.Show  
    Unload Form1
```

```
Else  
MsgBox "invalid password"  
End If  
End Sub
```

http://csetube.tk/

RESULT

Thus the project to develop online course reservation system was developed using Rational Rose Software and to implement the software in Visual Basic is done successfully.

<http://csetube.weebly.com/>

EXNO:6

DATE: **E-TICKETING**

AIM

To develop the E-Ticketing System using Rational Rose Software and to implement the software in visual basic.

PROBLEM ANALYSIS AND PROJECT PLANNING

In the E-Ticketing system the main process is a applicant have to login the database then the database verifies that particular username and password then the user must fill the details about their personal details then selecting the flight and the database books the ticket then send it to the applicant then searching the flight or else cancelling the process.

PROBLEM STATEMENT

The E-Ticketing system is the initial requirement to develop the project about the mechanism of the E-ticketing system what the process do at all.

- The requirement are analyzed and refined which enables the end users to efficiently use the E-ticketing system.
- The complete project is developed after the whole project analysis explaining about scope and project statement is prepared.
- The main scope for this project is the applicant should reserved for the flight ticket.
- First the applicant wants to login to the database after that the person wants to fill their details.
- Then the database will seach for ticket or else the person will cancelled the ticket if he/she no need.

SRS DOCUMENT

S.NO	TABLE OF CONTENTS

1	INTRODUCTION 1.1 Purpose 1.2 Scope 1.3 References 1.4 Technology To Be Used 1.5 Tools Be Used 1.6 Overview
2	OVERALL DESCRIPTION 2.1 Functionality 2.2 Usability 2.3 Performance 2.4 Reliability

1.1 Purpose

The applicant should login to the database for reserving the ticket.

In the specification use define about the system requirements that are part from the functionality of the system. It tells the usability, reliability defined in the use case specification.

1.3 References

IEEE Software Requirement Specification format.

1.4 Technology To Be Used

Microsoft Visual Basic 6.0

1.5 Tools Be Used

Rational Rose tool (for developing UML Patterns)

1.6 Overview

SRS includes two sections overall description and specific requirements - Overall description will describe major role of the system components and interconnections. Specific requirements will describe roles & functions of the actors.

2. OVERALL DESCRIPTION

2.1 Functionality

The database should act as the main role of the e-ticketing system it can be booking the ticket in easy way.

2.2 Usability

The User interface makes the Credit Card Processing System to be efficient.

2.3 Performance

It is of the capacities about which it can perform function for many users at the same time efficiently that are without any error occurrence.

2.4 Reliability

The system should be able to process the user for their corresponding request.

UML DIAGRAMS

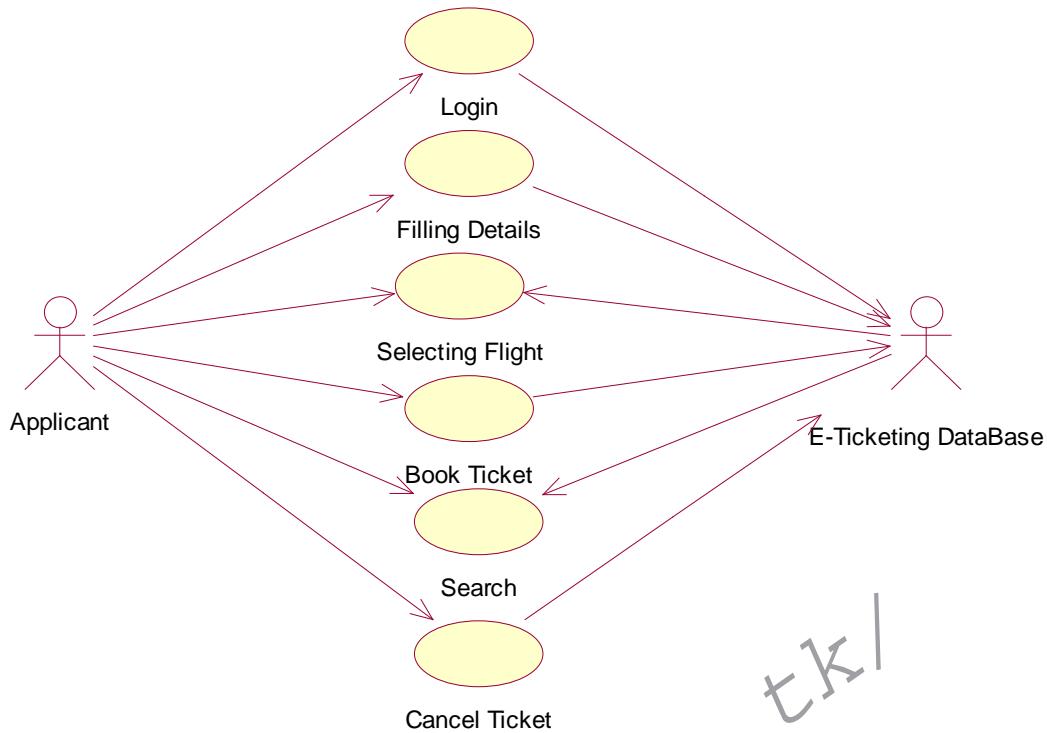
The project can be explained diagrammatically using the following diagrams.

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 modelled. It is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are applicant, and E-ticketing DataBase.

The use cases are the activities performed by actors.

The actors in this use case diagram are

- **Applicant** - logs in the E-Ticketing and fills the required data fields.
- **E-Ticketing DataBase**-verifies the login and fills the details and selected applicant details are stored in it.

The use cases in this use case diagram are

Login - applicant enters their username and password to enter into the E-Ticketing form.

Filling Details - applicants are used to enter the details in the required form.

Selecting Flight - it is used to select the flight for the applicants.

Book Ticket - it is used to book the ticket through the E-Ticketing database.

Search –it is used to search the flight details.

Cancel Ticket- it is used to cancel the ticket through the E-Ticketing DataBase.

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 is represented using a rectangle with three compartments. Top compartment have the classname, middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

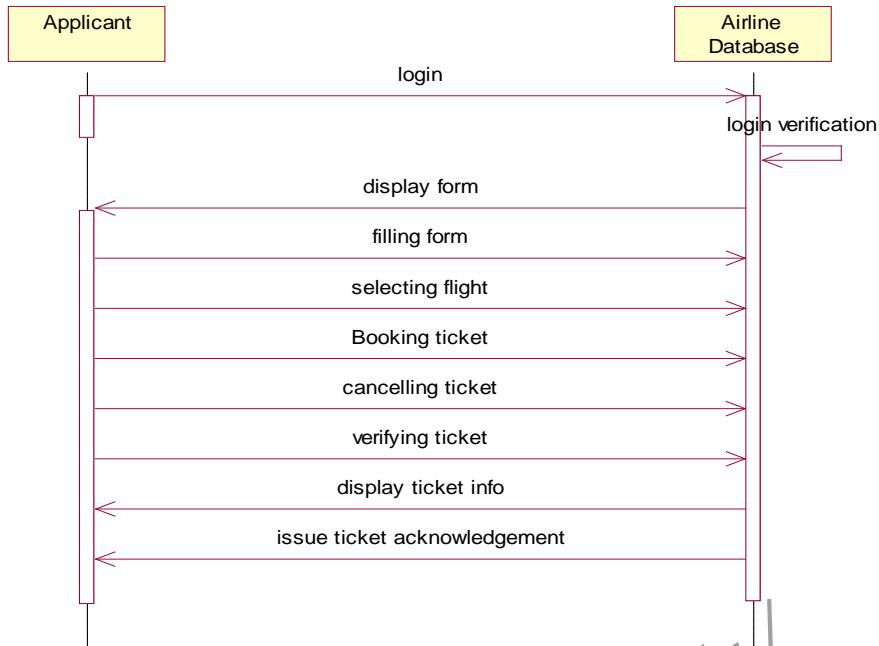
This class diagram has two classes applicant, E-Ticketing DataBase.

- **Applicant** - logins the E-Ticketing and filling the required data fields.
- **E-Ticketing DataBase**-verify the login and filling the details and selected applicant details are stored in it.

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.



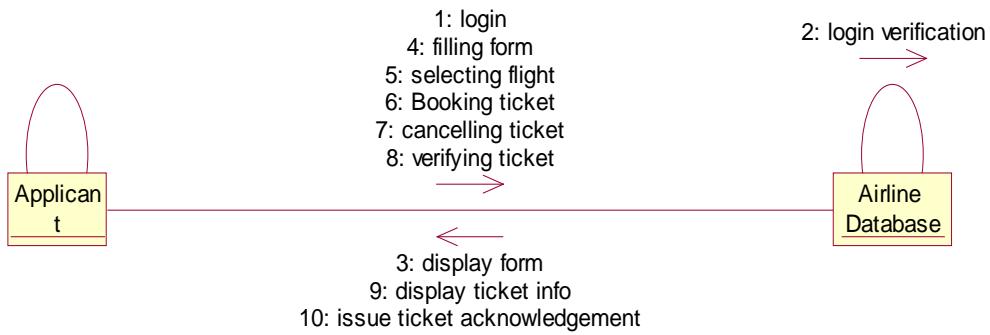
DOCUMENTATION OF SEQUENCE DIAGRAM

This sequence diagram describes the sequence of steps to show

- Applicants are used to login the form. And then its verify the username and password.
- If the password and username are correct then applicants are used to login the filling details.
- Applicants are used to selecting the flights and book the tickets.
- Now the E-Ticketing DataBase verify the filling Details.
- And then the E-Ticketing DataBase display the ticket information.
- Incase of any sudden change of the plan, the applicant can cancel the ticket.

COLLABRATION 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 versa. 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.



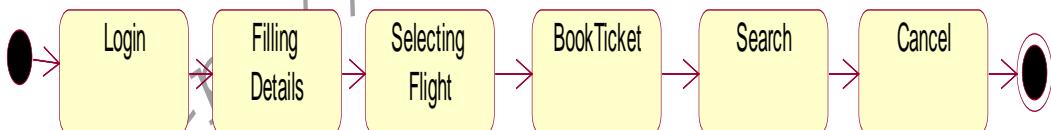
DOCUMENTATION OF COLLABORATION DIAGRAM

This collaboration diagram is to show how the applicant login and register in the E-Ticketing system. Here the sequence is numbered according to the flow of execution.

This collaboration diagram is to show the selection process of the applicant for the ticket booking. The flow of execution of this selection process is represented using the numbers.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. A final state is represented as circle surrounding a small dot.



DOCUMENTATION OF STATE CHART DIAGRAM

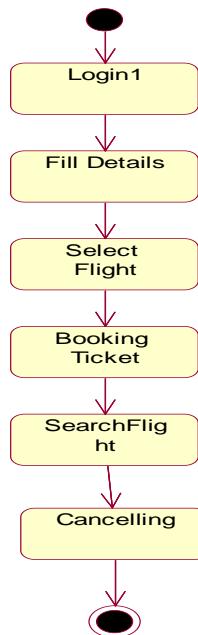
This state diagram describes the behaviour of the system.

- First state is login where the applicant login to the E-Ticketing system.
- The next state is filling details the applicant are used to fill the form.
- Then applicant used to selecting the flight.
- The applicant appears for book ticket and search details from E-Ticketing DataBase.

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 an rounded box containing the name of the operation.



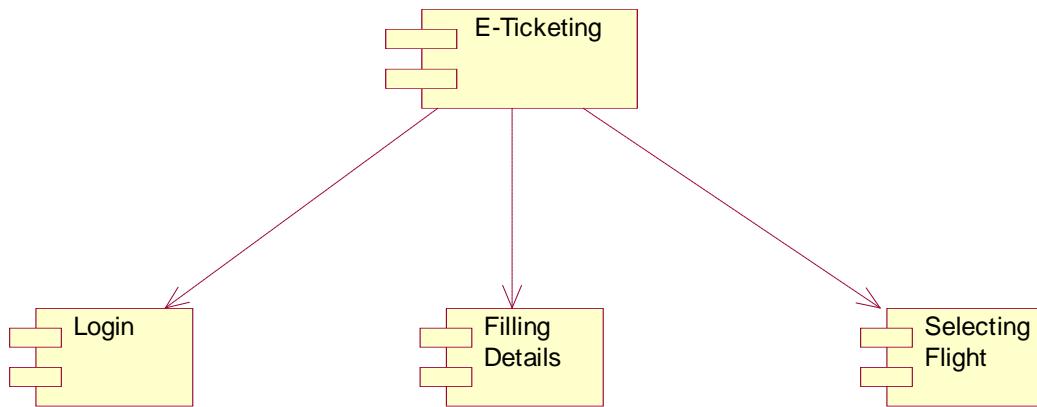
DOCUMENTATION OF ACTIVITY DIAGRAM

This activity diagram describes the behaviour of the system.

- First state is login where the applicant login to the E-Ticketing system.
- The next state is filling details the applicant are used to fill the form.
- Then applicant used to selecting the flight.
- The applicant appears for book ticket and search details from E-Ticketing DataBase.

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.

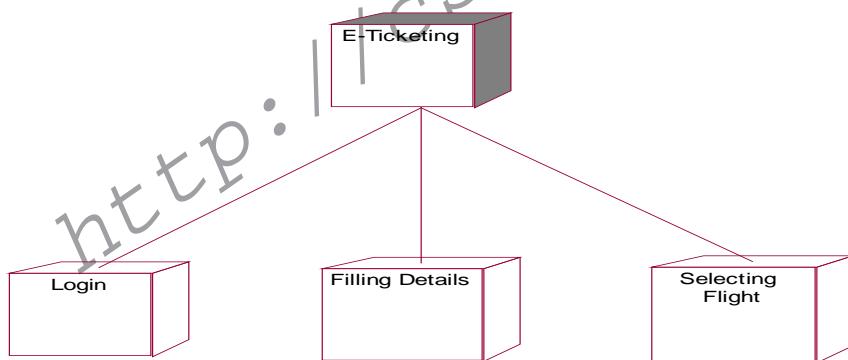


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is E-Ticketing systems. And Login, Filling Details and selecting flights applicants are the components comes under the main component.

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.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

The processor in this deployment diagram is the E-Ticketing system which is the main part and the devices are the login, appear for the filling details and selecting flights applicant which are the some of the main activities performed in the system.

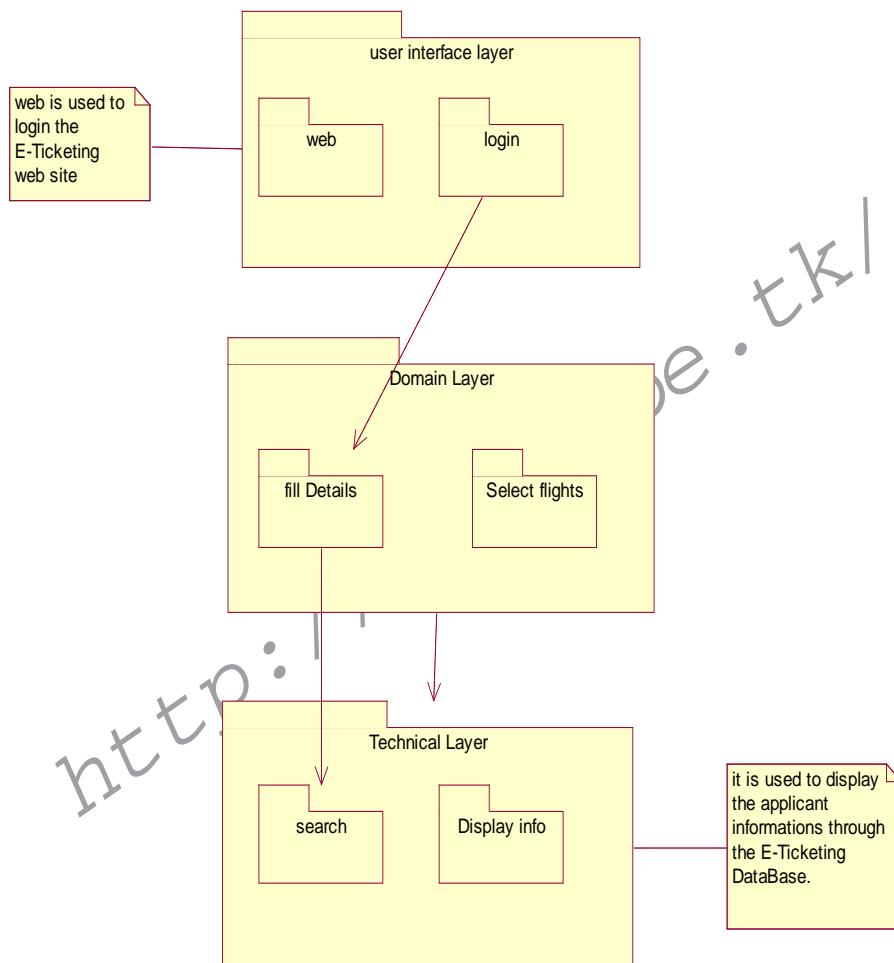
PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of

elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

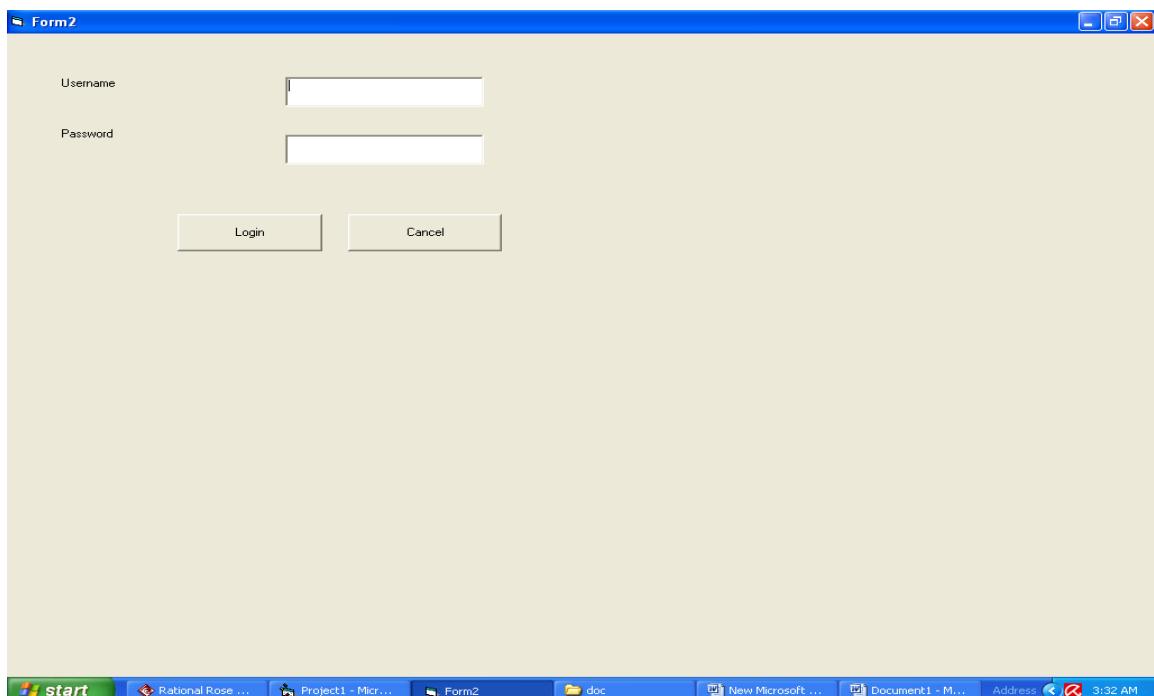
There are three types of layer. They are

- **User interface layer -**
- Domain layer
- Technical services layer

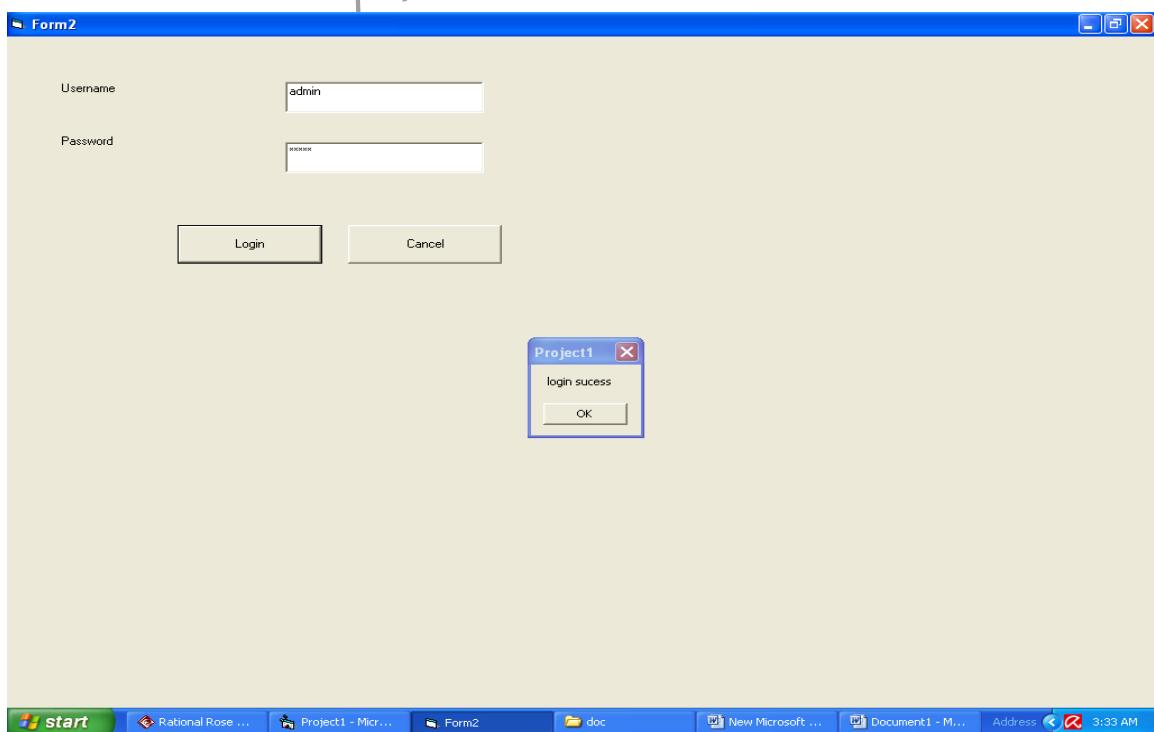


FORMS

FORM1



FORM2



FORM3

Form1

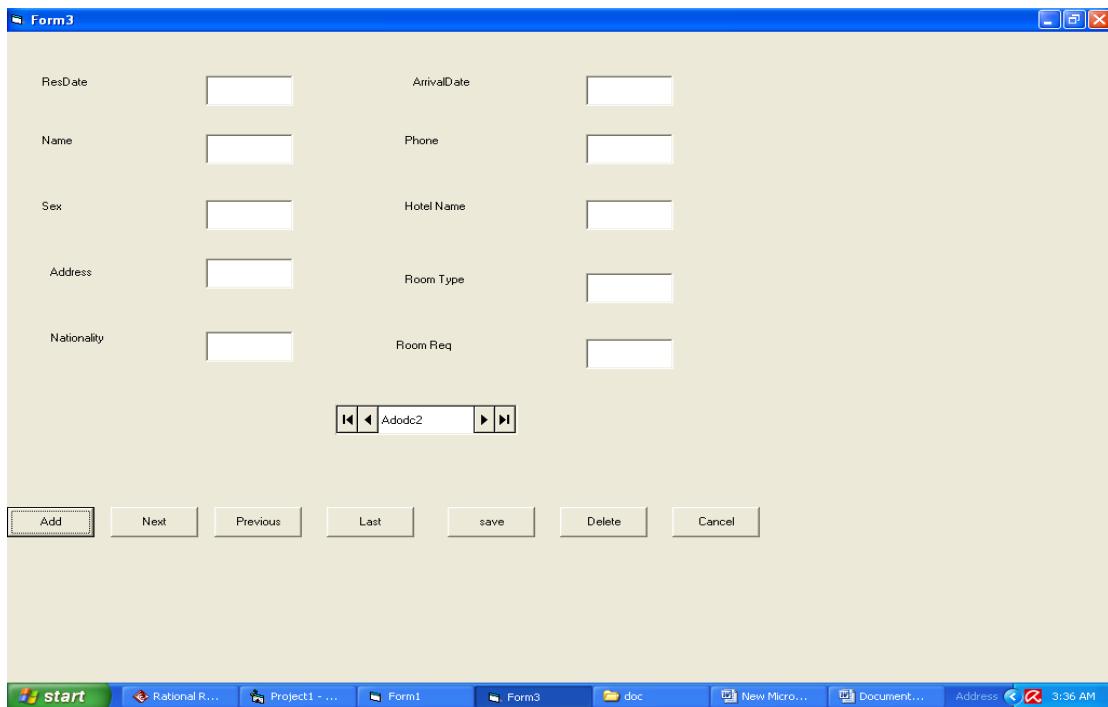
Passport Code	<input type="text"/>	BookingDate	<input type="text"/>
FirstName	<input type="text"/>	Destination	<input type="text"/>
LastName	<input type="text"/>	Departure Place	<input type="text"/>
Address	<input type="text"/>	Departure Date	<input type="text"/>
Nationality	<input type="text"/>	FlightName	<input type="text"/>
Phone	<input type="text"/>	FlightNo	<input type="text"/>
Sex	<input type="button" value="Male"/>	Amount	<input type="text"/>
PassportNumber	<input type="text"/>	Hotel Reservation	
ResidentPermit	<input type="text"/>		
<input type="button" value="Add"/> <input type="button" value="Next"/> <input type="button" value="Previous"/> <input type="button" value="Last"/> <input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Cancel"/>			

FORM4

Form1

Passport Code	<input type="text" value="2358"/>	BookingDate	<input type="text" value="15/2/2011"/>
FirstName	<input type="text" value="S"/>	Destination	<input type="text" value="delhi"/>
LastName	<input type="text" value="Ramesh"/>	Departure Place	<input type="text" value="chennai"/>
Address	<input type="text" value="tambaran"/>	Departure Date	<input type="text" value="20/2/2011"/>
Nationality	<input type="text" value="indian"/>	FlightName	<input type="text" value="kingfisher"/>
Phone	<input type="text" value="987455456"/>	FlightNo	<input type="text" value="56895"/>
Sex	<input type="button" value="Male"/>	Amount	<input type="text" value="2000"/>
PassportNumber	<input type="text" value="974479"/>	Hotel Reservation	
ResidentPermit	<input type="text" value="78974"/>		
<input type="button" value="Add"/> <input type="button" value="Next"/> <input type="button" value="Previous"/> <input type="button" value="Last"/> <input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Cancel"/>			

FORM5



SOURCE CODE

FORM3

```

Private Sub Command1_Click()
Adodc1.Recordset.AddNew
End Sub
Private Sub Command2_Click()
Adodc1.Recordset.MoveNext
End Sub
Private Sub Command3_Click()
Adodc1.Recordset.MovePrevious
End Sub
Private Sub Command4_Click()
Adodc1.Recordset.MoveLast
End Sub
Private Sub Command5_Click()
Adodc1.Recordset.Update
End Sub
Private Sub Command6_Click()
Unload Me
End Sub
Private Sub Command7_Click()
Adodc1.Recordset.Delete
End Sub
Private Sub Command8_Click()
Form3.Show
End Sub
FORM1
Private Sub Command1_Click()

```

```
If txtus.Text = "admin" Then
If txtpass.Text = "admin" Then
    MsgBox "login sucess"
    Form1.Show
    Unload Me
Else
    MsgBox "The password you entered is incorrect.Please retype the password.", vbCritical,
    "Wrong Entry"
    txtpass.Text = ""
End If
Else
    MsgBox "The username and password you entered is incorrect.Please retype the
username and password.", vbCritical, "Wrong Entry"
    txtus.Text = ""
    txtpass.Text = ""
End If
End Sub
Private Sub Command2_Click()
    Unload Me
End Sub
FORMS
Private Sub Command1_Click()
    Adodc2.Recordset.AddNew
End Sub
Private Sub Command2_Click()
    Adodc2.Recordset.MoveNext
End Sub
Private Sub Command3_Click()
    Adodc2.Recordset.MovePrevious
End Sub
Private Sub Command4_Click()
    Adodc2.Recordset.MoveLast
End Sub
Private Sub Command5_Click()
    Adodc2.Recordset.Update
End Sub
Private Sub Command6_Click()
    Adodc2.Recordset.Delete
End Sub
Private Sub Command7_Click()
    Unload Me
End Sub
```

RESULT

Thus the project to develop E-Ticketing system using Rational Rose Software and to implement the project in Visual Basic is done successfully.

EX NO:7

DATE: **EMPLOYEE MANAGEMENT SYSTEM**

AIM

To develop a project employee management system using the Rational Rose Software from the UML diagram and to implement the software in Visual Basic.

PROJECT ANALYSIS AND PROJECT PLANNING

The employee management system is used to manage our personnel things such as maintaining databases in offices etc. this project is easy for the CEO to handle the details. This is personally used for CEO.

PROBLEM STATEMENT

The CEO must enter the name and password to login the form and select the particular employee to view the details about that employee and maintaining the employee details personally. This process of employee management system are described sequentially through following steps,

- The CEO login to the employee management system.
- He/she search for the list of employees.
- Then select the particular employee.
- Then view the details of that employee.
- After displaying the employee details then logout.

SOFT REQUIREMENT SPECIFICATION:

S.NO	TABLE OF CONTENTS

1	INTRODUCTION 1.7 Purpose 1.8 Scope 1.9 References 1.10 Technology To Be Used 1.11 Tools Be Used 1.12 Overview
2	OVERALL DESCRIPTION 2.1 Product Perspective 2.2 Functionality 2.3 Usability 2.4 Performance 2.5 Reliability 2.6 Assumption and Dependencies

INTRODUCTION

1.1 Purpose

The main purpose of creating the document about the software is to know about the list of requirements that is to be developed.

1.2 Scope:

It specifies the requirements to develop a processing software part that complete the set of requirements. In this specification, we define about the system requirements that are apart from the functionality of system

1.3References

IEEE Software Requirements Specification format

1.4Technology to Be Used

Microsoft Visual Basic 6.0

1.5Tools Be Used

Rational Rose tool (for developing UML Patterns)

1.6Overview

SRS includes two sections overall description and specific requirements - Overall description will describe major role of the system components and inter-connections. Specific requirements will describe roles & functions of the actors.

OVERALL DESCRIPTION

2.1 Product Perspective

The SPMP acts as an interface between the user and the database. This tries to handle the personnel databases easily.

2.2Functionality:

Many members of the process live to check for the occurrence and transaction, we all have to carry over at sometime.

2.3 Usability

The User interface makes the employee Management System to be efficient.

2.4 Performance

It is the capability about which it can perform function for many users at the same time for the efficiency (i.e.) without any error occurrences.

2.5 Reliability

The system should be able to the user through the day to day transactions.

2.6 Assumptions and dependencies

The user must have the basic knowledge of computer and English language. The user must correctly login the database

UML DIAGRAMS:

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

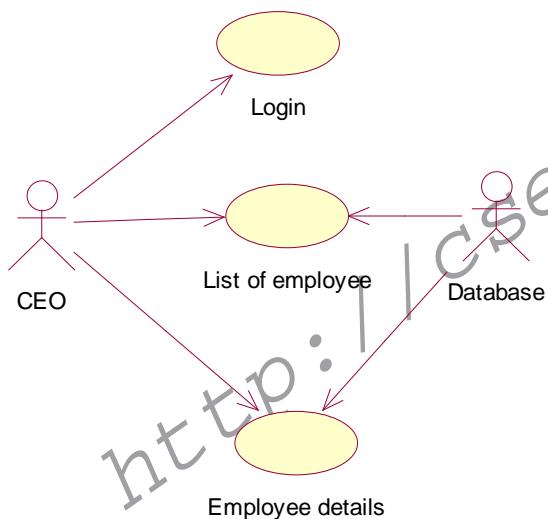
- Use case diagram

- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package diagram

The project can be explained diagrammatically using the following diagrams.

USE CASE DIAGRAM

The use cases are a set of scenarios to guide together by a common user goal. A scenario is the sequence of steps describing an interaction between a user and their system.



DOCUMENTATION OF USE CASE DIAGRAM

The use case diagram in the employee management system illustrates the sequence of sequencing and describing an interaction between a CEO and a system.

Login:

This use case gives as entry to the CEO and the database.

List of employee:

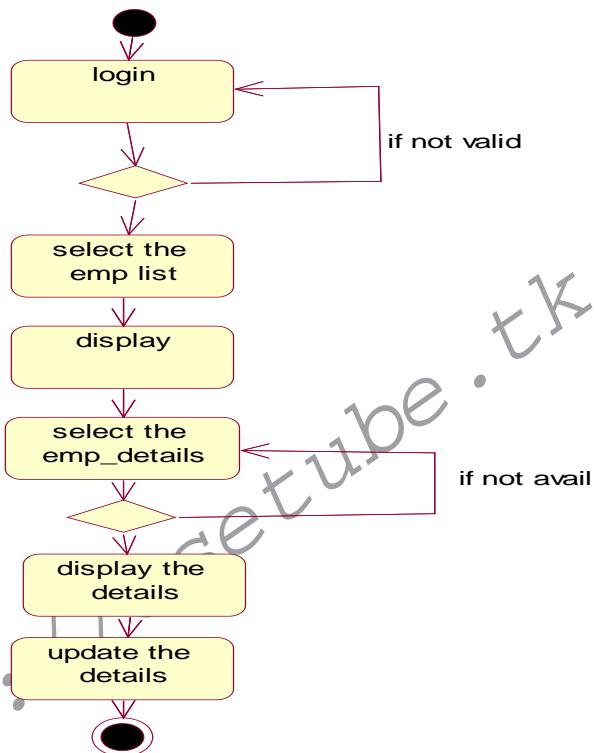
This will create the situation for the CEO to select particular employee from the available list.

Employee details:

The CEO can able to view the details of the employee using this use case.

ACTIVITY DIAGRAM

The Activity diagram describes the sequencing of activity will support for both conditional and parallel. An activity is a variant of state diagram.

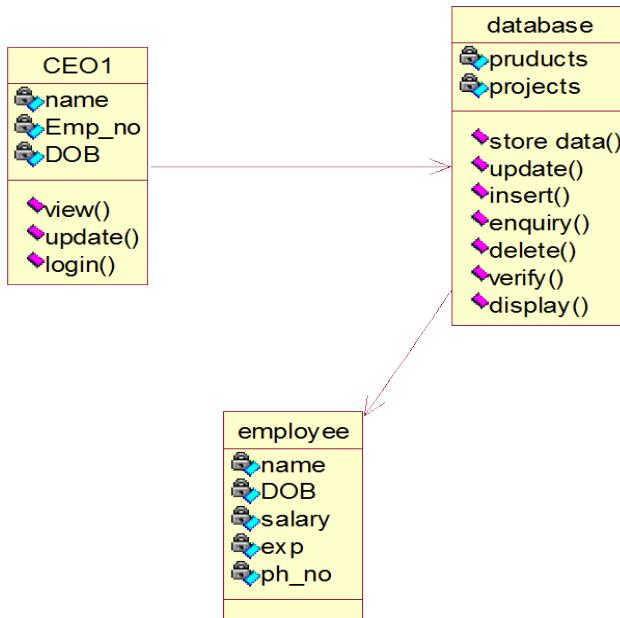


DOCUMENTATION OF ACTIVITY DIAGRAM

The CEO Logins to the employee management system. He/she selects a particular employee from the list of available employee. The CEO can view the details of the particular employee by clicking the respective button. After viewing the details he is logout from the system.

CLASS DIAGRAM

The Class diagram the types of object in the system a various kinds of static relations ships that exists among them.



DOCUMENTATION OF CLASS DIAGRAM

The Classes used in this project are

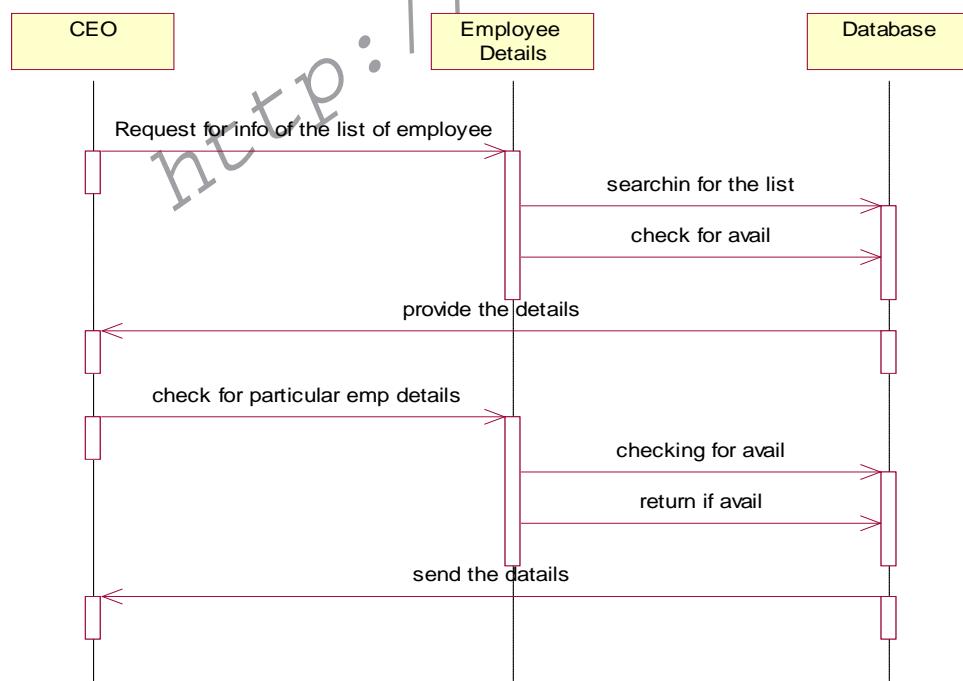
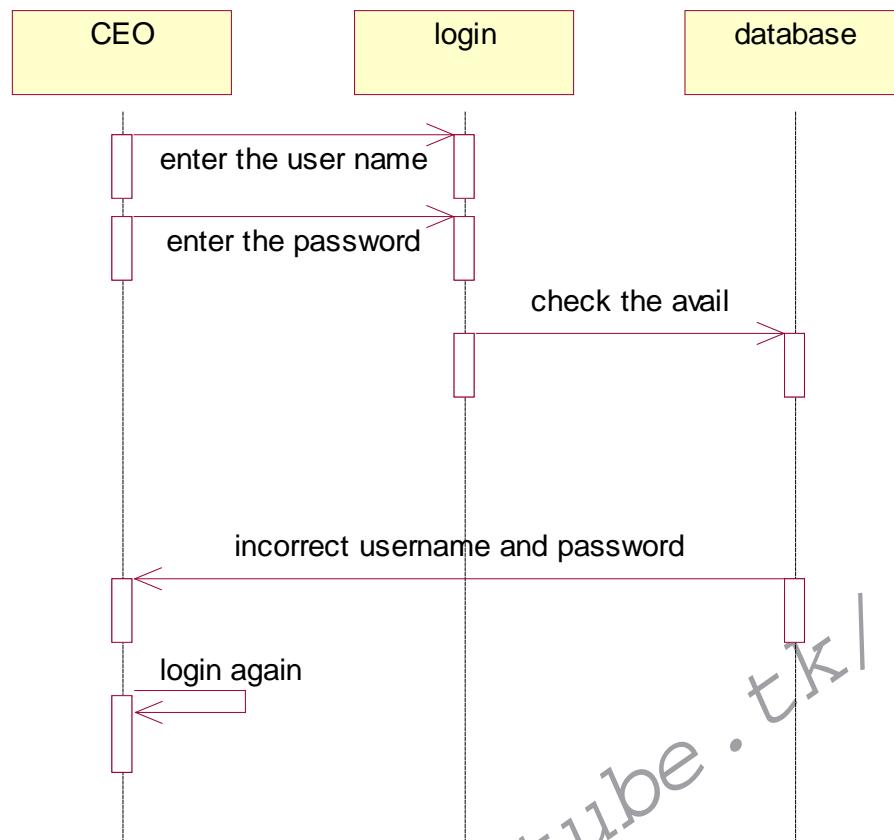
CEO: The CEO has to login the form by specifying the name and password of him.

Database: The database checks whether the CEO has given the name and password accordingly if not the error message will be displayed.

Available employees: The database connects to the list of available employees and the CEO if wants then select the employee from it.

SEQUENCE DIAGRAM:

It is a kind of interaction diagram in which an object is shown as a box at the top of the dash vertical line. This vertical line is called object life time. The life time represent the object's life during interaction object deletion is shown with a large x.

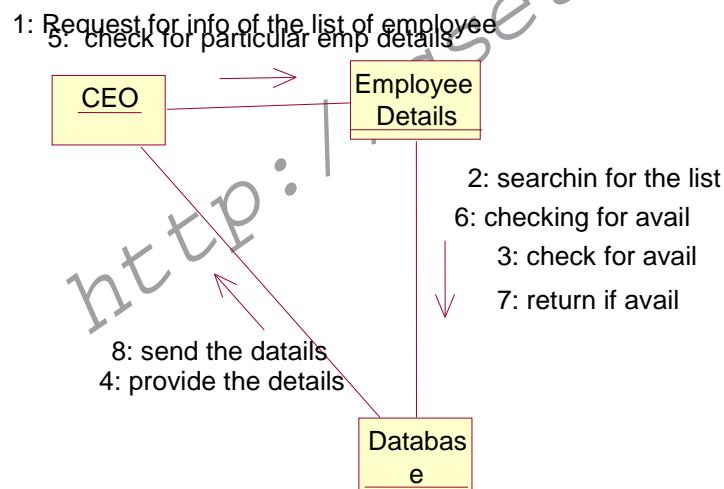
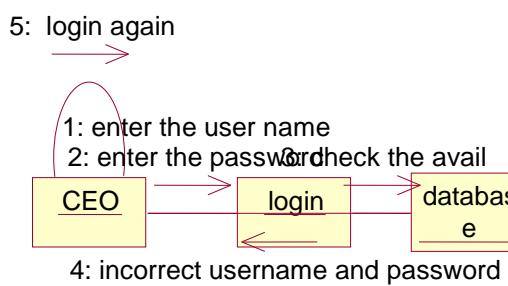


DOCUMENTATION OF SEQUENCE DIAGRAM

The CEO must enter his name and password to login the employee management system. The verification process is undergone by the database .If the details are correct he can enter to the system otherwise error is displayed. After login the details of the particular employee is viewed by the CEO. Finally he is logged out from the system.

COLLABORATION DIAGRAM

In a collaboration diagram object are shown as icons as on. A collaboration diagram arrow indicates the message send within the given use case. The sequence is indicated by numbering the messages.



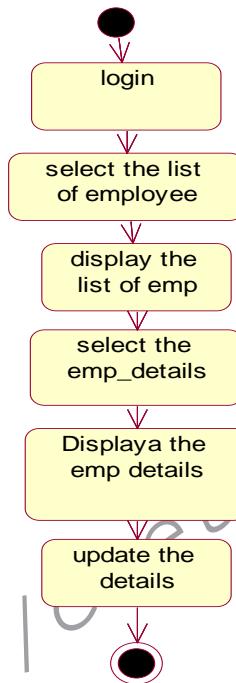
DOCUMENTATION OF COLLABORATION DIAGRAM

It is same as the sequence diagram that involves the object of the project with the only differences that we give the sequence no to the each process

The CEO must enter his name and password to login the employee management system. The verification process is undergone by the database .If the details are correct he can enter to the system otherwise error is displayed. After login the detail of the particular employee is viewed by the CEO. Finally he is logged out from the system.

STATE CHART DIAGRAM:

It is a technique to describe the behavior of the system. It determines all the possible states as that of particular object gets into the object oriented technique. State diagrams are drawn for a single class so status to the lifetime behavior of a single object.



DOCUMENTATION OF THE STATE CHART DIAGRAM:

The various states are the login, lists of employees, selects a employee, display the information about the employee, logout.

The state chart diagram describes the behavior of the system. The main purpose of the system is to maintain an employee details personally. For that the CEO Login to the employee management system. He/she selects a particular employee from the list of available employee. The CEO has to view the details of the particular employee by clicking the respective button. The CEO views the details then finally he is logout from the system.

PACKAGE DIAGRAM

A package is represented as folder among shown as large rectangle with a tab attached its upper left corner. A package may contain both subordinated package both ordinary model can be organized into packages. There are three types of layers,

- User interface layer
- Domain layer
- Technical layer

DOCUMENTATION OF PACKAGE DIAGRAM

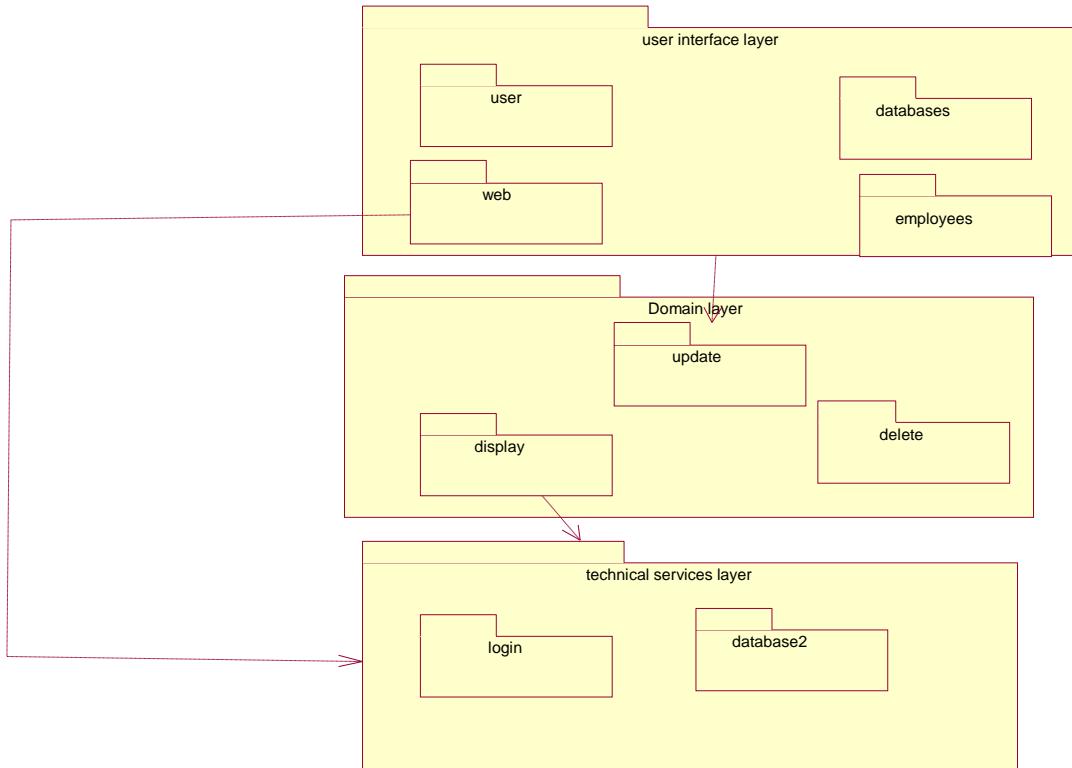
The three layers in the online recruitment system are

The User interface layer - consists of the web and login. This layer describes how the applicant logins to the website and apply for the job.

The Domain layer – shows the activities that are performed in the online recruitment system. The activities are register, attend test and select talented applicant.

The Technical service layer - the applicant details, verification details and the selected

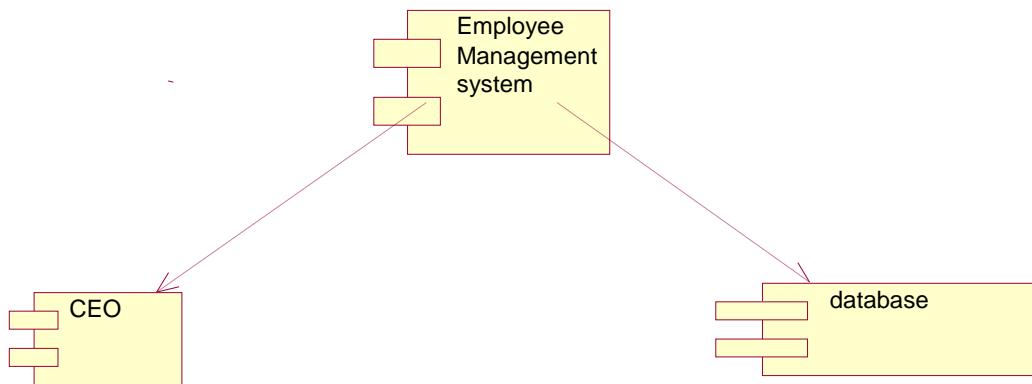
applicant details are stored in the database.



COMPONENT DIAGRAM

Components are a slightly fuzzy concept in the UML, because both classes and components can be used to model the same thing.

A component represents a modular part of a system that encapsulates its contents and whose manifestation is replaceable within its environment. A component defines its behavior in terms of provided and required interfaces. As such, a component serves as a type, whose conformance is defined by these provided and required interfaces.



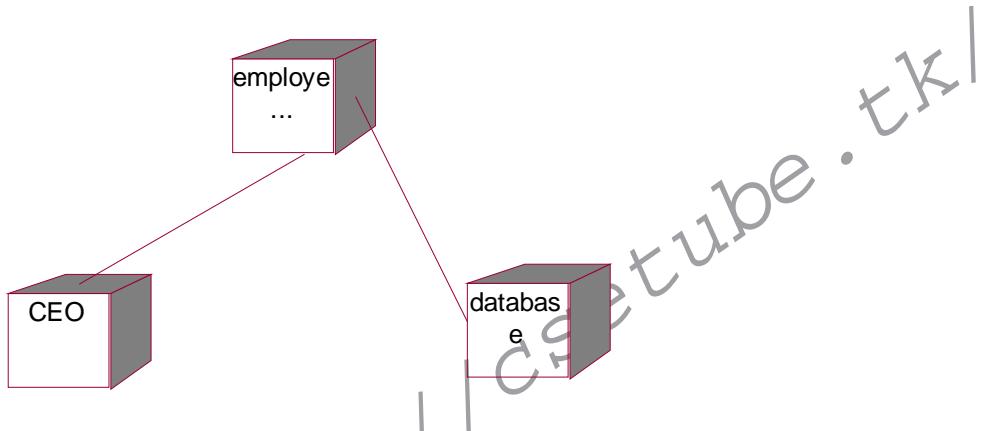
DOCUMENTATION OF COMPONENT DIAGRAM

In this diagram there link between the actors is present in the SPMS that could be shown in diagrammatically way in the component diagram. Each every actor is having a directional link to process further details present in the system.

DEPLOYMENT DIAGRAM

A deployment diagram shows the assignment of concrete software artifacts (such as executable files) to computational nodes (something with processing services). It shows the deployment of software elements to the physical architecture and the communication (usually on a network) between physical elements.

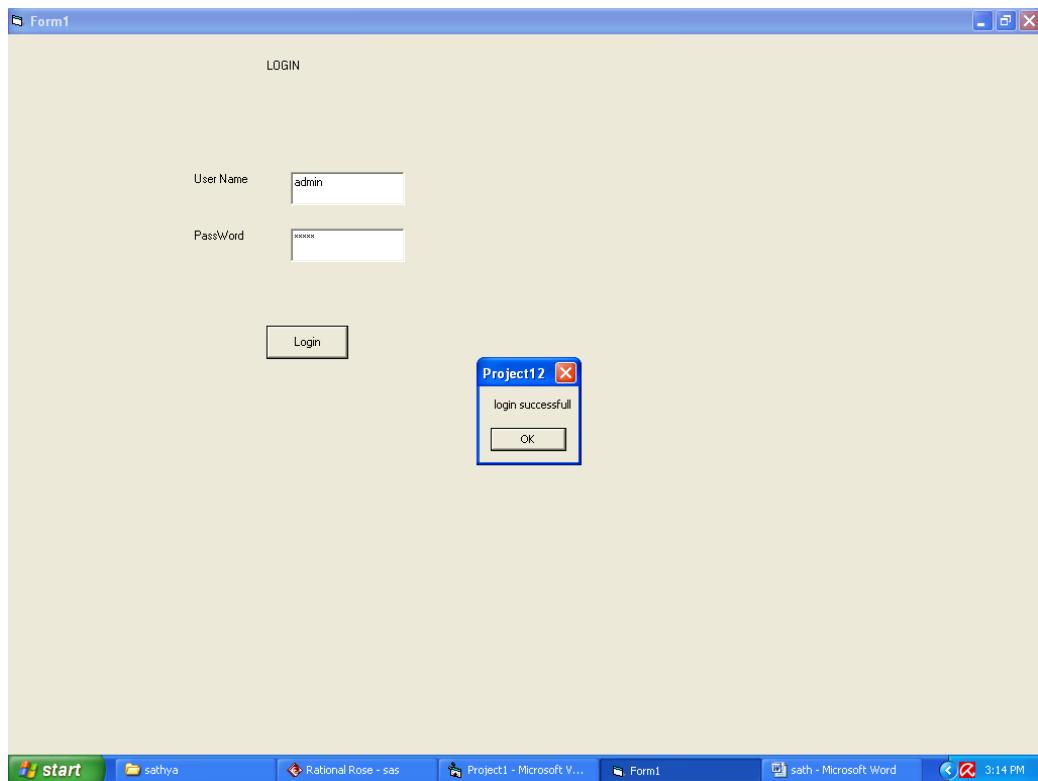
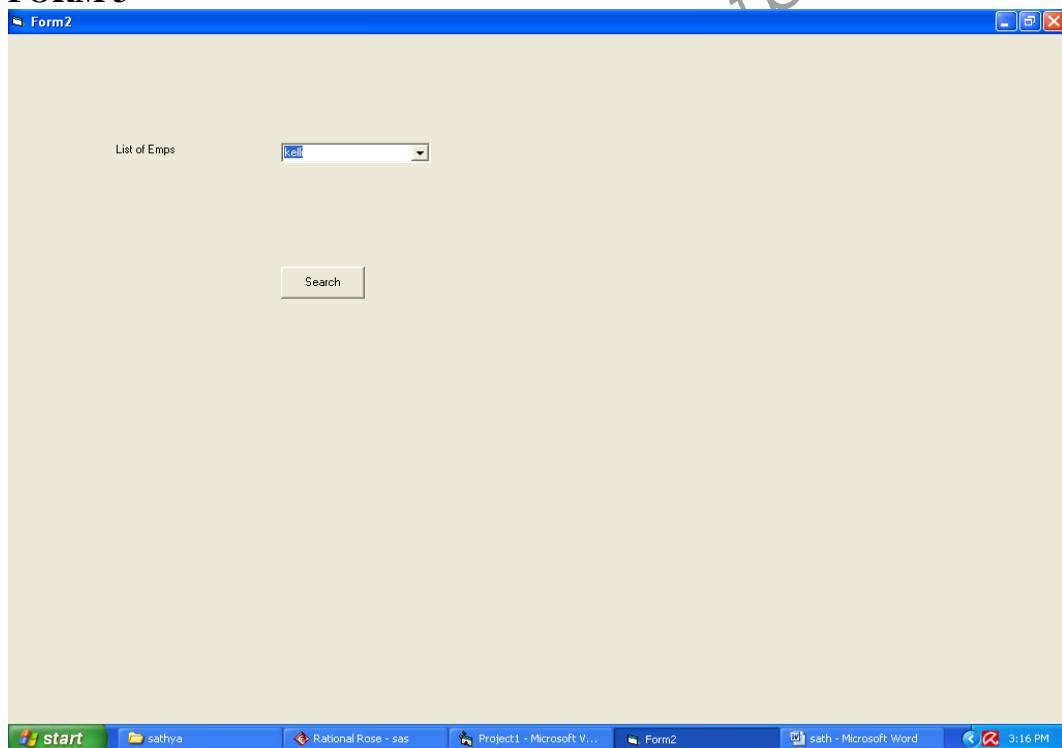
A deployment diagram usually shows an example set of instances (rather than classes



FORMS FORM 1

Screenshot of a Windows application window titled "Form1". The window has a blue title bar with the text "Form1" and standard window controls (minimize, maximize, close). The main area is titled "LOGIN". It contains two text input fields: "User Name" with the value "admin" and "PassWord" with the value "*****". Below the fields is a "Login" button. The window is positioned over a taskbar with several icons, including "start", "sathyas", "Rational Rose - Bas", "Project1 - Microsoft Visio", "Form1", "sath - Microsoft Word", and a clock showing "3:11 PM".

FORM 2

**FORM 3****FORM 4**

Form2

List of Emps

start sathya Rational Rose - sas Project1 - Microsoft V... Form2 sath - Microsoft Word 3:14 PM

FORM 5

Form3

Emp_Idnum

Emp_Name

Emp_Address

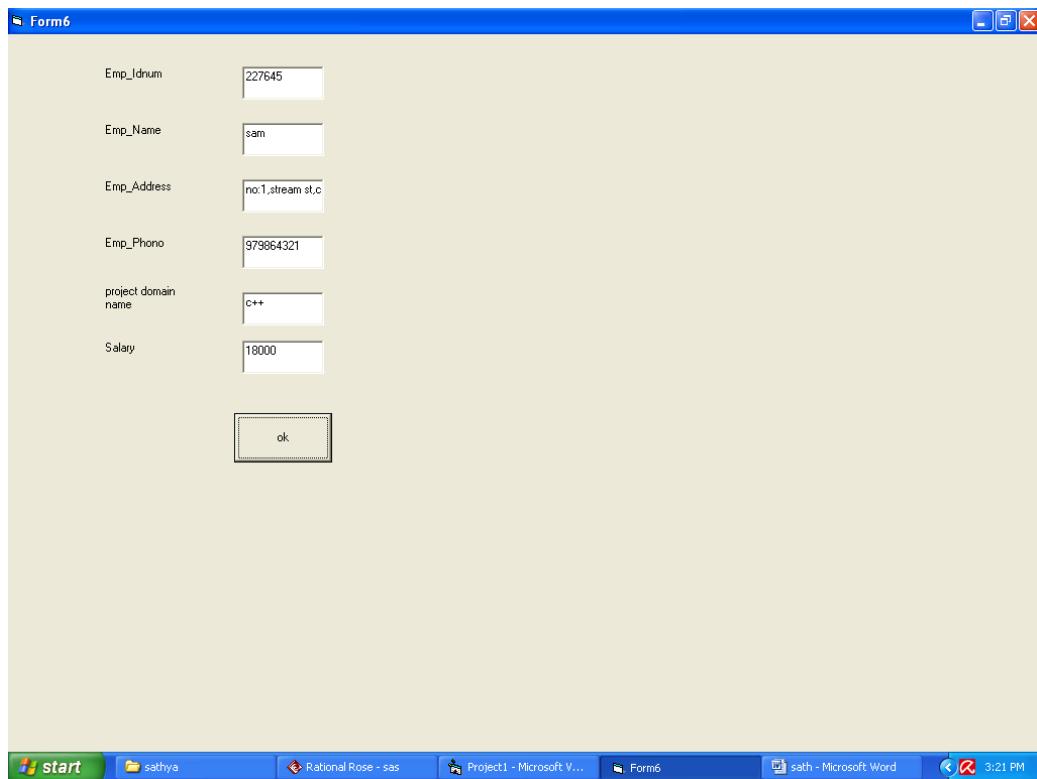
Emp_Phone

project domain name

Salary

start sathya Rational Rose - sas Project1 - Microsoft V... Form3 sath - Microsoft Word 3:15 PM

FORM 6



SOURCE CODE

Class modules

CEO

```

Option Explicit
'##ModelId=4D413303009C
Private name As Variant
'##ModelId=4D41330502BF
Private Emp_no As Variant
'##ModelId=4D41330E01F4
Private DOB As Variant
'##ModelId=4D413434035B
Public NewProperty As database
'##ModelId=4D413322005D
Public Sub view()
End Sub
'##ModelId=4D41410F01B5
Public Sub update()
End Sub
'##ModelId=4D41411401C5
Public Sub login()
End Sub

```

EMPLOYEE

```

Option Explicit
'##ModelId=4D41409D0399
Private name As Variant

```

```
'##ModelId=4D4140A400EA  
Private DOB As Variant  
'##ModelId=4D4140B10290  
Private salary As Variant  
'##ModelId=4D4140B801C5  
Private exp As Variant  
'##ModelId=4D4140BC01F4  
Private ph_no As Variant  
'##ModelId=4D4140E8007D  
Public NewProperty As database
```

DATABASE:

```
Option Explicit  
'##ModelId=4D41334C02FD  
Private pruducts As Variant  
'##ModelId=4D41414000EA  
Private projects As Variant  
'##ModelId=4D4134380196  
Public NewProperty As database_admin  
'##ModelId=4D4140F00290  
Public NewProperty2 As employee  
'##ModelId=4D4133930271  
Public Sub store_data()  
End Sub  
'##ModelId=4D4133A00271  
Public Sub update()  
End Sub  
'##ModelId=4D4133A601A5  
Public Sub insert()  
End Sub  
'##ModelId=4D41414A032C  
Public Sub enquiry()  
End Sub  
'##ModelId=4D4133AC00BB  
Public Sub delete()  
End Sub  
'##ModelId=4D4133AF002E  
Public Sub verify()  
End Sub  
'##ModelId=4D4133B2034B  
Public Sub display()  
End Sub
```

FORMS

Form 1:

```
If Form1.Text1.Text = "admin" And Form1.Text2.Text = "admin" Then  
MsgBox "login successful"  
Form1.Hide  
Form2.Show  
Else
```

```
MsgBox "invalid password"  
End If  
Dim v1 As CEO1  
Private Sub command1_Click ()  
Set v1 = New CEO1  
v1.login  
End Sub
```

Form 2:

```
If (Form2.Combo1.Text = "rahul") Then  
Form2.Hide  
Form3.Show  
End If  
If (Form2.Combo1.Text = "ram") Then  
Form2.Hide  
Form4.Show  
End If  
If (Form2.Combo1.Text = "Kelli") Then  
Form2.Hide  
Form5.Show  
End If  
If (Form2.Combo1.Text = "Sam") Then  
Form2.Hide  
Form6.Show  
End If  
Dim v2 As database  
Private Sub command1_Click ()  
Set v2 = New database  
v2.display  
End Sub
```

Form 3:

```
Private Sub command1_Click ()  
Form3.Hide  
Form2.Show  
End Sub
```

Form 4:

```
Private Sub command1_Click ()  
Form4.Hide  
Form2.Show  
End Sub
```

Form 5:

```
Private Sub command1_Click ()  
Form5.Hide  
Form2.Show  
End Sub
```

Form 6:

```
Private Sub command1_Click ()  
Form6.Hide  
Form2.Show  
End sub
```

http://csetube.tk/

RESULT

Thus the project is to develop an EMPLOYEE MANAGEMENT SYSTEM using the Rational Rose Software from the UML diagram and to implement the employee details and successfully executed using visual basic and rational rose.

<http://csetube.weebly.com/>

EX NO:8

DATE:

CREDIT CARD PROCESSING SYSTEM

AIM

To develop a project credit card system using the Rational Rose Software from the UML diagram and to implement the software in Visual Basic

PROBLEM ANALYSIS AND PROJECT PLANNING

The Credit Card Processing System which is used to purchase an item from any shop mall, and it is used to maintain the limitation of credit card balance and current transaction process could be updated via credit card machine. This project mainly used for large amount of item can be easily bought from anywhere and required transaction process should be maintained them.

PROBLEM STATEMENT

The customer should select the item to be purchased from the shop by using credit card payment then the vendor should give a bill for the selected item. The customer should give his card to swap and request for the kind of amount transaction. After processing the transaction, the CREDIT CARD MACHINE should give the balance print statement or receipt.

- Customer should select the item from the shop.
- Vendor makes the bill for the selected item.
- Customer gives the credit card to the vendor to swap the card.
- The required amount transaction is done by the card reader.
- Vendor will issue the balance statement to the customer.
- Customers put the signature in the receipt and return to the vendor.

SOFTWARE REQUIREMENT SPECIFICATION

S.NO	TABLE OF CONTENTS
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1	INTRODUCTION 1.13 Purpose 1.14 Scope 1.15 References 1.16 Technology To Be Used 1.17 Tools Be Used 1.18 Overview
2	OVERALL DESCRIPTION 2.1 Product Perspective 2.2 Functionality 2.3 Usability 2.4 Performance 2.5 Reliability 2.6 Assumption and Dependencies

1.2 PURPOSE

The customer should purchase an item from the shop by using credit card payment then the vendor should give response to the customers view while a purchasing item from the shop and required processing of transaction should be done by the vendor by using a credit card reader.

1.3

In the specification use define about the system requirements that are part from the functionality of the system. It tells the usability, reliability defined in the use case specification.

1.3 REFERENCES

IEEE Software Requirement Specification format.

1.4 TECHNOLOGY TO BE USED

Microsoft Visual Basic 6.0

1.5 TOOLS TO BE USED

Rational Rose tool (for developing UML Patterns)

1.6 OVERVIEW

SRS includes two sections overall description and specific requirements - Overall description will describe major role of the system components and inter-connections. Specific requirements will describe roles & functions of the actors.

2. OVERALL DESCRIPTION

2.1 PRODUCT PERSPECTIVE

The CCP acts as an interface between the 'Customer' and the 'Card Reader'. This system tries to make the transaction as simple as possible and at the same time not risking the security of data transaction process. This minimizes the time duration in which the user receives the item.

2.2 FUNCTIONALITY

Many members of the process lives to checking for the occurrence and transaction we all have to carry over sometimes user interface to make the transaction to be efficient.

2.3 USABILITY

The User interface makes the Credit Card Processing System to be efficient.

2.4 PERFORMANCE

It is of the capacities about which it can perform function for many users at the same times efficiently that are without any error occurrence.

2.5 RELIABILITY

The system should be able to process the user for their corresponding request.

2.6 ASSUMPTION AND DEPENDENCIES

The Vendor and Customer must have basic knowledge of computers and English Language. The vendor may be required to delivered the item purchased by the customer.

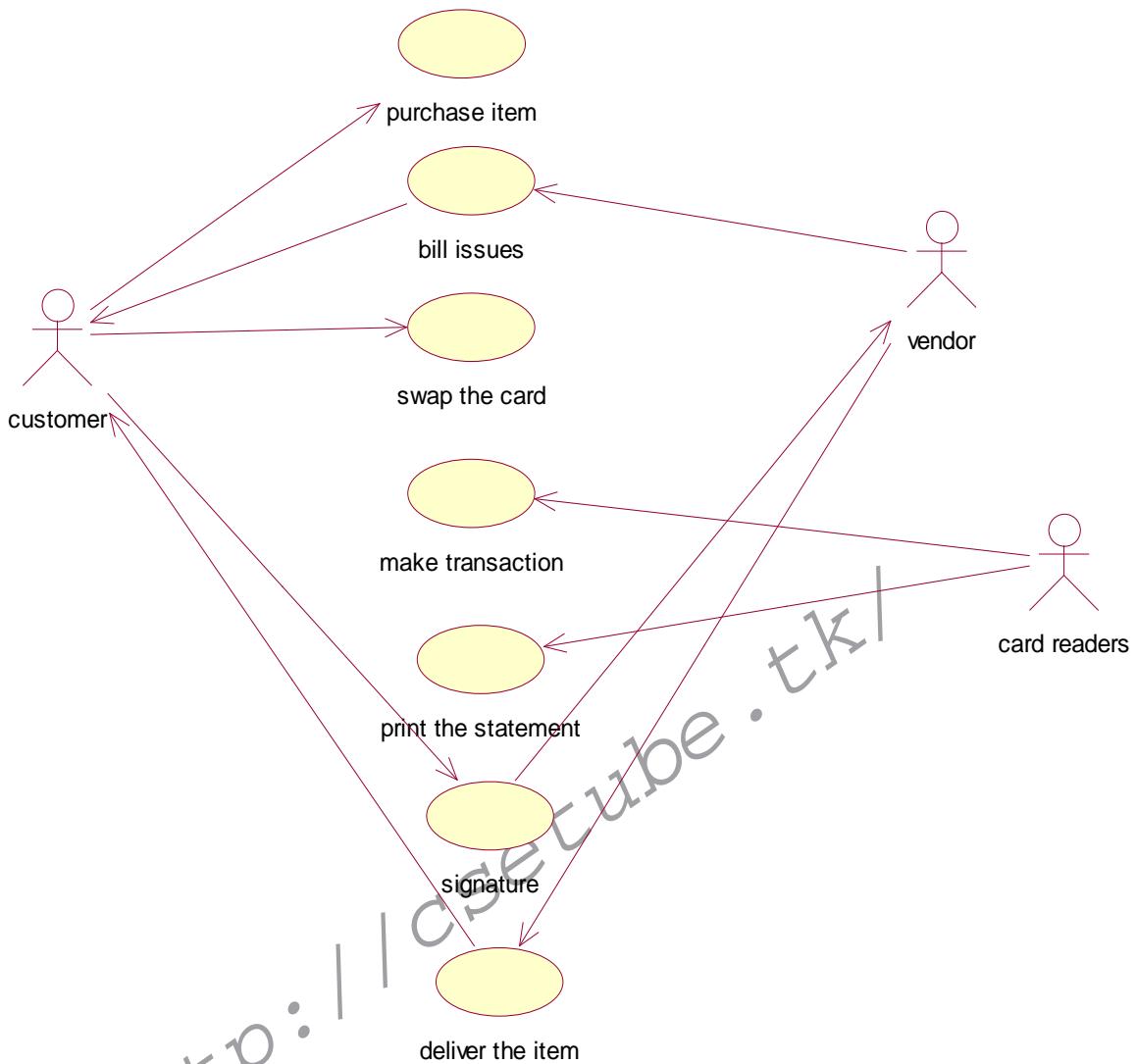
UML DIAGRAMS

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

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package diagram

USE CASE DIAGRAM

The use cases are a set of scenarios to guide together by a common user goal. A scenario is the sequence of steps describing an interaction between a user and their system.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are customer, vendor and card reader. The use cases are the activities performed by actors.

The actors in this use case diagram are

- **Customer** – used to purchase some item from the shop by using credit card payment.
- **Vendor** – used to issue a bill for selected item and verify the card holder signature and then delivery the item.
- **Card reader** – its make the amount transaction for required credit card and print the balance statement.

The use cases in this use case diagram are

- **Purchase item** – customer enter the shop to purchase some item by using credit card payment.
- **Bill issue** – vendor will make a bill for the selected item.
- **Swap the card** – vendor will swap the card.
- **Make transaction** – card reader will processes the amount transaction.
- **Print the statement** – after the transaction, balance amount should be printed.
- **Signature** – customer should put the signature and give it to vendor.
- **Deliver the item** – vendor issued to deliver a item.

ACTIVITY DIAGRAM

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

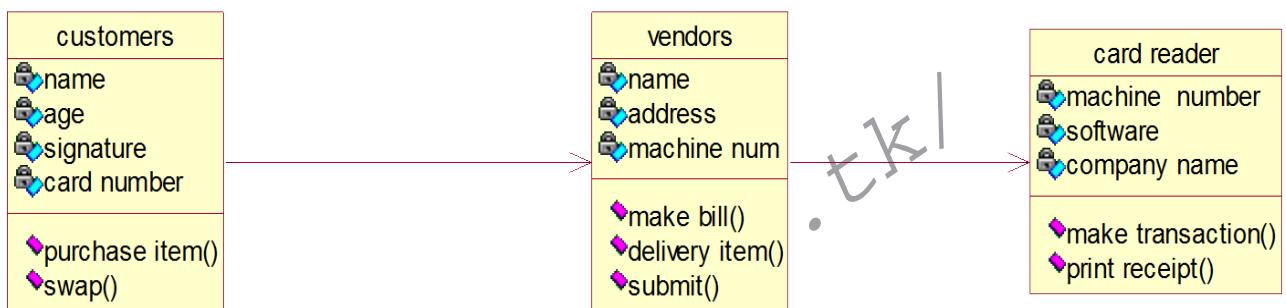
DOCUMENTATION OF ACTIVITY DIAGRAM

The customer's activity should contain an purchase item by using credit card and then his referred to check the current transaction processing its completed or not.

The vendor should issue a bill copy to the customer and its swap the card to make amount transaction by using card reader. The vendor should give required statement to customer will deliver the item from the shop.

CLASS DIAGRAM

The Class diagram the types of object in the system an the various kinds of static relationships that exists among them.



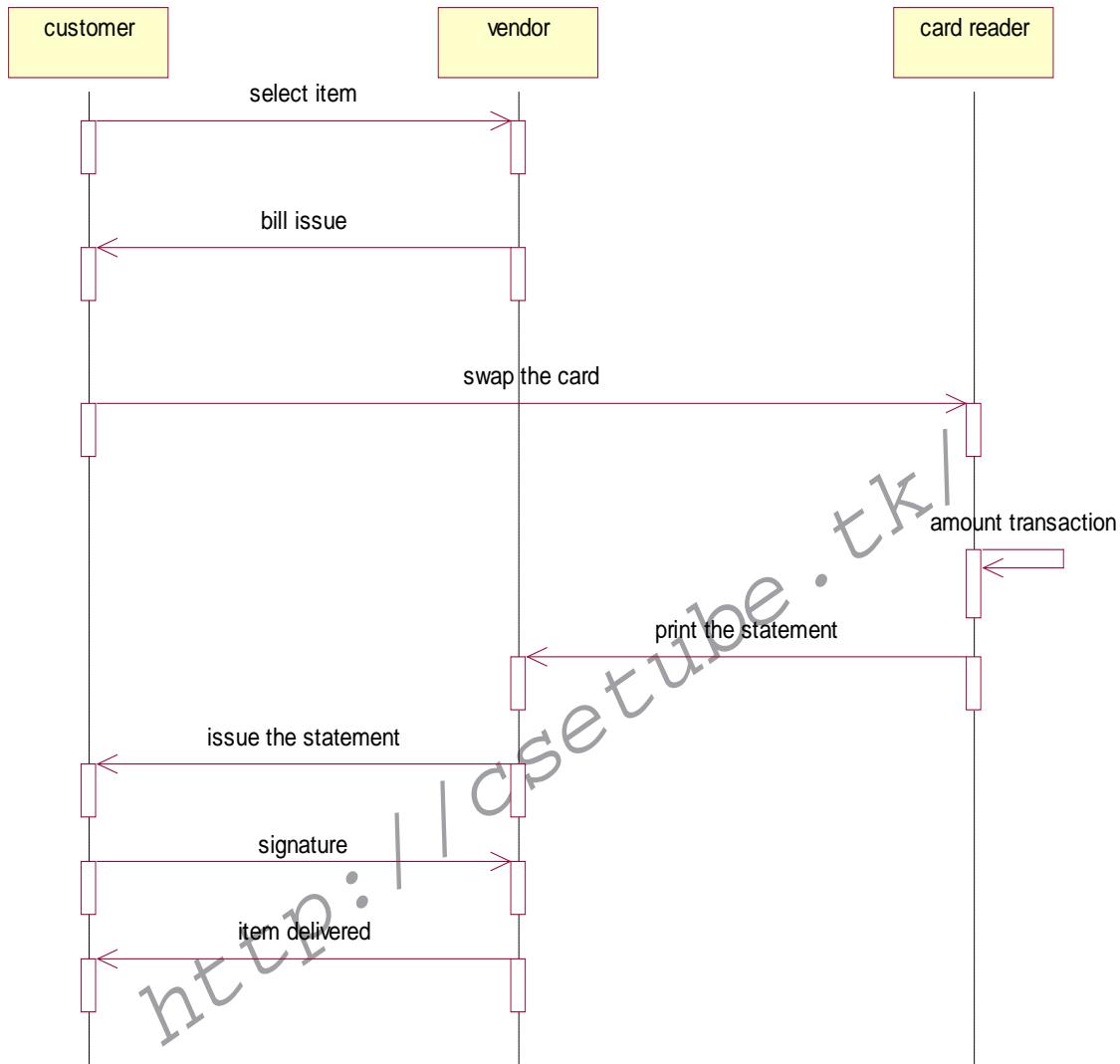
DOCUMENTATION OF CLASS DIAGRAM

The Classes used in this project are:

- **Customer** – is the class name. Its attributes are name, age, signature, and card number. The operations performed in the customer class are purchase item and swap the credit card.
- **Vendor** – is the class name. Its attributes are name, address, and phone number. The operations performed are make bill and then delivered item purchased by the customer.
- **Card Reader** – is the class name. Its attributes are machine number, software and company. The operations performed are make the transaction and print balance statement.

SEQUENCE DIAGRAM

It is a kind of interaction diagram in which an object is shown as a box at the top of the dash vertical line. This vertical line is called object life time. The life time represent the object's life during interaction object deletion is shown with a large x.

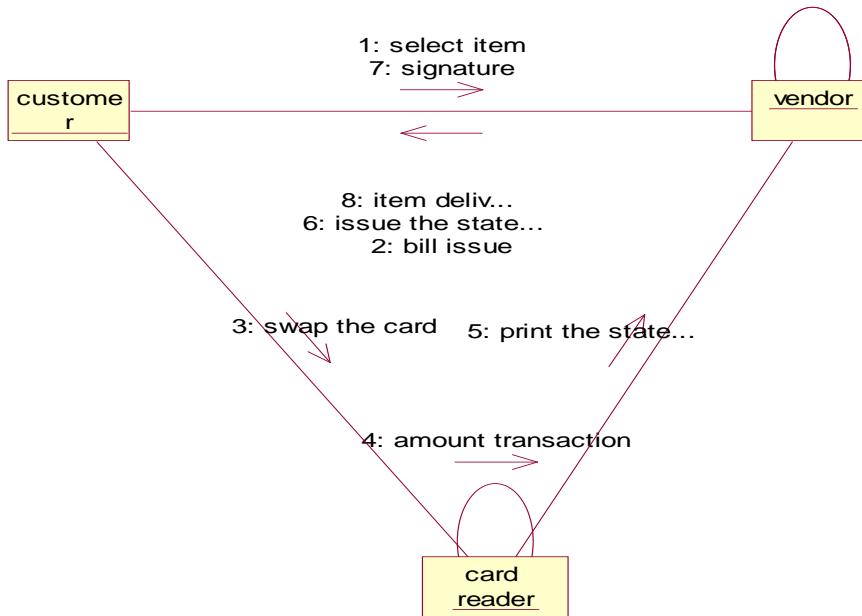


DOCUMENTATION OF SEQUENCE DIAGRAM

The customer wants to purchase some item from the shop; Vendor makes a bill for the selected item. The Customer gives the credit card to the vendor to the swap the card. The further transaction is proceeding for if the credit card is validated. Vendor will issue the required balance statement to the customer. Customer put the signature in the receipt and returns the one copy of statement to the vendor.

COLLABORATION DIAGRAM

In a collaboration diagram object are shown as icons as on. A collaboration diagram arrow indicates the message send within the given use case. The sequence is indicated by numbering the messages.

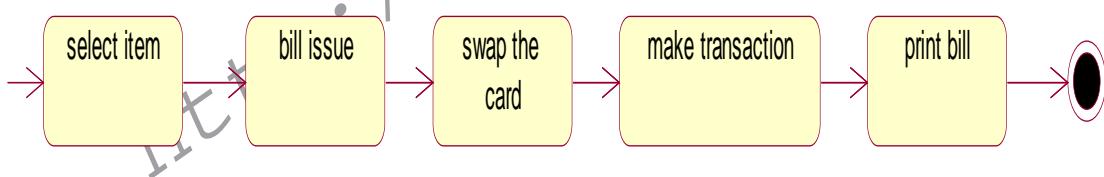


DOCUMENTATION OF COLLABORATION DIAGRAM

In this diagram there is sequence of ordered relationship should performing in the CCP, then Customer will performed a selecting item, putting signature, and deliver the item, Vendor should perform the swap the card, issue the statement and Card reader should perform amount transaction and print the balance statement.

STATECHART DIAGRAM

It is a familiar technique to describe the behavior of the system. Events involve in the state chart diagram a purchase, make transaction, delivery the item.



DOCUMENTATION OF STATECHART DIAGRAM

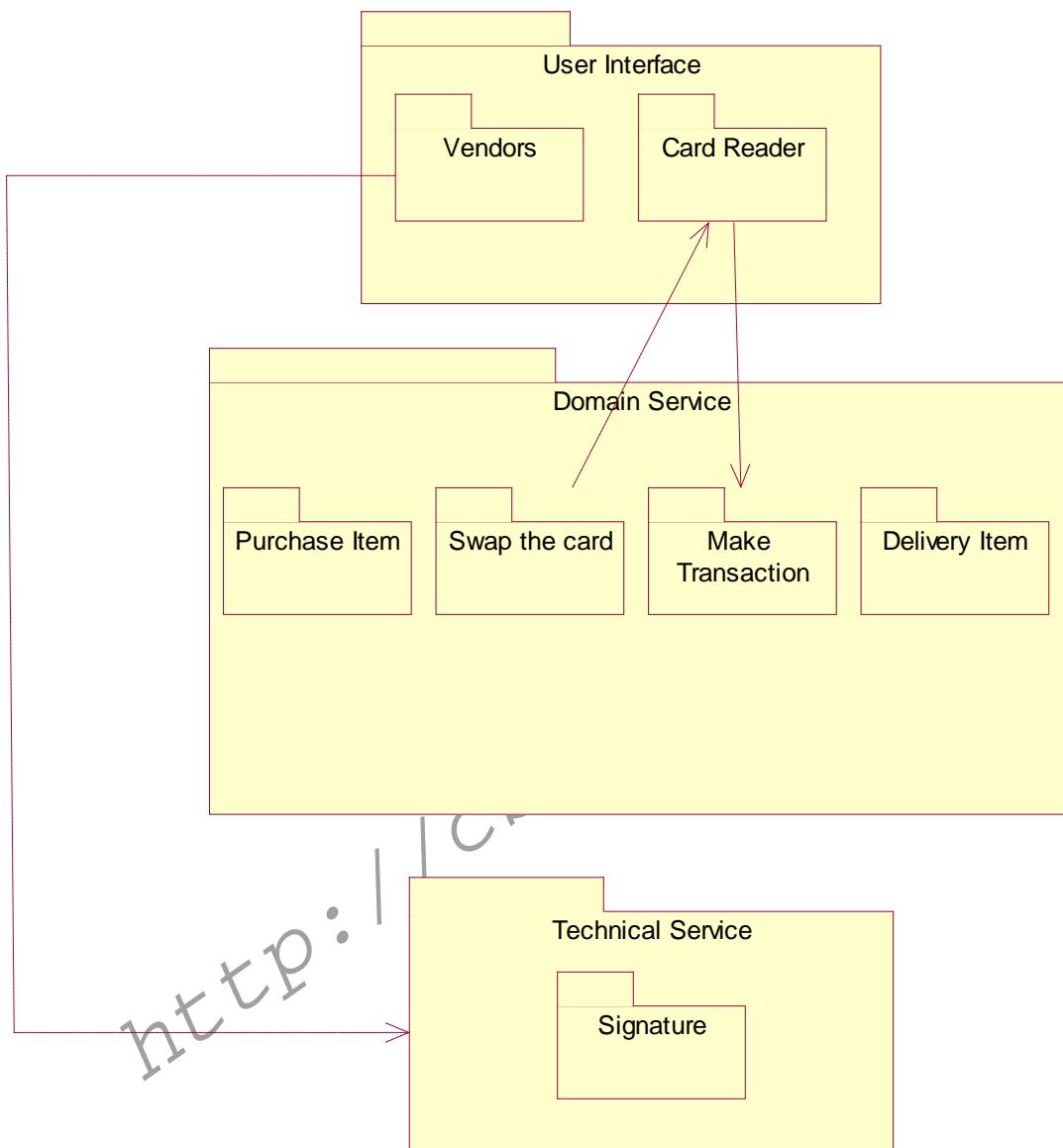
The Entire process of CCP could be shown in the start state to goal state behavior should be performed by the Customer, Vendor and Card reader in this credit card processing system.

PACKAGE DIAGRAM

A package is represented as folder among shown as large rectangle with a tab attached its upper left corner. A package may contain both subordinated package both ordinary model can be organized into packages.

There are three types of layers includes in package diagram:

- User interface layer
- Domain layer
- Technical layer



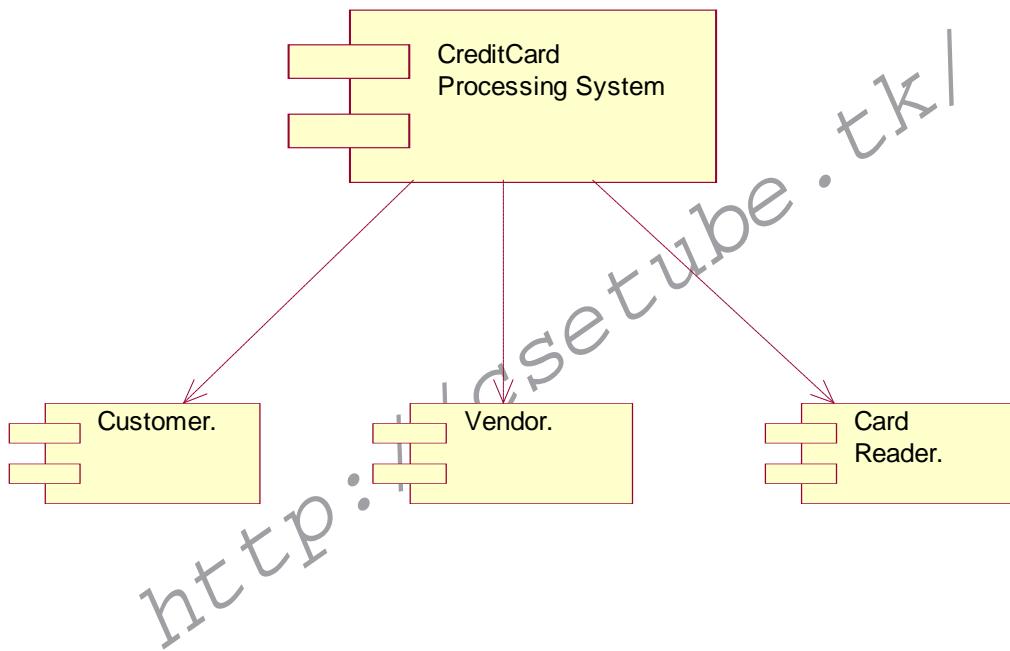
DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the credit card processing system are

- **The User interface layer** - consists of the Card reader and Vendor. This layer describes how the customer is used to purchasing and makes it transaction process.
- **The Domain layer** – shows the activities that are performed in the Credit card processing system. The activities are purchase the item, make transaction and delivered item.
- **The Technical service layer** – To verify a required Customer Signature.

COMPONENT DIAGRAM

The component diagram is represented by figure dependency and it is a graph of design of figure dependency.

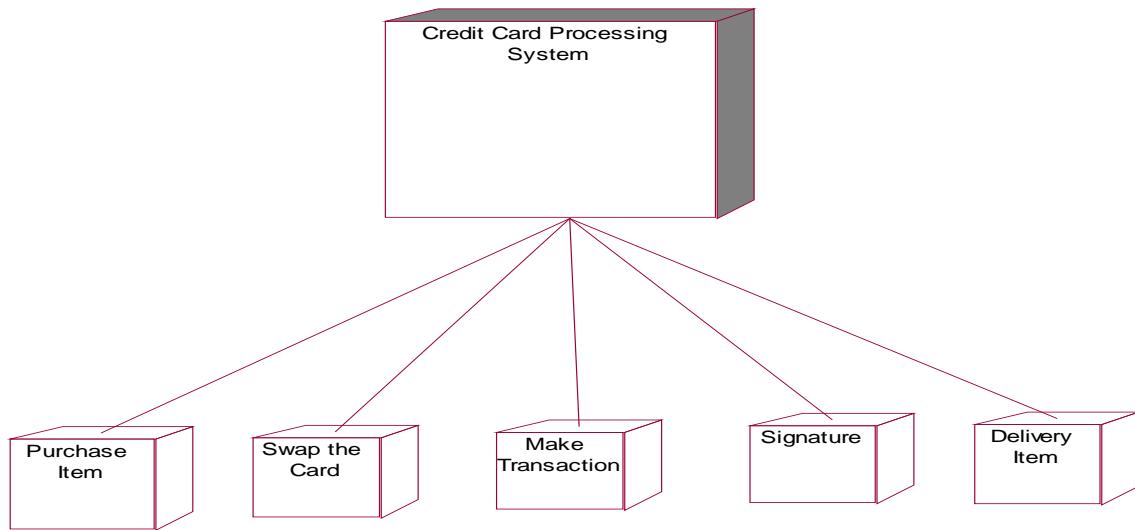


DOCUMENTATION OF COMPONENT DIAGRAM

In this diagram there link between the actor is present in the CCP, that could be shown in diagrammatically way in the component diagram. Each every actor is having a bidirectional link to process further details present in the system.

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.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

The processor in this deployment diagram is the credit card processing system which is the main part and the devices are the purchase item, swap the card, make transaction, verify signature, delivery item which are the some of the main activities performed in the system.

FORMS:

FORM 1

Form1

CALLING COMMUNICATION

<i>Item Name</i>	<input type="text" value="Select The Item"/>
<i>Item Code</i>	<input type="text" value="Select The Item Code"/>
<input type="button" value="Purchase"/> <input type="button" value="Cancel"/>	

FORM 2

Form2

PAYMENT DETAILS

Credit Card Type

Select the Card

OK | *CANCEL*

This screenshot shows a Windows application window titled 'Form2'. The main title is 'PAYMENT DETAILS' in blue capital letters. Below it, the label 'Credit Card Type' is followed by a dropdown menu with the placeholder text 'Select the Card'. At the bottom of the window are two buttons: 'OK' on the left and 'CANCEL' on the right.

FORM 3

Form3

CREDIT CARD DETAILS

Card Holder Name

Card Number

SUBMIT

This screenshot shows a Windows application window titled 'Form3'. The main title is 'CREDIT CARD DETAILS' in orange capital letters. Below it, there are two text input fields: one for 'Card Holder Name' and another for 'Card Number'. At the bottom of the window is a single 'SUBMIT' button.

FORM 4**SOURCE CODE****CARD READER:**

```
Option Explicit
'##ModelId=4D4136130261
Private machine_number As Variant
'##ModelId=4D413619031C
Private software As Variant
'##ModelId=4D4136680177
Private company_name As Variant
Dim v1 As vendors
'##ModelId=4D4136B6030D
'##ModelId=4D4136CB0222
Public Sub print_receipt()
End Sub
```

CUSTOMERS:

```
Option Explicit
'##ModelId=4D4134EC01E4
Private name As Variant
'##ModelId=4D4134EF0167
Private age As Variant
'##ModelId=4D413504036B
Private signature As Variant
'##ModelId=4D413519007D
Private card_number As Variant
'##ModelId=4D4136D9037A
Public NewProperty As vendors
Dim v1 As vendors
'##ModelId=4D4135250167
```

```
'##ModelId=4D41353E02AF
Public Sub swap()
End Sub
VENDORS:
Option Explicit
'##ModelId=4D4135610399
Private name As Variant
'##ModelId=4D413565000F
Private address As Variant
'##ModelId=4D41356F0203
Private machine_num As Variant
'##ModelId=4D4136E200EA
Public NewProperty As card_reader
Dim v2 As card_reader
'##ModelId=4D4135BA03A9
Public Sub make_bill()
Form3.Show
End Sub
'##ModelId=4D4135CA029F
Public Sub delivery_item()
Form3.Show
End Sub
```

Form1:

```
Dim r1 As customers
Private Sub Command1_Click()
Set r1 = New customers
r1.purchase_item
End Sub
Private Sub Command2_Click()
Unload Me
End Sub
Public Sub purchase_item()
Form2.Show
End Sub
```

Form2:

```
Dim r2 As vendors
Private Sub Command1_Click()
Set r2 = New vendors
r2.delivery_item
End Sub
Private Sub Command2_Click()
Form1.Show
End Sub
```

Form3:

```
Dim r3 As card_reader
Private Sub Command1_Click()
Set r3 = New card_reader
```

```
r3.make_transaction  
End Sub  
Public Sub make_transaction()  
Form4.Show  
End Sub
```

http://csetube.tk/

RESULT

Thus the project to develop credit card processing system using Rational Rose Software and to implement the project in Visual Basic is done successfully.

<http://csetube.weebly.com/>

EX.NO: 9

DATE:

E-BOOK MANAGEMENT SYSTEM

AIM

To develop a project E-Book Management system using Rational Rose Software and to implement the software in Java.

PROBLEM ANALYSIS AND PROJECT PLANNING

Ebook Management System gives an idea about how books are maintained in the particular websites. The books that are to be purchased, the books that are to be sold are maintained here. . Further some additional details of the current books that is available in the store are also given. Ebook Management System in this project is done in an authorized way. The password and user id has been set here.

PROBLEM STATEMENT

The website has to be maintained properly since the whole ebook purchase process can be improved. Ebook management in this project gives the idea about how ebooks are maintained in a particular concern. The book details which includes the number of books available ,no of pages and price. Ebook management system the Ebook management in this project is understood by going through the modules that is being involved.

SOFTWARE REQUIREMENT SPECIFICATION

1	INTRODUCTION
2	OBJECTIVE
3	OVERVIEW
4	GLOSSARY
5	PURPOSE
6	SCOPE
7	FUNCTIONALITY
8	USABILITY

9	PERFORMANCE
10	RELIABILITY
11	FUNCTIONAL REQUIREMENTS

1. INTRODUCTION

Ebook management gives an idea about how ebooks are maintained in the particular concern. The ebooks that are to be purchased, the ebooks that are to be sold are maintained here. Further some additional details of the current ebook list that is available in the website is also given. Ebook management in this project is done in an authorized way.

2. OBJECTIVE

The main objective of this project is to overcome the work load and time consumption which makes the maintenance of the ebook in an organization as a tedious process. This project provides complete information about the details of the ebook to the customers. This project identifies the amount of book available. Separate modules have been created for purchasing, viewing book details, and delivery details.

3. OVERVIEW

The overview of the project is to Storing of information about the ebooks and updating the ebook list for each organization which is using this system, keeps track of all the information about the ebooks purchased that are made by the customers, having registration feature of adding up new customers to the organization are provided in this system.

4. GLOSSARY

TERMS	DESCRIPTION
CUSTOMER	Customer will purchase the books from the Website .

DATABASE	Database is used to store the books and details of books.
ADMIN	Handles all the support features and the technical works in the application.
SOFTWARE REQUIREMENT SPECIFICATION	This software specification documents full set of features and function for ebook management system that is performed in application.

5. PURPOSE

The purpose of ebook management system is to store and sell the books in a website effectively.

6. SCOPE

The scope of this ebook management is to maintain the book details after the purchase and list of reaming books available in the same book type.

7. FUNCTIONALITY

The main functionality of ebook maintenance system is to store and sell ebooks for a website.

8. USABILITY

User interface makes the ebook management system to be efficient. That is the system will help the admin to maintain stock details easily and helps the store to handle the stocks effectively. The system should be user friendly.

9. PERFORMANCE

It describes the capability of the system to perform the ebook management system of the store without any error and performing it efficiently.

10. RELIABILITY

The ebook management system should be able to serve the customer with correct information and day-to-day update of ebook list details.

11. FUNCTIONAL REQUIREMENTS

Functional requirements are those refer to the functionality of the system. That is the services that are provided to the website which maintains ebooks in online database.

UML DIAGRAMS

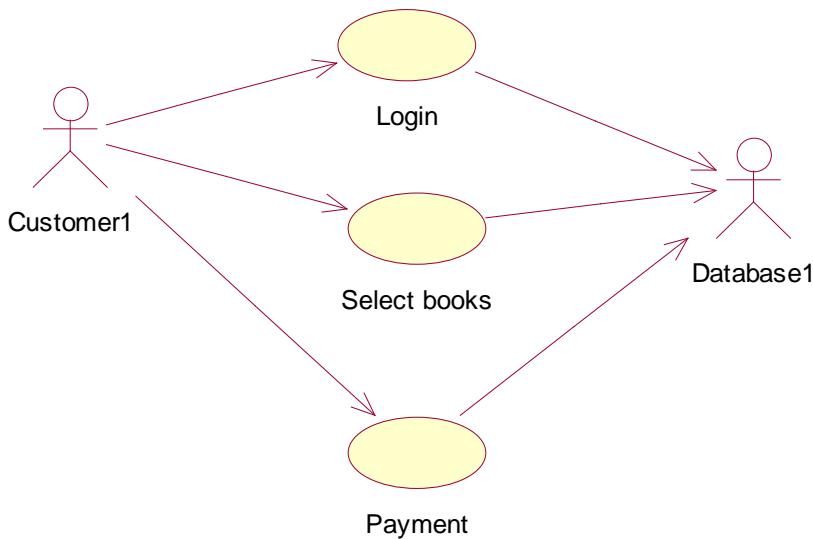
The following UML diagrams describe the process involved in the stock maintenance system

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 modelled. It is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are Supplier, Store Keeper and Database. The usecases are the activities performed by actors.

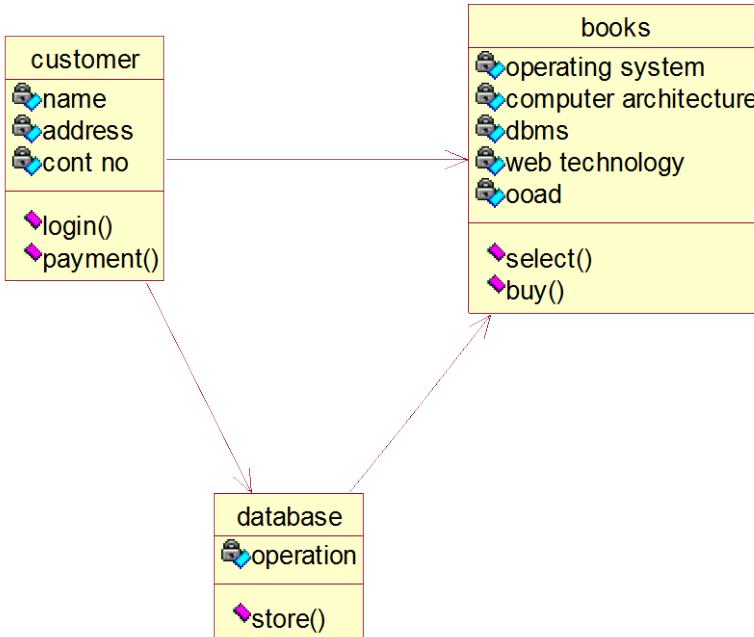
- The website will give the books available.
- Customer will login and check the list of ebooks in the database.
- The database will be updated according to the purchase done and it will be up to date.

The use cases in the use case diagram are Quotation & Purchase, login, stock, purchase.

- Select books will gives us the status of the purchasing order details
- Login will gives us the entry for the customer of this project.
- Database will gives us the details about the total ebook available.
- Purchase will gives us the details about the details and the history of ebooks purchased.

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 is represented using a rectangle with three compartments. Top compartment have the class name, middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

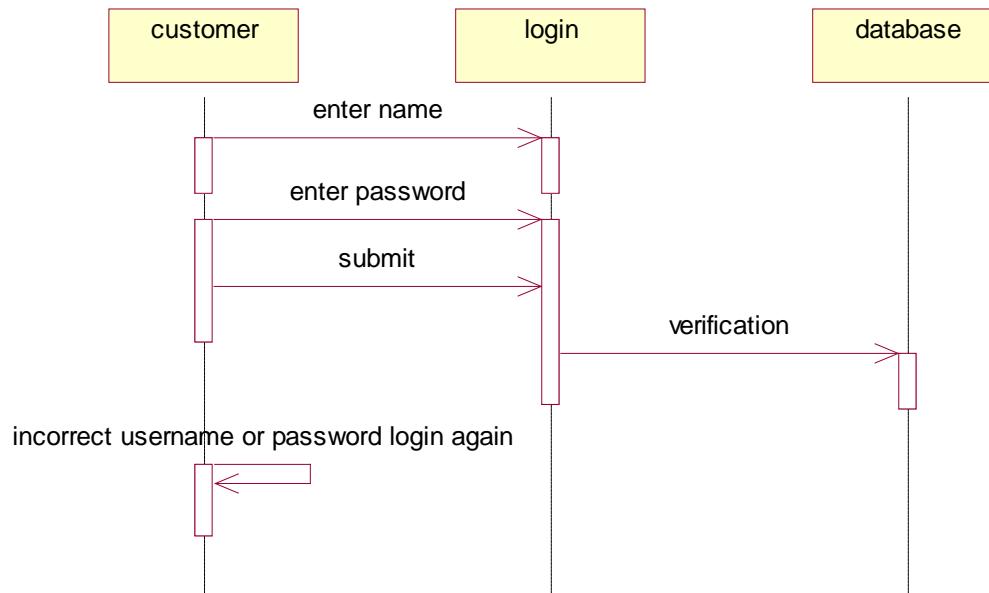
This class diagram has three classes applicant, recruiter and database.

- **Customer** – is the class name. Its attributes are name, address and cont no. The operations performed in the Supplier class are get order, supply goods and get money.
- **Books** – is the class name. Its attributes are operating system, computer architecture, dbms, web technology and ooad. The operations performed are select and buy.
- **Database** – is the class name. Its attribute is operation. The operations performed is store .

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. Veritcal dimension-represent time.
2. Horizontal dimension-represent different objects.



DOCUMENTATION OF SEQUENCE DIAGRAM

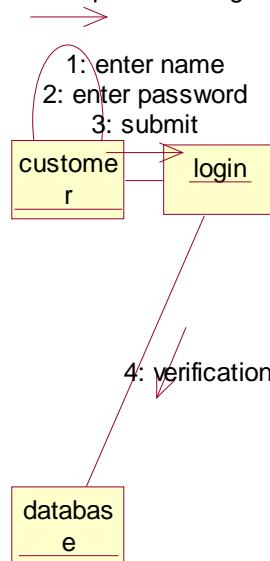
The sequence diagram describes the sequence of steps to show

- The Customer enters the Ebook website.
- The list of books available are listed.
- Customer checks the book list.
- Database provides user id and pass.
- Customer selects the book.
- Pay money to the Website.

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 versa. 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

5: incorrect username or password login again

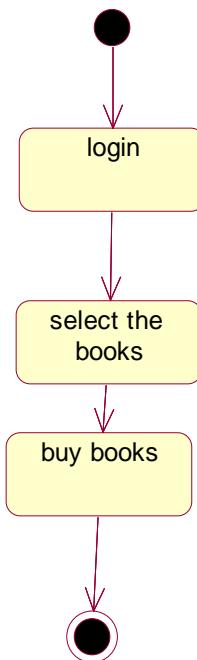


DOCUMENTATION OF COLLABORATION DIAGRAM

The first collaboration diagram is to show how the customer login and getting details of ebooks in the ebook management system. Here the sequence is numbered according to the flow of execution.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. A final state is represented as circle surrounding a small dot.



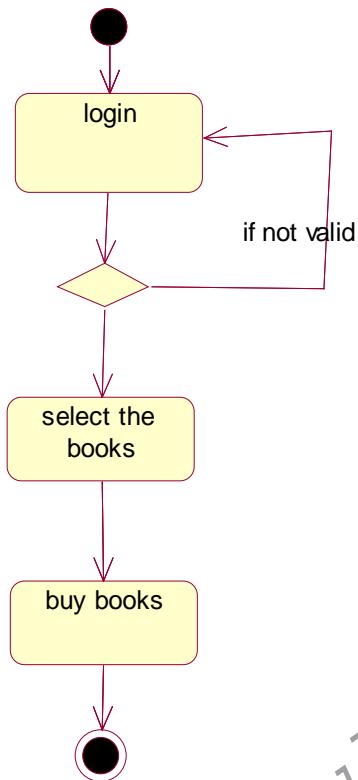
DOCUMENTATION OF STATE CHART DIAGRAM

This state diagram describes the behavior of the system.

- First state is login where the customer login to the ebook management system.
- The next state is check the list of books in order.
- Then select buy the book.
- Enter the account detail and purchase the book.

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 an rounded box containing the name of the operation.



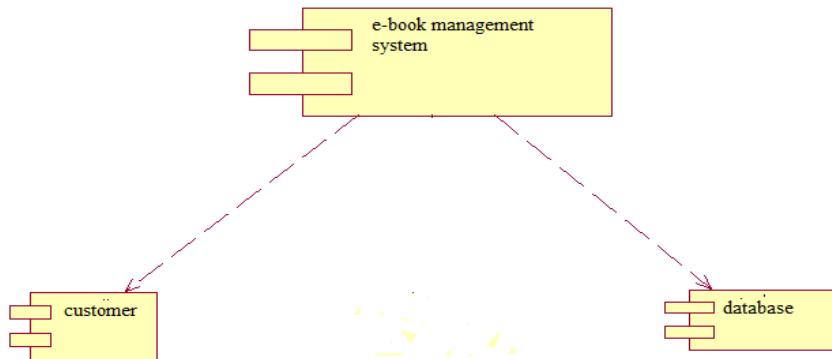
DOCUMENTATION OF ACTIVITY DIAGRAM

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

- First Customer login then checks books available.
- The book list are verified and is given in a ordered format.
- The needed book is selected.
- Enter your account details and purchase the book .

COMPONENT DIAGRAM

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

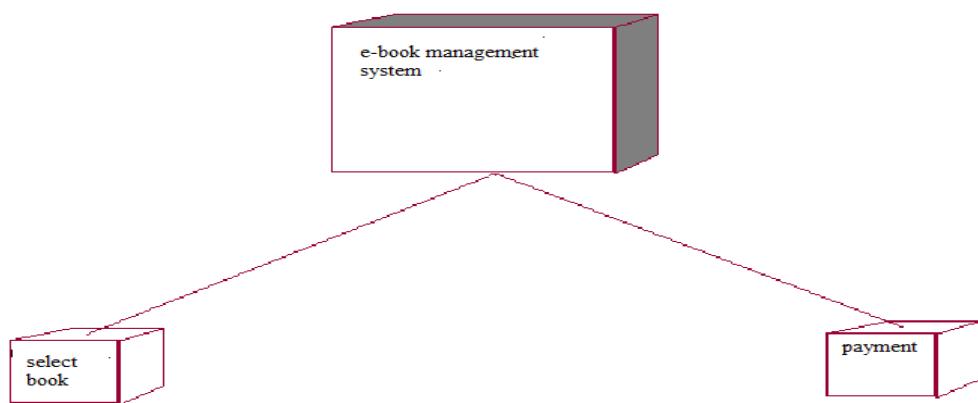


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is online recruitment systems. And Supplier, storekeeper and database are the components come under the main component.

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.

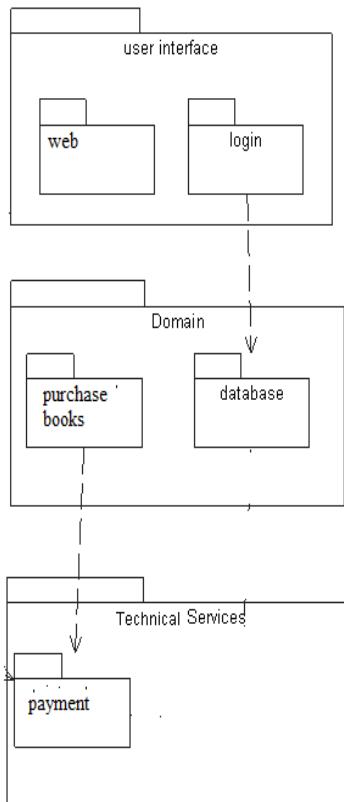


DOCUMENTATION OF DEPLOYMENT DIAGRAM

The processor in this deployment diagram is the online recruitment system which is the main part and the devices are the select and payment which are the some of the main activities performed in the system.

PACKAGE DIAGRAM

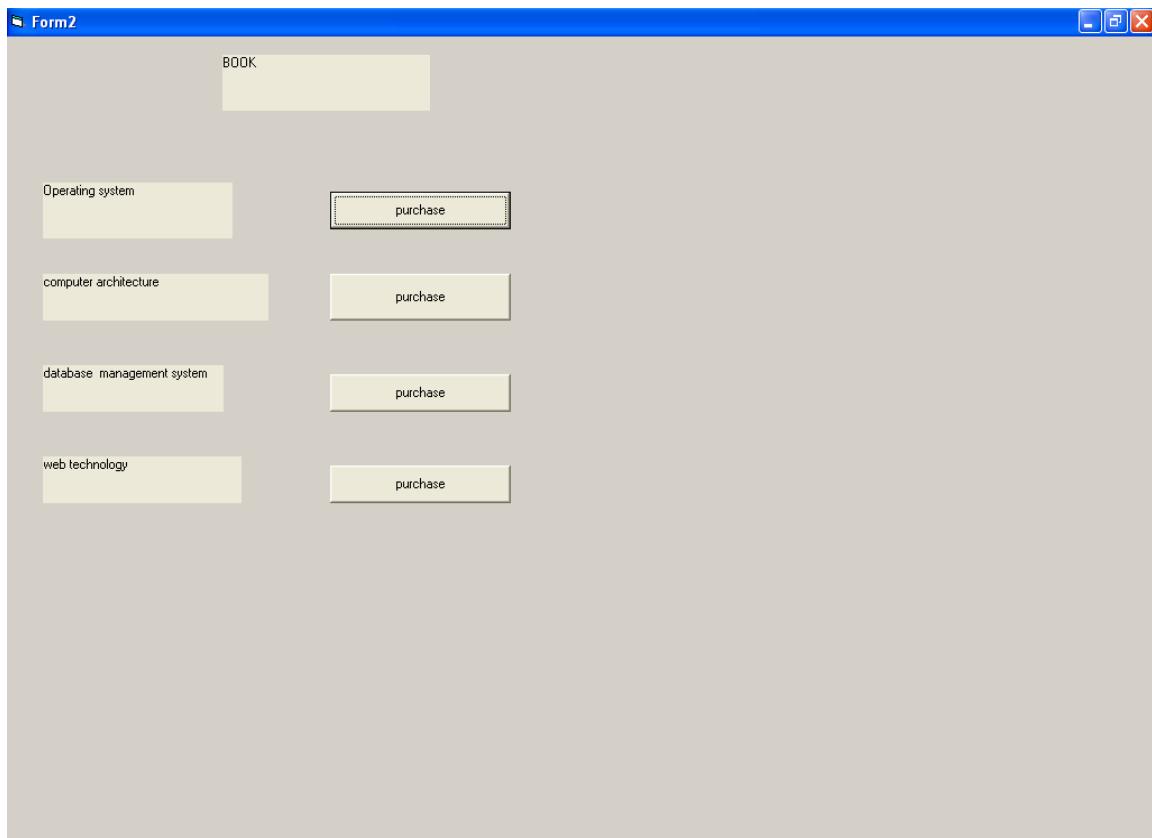
A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML.



PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

- **User interface layer:** consists of the form and login. This layer describes how the customer logs in and books maintained in website.
- **Domain layer:** shows the activities that are performed in the ebook management system. The activities are books are purchased from the website
- **Technical services layer:** the update the account details and buy the book by payment through the account

FORMS**FORM 1**

http://

FORM 2

http://csetube.weebly.com/

Form3

PAYMENT

Account number	<input type="text" value="12334"/>
password	<input type="text" value="sathiz"/>
name	<input type="text" value="sartt"/>
Address	<input type="text" value="sasagdthuhhy"/>

FORM 3

Form4

book was purchased successfully

SOURCE CODE**CUSTOMER****FORM1**

```
Option Explicit
##ModelId=4D63700C0148
Private name As Variant
##ModelId=4D63701003C8
Private address As Variant
##ModelId=4D637016007D
Private contact_no As Variant
##ModelId=4D637027031C
Private account_no As Variant
##ModelId=4D63714C02BF
Public NewProperty As books
##ModelId=4D63715201C5
Public NewProperty2 As Database
##ModelId=4D63706000BB
Public Sub login()
End Sub
```

```
Private Sub Command1_Click()
If Text1.Text = "pandi" And Text2.Text = "***" Then
MsgBox "login sucessfully"
Form2.Show
Else
MsgBox "invalid password"
End If
End Sub
```

```
Private Sub Command2_Click()
Unload Me
End Sub
```

BOOK

FORM2

```
Option Explicit
```

```
##ModelId=4D63709803C8
Private operating_system As Variant
##ModelId=4D6370AA008C
Private computer_architecture As Variant

##ModelId=4D6370B30138
Private dbms As Variant
##ModelId=4D6370B603C8
Private web_technology As Variant
##ModelId=4D6370C0034B
Private ooad As Variant
##ModelId=4D6370C50167
##ModelId=4D6370650213
Public Sub payment()
```

```
End Sub  
Public Sub select()  
End Sub  
##ModelId=4D6370D0000F  
Public Sub buy()  
End Sub  
Private Sub Command1_Click()  
Form3.Show  
End Sub  
Private Sub Command2_Click()  
Form3.Show  
End Sub  
Private Sub Command3_Click()  
Form3.Show  
End Sub  
Private Sub Command4_Click()  
Form3.Show  
End Sub  
Private Sub Label2_Click()  
End Sub
```

FORM3

```
Private Sub Command1_Click()  
Form4.Show  
End Sub
```

RESULT

Thus the project to develop Ebook Management System using Rational Rose Software and to implement the software in Java is done successfully.

EXNO: 10

DATE:

ONLINE RECRUITMENT SYSTEM

AIM

To develop a project on online recruitment system using Rational Rose Software and to implement the project in Visual Basic.

PROBLEM ANALYSIS AND PROJECT PLANNING

The Online Recruitment System is an online website in which applicant can register themselves and then attend the exam. Examination will be conducted at some venue. The details of the examination, venue & Date of the examination will be made available to them through the website. Based on the outcome of the exam the applicant will be short listed and the best applicant is selected for the job.

PROBLEM STATEMENT

The process of applicants is login to the recruitment system and register for the job through online. The resume is processed by the company and the required applicant is called for the test. On the basis of the test marks, they are called for next level of interview. Finally the best applicant is selected for the job. This process of online recruitment system are described sequentially through following steps,

- The applicant login to the online recruitment system.
- They register to the company for the job.
- They appear for examination.
- Based on the outcome of the exam, the best applicant is selected.
- The recruiter informs the applicant about their selection.

SOFTWARE REQUIREMENT SPECIFICATION

SNO	SPECIFICATION
-----	---------------

1	INTRODUCTION
2	OBJECTIVE
3	OVERVIEW
4	GLOSSARY
5	PURPOSE
6	SCOPE
7	FUNCTIONALITY
8	USABILITY
9	PERFORMANCE
10	RELIABILITY
11	FUNCTIONAL REQUIREMENTS

1. INTRODUCTION

This software specification documents full set of features and function for online recruitment system that is performed in company website. In this we give specification about the system requirements that are apart from the functionality of the system to perform the recruitment of the jobseekers. It tells the usability, reliability defined in use case specification.

2. OBJECTIVE

The main objective of Online Recruitment System is to make applicants register themselves online and apply for job and attend the exam. Online Recruitment System provides online help to the users all over the world.

3. OVERVIEW

The overview of the project is to design an online tool for the recruitment process which ease the work for the applicant as well as the companies. Companies can create their company forms according to their wish in which the applicant can register.

4. GLOSSARY

TERMS	DESCRIPTION
APPLICANT	Applicant can register himself. After registration, he will be directed to his homepage. Here he can update his profile, change password and see the examination details and all.
RECRUITER	Recruiter verify applicant details and conduct examination, approve or disapprove applicant attending examination and provides results about the selected applicant.
DATABASE	Database is used to verify login and store the details of selected applicants.
READER	Anyone visiting the site to read about online recruitment system.
USER	Applicant and the reader
SOFTWARE REQUIREMENT SPECIFICATION	This software specification documents full set of features and function for online recruitment system that is performed in company website.

5. PURPOSE

The purpose of online recruitment system is to select the applicant from the list of applicants registered in their company.

6. SCOPE

The scope of this online recruitment process is to select the best applicant from the list of applicant registered based on their performance in the recruitment process.

7. FUNCTIONALITY

The main functionality of recruitment system is to recruit the applicant for the job in their company.

8. USABILITY

User interface makes the Recruitment system to be efficient. That is the system will help the applicant to register easily and helps the companies to recruit the applicant effectively. The system should be user friendly.

9. PERFORMANCE

It describes the capability of the system to perform the recruitment process of the applicant without any error and performing it efficiently.

10. RELIABILITY

The online recruitment system should be able to serve the applicant with correct information and day-to-day update of information.

11. FUNCTIONAL REQUIREMENTS

Functional requirements are those refer to the functionality of the system. That is the services that are provided to the applicant who apply for the job.

UML DIAGRAMS

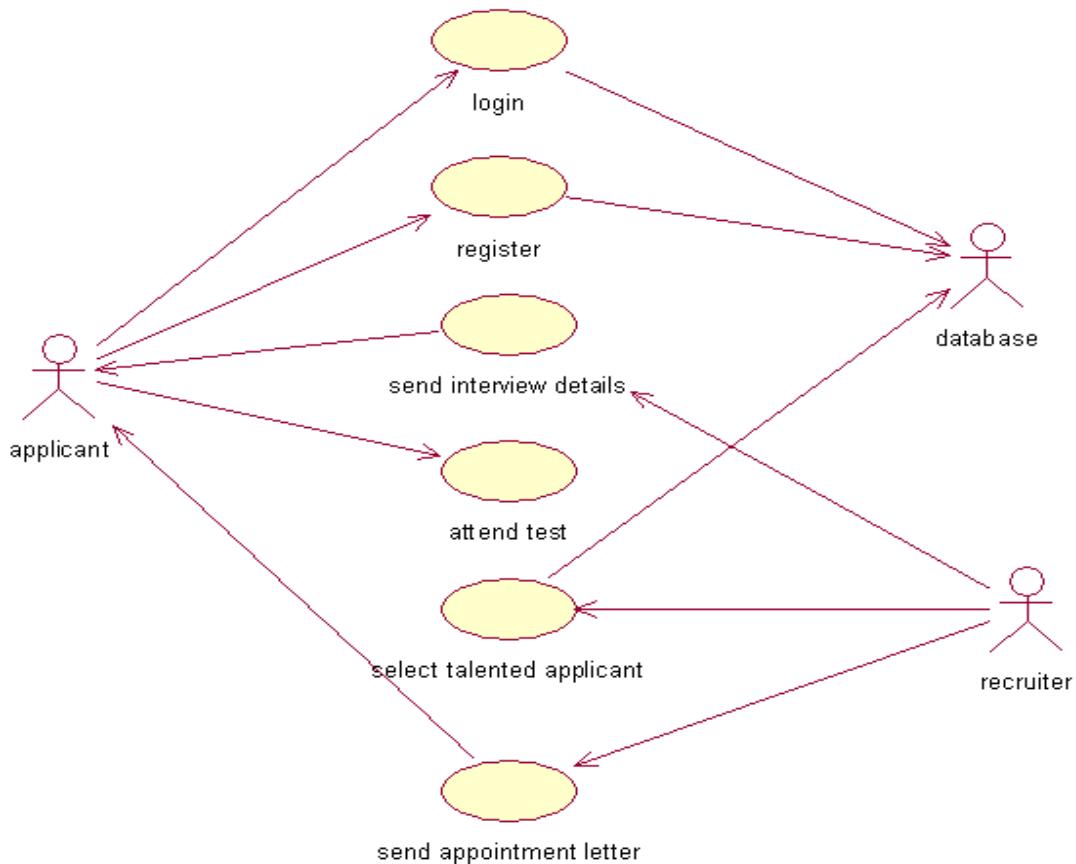
The following UML diagrams describe the process involved in the online recruitment system

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 modelled. It is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are applicant, recruiter and database. The use cases are the activities performed by actors.

The actors in this use case diagram are

- **Applicant** - logins the recruitment system and register for the job and attend the test conducted at some venue.
- **Recruiter** - send the interview details, select talented applicant and send appointment letter to them.

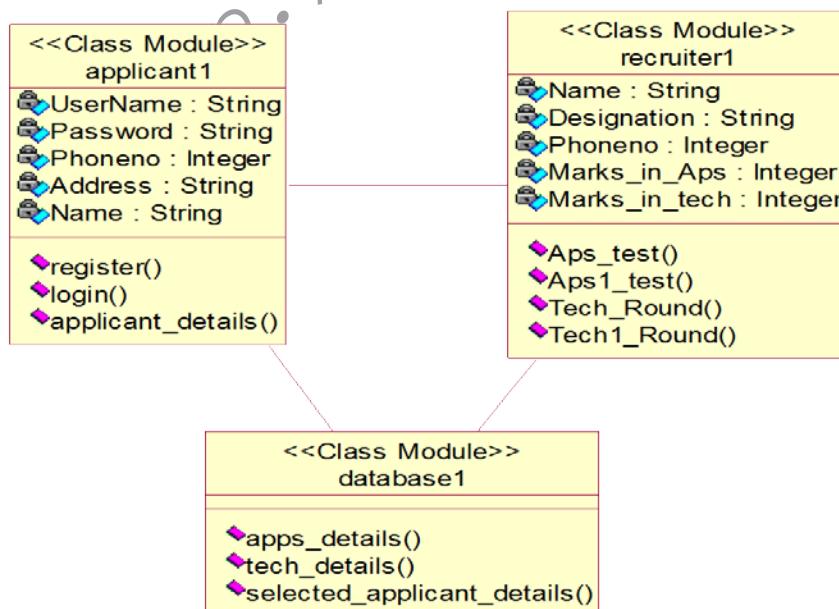
- **Databases** - verify the login and register details and selected applicant details are stored in it.

The use cases in this use case diagram are

- **Login** - applicant enter their username and password to enter in to the recruitment system
- **Register** – applicant register in to the recruitment system for job.
- **Send interview details** – recruiter send interview details to the applicant.
- **Attend test** – applicant appears for the test.
- **Select talented applicant** – based on the outcome of test talented applicant is selected.
- **Send appointment letter** – appointment letter is sent to the selected applicant by recruiter.

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 is represented using a rectangle with three compartments. Top compartment have the classname, middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

This class diagram has three classes applicant, recruiter and database.

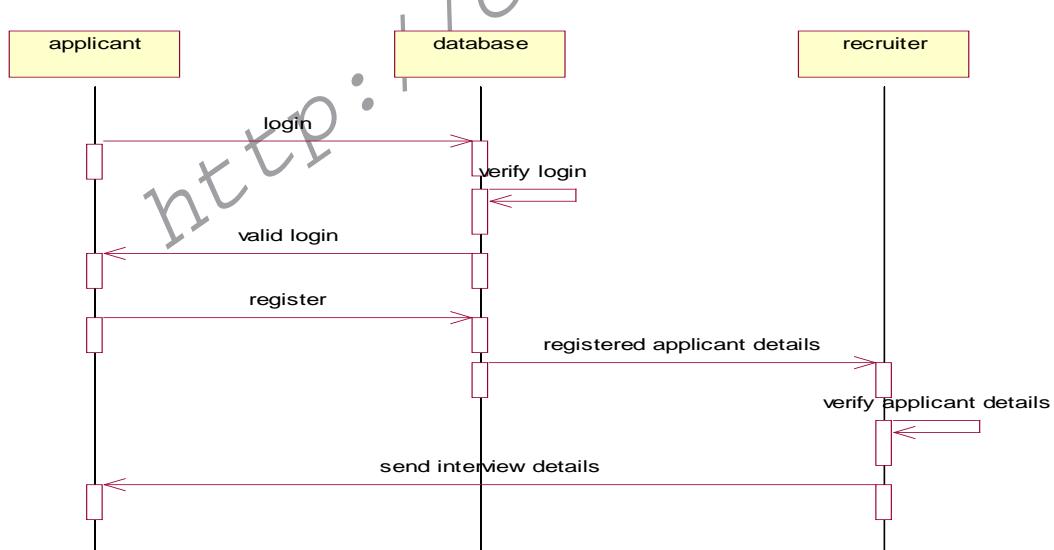
- **Applicant** – is the class name. Its attributes are username, password, name, phone no and address. The operations performed in the applicant class are login, register and giving applicant details.
- **Recruiter** – is the class name. Its attributes are name, designation, phone no, marks in apps and marks in technical. The operations performed are selecting applicants based on apps and technical.
- **Database** – is the class name. The operations performed are storing applicant details, verifying login and storing selected applicant details.

SEQUENCE DIAGRAM

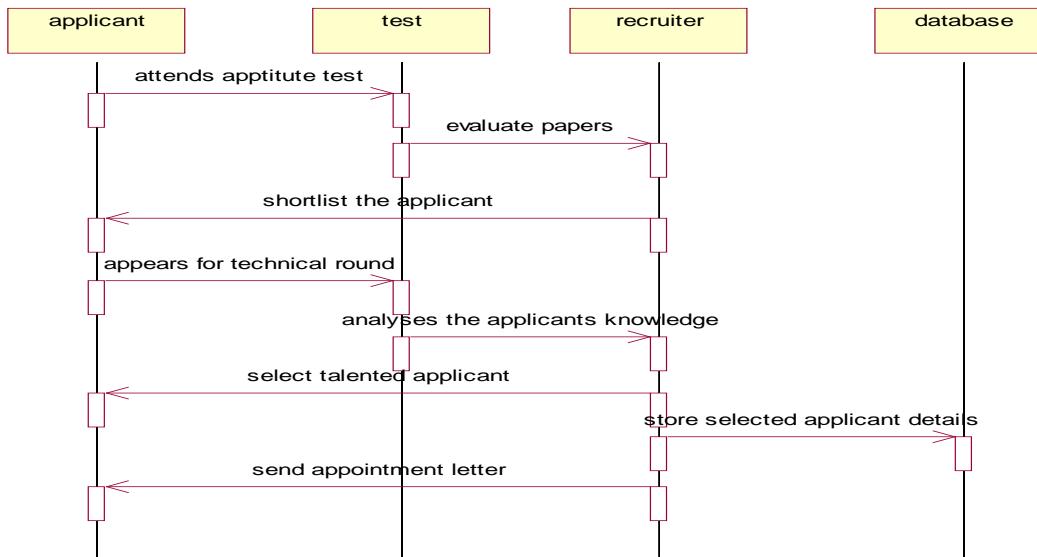
A sequence diagram in Unified Modeling Language (UML) is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. There are two dimensions.

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

FOR REGISTER



FOR SELECTING APPLICANT



DOCUMENTATION OF SEQUENCE DIAGRAM

REGISTER

This sequence diagram describes the sequence of steps to show

- The applicant login in to the recruitment system and register for job.
- The verification done in the database and recruiter
- The interview details are send to the applicant by recruiter.

SELECTING APPLICANT

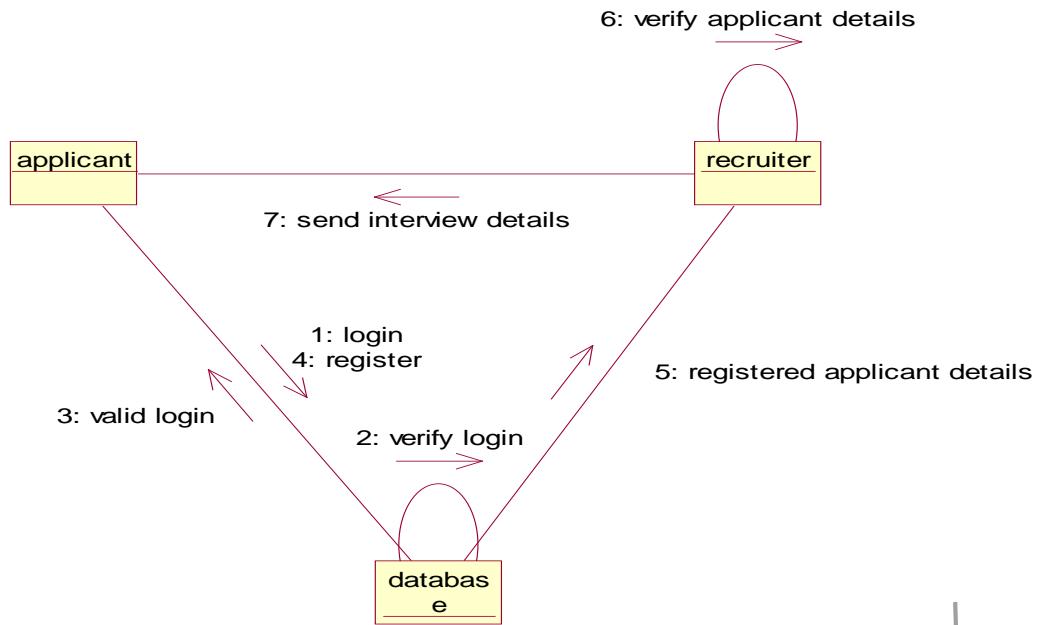
This sequence diagram shows steps to show

- The applicant attend aptitude test and they are short listed based on evaluation
- The applicant appear for technical round
- The talented applicant is selected.
- This detail is stored in the database.

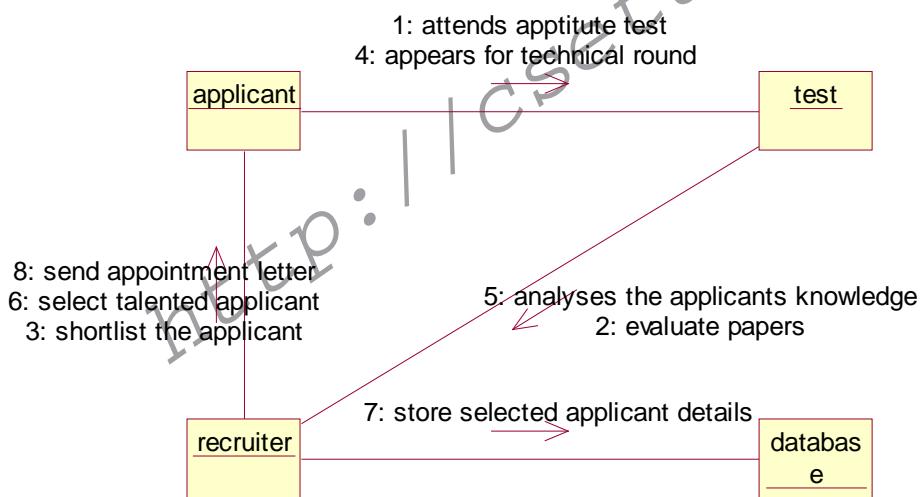
COLLABRATION DIAGRAM

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 versa. 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

FOR REGISTER



FOR SELECTING APPLICANT



DOCUMENTATION OF COLLABRATION DIAGRAM

REGISTER

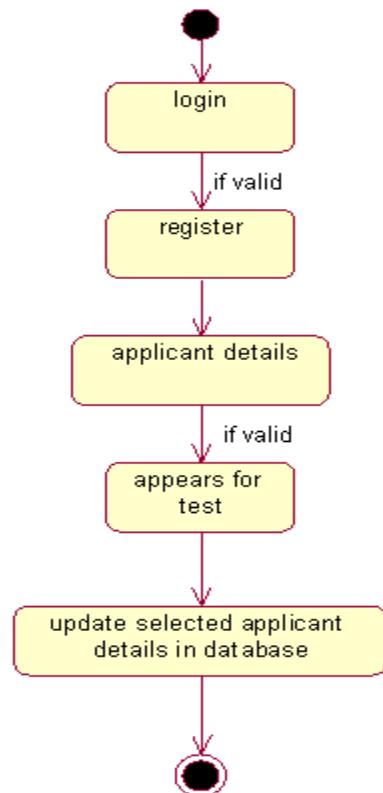
This collaboration diagram is to show how the applicant login and register in the recruitment system. Here the sequence is numbered according to the flow of execution.

SELECTING APPLICANT

This collaboration diagram is to show the selection process of the applicant for the job. The flow of execution of this selection process is represented using the numbers.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. A final state is represented as circle surrounding a small dot.



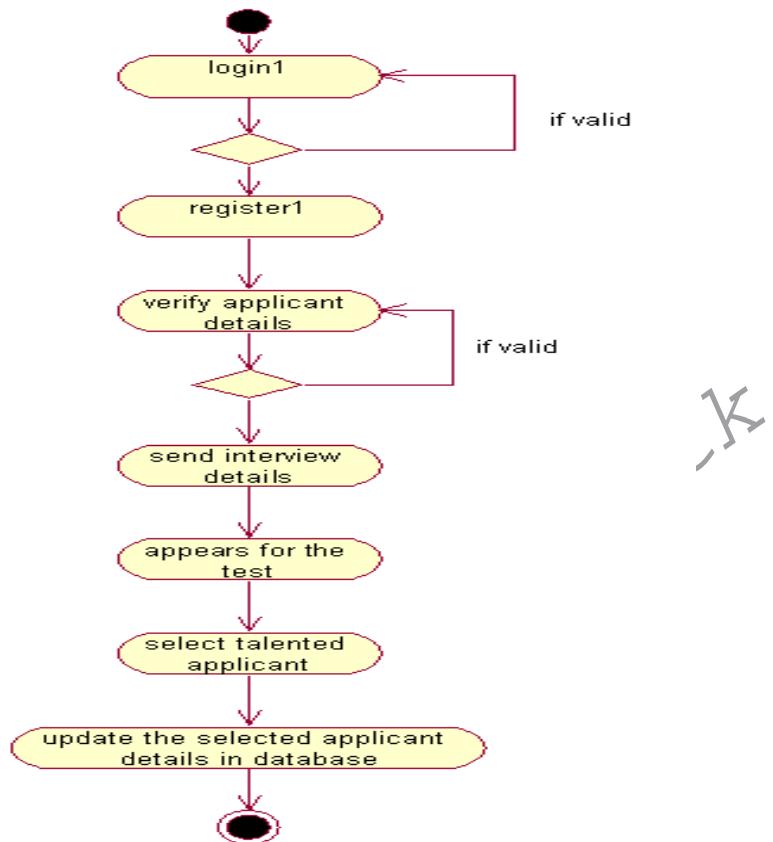
DOCUMENTATION OF STATE CHART DIAGRAM

This state diagram describes the behaviour of the system.

- First state is login where the applicant login to the recruitment system.
- The next state is register where the applicant register for job.
- Then verify the applicant details and sent interview details.
- The applicant appears for test.
- Update database with details of selected applicant.

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 an rounded box containing the name of the operation.



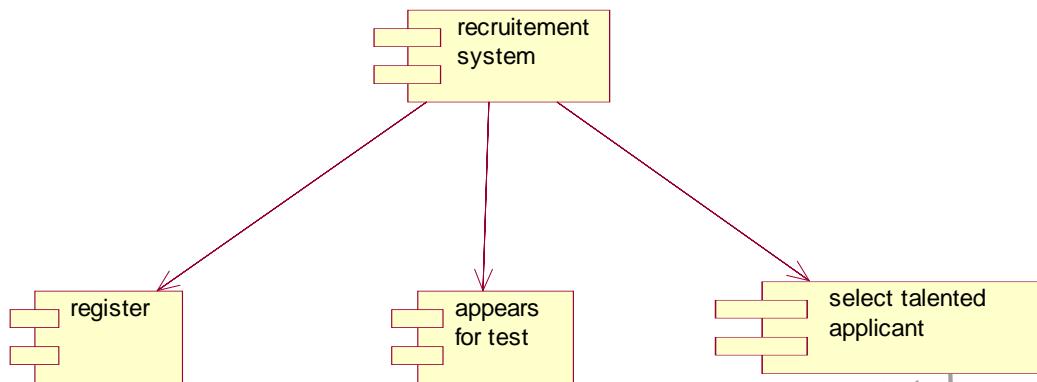
DOCUMENTATION OF ACTIVITY DIAGRAM

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

- First the applicant login then registers.
- The applicant details are verified and interview details are send to applicant by recruiter.
- Applicants appear for test.
- Recruiter select talented applicant.
- Update the selected applicant details in the database.

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.

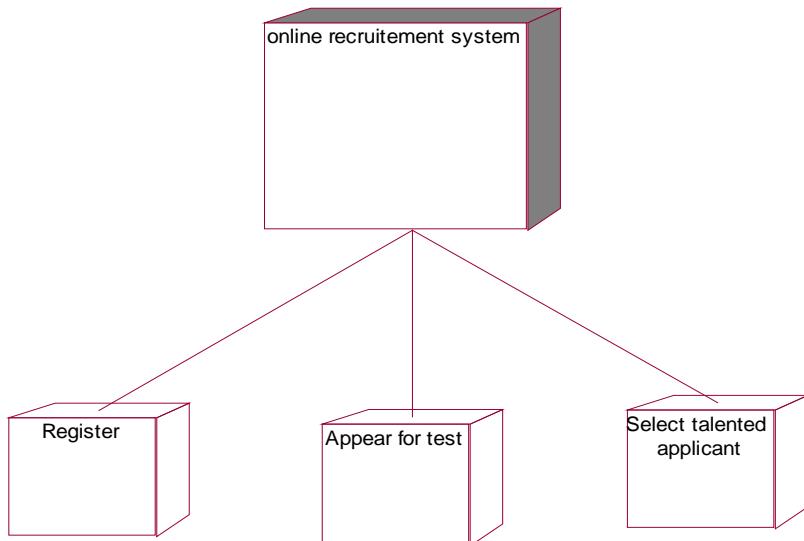


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is online recruitment systems. And register, attend test and select talented applicants are the components comes under the main component.

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.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

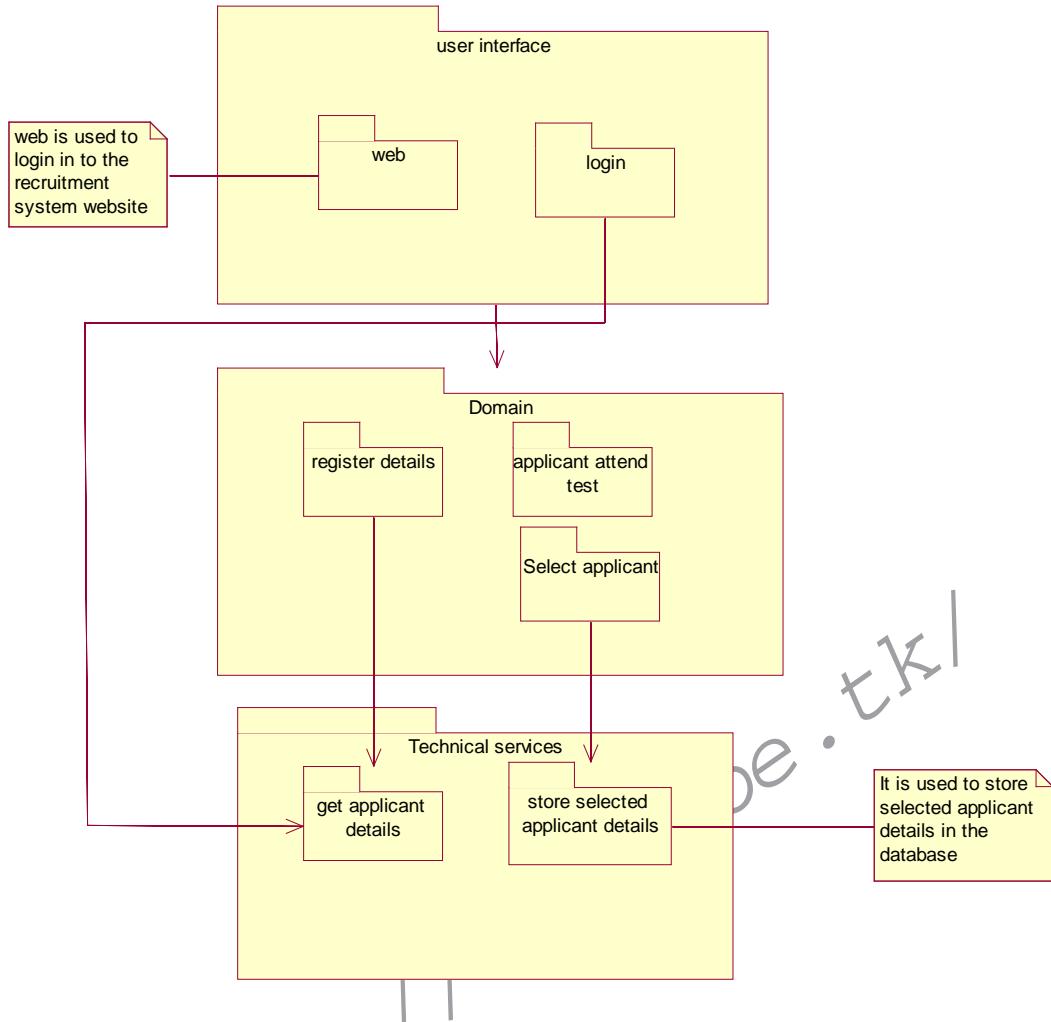
The processor in this deployment diagram is the online recruitment system which is the main part and the devices are the register, appear for test and select talented applicant which are the some of the main activities performed in the system.

PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

- **User interface layer** - software objects representing domain concepts that fulfill application requirements, such as calculation a sale total.
- **Domain layer** – layer that contains domain objects to handle application logic work.
- **Technical services layer** – general purpose objects and subsystems that provide supporting technical services, such as interfacing with a database or error logging.



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the online recruitment system are

- **The User interface layer** - consists of the web and login. This layer describes how the applicant logs in to the website and applies for the job.
- **The Domain layer** – shows the activities that are performed in the online recruitment system. The activities are register, attend test and select talented applicant.
- **The Technical service layer** - the applicant details, verification details and the selected applicant details are stored in the database.

FORMS

FORM1

Form1

LOGIN

User Name

Password

Project1

login successfully

FORM2

Form2

IBM COMPANY

JOB DETAILS

POST:Software engineer,debugger

EDUCATIONAL QUALIFICATION:B.E.Computer science

Applicant secured above 75 % in their UG can apply. To apply click Register.

INTERVIEW DETAILS
Interview will be conducted in the company on 20th by 9.00 am.

start 874 document_for_recruit... Project1 - Microsoft V... Form2 12:02 PM

FORM3

select

PERSONAL DETAILS

Name	anu
Address	chennai
Phone no	26352144
Educational Qualification	b.e.cse
Percentage in UG	85
Post	debugger

Project1
you are registered successfully
OK

Submit

FORM4

Form4

APPTITUDE TEST DETAILS

Name	Aptest
anu	85
arun	75
amitha	90
babu	80
babitha	60
dinesh	78
raja	89
ravi	65
sekar	40

TO SEE THE APPLICANT WHO ARE SELECTED FOR TECHNICAL ROUND CLICK SHOW

SHOW

Ado

start 874 document_for_recruit... Project1 - Microsoft V... Form4 3:31 PM

FORM5

Form5

APPLICANTS SELECTED FOR TECHNICAL ROUND

Name	Aptest
► anu	85
anitha	90
babu	80
dinesh	78
raja	89

TO SEE TECHNICAL ROUND DETAILS CLICK SHOW

SHOW

◀ ▶ Adodc1

Windows Taskbar: Start, sr74, document_for_recruit..., Project1 - Microsoft V..., Form4, Form5, 3:31 PM

FORM6

Form6

TECHNICAL ROUND DETAILS

Name	Tech n
► anu	90
anitha	92
babu	88
dinesh	75
raja	95

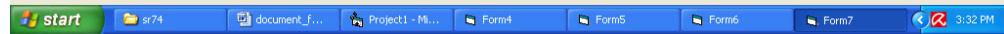
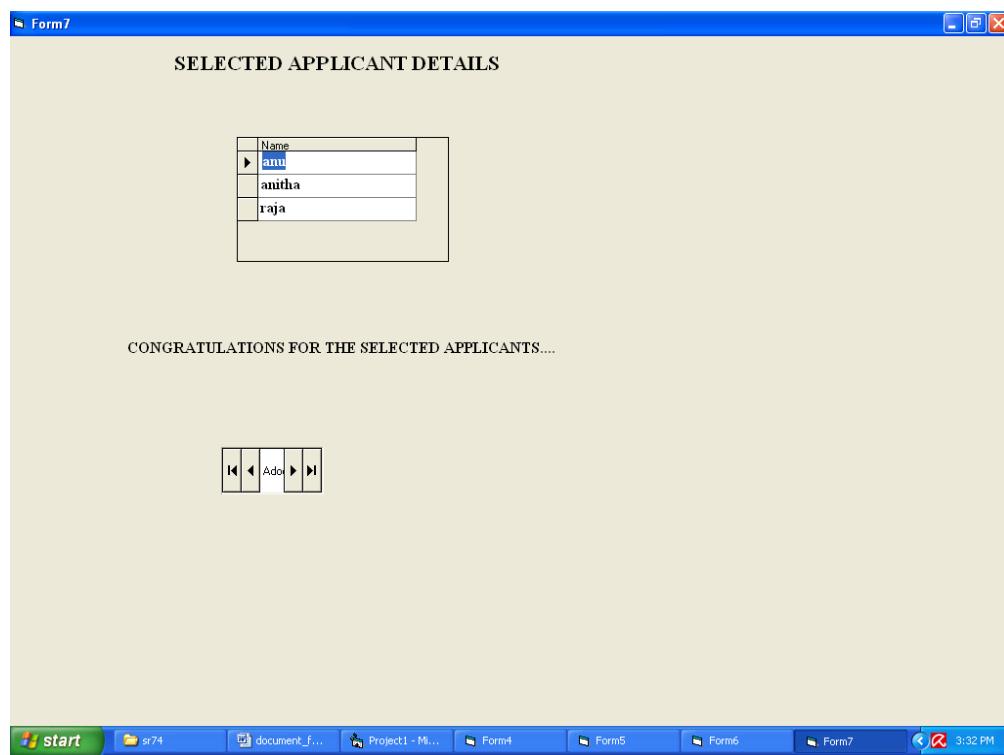
TO SEE THE APPLICANT WHO ARE SELECTED AFTER
TECHNICAL ROUND CLICK SHOW

SHOW

◀ ▶ Adodc1

Windows Taskbar: Start, sr74, document_for_recruit..., Project1 - Micro..., Form4, Form5, Form6, 3:32 PM

FORM7



Name	Aptest
ahu	85
arun	75
anitha	90
babu	80
babitha	60
dinesh	78
raja	89
ravi	65
sekar	40
smitha	70
*	

Microsoft Access - [tech : Table]

File Edit View Insert Format Records Tools Window Help

Type a question for help

Name Tech_marks

anu	90
anitha	92
babu	88
dinesh	75
raja	95
*	0

Record: 1 | 2 | 3 | 4 | 5 of 5

Datasheet View

SOURCE CODE

APPLICANT

```

Option Explicit
##ModelId=4D5CED1B0324
Private UserName As String
##ModelId=4D5CED1B0325
Private Password As String
##ModelId=4D5CED1B0326
Private Phoneno As Integer
##ModelId=4D5CED1B0327
Private Address As String
##ModelId=4D5CED1B0328
Private Name As String
##ModelId=4D5CED1B0313
Public NewProperty As database1
##ModelId=4D5CED1B032B
Public NewProperty2 As applicant1
##ModelId=4D5CED1B0321
Public Sub register()
End Sub
##ModelId=4D5CED1B0322
Public Sub login()
End Sub
##ModelId=4D5CED1B0323
Public Sub applicant_details()

```

End Sub

Recruiter1

```
Option Explicit
##ModelId=4D5CED1B0335
Private Name As String
##ModelId=4D5CED1B0336
Private Designation As String
##ModelId=4D5CED1B0337
Private Phoneno As Integer
##ModelId=4D5CED1B0338
Private Marks_in_Aps As Integer
##ModelId=4D5CED1B0339
Private Marks_in_tech As Integer
##ModelId=4D5CED1B033C
Public NewProperty22 As database1
##ModelId=4D5CED1B032B
Public NewProperty2 As applicant1
##ModelId=4D5CED1B0331
Public Sub Aps_test()
End Sub
##ModelId=4D5CED1B0332
Public Sub Aps1_test()
End Sub
##ModelId=4D5CED1B0333
Public Sub Tech_Round()
End Sub
##ModelId=4D5CED1B0334
Public Sub Tech1_Round()
End Sub
```

Database1

```
Option Explicit
##ModelId=4D5CED1B0313
Public NewProperty As database1
##ModelId=4D5CED1B033C
Public NewProperty22 As database1
##ModelId=4D5CED1B030E
Public Sub apps_details()
End Sub
##ModelId=4D5CED1B030F
Public Sub tech_details()
End Sub
##ModelId=4D5CED1B0310
Public Sub selected_applicant_details()
End Sub
```

FORM1

```
Private Sub Command1_Click()
Dim obj1 As applicant1
```

```
Set obj1 = New applicant1
obj1.login
End Sub

Public Sub login()
If Form1.Text1.Text = "recruit" And Form1.Text2.Text = "recruit" Then
    MsgBox "login successfully"
    Form2.Show
Else
    MsgBox "invalid password"
End If
End Sub
```

FORM2

```
Private Sub Command1_Click()
Dim obj2 As applicant1
Set obj2 = New applicant1
obj2.register
End Sub

Public Sub register()
Form3.Show
End Sub
```

FORM3

```
Private Sub Command1_Click()
Dim obj3 As applicant1
Set obj3 = New applicant1
obj3.applicant_details
End Sub

Public Sub applicant_details()
If Form3.Text1.Text = "" Then
    MsgBox "Enter the name"
ElseIf Form3.Text2.Text = "" Then
    MsgBox "Enter the Address"
ElseIf Form3.Text3.Text = "" Then
    MsgBox "Enter the Phoneno"
ElseIf Form3.Text4.Text = "" Then
    MsgBox "Enter the Educational qualification"
ElseIf Form3.Text5.Text = "" Then
    MsgBox "Enter the Percentage"
End If
If Val(Form3.Text5.Text) < 75 Then
    MsgBox "you are not up to the qualification.you are not registered"
Else
    MsgBox "you are registered successfully"
    Form4.Show
End If
End Sub
```

FORM4

```
Private Sub Command1_Click()
Dim obj4 As recruiter1
Set obj4 = New recruiter1
obj4.Aps_test
End Sub
```

```
Private Sub Form_Load()
Dim obj5 As database1
Set obj5 = New database1
obj5.apps_details
End Sub
```

```
Public Sub Aps_test()
Form5.Show
End Sub
```

```
Public Sub apps_details ()
Form4.Adodc1.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\Documents and Settings\Student\My Documents\recu1.mdb;Persist
Security Info=False"
Form4.Adodc1.RecordSource = "select * from suk"
Set Form4.DataGrid1.DataSource = Form4.Adodc1
End Sub
```

FORM5

```
Private Sub Command1_Click()
Dim obj6 As recruiter1
Set obj6 = New recruiter1
obj6.Aps1_test
End Sub
```

```
Private Sub Form_Load()
Dim obj7 As database1
Set obj7 = New database1
obj7.tech_details
End Sub
```

```
Public Sub Aps1_test()
Form6.Show
End Sub
```

```
Public Sub tech_details()
Form5.Adodc1.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\Documents and Settings\Student\My Documents\recu1.mdb;Persist
Security Info=False"
Form5.Adodc1.RecordSource = "select * from suk_query"
Set Form5.DataGrid1.DataSource = Form5.Adodc1
```

```
End Sub
```

FORM6

```
Private Sub Command1_Click()
Dim obj8 As recruiter1
Set obj8 = New recruiter1
obj8.Tech_Round
End Sub
```

```
Private Sub Form_Load()
Dim obj7 As database1
Set obj7 = New database1
obj7.selected_applicant_details
End Sub
```

```
Public Sub selected_applicant_details()
Form6.Adodc1.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\Documents and Settings\Student\My Documents\recu1.mdb;Persist
Security Info=False"
Form6.Adodc1.RecordSource = "select * from tech"
Set Form6.DataGrid1.DataSource = Form6.Adodc1
End Sub
```

FORM7

```
Private Sub Form_Load()
Dim obj0 As recruiter1
Set obj0 = New recruiter1
obj0.Tech1_Round
End Sub
```

```
Public Sub Tech1_Round()
Form7.Adode1.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\Documents and Settings\Student\My Documents\recu1.mdb;Persist
Security Info=False"
Form7.Adodc1.RecordSource = "select * from tech_query"
Set Form7.DataGrid1.DataSource = Form7.Adodc1
End Sub
```

RESULT

Thus the project to develop online recruitment system using Rational Rose Software and to implement the project in Visual Basic is done successfully.

EXNO:11

DATE:

FOREIGN TRADING SYSTEM

AIM

To design a project Foreign Trading System using Rational Rose Software and to implement the software in Visual Basic

PROJECT ANALYSIS AND PROJECT PLANNING

The initial requirements to develop the project about the mechanism of the Foreign Trading System is 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 forex 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 logouts after the confirmation message has been received.

SOFTWARE REQUIREMENT SPECIFICATION

SNO	SPECIFICATION
1	INTRODUCTION
2	OBJECTIVE
3	OVERVIEW
4	GLOSSARY
5	PURPOSE
6	SCOPE
7	FUNCTIONALITY
8	USABILITY
9	PERFORMANCE
10	RELIABILITY
11	FUNCTIONAL REQUIREMENTS

1. 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.

2. OBJECTIVE

The main objective of Foreign Trading System is to make the traders to do trading process easily through online as the forex is open 24 hours a day.

3. OVERVIEW

The overview of the project is to design an online tool for the foreign trading process and it oversees the implementation , administration and operations covered in foreign trade.

4. GLOSSARY

TERM	DESCRIPTION
TRADER	Person who trades for the commodities.
ADMINISTRATOR	One who coordinates the entire trading process.
DATABASE	All the transaction details are stored here.
READER	Person who is viewing the website.
USER	The traders and the viewers are the users.
SOFTWARE SPECIFICATION	REQUIREMENT This software specification documents full set of features and function for foreign trading system.

5. PURPOSE

The primary purpose of the forex is to assist international trade and investment, by allowing businesses to convert one currency to another currency. That is, In a typical foreign exchange transaction, a trader purchases a quantity of one currency by paying the quantity of another currency.

6. SCOPE

The 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 hour 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.

7. FUNCTIONALITY

Transfer purchasing power between countries. Obtain credit for international trade transactions. Minimize exposure to the risks of exchange rate changes.

8. USABILITY

The interface to make the trader access the system will be efficient.

9. PERFORMANCE

The capability that the system performs on the whole will be efficient and reliable without any error occurrence.

10. RELIABILITY

The system should be able to maintain its function throughout the transactions in the future.

11. FUNCTIONALITY REQUIREMENTS

Functional requirements refers to the functionality of the system. The services that are provided to the trader who trades.

UML DIAGRAMS

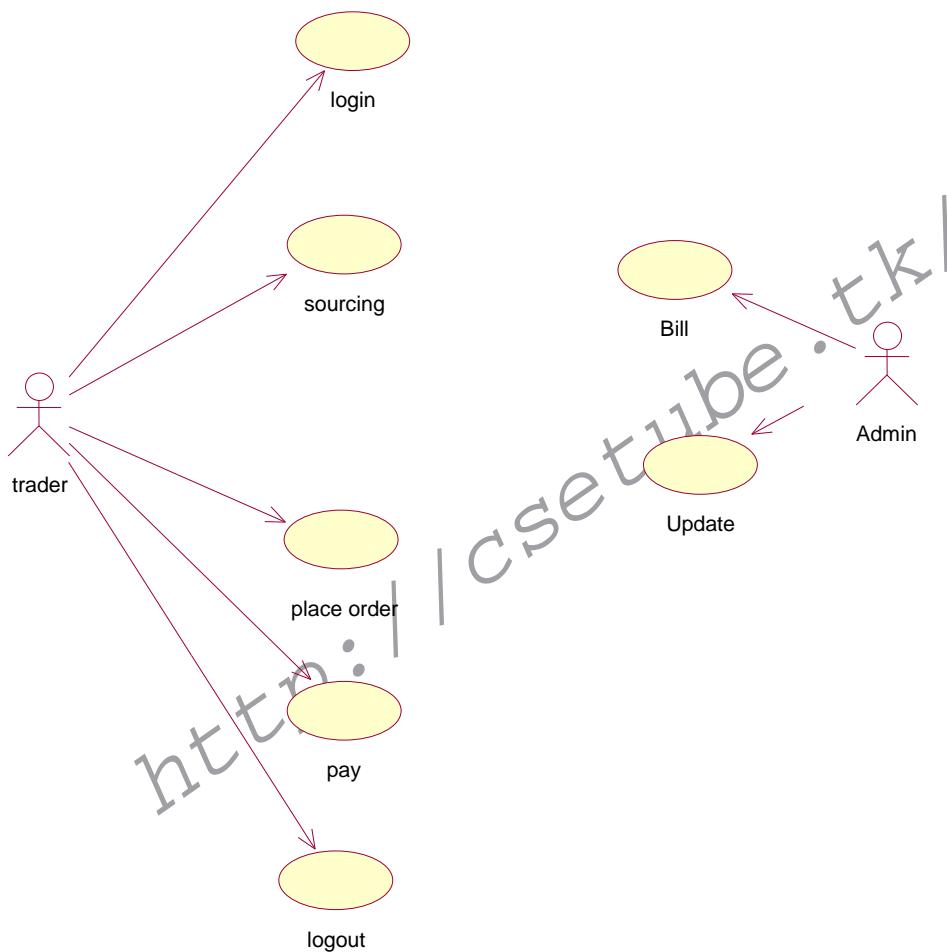
The following UML diagrams describe the process involved in the foreign trading system.

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package diagram

USE CASE 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 usecases. It is represented using a stick figure along with a label.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are trader, administrator and database. The usecases are the activities that are represented in the ellipse.

Trader logs in the foreign trading system and performs the sourcing to select the required commodities and places the order.

The administrator checks for ordered commodities , after the commodities are ready trader pays the amount.

The administrator provides the items along with the bill.

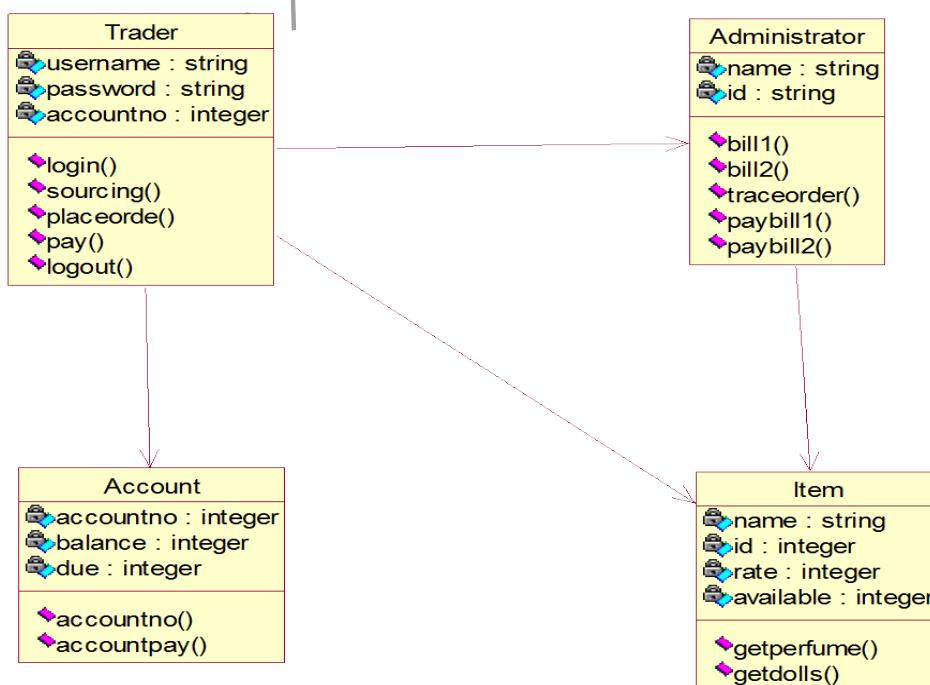
The database stores the all the details and updates it whenever there is a change in any part of the trading process.

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.



DOCUMENTATION OF CLASS DIAGRAM

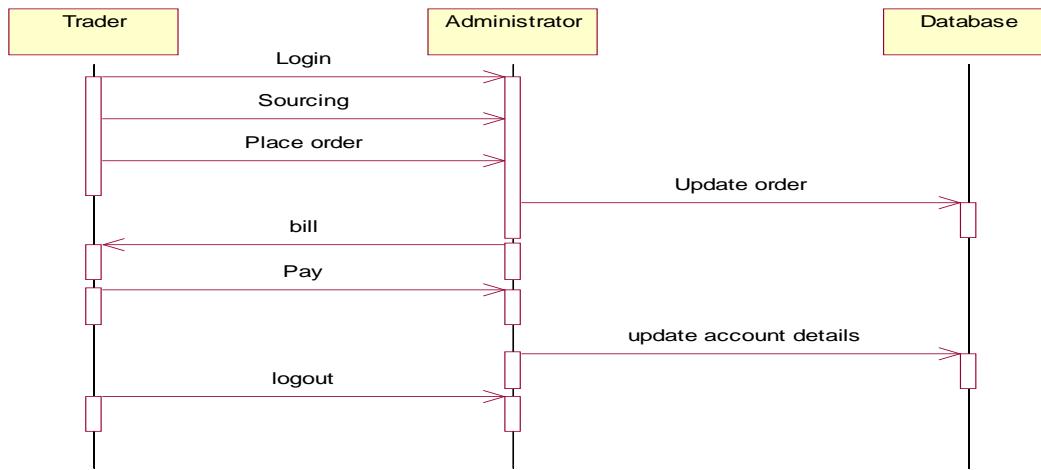
This class diagram consists of four class trader, administrator, account and item.

- **Trader**-is the class name. It consists of username, password, accountno as attributes. The operations performed are login, sourcing, placeorder, pay and logout.
- **Admin**-is the class name. It consists of name, id as attributes. The operations performed are bill and Trace order.
- **Item**-is the class name . It consists of name, id, availability and cost.
- **Account**-is the class name. It consists of accountno, balance and due as attributes.

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 lines called lifelines. There are two dimensions in this diagram

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



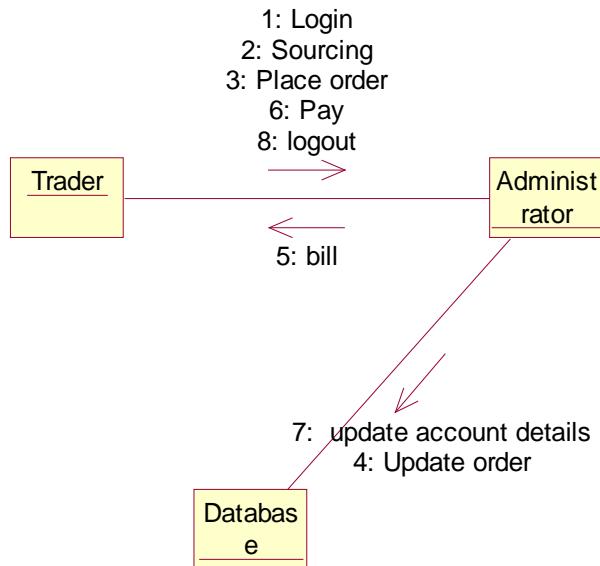
DOCUMENTATION OF SEQUENCE DIAGRAM

The sequence diagram represents:

- The trader logs in and performs the sourcing (viewing the availability and amount) to select the required commodities.
- The trader places the order to the administrator then the admin tracks order and update the details in the database.
- The bill is provided to the trader as per the viewed amount and the trader pays for it.
- The trader after receiving the commodities successfully logs out from the database.

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.



DOCUMENTATION OF COLLABORATION DIAGRAM

The collaboration diagram shows how the trader performs the sourcing and places order for which the administrator provides the bill and updates it in the database.

STATE CHART DIAGRAM

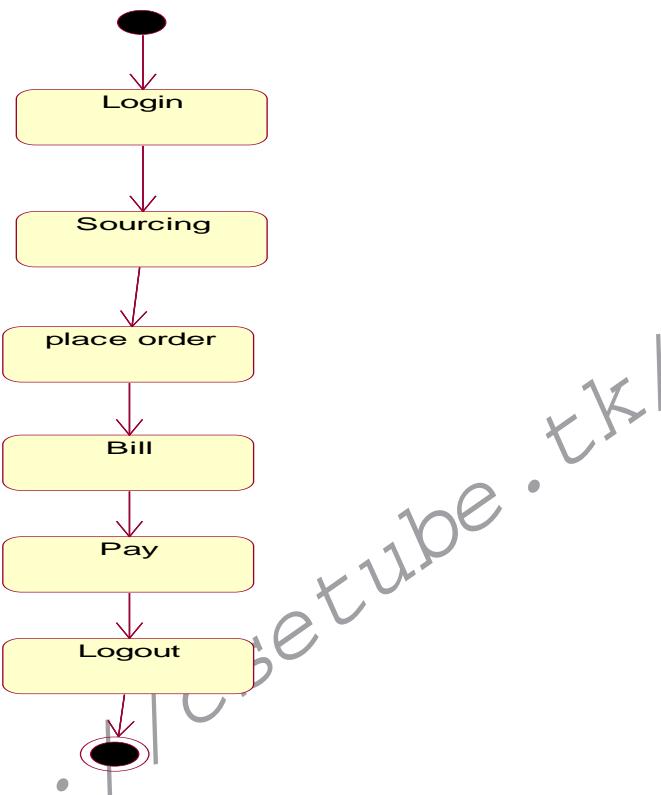
The state chart is used to model dynamic nature of a system. They define different states of an object during its lifetime. And these states are changed by events. So these diagrams are useful for reactive systems i.e., a system that responds to external or internal events. It describes the flow of control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

DOCUMENTATION OF STATE CHART DIAGRAM

The state diagram represents the following states.

- The trader logs in the first state and performs sourcing in the second state.

- The trader places the order in the third state.
- The trader receives the bill in the fourth state and pay the required amount in fifth state.
- The trader logouts from the system in the sixth state



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.



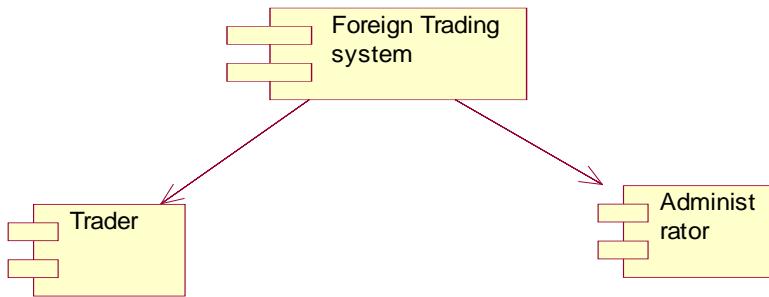
DOCUMENTATION OF ACTIVITY DIAGRAM

This activity diagram represents the flow of stepwise activities performed in foreign trading system.

- The first action represents the trader logs in to the system.
- The second action is the place where the trader places the order.
- The decision state is the state where the trader decides to place the order.
- If the trader places the order, fill the form for the required commodities.
- The next activity is that the administrator provides the bill for those commodities.
- The trader pays for the bill and logs out from the system.

COMPONENT DIAGRAM

A component diagram depicts how the components are wired together to form larger components and or software systems. Components are wired together by using an assembly connector to connect the required interface of one component with the provided interface of another component.

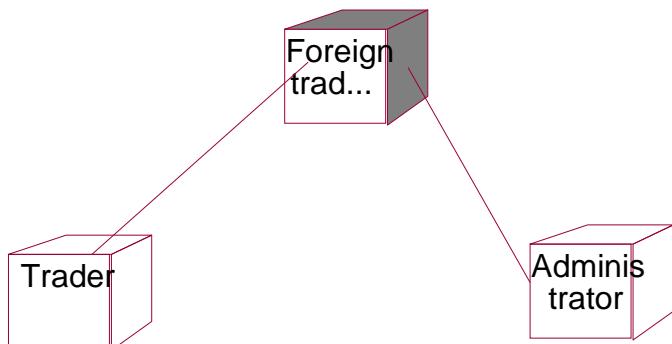


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in the component diagram is foreign trading system. The trader who come to do the trading process and administrator who manages all the other processes is the sub components.

DEPLOYMENT DIAGRAM

A deployment diagram models the physical deployment of artifacts on nodes. The nodes appear as boxes, and the artifacts allocated to each node appear as rectangles within the boxes. Nodes may have sub-nodes, which appear as nested boxes.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

The processor in this diagram is the foreign trading system. The devices are the trader and administrator who perform the main activities in the system.

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. There are three types of layers in package diagram. They are

- User interface layer
- Domain layer
- Technical services layer

User interface layer

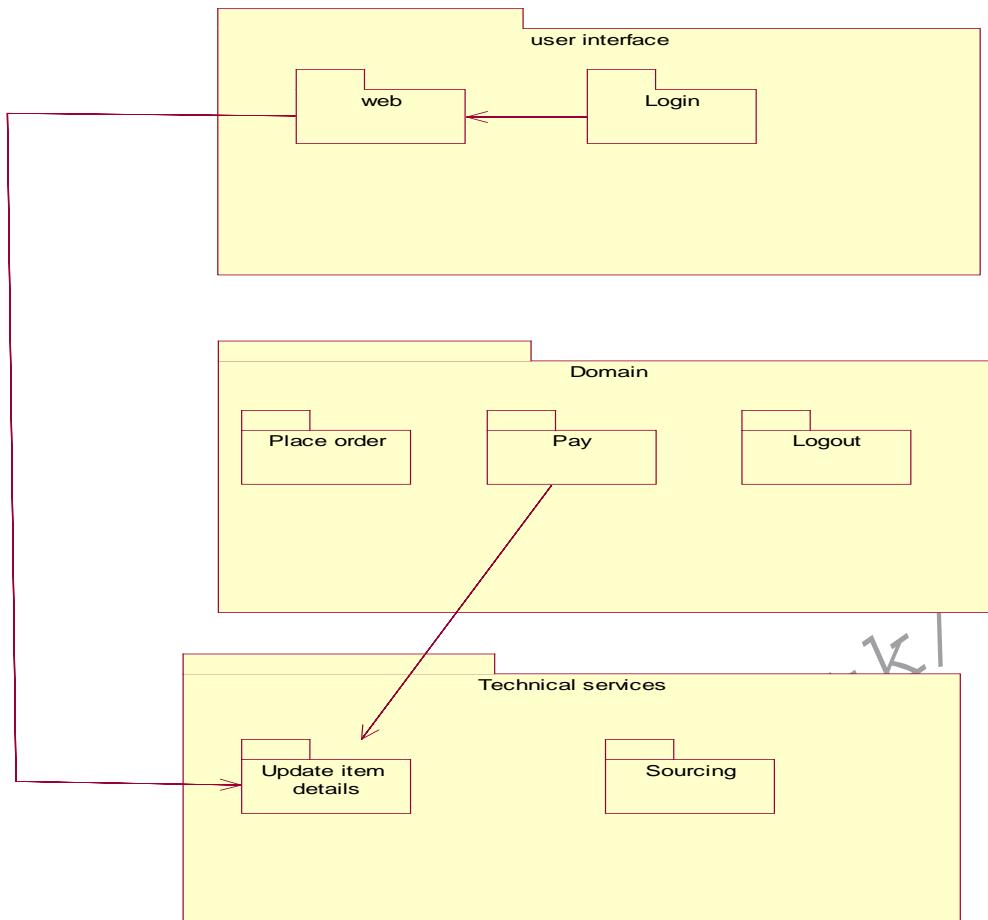
The user interface layer may call upon its directly subordinate application logic layer, and also upon elements of a lower technical service layer, for logging and so forth.

Domain layer

Software objects representing domain concepts (for example, a software class administrator) that fulfill application requirements, such as tracing order and providing the bill.

Technical services layer

General purpose objects and subsystems that provide supporting technical services, such as interfacing with a database or error logging. These services are usually application-independent.



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the foreign trading system are

- **User interface layer** – consists of web and login. This layer describes how the trader logins to the website and trades for the commodities.
- **Domain layer** – shows the activities that are performed inside the trading system. The activities are place order, pay for the bill and logouts.
- **Technical service layer** – The sourcing and updating the details are performed in this layer.

FORMS

FORM1

Form1

LOGIN PAGE

USERNAME

PASSWORD

Project6
logged successfully

FORM2

Form5

WELCOME TO FOREX

► perfume
dolls

Select the item from the list

Click here to place an order

Adodc1

FORM3

Form3

PERFUME ORDER

Available quantity

Rate of item

Required Quantity

FORM4

Form4

BILL

Billamount

FORM5

Form2

ACCOUNT DETAILS

Enter your account no:

Amount

FORM6

Form2

ACCOUNT DETAILS

Enter your account no:

Amount

Project6
your transaction is successfull

FORM7



SOURCE CODE

ACCOUNT

Option Explicit

'##ModelId=4D64958501F4

Private accountno As Integer

'##ModelId=4D64958E0186

Private balance As Integer

'##ModelId=4D64959B0290

Private due As Integer

'##ModelId=4D6612990290

Public Sub accountno()

MsgBox "your transaction is successfull"

Form6.Show

End Sub

'##ModelId=4D66130F0128

Public Sub accountpay()

MsgBox "your transaction failed. Do your trading again"

Form5.Show

End Sub

ADMINISTRATOR

```
'##ModelId=4D6496030128
Public NewProperty As item

'##ModelId=4D6CAE4001F4
Public Sub paybill2()
Form7.Text3.Text = Form7.Text3.Text - Form7.Text5.Text
End Sub

'##ModelId=4D649563003E
Public Sub bill1()
Form4.Text1.Text = Form3.Text4.Text * Form3.Text5.Text
Form4.Show

End Sub

'##ModelId=4D6CA397008C
Public Sub bill2()
Form8.Text1.Text = Form7.Text4.Text * Form7.Text5.Text
Form8.Show
End Sub

'##ModelId=4D64956F0399
Public Sub traceorder()
Form5.Adodc1.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=C:\Documents and Settings\Student\Desktop\datum\db.mdb;Persist Security Info=False"
Form5.Adodc1.RecordSource = "select itemname from itemtable"
Set Form5.DataGrid1.DataSource = Form5.Adodc1
Form3.Text5.Text = ""
End Sub

'##ModelId=4D6612B70186
Public Sub paybill1()
Form3.Text3.Text = Form3.Text3.Text - Form3.Text5.Text
End Sub
```

ITEM

```
Option Explicit

'##ModelId=4D6495B600CB
Private name As String

'##ModelId=4D6495BC0213
Private id As Integer

'##ModelId=4D6495CA0251
```

Private rate As Integer

'##ModelId=4D6495D103C8

Private available As Integer

'##ModelId=4D6612C202CE

Public Sub getperfume()

Form3.Text3.Text = Form3.Text3.Text - Form3.Text5.Text

Form4.Show

End Sub

'##ModelId=4D6612D30167

Public Sub getdoll()

Form7.Text3.Text = Form7.Text3.Text - Form7.Text5.Text

Form8.Show

End Sub

TRADER

'##ModelId=4D64952500BB

Public Sub login()

If Form1.Text1.Text = "ramya" And Form1.Text2.Text = "ramya" Then

MsgBox "logined successfully"

Form5.Show

Else

MsgBox "invalid login"

End If

End Sub

'##ModelId=4D64952901C5

Public Sub sourcing()

If Form5.Combo1.Text = "perfume" Then

Form3.Show

End If

If Form5.Combo1.Text = "dolls" Then

Form7.Show

End If

End Sub

'##ModelId=4D649531005D

Public Sub placeorder()

Form5.Show

End Sub

'##ModelId=4D64953600FA

Public Sub pay()

Form2.Show

End Sub

```
'##ModelId=4D64953903B9  
Public Sub logout()  
Form1.Show  
End Sub
```

FORM1

```
Private Sub Command1_Click()  
Dim a1 As trader  
Set a1 = New trader  
a1.login  
End Sub
```

FORM2

```
Private Sub Command1_Click()  
Dim a7 As account  
Set a7 = New account  
a7.accountno  
End Sub
```

```
Private Sub Command3_Click()  
Dim x As account  
Set x = New account  
x.accountpay  
End Sub
```

FORM3

```
Private Sub Command1_Click()  
Dim a3 As item  
Set a3 = New item  
a3.getperfume  
Dim x3 As administrator  
Set x3 = New administrator  
x3.paybill1  
End Sub
```

```
Private Sub Command2_Click()  
Dim a4 As trader  
Set a4 = New trader  
a4.placeorder  
End Sub
```

FORM4

```
Private Sub Command2_Click()  
Dim a5 As trader
```

```
Set a5 = New trader  
a5.pay  
End Sub  
Private Sub Form_Load()  
Dim a As administrator  
Set a = New administrator  
a.bill1  
End Sub
```

FORM5

```
Private Sub Command1_Click()  
Dim a2 As trader  
Set a2 = New trader  
a2.sourcing  
End Sub
```

```
Private Sub Form_Load()  
Dim a0 As administrator  
Set a0 = New administrator  
a0.traceorder  
End Sub
```

FORM6

```
Private Sub Command1_Click()  
Dim a6 As trader  
Set a6 = New trader  
a6.logout  
End Sub
```

FORM7

```
Private Sub Command1_Click()  
Dim a3 As item  
Set a3 = New item  
a3.getdoll  
Dim x2 As administrator  
Set x2 = New administrator  
x2.paybill2  
End Sub
```

```
Private Sub Command2_Click()  
Dim a4 As trader  
Set a4 = New trader  
a4.placeorder  
End Sub
```

FORM8

```
Private Sub Command2_Click()  
Dim a8 As trader  
Set a8 = New trader
```

```
a8.pay  
End Sub  
Private Sub Form_Load()  
Dim a7 As administrator  
Set a7 = New administrator  
a7.bill2  
End Sub
```

http://csetube.tk/

RESULT

Thus the project to develop foreign trading system using Rational Rose software and to implement the software in Visual Basic is done successfully.

<http://csetube.weebly.com/>

EXNO: 12

DATE:

CONFERENCE MANAGEMENT SYSTEM

AIM

To develop a project on Conference management system using Rational Rose Software and to implement the project in Visual Basic.

PROBLEM ANALYSIS AND PROJECT PLANNING

The Conference Management System is an online website in which candidate can submit the paper and register themselves and then attend the conference. The paper will be reviewed. The details of the conference, date and time will be made available to them through the website. After getting the confirmation details the candidate should submit the revised and camera ready paper. Then the registration process will be done.

PROBLEM STATEMENT

The process of the candidates is to login the conference system and submit the paper through online. Then the reviewer reviews the paper and sends the acknowledgement to the candidate either paper selected or rejected. This process of on conference management system are described sequentially through following steps,

- The candidate login to the conference management system.
- The paper title is submitted.
- The paper is been reviewed by the reviewer.
- The reviewer sends acknowledgement to the candidate.
- Based on the selection, the best candidate is selected.
- Finally the candidate registers all details.

SOFTWARE REQUIREMENT SPECIFICATION

SNO	SPECIFICATION
1	INTRODUCTION
2	OBJECTIVE
3	OVERVIEW
4	GLOSSARY
5	PURPOSE
6	SCOPE
7	FUNCTIONALITY
8	USABILITY
9	PERFORMANCE
10	RELIABILITY
11	FUNCTIONAL REQUIREMENTS

INTRODUCTION

This software specification document consist full set of features and function for online conference management system. In this we give specification about the system requirements that are apart from the functionality of the system to perform the candidate paper valuation. It tells the usability, reliability defined in use case specification.

OBJECTIVE

The main objective of Conference Management System is to accomplish paper submission online, update the presentation details and confirm registration. Conference management system provides online help to the users all over the world.

OVERVIEW

The overview of the project is to design a process which ease the work for the candidate as well as the reviewer. Candidate can easily submit the paper and go for registration.

GLOSSARY

TERMS	DESCRIPTION
CANDIDATE	The candidate can login and submit the paper to the reviewer. After getting acknowledgement the candidate will submit the revised and camera ready paper then registration process will be carried out.
REVIEWER	Reviewer will reviews the paper and sending acknowledgement to the candidate
DATABASE	Database is used to verify login and store the details of selected candidates.
SOFTWARE REQUIREMENT SPECIFICATION	This software specification documents full set of features and function for conference management system.

PURPOSE

The purpose of the conference management system is that the system can easily review the process. The main process in this document is the submission of paper by the candidate, reviewing process by the reviewer and sending of acknowledgement to the candidates whose paper is selected.

SCOPE

The scope of this conference management process is to select the best candidate from the list of candidates based on their performance in the process.

FUNCTIONALITY

The main functionality of conference system is to select the candidate for the presentation in conference.

USABILITY

The user interface to make the process should be effective that is the system will help the candidates to register easily. The system should be user friendly.

PERFORMANCE

It describes the capability of the system to perform the conference process of the candidate without any error and performing it efficiently.

RELIABILITY

The conference system should be able to serve the applicant with correct information and day-to-day update of information.

FUNCTIONAL REQUIREMENTS

Functional requirements are those that refer to the functionality of the system that is the services that are provided to the candidate who register for the conference.

UML DIAGRAMS

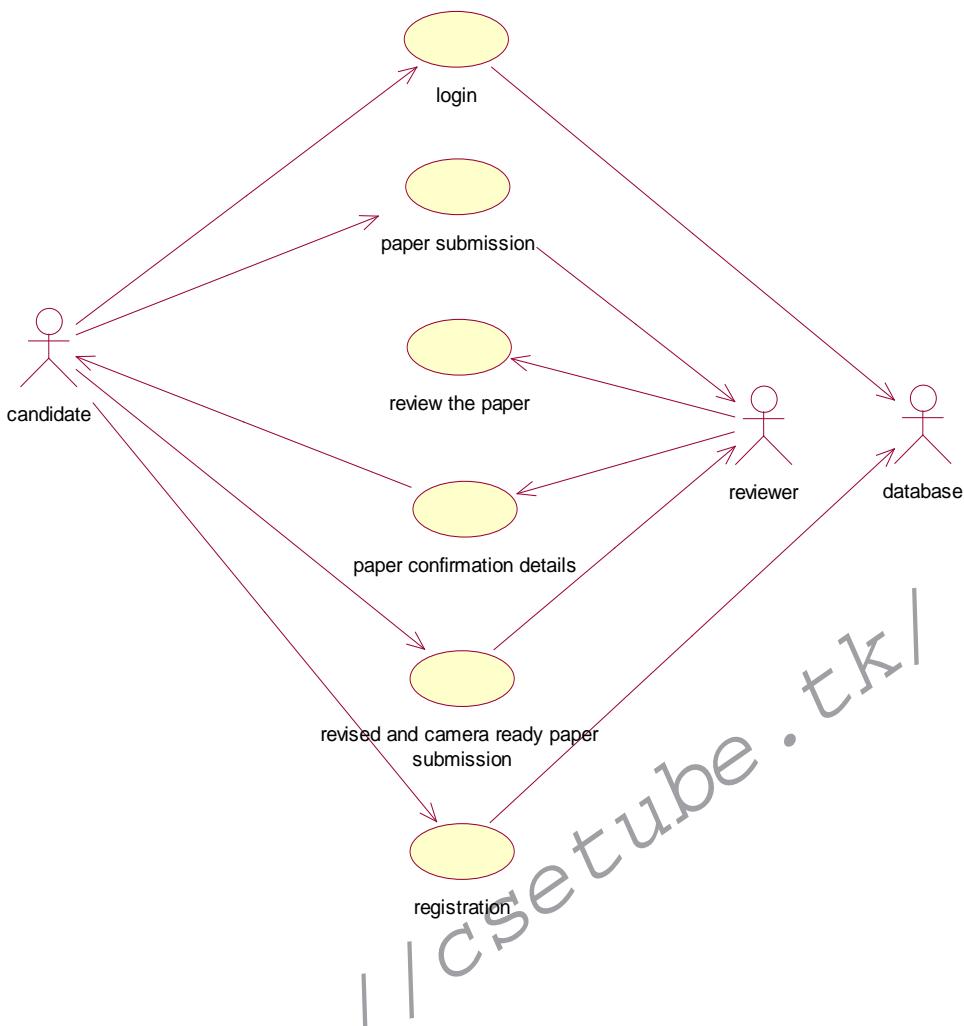
The following UML diagrams describe the process involved in the conference management system.

- Use case diagram
- Class diagram
- Sequence diagram
- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are candidate, reviewer and database. The use cases are the activities performed by actors.

The actors in this use case diagram are

- **Candidate** - Logins the conference system and submits the paper then do the registration process.
- **Reviewer** – Review the paper , select best candidate and send acknowledgement to them.
- **Databases** - verify the login and register details and selected candidate details are stored in it.

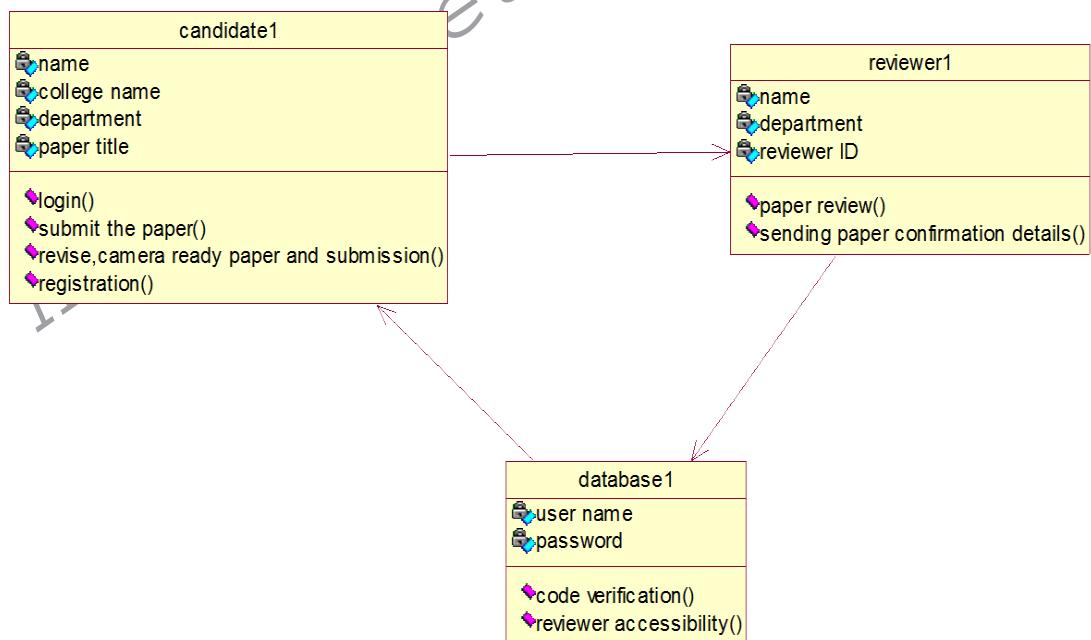
The use cases in this use case diagram are

- **Login** - Candidate enter their username and password to login to the conference system.

- **Paper submission** – Candidate submits the paper.
- **Review the paper**– The paper is been reviewed by the reviewer and the paper is selected.
- **Paper confirmation details** – The reviewer can send the confirmation details to the candidate.
- **Revised and camera ready paper** – After the paper is selected and the camera ready paper should be submitted to the reviewer by candidate.
- **Registration** – After submitting the revised paper the candidate wants to register.

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 is represented using a rectangle with three compartments. Top compartment have the class name, middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

This class diagram has three classes candidate, reviewer and database.

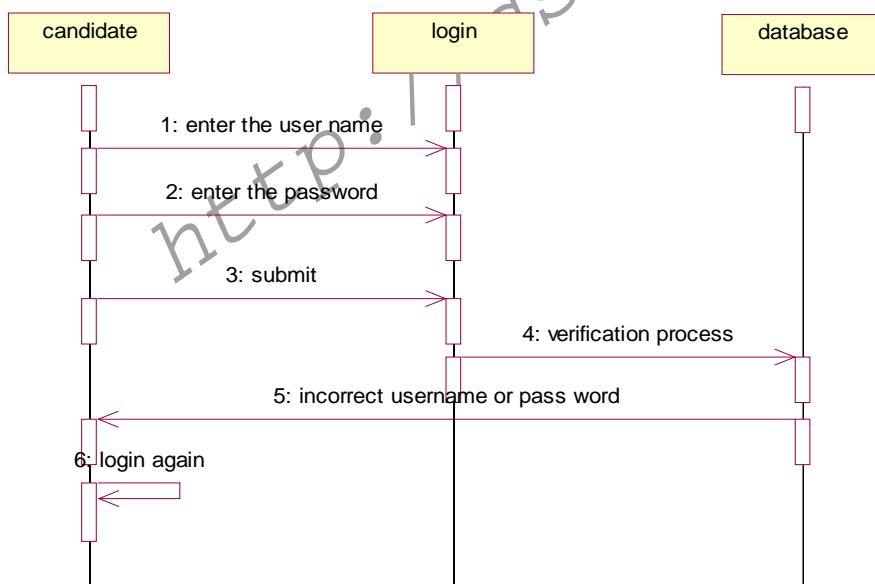
- **Candidate** – Its attributes are name , collegename , department , paper title. The operations performed in the candidate class are login, submit the paper, submit revised and camera ready paper and registration.
- **Reviewer** – Its attributes are name, department, reviewer ID The operations performed are review the paper and send the paper confirmation details.
- **Database** –The operations performed are storing candidate details and verifying login .

SEQUENCE DIAGRAM

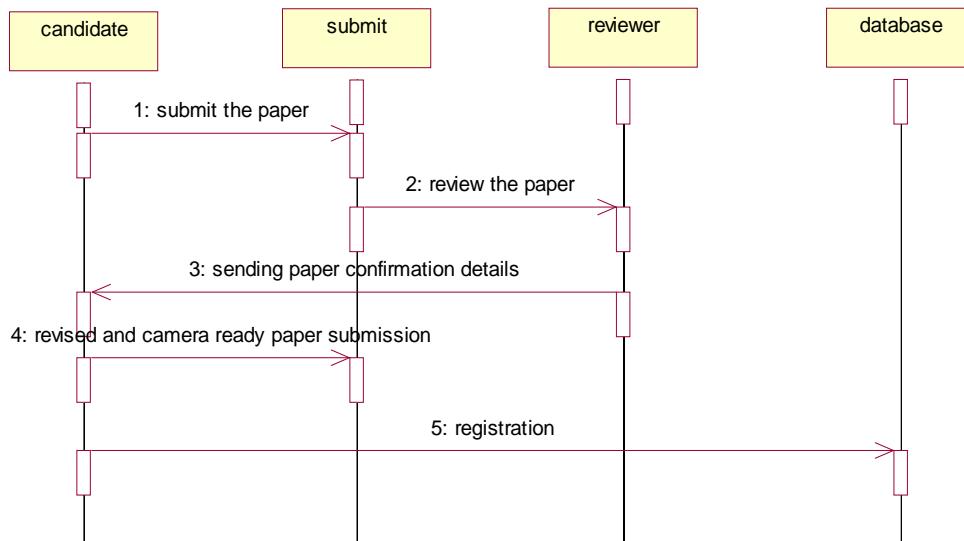
A sequence diagram in Unified Modeling Language (UML) is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. There are two dimensions.

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

SEQUENCE DIAGRAM FOR LOGIN



SEQUENCE DIAGRAM FOR SUBMITTING PAPER



DOCUMENTATION OF SEQUENCE DIAGRAM

LOGIN

This sequence diagram describes the sequence of steps to show

- The candidate login in to the conference system and register for job.
- The verification done in the database.

PAPER SUBMISSION

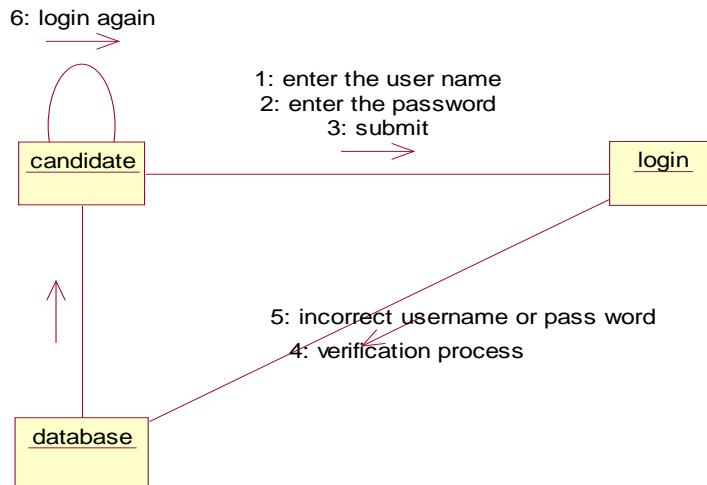
This sequence diagram shows steps to show

- The candidate sumbit the paper.
- The reviewer reviews the paper and sends acknowlegement to the candidate.
- The candidate submits revised and camera ready paper.
- This candidate will registers their detials.

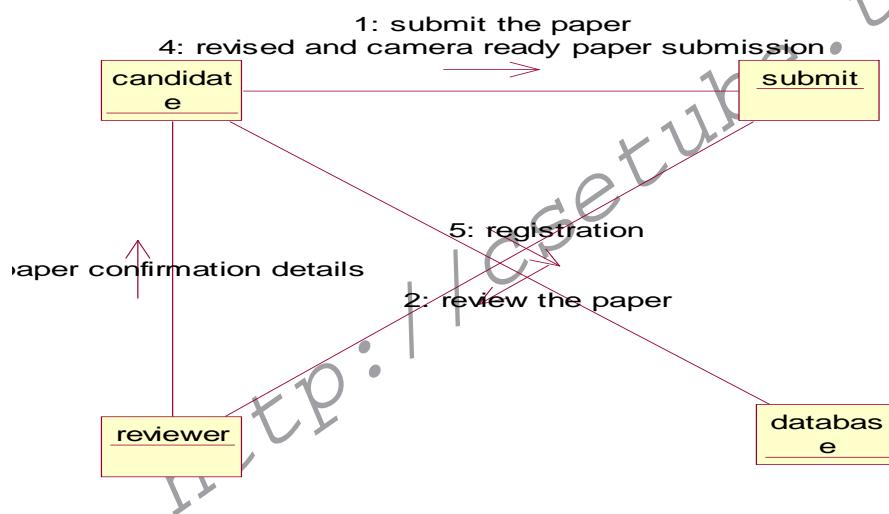
COLLABRATION DIAGRAM

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 versa. 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

COLLABRATION DIAGRAM FOR LOGIN



COLLABRATION DIAGRAM FOR PAPER SUBMISSION



DOCUMENTATION OF COLLABRATION DIAGRAM

LOGIN

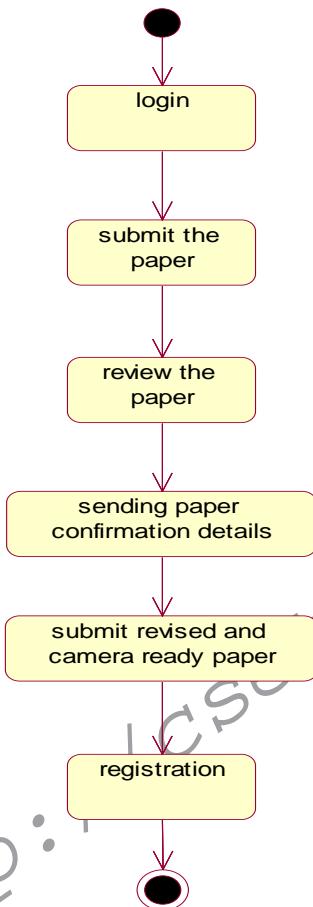
This collaboration diagram is to show how the applicant login in the conference system. Here the sequence is numbered according to the flow of execution.

PAPER SUBMISSION

This collaboration diagram is to show the submitting paper process of the candidate for the conference. The flow of execution of this selection process is represented using the numbers.

STATE CHART DIAGRAM

The purpose of state chart diagram is to understand the algorithm involved in performing a method. It is also called as state diagram. A state is represented as a round box, which may contain one or more compartments. An initial state is represented as small dot. A final state is represented as circle surrounding a small dot.



DOCUMENTATION OF STATE CHART DIAGRAM

This state diagram describes the behaviour of the system.

- First state is login where the candidate login to the conference system.
- The next state is submitting the paper .
- Then review the paper if it is selected the process will continue..
- The candidate should submit revised and camera ready paper.
- Then registration process will be carried out.

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 an rounded box containing the name of the operation.



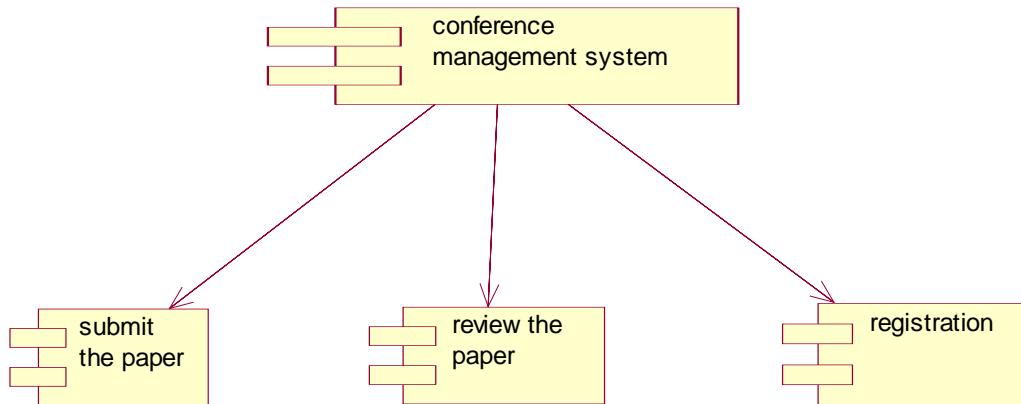
DOCUMENTATION OF ACTIVITY DIAGRAM

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

- First the candidate login to the database.
- Then the candidate should submit the paper.
- If it is selected the acknowledgement will send to the candidate.
- After submitting revised paper the registration process will be done.

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.

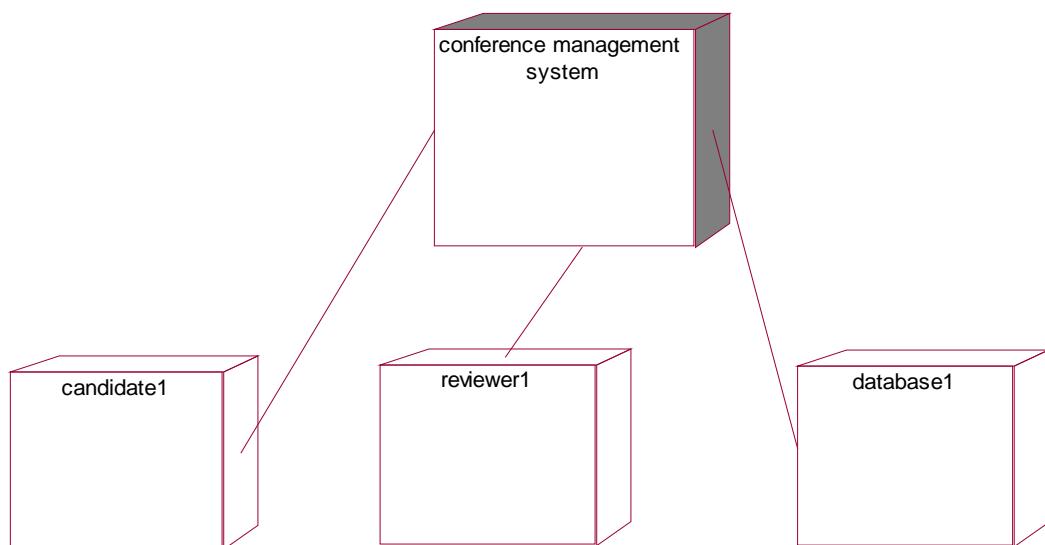


DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is conference management system. And submit the paper, review the paper and registration.

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.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

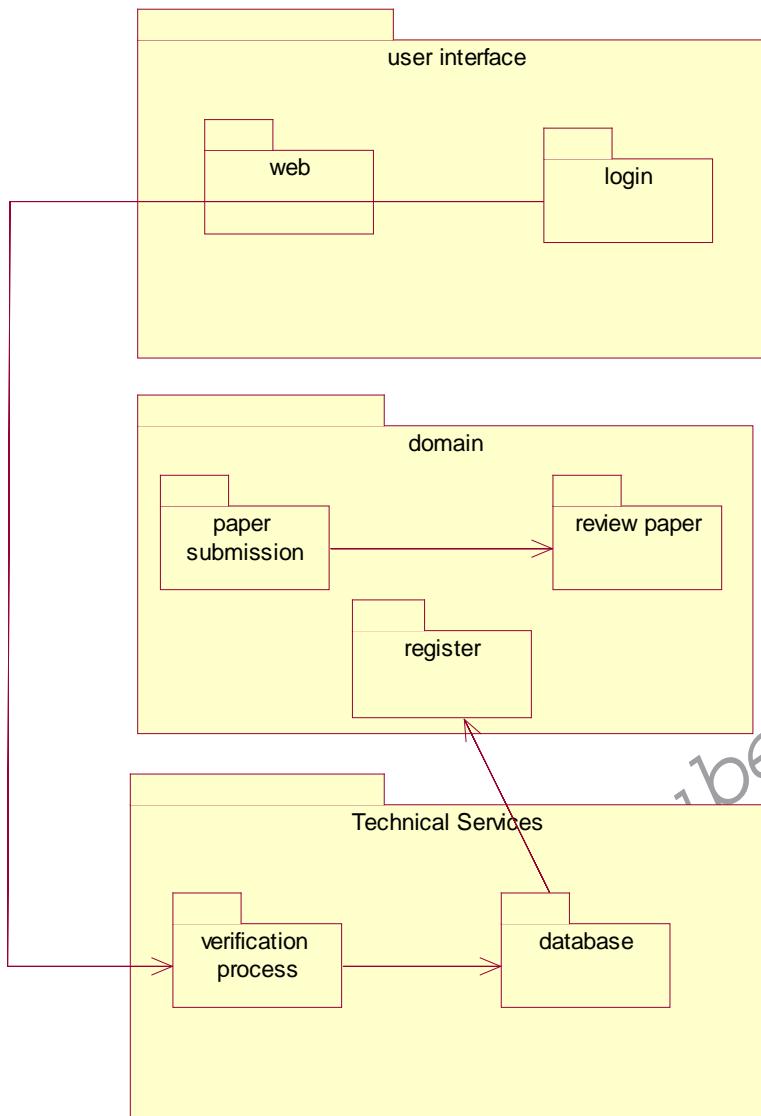
The processor in this deployment diagram is the conference management system which is the main part and the devices are the candidate, appear for do conference , reviewer will reviews paper , database will store all details which are the some of the main activities performed in the system.

PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

- **User interface layer** - software objects representing domain concepts that fulfill application requirements, such as calculation of a sale total.
- **Domain layer** – layer that contains domain objects to handle application logic work.
- **Technical services layer** – general purpose objects and subsystems that provide supporting technical services, such as interfacing with a database or error logging.



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the online recruitment system are

- **The User interface layer** - consists of the web and login. This layer describes how the candidate login.
- **The Domain layer** – shows the activities that are performed in the conference management system. The activities are paper submission , review paper , registration.
- **The Technical service layer** - the verification details and the selected candidate details will stored into the database.

FORMS

FORM1

Form1

USER ID	<input type="text" value="rss"/>
PASSWORD	<input type="text" value="rss"/>
<input type="button" value="SUBMIT"/>	<input type="button" value="EXIT"/>



FORM2

Form2

REGISTRATION FORM

NAME	<input type="text" value="Suraj"/>
COLLEGE	<input type="text" value="GKMCET"/>
PAPER CODE	<input type="text" value="102"/>
<input type="button" value="SUBMIT"/>	

FORM3

Form3

THEMO DYNAMICS

PLACE	ADYAR
DATE	01-03-2011
TIME	11AM-4PM
ROOM NO	202

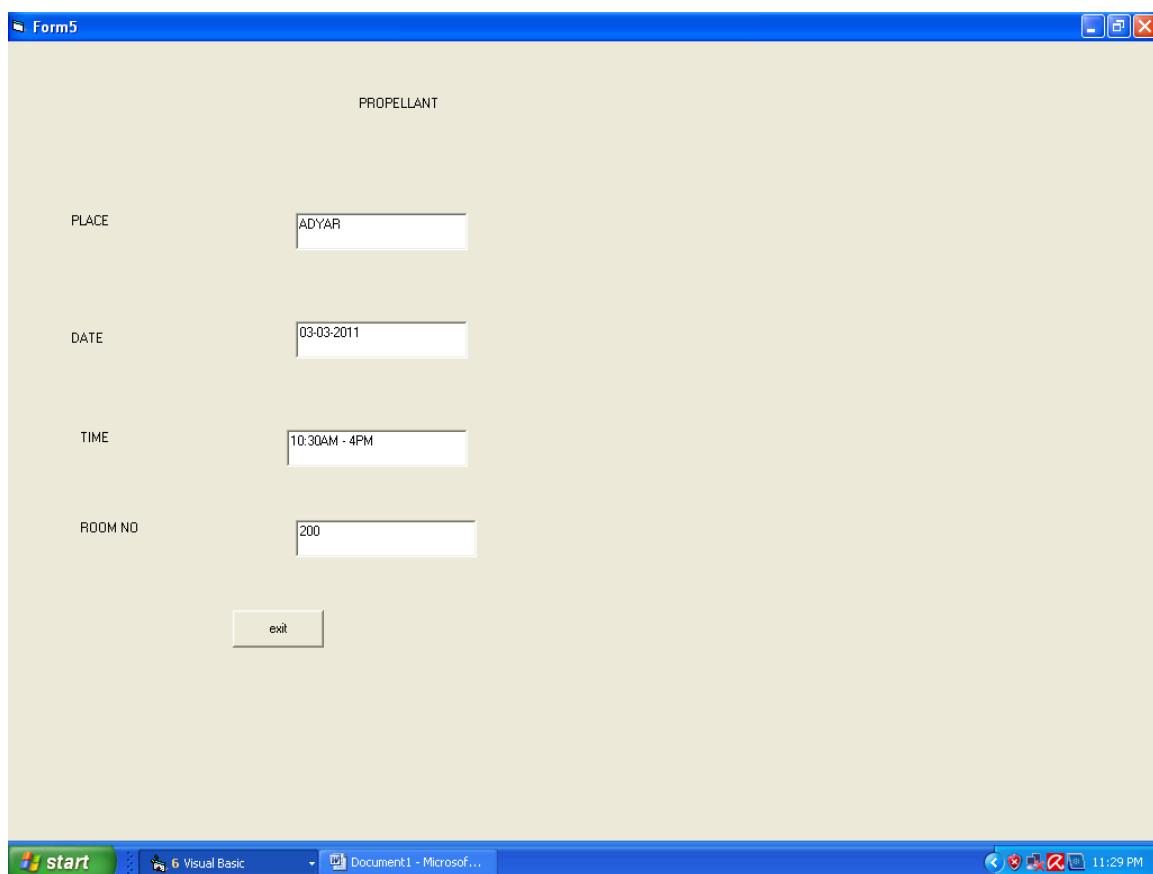
**FORM4**

Form4

NANO TECHNOLOGY

PLACE	ADYAR
DATE	02-03-2011
TIME	11AM-3PM
ROOM NO	201



FORMS**SOURCE CODE
CANDIDATE**

```
Option Explicit
'##ModelId=459804B502EE
Private name As Variant
'##ModelId=459804B902DE
Private college_name As Variant
'##ModelId=459804BF01C5
Private department As Variant
'##ModelId=459804E40119
Private paper_title As Variant
'##ModelId=45980653030D
Public NewProperty As reviewer1
'##ModelId=45980507034B
Public Sub login()
End Sub
'##ModelId=4598050E03D8
Public Sub submit_the_paper()
End Sub
'##ModelId=4598051302FD
Public Sub revised_and_camera_ready_paper_submission()
End Sub
'##ModelId=4598053F009C
Public Sub registration()
```

```
End Sub
```

DATABASE

```
Option Explicit
'##ModelId=459806A30280
Public NewProperty As candidate1
'##ModelId=4598060A02BF
Public Sub verify_the_ID()
End Sub
'##ModelId=4598062A01F4
Public Sub allow_to_the_reviewer()
End Sub
```

REVIEWER

```
Option Explicit
'##ModelId=45980565035B
Private reviewer_name As Variant
'##ModelId=45980568036B
Private reviewer_department As Variant
'##ModelId=459805920251
Private reviewer_ID As Variant
'##ModelId=4598065C008C
Public NewProperty As database1
'##ModelId=4598067E032C
Public NewProperty2 As database1
'##ModelId=4598069501B5
Public NewProperty3 As database1
'##ModelId=459805A10128
Public Sub review_the_paper()
End Sub
'##ModelId=459805B0038A
Public Sub sending_paper_confirmation_details()
End Sub
```

FORM 1

```
Private Sub Command1_Click()
Dim a As candidate1
Set a = New candidate1
Call a.login
End Sub

Private Sub Command2_Click()
Unload Me
End Sub
```

```
Public Sub login()
If Form1.Text1.Text = "rss" And Form1.Text2.Text = "rss" Then
    MsgBox "login sucessfully!!!"
    Form2.Show
Else
    MsgBox "invalid username or password"
End If
End Sub
```

FORM2

```
Private Sub Command1_Click()
Dim a As candidate1
Set a=New candidate1
Call a.subregistration
End Sub

Public Sub subregistration()
Private Sub Command1_Click()
If(Combo1.text="101")Then
    Form3.Show
End If
If(Combo1.text="102")Then
    Form4.Show
End If
If(Combo1.text="103")Then
    Form5.Show
End If
End Sub
```

FORM 3

```
Private Sub Command1_Click()
Dim a As candidate1
Set a = New candidate1
Call a.verify_the_ID
End Sub
```

```
Public verify_the_ID()
Form2.Show
End Sub
```

FORM 4

```
Private Sub Command1_Click()
Dim a As database1
Set a = New database1
Call a.verify_the_ID
End Sub

Public Sub verify_the_ID()
Form2.Show
End Sub
```

FORM 5

```
Private Sub Command1_Click()
Dim a As database1
Set a = New database1
Call a.verify_the_ID
End Sub

Public Sub verify_the_ID()
Form2.Show
End Sub
```

RESULT

Thus the project to develop conference management system using Rational Rose Software and to implement the project in Visual Basic is done successfully.

EXNO:13

DATE:

BUSINESS PROCESS OUTSOURCING MANAGEMENT SYSTEM

AIM

To develop a project Business process outsourcing(BPO) management system
Using Rational Rose software and to implement the software in Visual Basic.

PROBLEM ANALYSIS AND PROJECT PLANNING

Generally outsourcing can be defined as an organization entering into a contract with another organization to operate and managed one or more of its business processes.

There are many problems faced by the BPO one among them is meeting their targets and leaving the concern very often and switch to another company. In this project we deal with the inbound system of the BPO. In inbound system the agent calls the customer from his database to sell his product.

PROBLEM STATEMENT

In this BPO inbound system , the process undergoing is that the agent tries to sell his product so that the agent gets the details of the customer from the database and pitches about his product and makes the sales successful. The communication is done through the telephone. Telephone is the major component used for this customer satisfaction service. The steps are as follows:

- The agent login to the website and enters the username and password .It checks for authorization .
- If the username and password is correct ,it allows the agent to get the details of the customer from the database.
- Now the agent makes the call to the customer and pitches about the product.
- If the customer is satisfied ,agent sells the product else disconnects the call.
- Agent proceeds with the another call.

SOFTWARE REQUIREMENT SPECIFICATION

1	INTRODUCTION
2	OBJECTIVE
3	PURPOSE
4	SCOPE
5	GLOSSARY
6	OVERVIEW
7	OVERALL DESCRIPTION
8	REFERENCES
9	FUNCTIONALITY
10	USABILITY
11	PERFORMANCE
12	SYSTEM ENVIRONMENT
13	FUNCTIONAL REQUIREMENTS

1. INTRODUCTION

BPO is typically categorized into back office outsourcing-which includes internal business functions such as human resources or finance and accounting, and front office outsourcing-which includes customer related services such as contact center services. BPO that is contracted outside a company's country is called offshore outsourcing.BPO that is contracted to a company's neighbouring country is called nearshore outsourcing.Given the proximity of BPO to the information technology industry,it is categorized as an information technology enabled service or ITES.Knowledge process outsourcing(KPO) and legal process outsourcing(LPO) are some of the sub-segments of business process outsourcing industry.In the following SRS the front office outsourcing is explained in detail.

2. PURPOSE

The purpose of this system is to provide information about the customer need from inside and outside world.With the reduction in communication costs and improved bandwidths and associated infrastructure,BPO as a segment is witnessing massive

growth. One of the key challenges that BPO companies is that to provide data entry/data validation services is an efficient and effective way of getting the source documents from different customers and accurately route the same of different operators for processing.

3. SCOPE

Developing a good BPO management system. BPO is a way in which it helps to increase company's flexibility. As part of BPO, documents need to be managed between the outsourcing company and the offshore company. Multiple clients need to be managed by the BPO company.

4. GLOSSARY

TERM	DESCRIPTION
Customer	Person who is seeking information.
Agent	People who receives the query.
Database	Collection of all information monitored by the BPO system.
Reader	Anyone visiting the site to read about BPO management system.
Software requirement specification	A document that completely describes all the functions of a proposed system and the constraints under which it must operate.
User	Customer and reader

5. OVERVIEW

This system deals with the front office outsourcing, it is designed to be understandable to the customers. It lists the set of all constraints and functions performed by the customer. The main function of this system is the customer satisfaction.

6. OVERALL DESCRIPTION

The BPO management system utilizes information from the database to accomplish the goal. Communication is through phone interaction. It gets the information of the customer from database and interacts with the customer promptly and describes about the product. If the customer is satisfied with it the process will proceed else the call will be terminated.

7. REFERENCES

Business process outsourcing the competitive advantage by Rick L. Click,Thomas N.Duening-2005. Srs document is referred from the standard IEEE format from fundamentals of software engineering by Rajib Mall(2004)page no:356

8. FUNCTIONALITY

Many customers of the process to check for its occurrence and other works.we all have to carry over at same time.

9. USABILITY

The user interface to make the bpo management to be efficient.

10. PERFORMANCE

It is the capability about which it can perform function for many user efficiently at the same time without any error occurrence

11. SYSTEM ENVIRONMENT

The BPO system is embedded in a larger system involving several management systems.we describe this environment as communication system between customer and agent through voice chat.The administrator of the system uses FTP for moving files from one place to another.

12. FUNCTIONAL REQUIREMENTS

Functional requirements are those refer to the functionality of the system.i.e. what services it will provide to the user. Non functional (supplementary) requirements pertain to other information needed to produce the system correctly and detailed separately.

UML DIAGRAMS

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

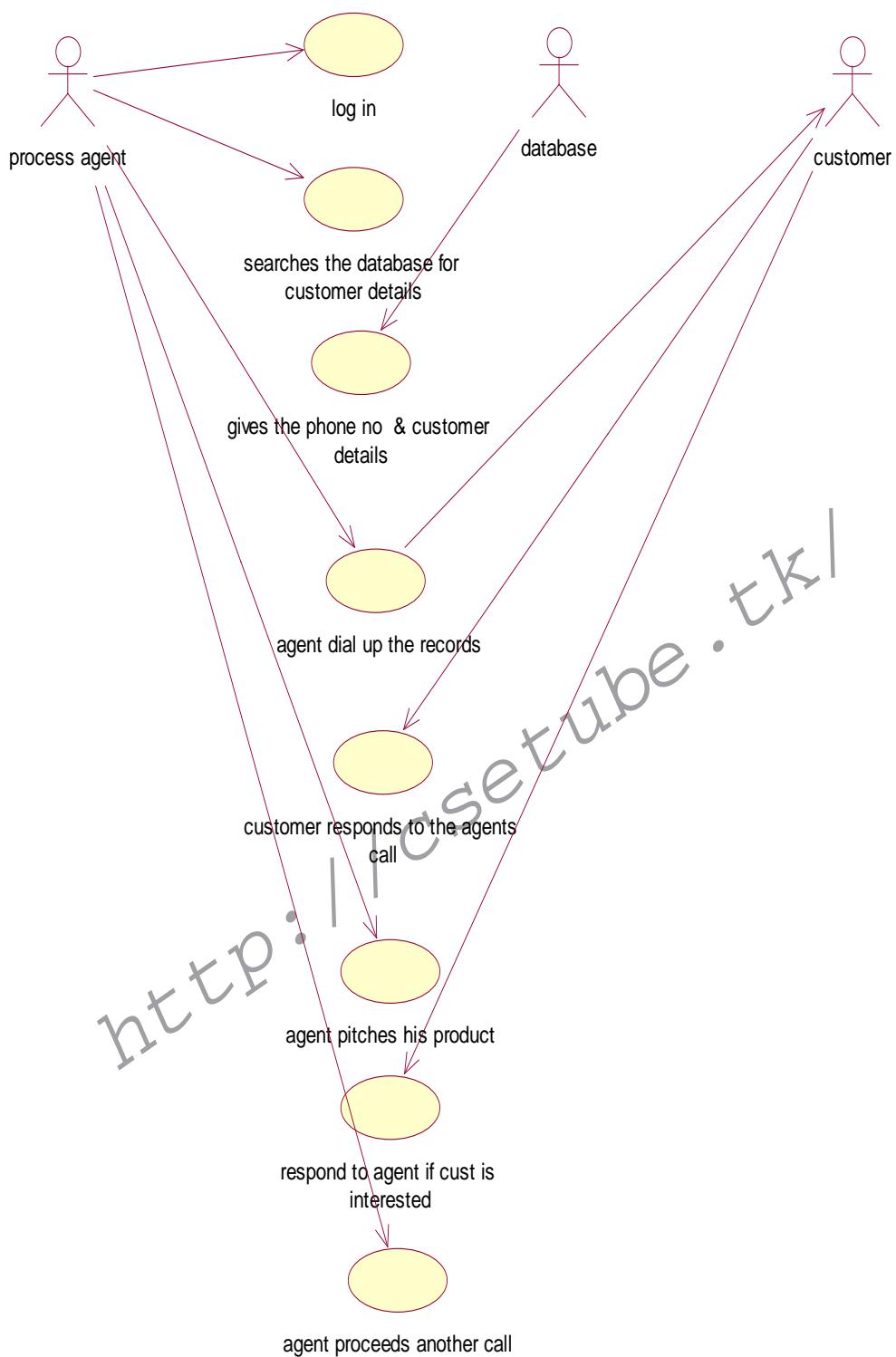
- Use case diagram
- Class diagram
- Sequence diagram

- Collaboration diagram
- State chart diagram
- Activity diagram
- Component diagram
- Deployment diagram
- Package 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 modelled. It is represented using stick figure.



DOCUMENTATION OF USE CASE DIAGRAM

The actors in this use case diagram are Process agent ,Customer and Database. The usecases are the activities performed by actors.

USE CASE

Use case is a collection of failure and related success scenarios that describe the actor using a system to support a goal.

ACTOR

The Actor is a user playing a role with respect to the system. A single actor may perform many use cases. Similarly a user case can have many users performing the operation.

PROCESS AGENT

The ultimate Goal of the process agent is to make sale. The operation performed by him/her is he/she will first call the customer then pitches there product for sale. If the customer is interested the agents mark it has a sale else disconnects the call and moves to another customer.

DATABASE

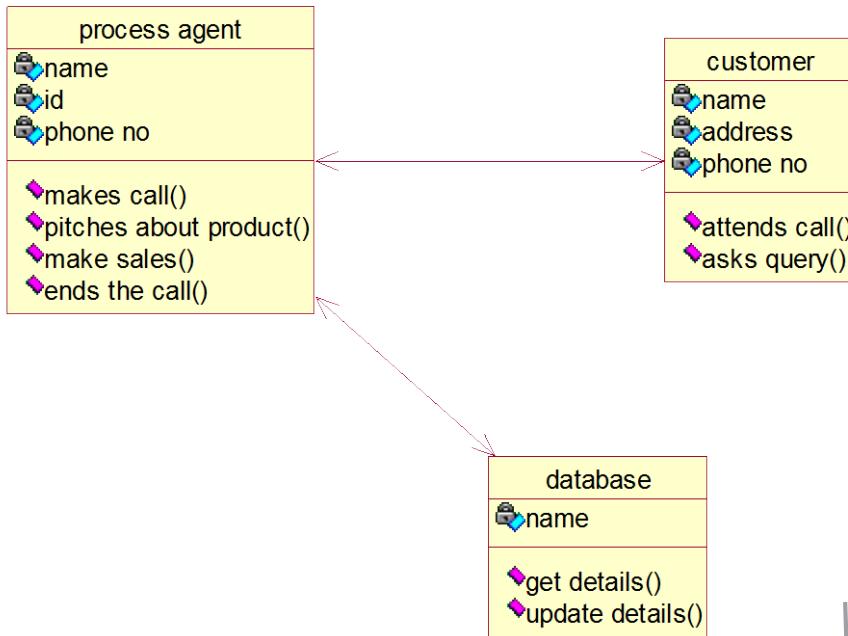
The database is neither a computer nor a memory where all the customers' details will be stored. It consists of the customer name, customer address, and customer phone number. Further details of the customer can also be added in the future by the agent.

CUSTOMER

Customer plays a vital role in the BPO industry. Agent calls the customer from the database. Once the call gets connected and the customer is happy with the product which is pitched by the agent then he/she will show interest for buying the product else he/she will reject the product and disconnect the call.

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 is represented using a rectangle with three compartments. Top compartment have the class name,middle compartment the attributes and the bottom compartment with operations.



DOCUMENTATION OF CLASS DIAGRAM

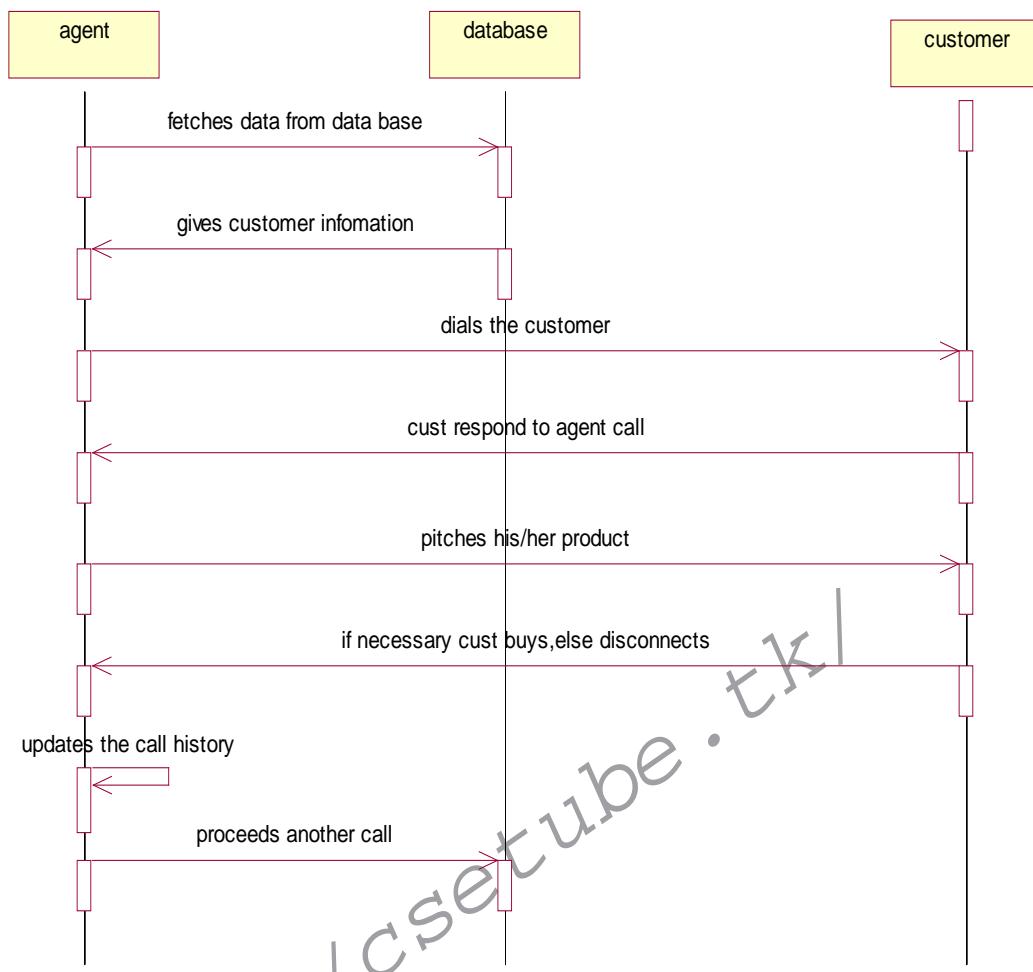
This class diagram has three classes process agent, customer and database.

- **Agent** – is the class name. Its attributes are username, password, name, phoneno and address. The operations performed by the agent class are login, giving details to customer and selling the product.
- **Customer** – is the class name. Its attributes are name, phoneno, address . The operations performed are attending the call, asks about the product.
- **Database** – is the class name. The operations performed are storing customer details, verifying login and updating the customer details.

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.Veritcal dimension-represent time.
- 2.Horizontal dimension-represent different objects.



DOCUMENTATION OF SEQUENCE DIAGRAM

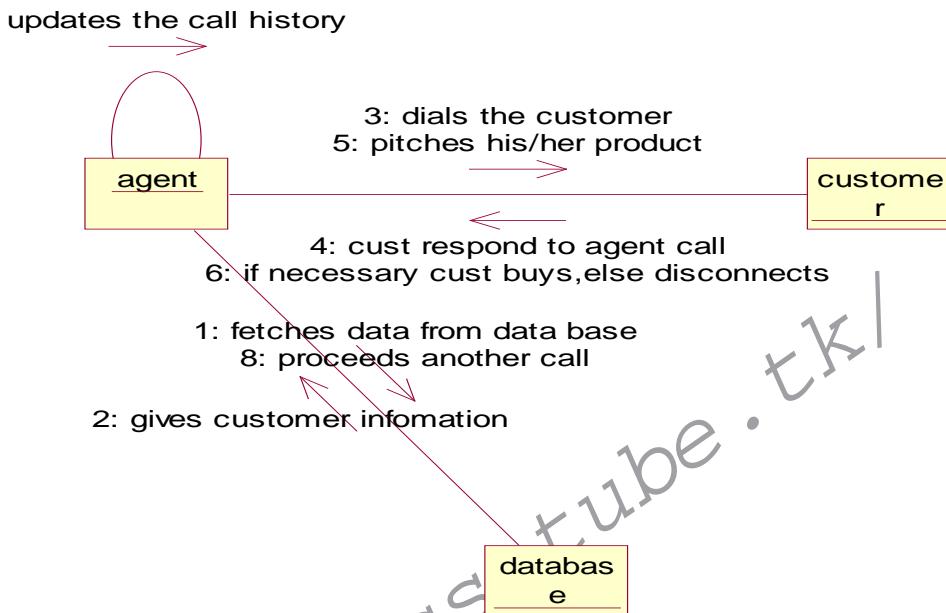
The single use case in the BPO management system is taken and sequence of operations followed in the usecase.

The BPO has the following sequence of process:

1. Agent fetches the data from the database
2. database provides the details of the customer to agent and agent dials to the customer.
3. Customer responds to the agent and agent pitches his/her product.
4. If necessary customer buys else discards.
5. Agent updates the call history
6. proceeds with the another call.

COLLABRATION 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 versa. 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.



DOCUMENTATION OF COLLABRATION DIAGRAM

This diagram is similar to sequence diagram.But the difference is the various operations involved in the particular use case will be numbered.In this diagram,the sequence of step is

- Fetches the customer details from the database.
- Database provides the customer details.
- Agent dials the customer.
- Customer responds to the agent call.

The agent pitches about his/her product to the customer.

If necessary customer buys else disconnects the call

The agent updates the call history.

The agent proceeds with the another call.

STATE CHART DIAGRAM

It is also called as State diagram .The purpose of state diagram is to understand the algorithm in problem statement.

A state is represented as a rounded box, Which may contain one or more compartments.

Compartments are all optional.

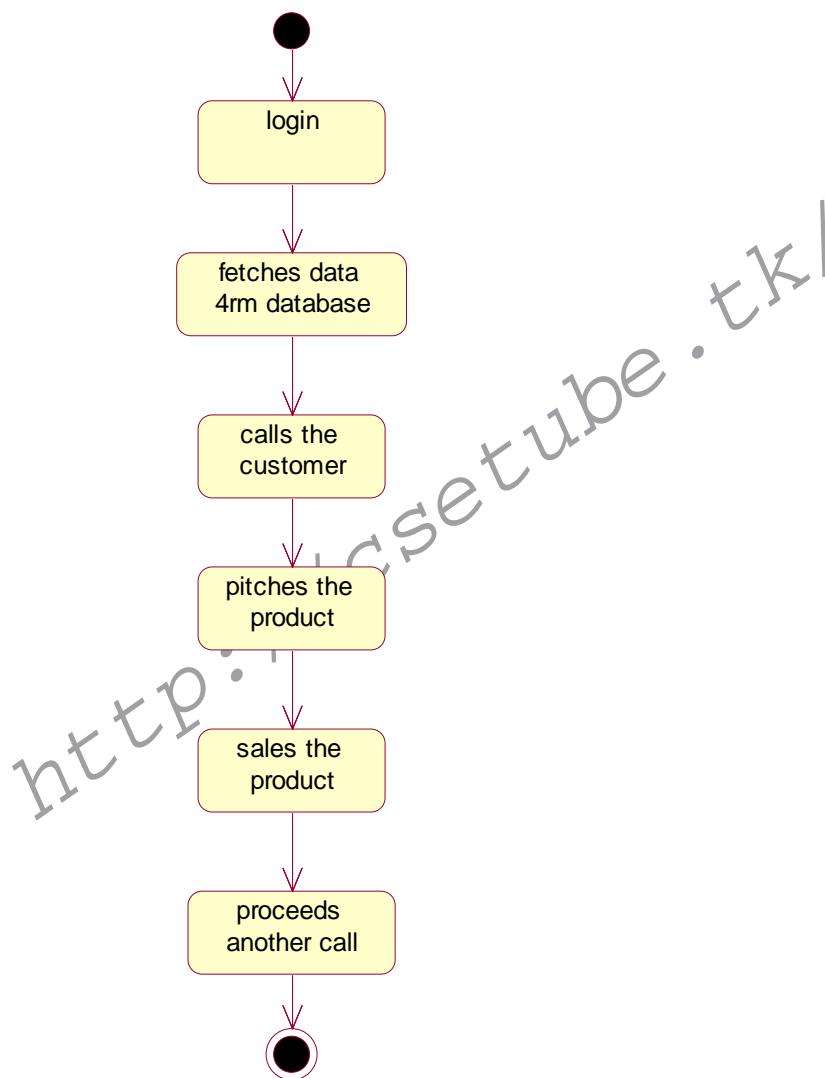
Types of compartment:

- *Name compartment- holds name of the state

- *Internal transition- holds internal actions or activities.

State chart is shown as the small dot .

Final state is shown as circle surrounding a small dot.



DOCUMENTATION OF STATE CHART DIAGRAM

The various states are login,fetches data from database, calls the customer, pitches the product, sales the product, proceeds with another call.

The state chart diagram describes the behavior of the system.

1. The main purpose of the system is to sale the product to the customer.
2. After login, the agent gets details of customer from database.
3. the agent calls the customer.
4. The agent pitches about the product.
5. If customer interested , the agent buys the product else discards.
6. Agent proceeds with the another call.

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 an rounded box containing the name of the operation.

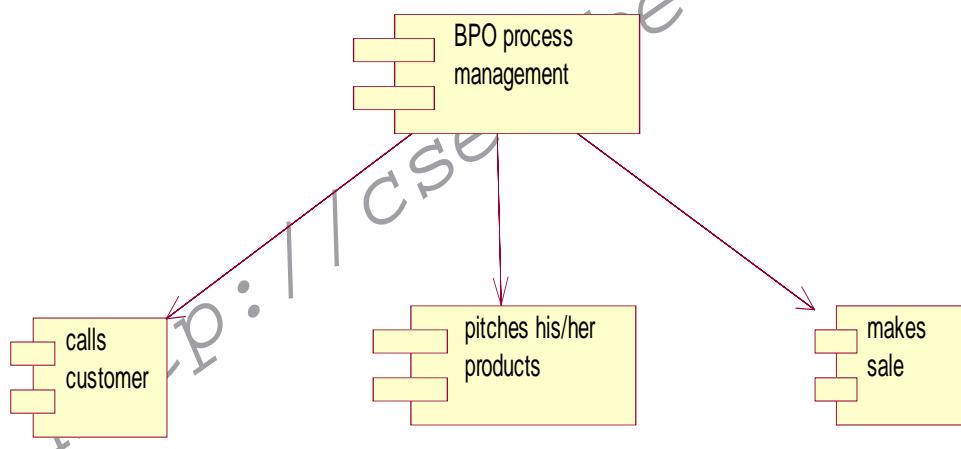
DOCUMENTATION OF ACTIVITY DIAGRAM

Activity Diagram is shows the flow of the activity which is carried out in the BPO management. It is more or less equal to the flow chart which we use in our programming languages. It consists of states such as login , fetches the data, calls the customer, pitches the product, makes the sale and etc.....

- **Initial node:** The filled in circle is the starting point of the diagram. An initial node isn't required although it does make it significantly easier to read the diagram.
- **Activity final node.** The filled circle with a border is the ending point. An activity diagram can have zero or more activity final nodes.
- **Activity.** The rounded rectangles represent activities that occur. An activity may be physical, such as Inspect Forms, or electronic, such as display the BPO details.
- **Flow/edge.** The arrows on the diagram. Although there is a subtle difference between flows and edges I have never seen a practical purpose for the difference although I have no doubt one exists. I'll use the term flow.

COMPONENT DIAGRAM

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



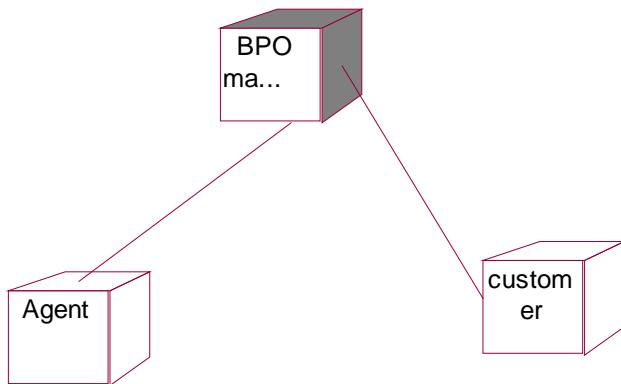
DOCUMENTATION OF COMPONENT DIAGRAM

The main component in this component diagram is BPO management systems. And the agent calls customer, pitches about his product and makes the sale are the main component comes under the component diagram.

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 assosiation.



DOCUMENTATION OF DEPLOYMENT DIAGRAM

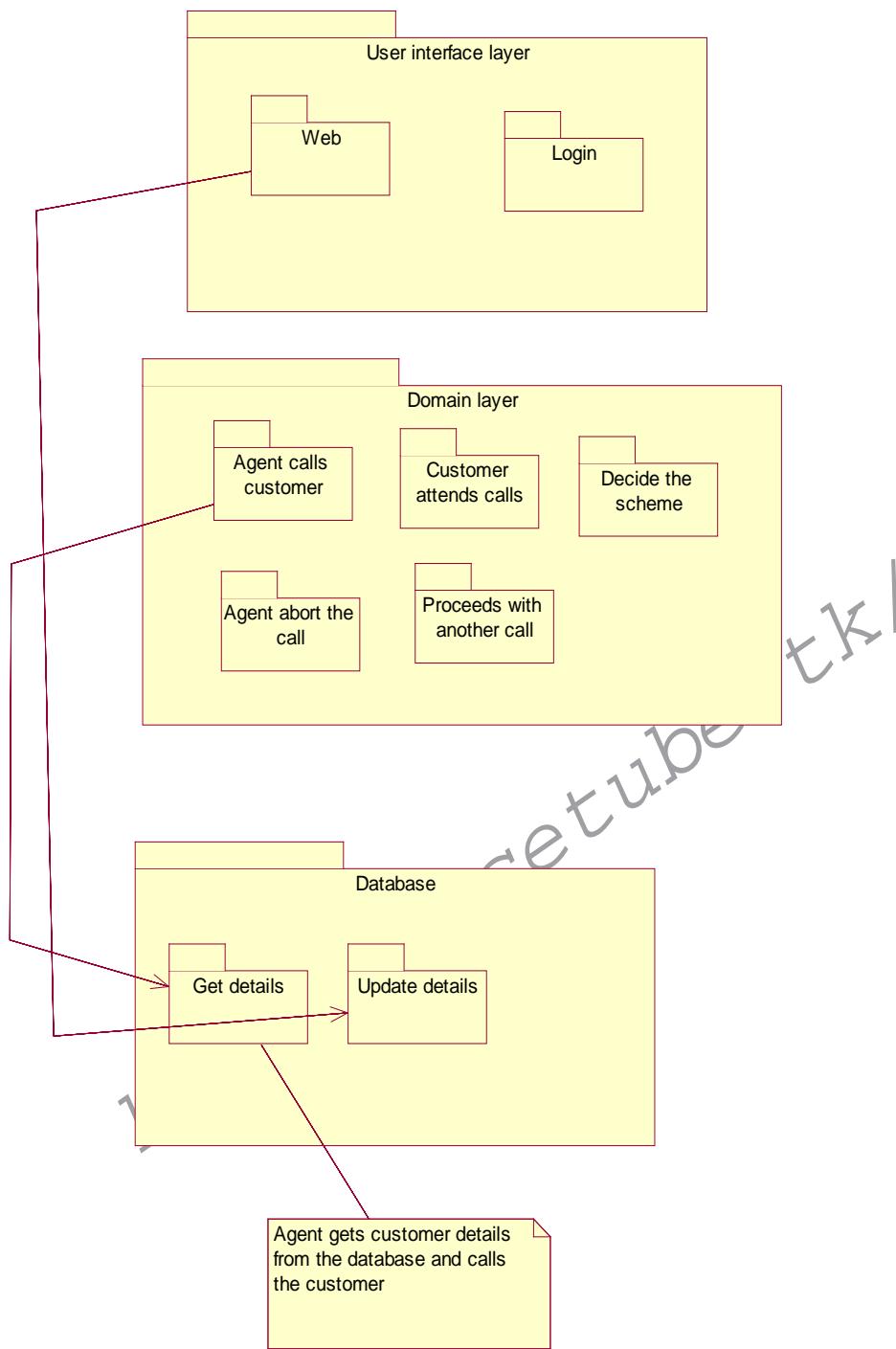
The processor in this deployment diagram is the BPO management system which is the main part and the devices are the agent, customer and to sell the product to the customer are the main activities performed in the system.

PACKAGE DIAGRAM

A package diagram in unified modeling language that depicts the dependencies between the packages that make up a model. A Package Diagram (PD) shows a grouping of elements in the OO model, and is a Cradle extension to UML. PDs can be used to show groups of classes in Class Diagrams (CDs), groups of components or processes in Component Diagrams (CPDs), or groups of processors in Deployment Diagrams (DPDs).

There are three types of layer. They are

- User interface layer
- Domain layer
- Technical services layer



DOCUMENTATION OF PACKAGE DIAGRAM

The three layers in the BPO management systems are

- **The User interface layer** - consists of the web and login. This layer describes how The agent logs on to the website and gets the customer details.

- **The Domain layer** – shows the activities that are performed in the BPO management system. The agent makes the call and he pitches about the product to customer and makes sale. Finally agent aborts the call and proceeds with another call.
- **The Technical service layer** – the customer details are shown in the database. If the customer buys product it makes the sale entry.

http://csetube.tk/

FORMS

FORM 1

<http://csetube.weebly.com/>

Form1

LOGIN PAGE

UserName	bpo
Password	***

LOGIN

Project1

Login successful

OK

start Rational Rose - ... Project1 - Micro... Project1 - Micro... Project1 - Micro... Form1 3:26 PM

FORM 2

Form2

CUSTOMER DETAILS

CustomerName	Select
--------------	--------

SUBMIT

start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:27 PM

FORM 3

Form2

CUSTOMER DETAILS

CustomerName

Start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:27 PM

FORM 4

Form3

Name

Address

Phone no

Start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:27 PM

FORM 5

Form2

CUSTOMER DETAILS

CustomerName

Start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:28 PM

FORM 6

Form4

Name

Address

Phone no:

Start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:28 PM

FORM 7

Form2

CUSTOMER DETAILS

CustomerName

Start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:29 PM

FORM 8

form5

NAME

ADDRESS

PHONE NO

Start Rational Rose - adt.mdl Visual Basic sheelu - Microsoft Word 3:28 PM

SOURCE CODE:

<http://csetube.weebly.com/>

FORM 1:

customer

```
Option Explicit
##ModelId=4D62041B005D
Private NAME As Variant
##ModelId=4D62041F01F4
Private address As Variant
##ModelId=4D6204240119
Private phone_no As Variant
##ModelId=4D6205B7008C
Public NewProperty As process_agent
##ModelId=4D62042F0271
Public Sub attends_call()
End Sub
##ModelId=4D62043B036B
Public Sub asks_query()
End Sub
```

database

```
Option Explicit
##ModelId=4D620452000F
Private NAME As Variant
##ModelId=4D62059502DE
Public NewProperty As process_agent
##ModelId=4D620459007D
Public Sub get_details()
End Sub
##ModelId=4D620569006D
Public Sub update_details()
End Sub
```

```
Public NewProperty As customer
##ModelId=4D6205AE00FA
Public NewProperty2 As database
##ModelId=4D6203E2000F
Public Sub makes_call()
If Form1.Text1.Text = "bpo" And Form1.Text2.Text = "123" Then
MsgBox "Login successfull"
Else
MsgBox "Invalid password"
End If
Form2.Show
End Sub
```

```
##ModelId=4D6203EA02AF
```

```
Public Sub pitches_about_product()
Form2.Show
End Sub

##ModelId=4D62040401A5
Public Sub make_sales()
If (Form2.Combo1.Text = "Anand") Then
Form3.Show
End If
If (Form2.Combo1.Text = "Brindha") Then
Form4.Show
End If
If (Form2.Combo1.Text = "Rubini") Then
Form5.Show
End If
End Sub

##ModelId=4D620409030D
Public Sub ends_the_call()
Form2.Show
End Sub
```

RESULT

Thus the project to develop BPO management system using Rational Rose Software and to implement the software in Visual Basic is done successfully.