

# **DEWAN INSTITUTES OF MANAGEMENT STUDIES**



## **MAJOR PROJECT REPORT ON AUTOMIZATION OF EXAMINATION SYSTEM**

Submitted To:

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Submitted by:

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## **Acknowledgement**

I express my sincere gratitude and thanks to **Dewan Institute of Management Studies** for providing me this opportunity to perform my project.

No project is created entirely by an individual. Many people have helped to create this project and each of their contribution has been valuable. The timely completion of this project is mainly due to the interest and persuasion of my Project Coordinator who is not only a guide but a good teacher also.

My sincere thanks to **Mr. Ravi Sikka (Project Coordinator)** for allowing me to work on and to facilitate in pursuing this project.

I would like to thank to all other individual who have contributed directly or indirectly to the success of this project.

Thank you.

**Kunal Kumar**

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**TITLE: -**

Automation  
of  
Examination  
System  
*(TECHNO METER)*

## **Introduction:**

In this examination system, the examination activities are conducted in an automated way. The whole examination process is automated, starting from preparing the question papers of various subject by the teachers till the calculations of results of students. The life of both teachers and students has become very easy by the introduction of this system. It also offers security as each teacher or student has a secure username and password for accessing the system. Every student will get question paper in different sequence, so there will be no chance of cheating and the question paper cannot be leaked. The result produced are unbiased as they are computed by the system.

## **Objective:**

The main objective of this project is to develop an online examination system for the ease of student. Though online examination we have saved the time expanding between paper and result. Online examination system is the system that allows user to take online test and automatically generates result on answer marked by user.

- Online Examination will reduce the work done by teachers, administrators and students also.
- Responses by the candidates are going to be checked automatically and instantly.
- Reduces paper work.
- Results will show immediately that reduces student anxiety.
- Can be used anywhere, anytime.
- The arrangement of question will be random, so that no one can cheat.

## **Tools / Environment Used:**

### **➤ Hardware Tools (Minimum): -**

- Processor: Intel core 2 Quad Q 6700
- RAM: 1GB
- Hard Disk Drive: 120GB

### **➤ Hardware Tools (Recommended): -**

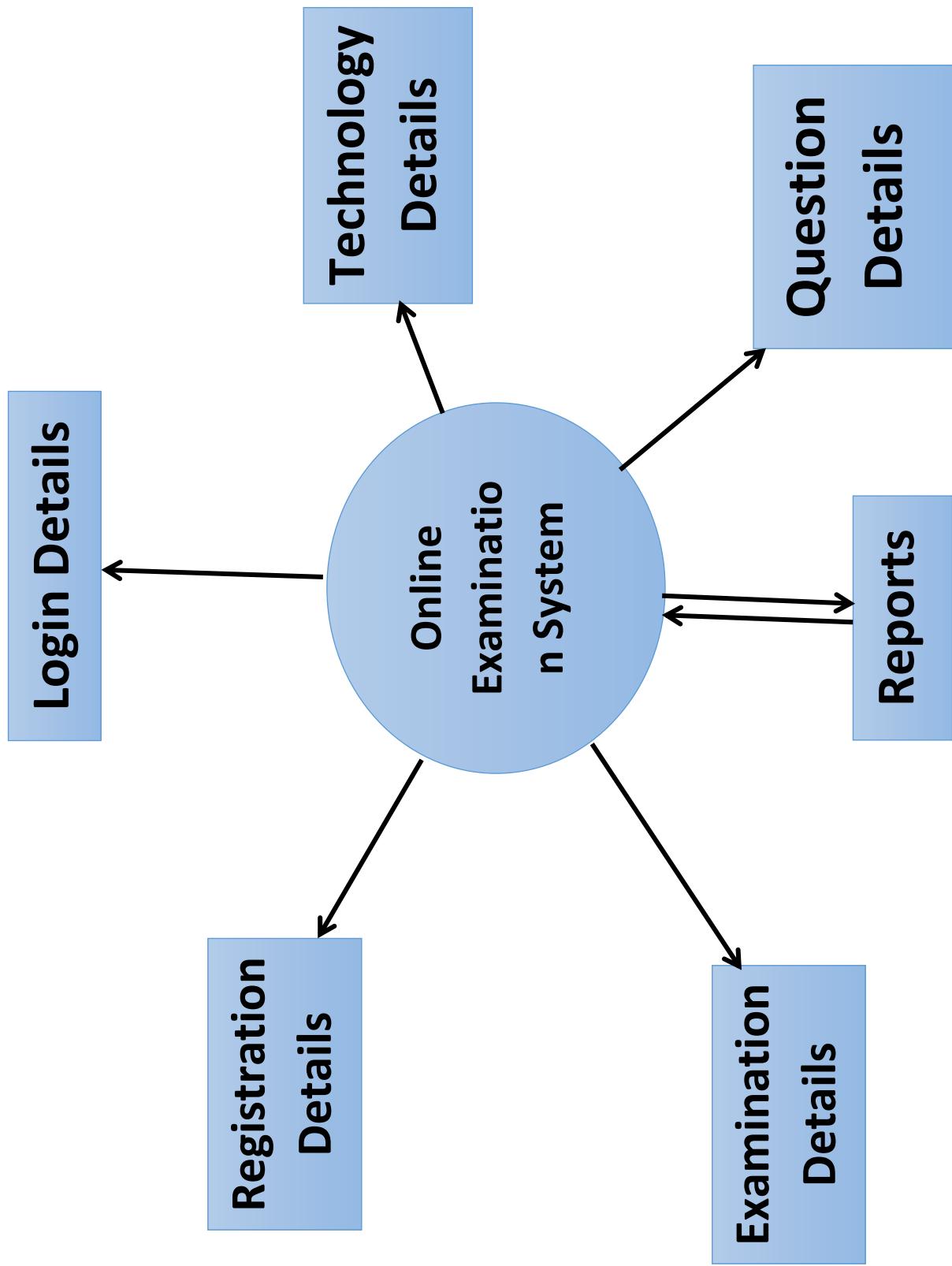
- Processor: Intel core i3-6100U
- RAM: 4GB
- Hard Disk Drive: 500GB

### **➤ Software Tools: -**

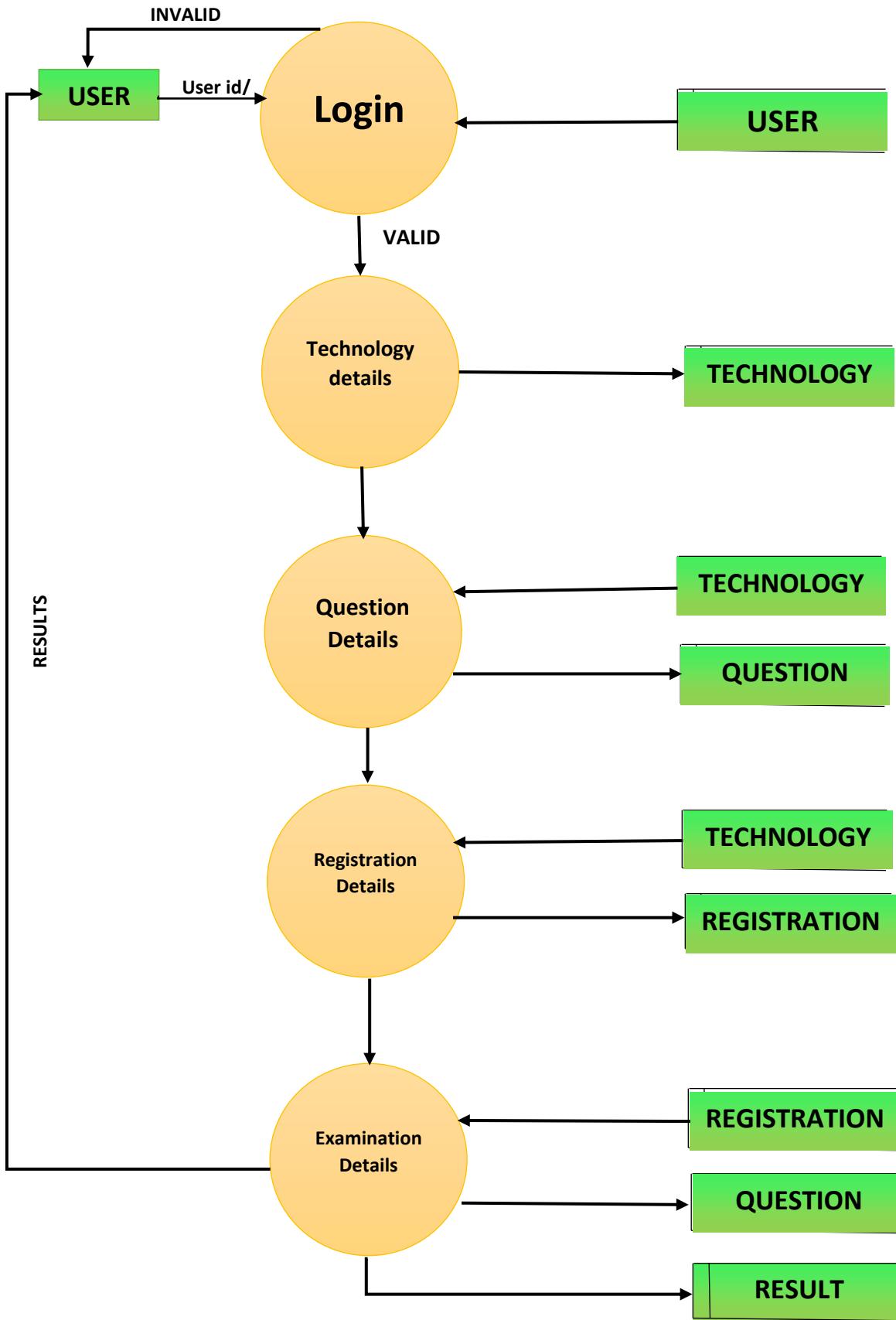
- Operating System: Windows XP and above, Linux
- Front End tool:
  - JDK 1.8 and above
- Back End tool:
  - MySQL
- Editor:
  - Notepad

## Analysis:

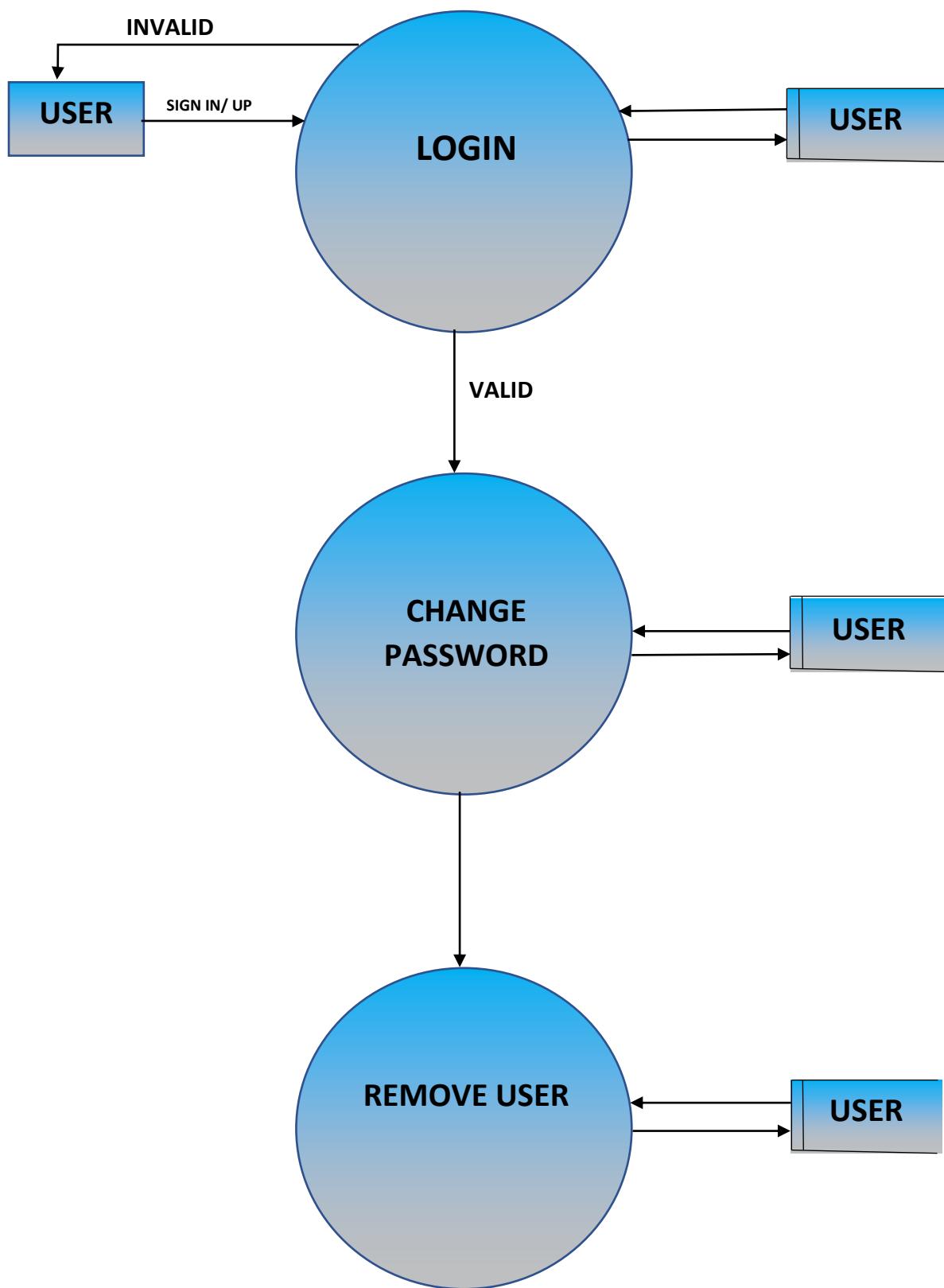
### 1. Context Free Diagram: -



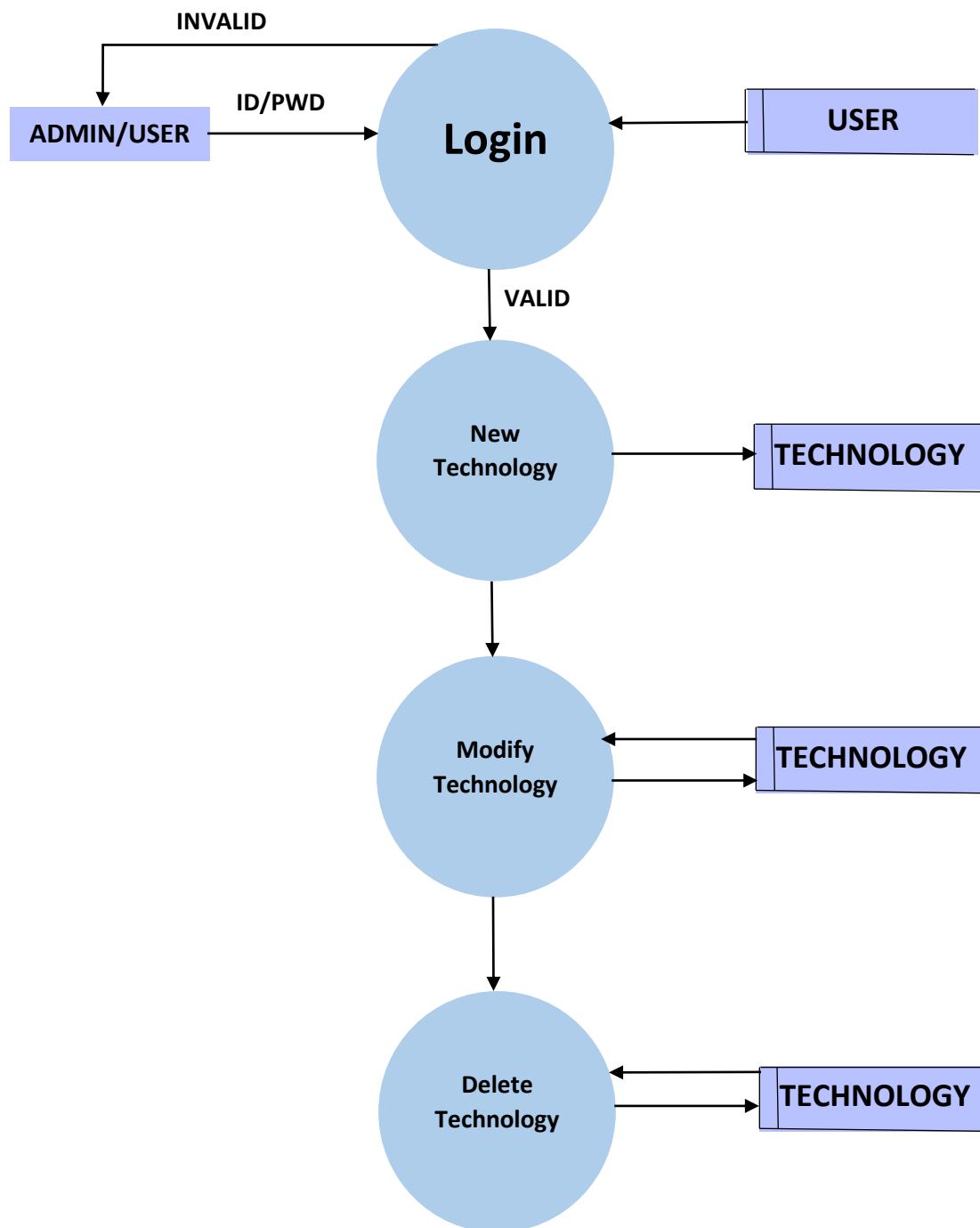
## 0- Level DFD: -



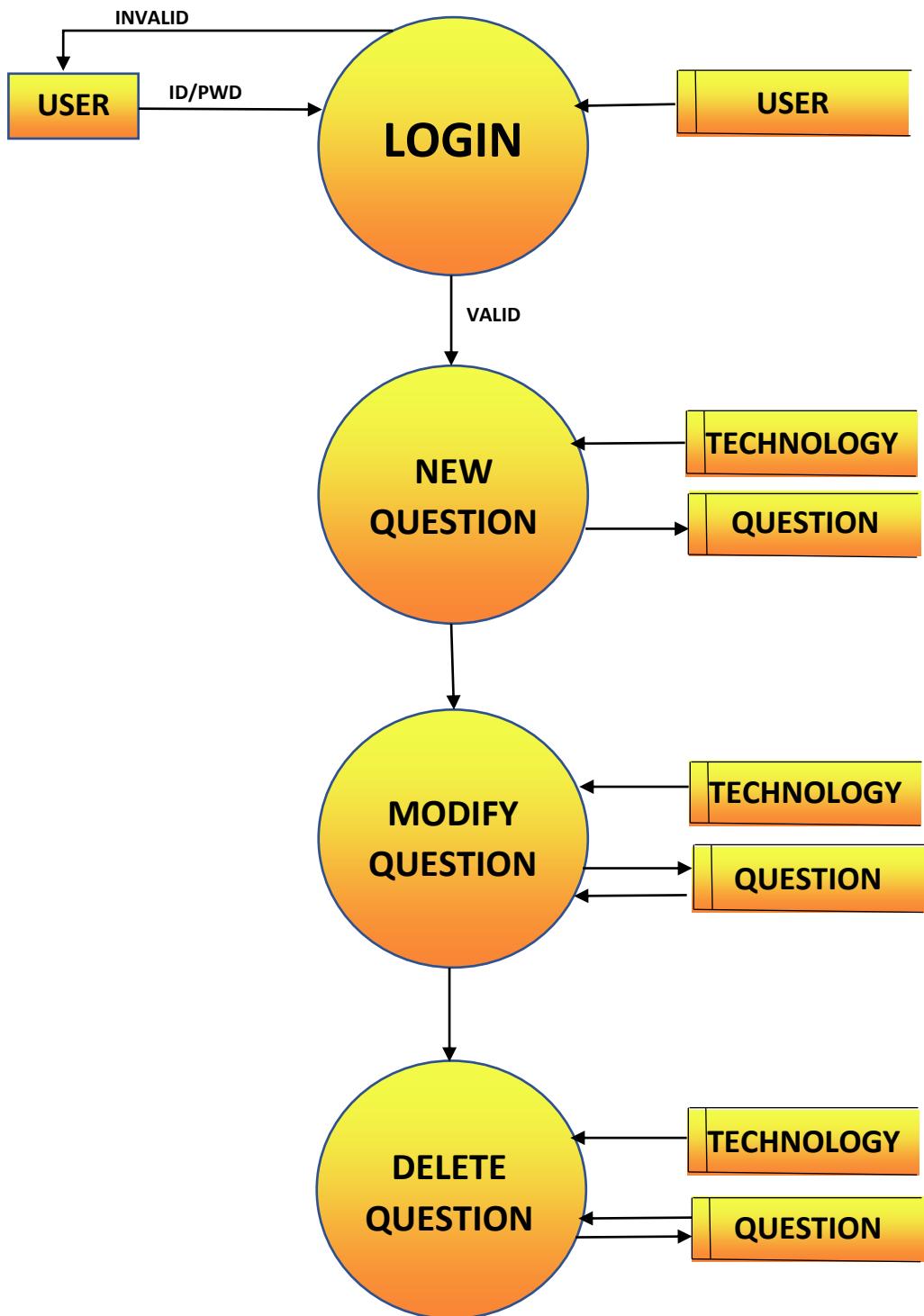
## 1-level DFD for Login Process: -



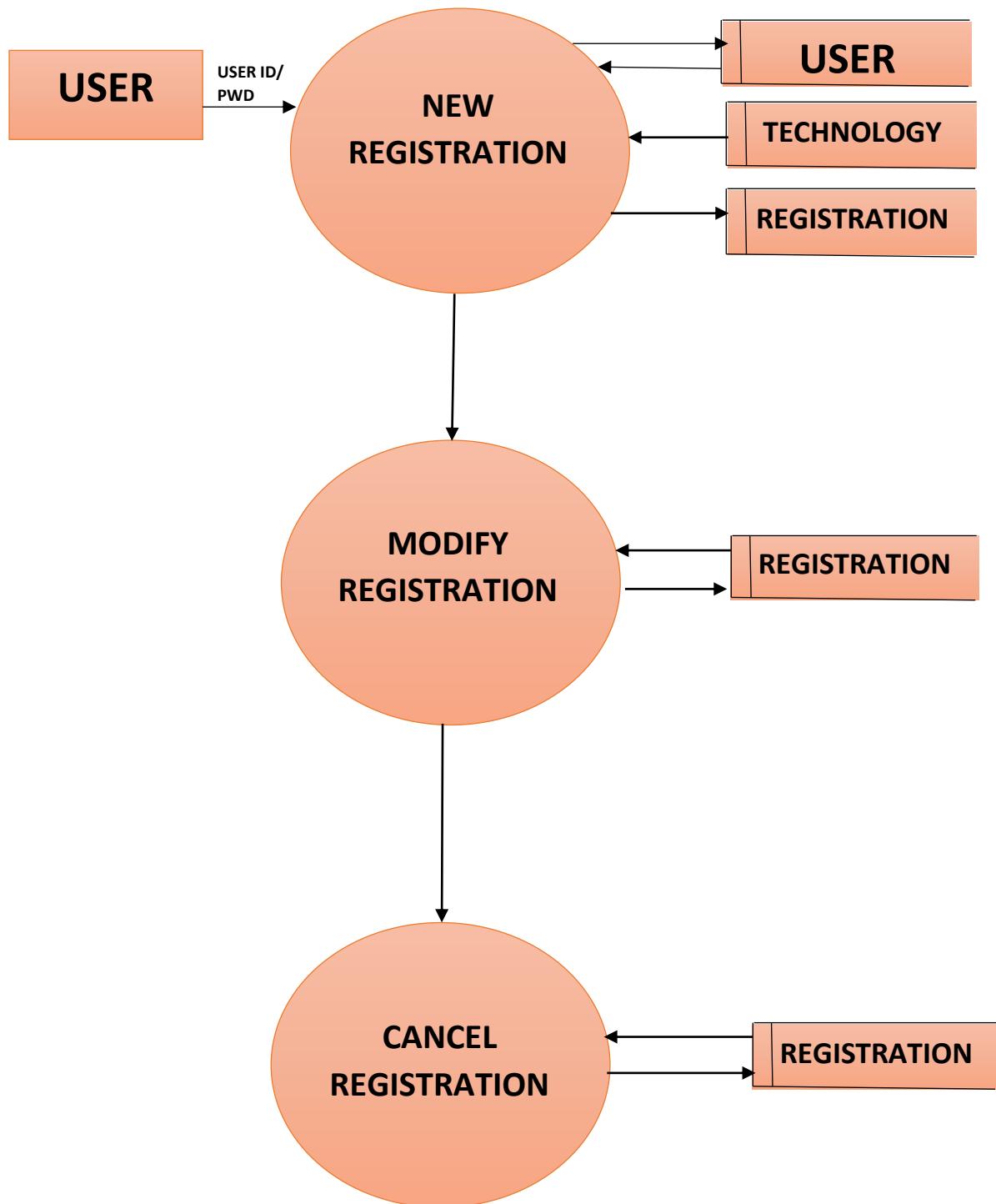
## 1-Level DFD for Technology Details: -



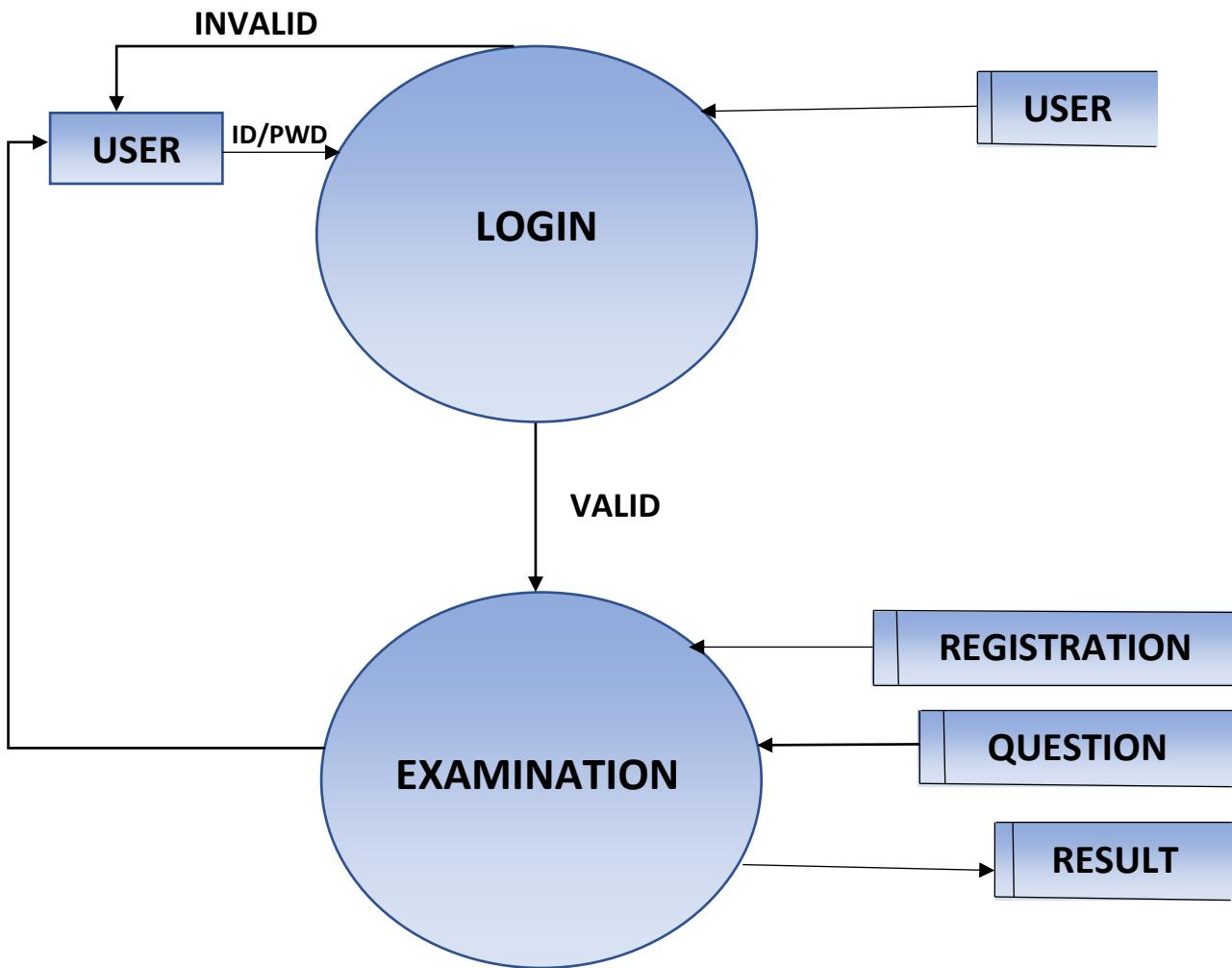
## 1-Level DFD for Question Details: -



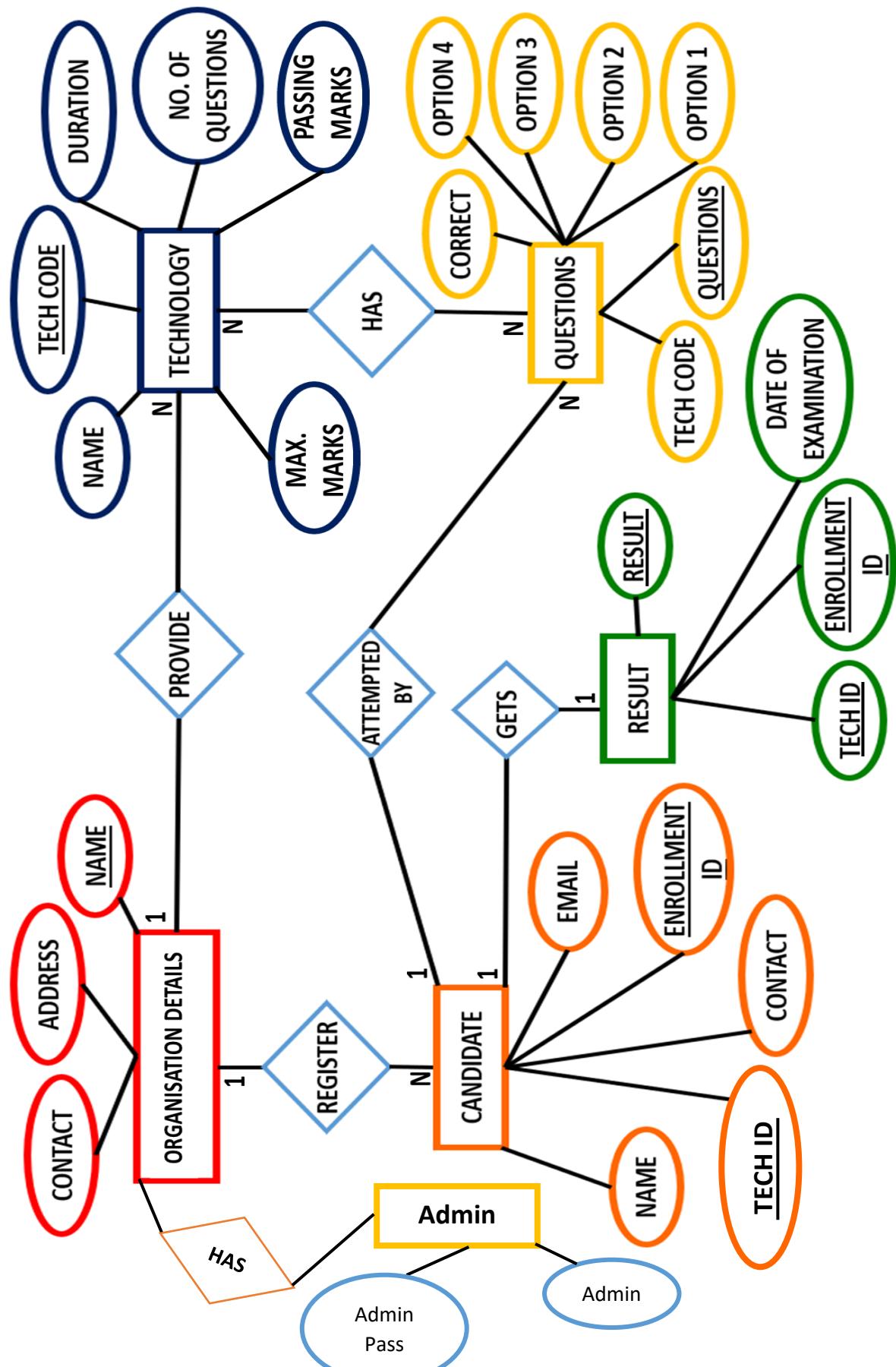
## 1-Level DFD for Registration Details: -



## 1-Level DFD for Examination Detail: -



## E-R Diagram: -



## **Modules:**

- Number of modules
- Process logic of each module

### **1) Number of modules:**

In this project there will be number of modules as follows:

1. Login module
2. Technology details module
3. Question details module
4. Registration details module
5. Examination details module
6. Report module

### **2) Process logic of each module:**

#### **1. Process logic of login module:**

This module may comprise of following two types of user:

- A. User
- B. Administrator

User module may comprise of following tasks –

- a) Registration of new student
- b) Modification of registration details
- c) Cancellation of registration
- d) Appearing in the examination
- e) Change password

The **administrator module** will perform administrative task such as maintaining technologies details, question details, & change password.

## **2. Process logic of technologies details module:**

This module may comprise of following task -

- a) Addition of new-technology details
- b) Modification of existing technology details
- c) Deletion of any existing technology

## **3. Process logic of question details module:**

This module may comprise of following two types of task: -

- a) Addition of new questions
- b) Modification of existing questions
- c) Deletion of any existing questions

## **4. Process logic of registration details module**

This module may comprise of following two types of task: -

- a) Addition of new user
- b) Modification schedule of an examination
- c) Cancellation of an examination

## **5. Process logic of examination module:**

This module may comprise of following two types of task: -

- a) Conduction of an examination
- b) Declaring result

## **6. Project logic of report module**

In this module, following types of reports will be generated:

- a) List of all technologies
- b) List of all registered students
- c) List of all students technology-wise
- d) List of all students with their result

## Data Structure: -

### Admin: -

S No.	Fieldname	Datatype	Size	Constraint	Description
1	admin	Varchar	30	Primary key	---
2	admin_pass	Varchar	50	Not Null	---

### Organisational Details: -

S No.	Fieldname	Datatype	Size	Constraint	Description
1	Name	Varchar	30	Primary key	---
2	Address	Varchar	50	Not Null	---
3	Contact	Varchar	11	Not Null	---

### Technology: -

S No.	Fieldname	Datatype	Size	Constraint	Description
1	Tech_code	Integer	11	Primary Key	Technology code
2	Tech_name	Varchar	40	Not Null	Technology name
3	N_O_Q	Integer	11	Not Null	No. of Questions
4	Max_Marks	Integer	11	Not Null	Maximum Marks
5	Pass_marks	Integer	11	Not Null	Passing Marks
6	Duration	Integer	11	Not Null	Time Duration

### Questions: -

S No.	Fieldname	Datatype	Size	Constraint	Description
1	Question	Varchar	500	Primary key	---
2	Tech_code	Integer	11	Primary key	Technology code
3	Option_1	Varchar	30	Not Null	---
4	Option_2	Varchar	30	Not Null	---
5	Option_3	Varchar	30	Not Null	---
6	Option_4	Varchar	30	Not Null	---
7	Correct_opt	Varchar	30	Not Null	Correct option
8	Tech_name	Varchar	30	Not Null	---

## Candidate: -

S No.	Fieldname	Datatype	Size	Constraint	Description
1	Enrollment_no	Integer	11	Primary key	Enrollment number
2	Name	Varchar	30	Not Null	---
3	Contact	Varchar	10	Not Null	---
4	Gender	Varchar	20	Not Null	---
5	Technology	Varchar	30	Not Null	---
6	DOB	Varchar	11	Not Null	---
7	DOE	Varchar	11	Not Null	---
8	Email	Varchar	50	Not Null	---

## Result: -

S no.	Fieldname	Datatype	Size	Constraint	Description
1	Tech_code	Integer	11	Primary key	Technology code
2	Enrollment_no	Integer	11	Primary key	Enrollment number
3	D_O_E	Varchar	15	Not Null	Date of Examination
4	Result	Integer	11	Primary key	---

## **Program Code:**

### **1. Login:**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
class Login_Demo extends JFrame implements
ActionListener, MouseListener {
JLabel
lmain,lm1,pnl1_bg,pnl2_bg,limg1,limg2,limg3
,limg4,limg5,limg6,lm2,lm3,
lm4,lm6,la1,la2,la3,ls1,ls2,ls3,bg;
JTextField ta1,ts1;
JTextArea tpnl,lm5;
JPasswordField ta2,ts2;
JButton ba1,ba2,bs1,bs2;
Container c;
 JPanel p1,p2,p3;
Connection con;
PreparedStatement st;
ResultSet rs;
int en;
String sname,spw,nmad,pwad,pwd,pws;
Login_Demo() {
setTitle("Technometer");
setSize(1200,700);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
 setLocationRelativeTo(null);
c=ContentPane();
c.setLayout(null);
Font fmain=new Font
("Showcard Gothic",Font.BOLD,72);
Font fm1=new Font
("Monotype Corsiva",Font.BOLD,28);
Font ft1=new Font
("Lucida Handwriting",Font.BOLD,28);
Font ft2=new Font("Magneto",Font.BOLD,28);
Font ft3=new Font("consolas",Font.BOLD,28);
/*Main Frame*/
ImageIcon im1=new ImageIcon
("lgn_bg.png");
bg=new JLabel(im1);
bg.setBounds(0,0,1200,730);
c.add(bg);
lmain=new JLabel("Technometer");
lmain.setBounds(620,35,700,80);
lmain.setForeground(Color.WHITE);
lmain.setFont(fmain);
bg.add(lmain);
l1=new JLabel("Welcome,");
l1.setBounds(50,150,110,30);
l1.setForeground(Color.WHITE);
l1.setFont(fm1);
bg.add(l1);
l2=new JLabel("Login as :");
l2.setBounds(120,190,110,30);
l2.setForeground(Color.RED);
l2.setFont(fm1);
bg.add(l2);
ImageIconim2=new
ImageIcon("login_admin.png");
limg1=new JLabel(im2);
limg1.setBounds(30,270,220,150);
limg1.addMouseListener(this);
bg.add(limg1);
l3=new JLabel("Administrator");

```

```

Font ft1=new Font
("Lucida Handwriting",Font.BOLD,28);
Font ft2=new Font("Magneto",Font.BOLD,28);
Font ft3=new Font("consolas",Font.BOLD,28);
/*Main Frame*/
ImageIcon im1=new ImageIcon("lgn_bg.png");
bg=new JLabel(im1);
bg.setBounds(0,0,1200,730);
c.add(bg);
lmain=new JLabel("Technometer");
lmain.setBounds(620,35,700,80);
lmain.setForeground(Color.WHITE);
lmain.setFont(fmain);
bg.add(lmain);
l1=new JLabel("Welcome,");
l1.setBounds(50,150,110,30);
l1.setForeground(Color.WHITE);
l1.setFont(fm1);
bg.add(l1);
l2=new JLabel("Login as :");
l2.setBounds(120,190,110,30);
l2.setForeground(Color.RED);
l2.setFont(fm1);
bg.add(l2);
ImageIconim2=new
ImageIcon("login_admin.png");
limg1=new JLabel(im2);
limg1.setBounds(30,270,220,150);
limg1.addMouseListener(this);
bg.add(limg1);
l3=new JLabel("Administrator");
l3.setBounds(50,430,160,30);
l3.setForeground(new Color(37, 189, 219));
l3.setFont(fm1);
bg.add(l3);
ImageIcon im3=new ImageIcon("sprtrvl.png");
limg2=new JLabel(im3);
limg2.setBounds(270,245,30,260);
bg.add(limg2);
ImageIcon im4=new ImageIcon("login_user.png");
limg3=new JLabel(im4);
limg3.setBounds(270,270,220,150);
limg3.addMouseListener(this);
bg.add(limg3);
l4=new JLabel("Student");
l4.setBounds(330,430,110,30);
l4.setForeground(new Color(37, 189, 219));
l4.setFont(fm1);
bg.add(l4);
ImageIcon im5=new ImageIcon("sprtrhl.png");
limg4=new JLabel(im5);
limg4.setBounds(10,475,460,30);
bg.add(limg4);
l5=new JTextArea("Not, Registered yet ?");
l5.setBounds(50,525,250,80);
l5.setOpaque(false);
l5.setLineWrap(true);
l5.setWrapStyleWord(true);
l5.setBackground(new Color(0,0,0));
l5.setForeground(Color.RED);

```

```

Im5.setFont(fm1);
bg.add(lm5);
ImageIcon im6=new ImageIcon("adduser.png");
limg5=new JLabel(im6);
limg5.setBounds(300,480,220,150);
limg5.addMouseListener(this);
bg.add(limg5);
lm6=new JLabel("Sign Up");
lm6.setBounds(355,625,150,30);
lm6.setForeground(new Color(37, 189, 219));
lm6.setFont(fm1);
bg.add(lm6);
//Login as an admin
p1=new JPanel();
p1.setLayout(null);
p1.setBounds(550,150,600,450);
bg.add(p1);
p1.setVisible(false);
ImageIcon im7=new ImageIcon
("loginpnl1_bg.png");
pnl1_bg=new JLabel(im7);
pnl1_bg.setBounds(0,0,600,450);
p1.add(pnl1_bg);
la1=new JLabel("Login as Administrator");
la1.setFont(ft1);
la1.setForeground(Color.WHITE);
la1.setBounds(20,50,400,40);
pnl1_bg.add(la1);
la2=new JLabel("Admin Name");
la2.setFont(ft2);
Im5.setFont(fm1);
bg.add(lm5);
ImageIcon im6=new ImageIcon("adduser.png");
limg5=new JLabel(im6);
limg5.setBounds(300,480,220,150);
limg5.addMouseListener(this);
bg.add(limg5);
lm6=new JLabel("Sign Up");
lm6.setBounds(355,625,150,30);
lm6.setForeground(new Color(37, 189, 219));
lm6.setFont(fm1);
bg.add(lm6);
//Login as an admin
p1=new JPanel();
p1.setLayout(null);
p1.setBounds(550,150,600,450);
bg.add(p1);
p1.setVisible(false);
ImageIcon im7=new ImageIcon
("loginpnl1_bg.png");
pnl1_bg=new JLabel(im7);
pnl1_bg.setBounds(0,0,600,450);
p1.add(pnl1_bg);
la1=new JLabel("Login as Administrator");
la1.setFont(ft1);
la1.setForeground(Color.WHITE);
la1.setBounds(20,50,400,40);
pnl1_bg.add(la1);
la2=new JLabel("Admin Name");
la2.setFont(ft2);

```

```

la2.setForeground(Color.WHITE);
la2.setBounds(50,220,250,30);
pnl1_bg.add(la2);
ta1=new JTextField();
ta1.setFont(ft3);
ta1.setBounds(350,220,200,35);
pnl1_bg.add(ta1);
la3=new JLabel("Password");
la3.setForeground(Color.WHITE);
la3.setFont(ft2);
la3.setBounds(50,290,200,30);
pnl1_bg.add(la3);
ta2=new JPasswordField();
ta2.setFont(ft3);
ta2.setBounds(350,290,200,30);
pnl1_bg.add(ta2);
ba1=new JButton("Submit");
ba1.setBackground(Color.BLACK);
ba1.setForeground(Color.WHITE);
ba1.setFont(ft2);
ba1.addActionListener(this);
ba1.setBounds(80,360,150,35);
pnl1_bg.add(ba1);
ba2=new JButton("Close");
ba2.setBackground(Color.BLACK);
ba2.setForeground(Color.WHITE);
ba2.setFont(ft2);
ba2.addActionListener(this);
ba2.setBounds(360,360,150,35);
pnl1_bg.add(ba2);
pnl1_bg.add(ba2);
//Login as a student
p2=new JPanel();
p2.setBounds(550,150,600,450);
p2.setLayout(null);
bg.add(p2);
p2.setVisible(false);
ImageIcon im8=new ImageIcon
("loginpnl2_bg.png");
pnl2_bg=new JLabel(im8);
pnl2_bg.setBounds(0,0,600,450);
p2.add(pnl2_bg);
ls1=new JLabel("Login as Student");
ls1.setFont(ft1);
ls1.setForeground(Color.WHITE);
ls1.setBounds(20,50,400,40);
pnl2_bg.add(ls1);
ls2=new JLabel("Student's Name");
ls2.setForeground(Color.WHITE);
ls2.setFont(ft2);
ls2.setBounds(50,220,250,30);
pnl2_bg.add(ls2);
ts1=new JTextField();
ts1.setFont(ft3);
ts1.setBounds(350,220,200,35);
pnl2_bg.add(ts1);
ls3=new JLabel("Password");
ls3.setForeground(Color.WHITE);
ls3.setFont(ft2);
ls3.setBounds(50,290,200,30);

```

```

pnl2_bg.add(ls3);
ts2=new JPasswordField();
ts2.setFont(ft3);
ts2.setBounds(350,290,200,30);
pnl2_bg.add(ts2);
ImageIcon im9=new ImageIcon("hint.png");
limg6=new JLabel(im9);
limg6.setBounds(550,270,50,50);
limg6.addMouseListener(this);
pnl2_bg.add(limg6);
bs1=new JButton("Submit");
bs1.setBackground(Color.BLACK);
bs1.setFont(ft2);
bs1.setForeground(Color.WHITE);
bs1.addActionListener(this);
bs1.setBounds(80,360,150,35);
pnl2_bg.add(bs1);
bs2=new JButton("Close");
bs2.setBackground(Color.BLACK);
bs2.setForeground(Color.WHITE);
bs2.setFont(ft2);
bs2.addActionListener(this);
bs2.setBounds(360,360,150,35);
pnl2_bg.add(bs2);
p3=new JPanel();
p3.setLayout(null);
p3.setBounds(270,140,250,65);
pnl2_bg.add(p3);
p3.setVisible(false);

tpnl=new JTextArea("Enter first four alphabet
of your name and year of birth in password.
If your name consists of less than 4
alphabets then enter your full name and year of
birth.");
tpnl.setLineWrap(true);
tpnl.setWrapStyleWord(true);
tpnl.setBounds(0,0,250,65);
p3.add(tpnl);
try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection("jdbc:mysql:
//localhost/technometer","root","");
} catch(Exception e) {
System.out.print(e);}
setVisible(true);
public void mousePressed(MouseEvent me) { }
public void mouseReleased(MouseEvent me) { }
public void mouseClicked(MouseEvent me){
if(me.getSource()==limg1) {
p2.setVisible(false);
p1.setVisible(true);}
if(me.getSource()==limg3) {
p1.setVisible(false);
p2.setVisible(true);}
if(me.getSource()==limg5) {
New_Registration_Demand=new
New_Registration_Demo();
dispose();}
public void mouseEntered(MouseEvent me) {
if(me.getSource()==limg6) {
p3.setVisible(true);}}
public void mouseExited(MouseEvent me) {
if(me.getSource()==limg6) {

```

```

p3.setVisible(false);}}
public void actionPerformed(ActionEvent ae) {
if(ae.getSource()==ba2){
p1.setVisible(false);}
else if(ae.getSource()==bs2) {
p2.setVisible(false);}
else if(ae.getSource()==ba1) {
nmad=ta1.getText();
pwad=ta2.getText();
try {
st=con.prepareStatement("select admin_pass
from admin where admin=?");
st.setString(1,nmad);
rs=st.executeQuery();
if(rs.next()) {
pwd=rs.getString("admin_pass");
if(pwad.equals(pwd)) {
Admin_Demo ad=new Admin_Demo();
dispose();}
else {
JOptionPane.showMessageDialog(this,"Invalid
Password");}
else {
JOptionPane.showMessageDialog(this,"Invalid
Username");}
catch(Exception e) {
System.out.print(e);}
else if(ae.getSource()==bs1) {
sname=ts1.getText();
spw=ts2.getText();
try {
st=con.prepareStatement("select
dob,enrollment_no from candidate where
name=?");
st.setString(1,sname);
rs=st.executeQuery();
if(rs.next()) {
en=rs.getInt("Enrollment_No");
String dob=rs.getString("DOB");
if(sname.length()>=4){String
sn=sname.substring(0,4);
pws= sn.toUpperCase() +dob.substring(7);}
else {
pws= sname.toUpperCase() +dob.substring(7);}
if(spw.equals(pws)) {
Student_Demo sd=new Student_Demo(en);
dispose();}
else {
JOptionPane.showMessageDialog(this,"Invalid
Password");}
}
else {
JOptionPane.showMessageDialog(this,"Invalid
Username");}
}
else if (ae.getSource () ==ba2){
pnl1_bg.setVisible(false);
}
else if(ae.getSource()==bs2) {
pnl2_bg.setVisible(false);
}
}
class Login
{
public static void main (String [] s)
{
Login_Demo ld=new Login_Demo ();
}
}

```

## **2.Techology (New) :**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
import javax.swing.table.*;
class New_Techology_Demo extends
JFrame implements ActionListener
, KeyListener {
JLabel lmain,l1,l2,l3,l4,l5,l6,img,bg;
JTextField t1,t2,t3,t4,t5,t6;
JButton b1,b2,b3,b4,b5;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
int id,m_marks,p_marks,n_o_q,dur;
String name;
DefaultTableModel model;
JTable jt;
 JPanel p,p1;
New_Techology_Demo() {
setTitle("New Technology");
setSize(1100,720);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
 setLocationRelativeTo(null);
c=ContentPane();
c.setLayout(null);
Font f1=new Font("algerian",Font.BOLD,32);
Font f2=new Font("arial",Font.BOLD,15);
Font fl=new Font("arial",Font.BOLD,17);
p=new JPanel();
p.setLayout(null);
p1=new JPanel();
p1.setLayout(null);
lmain=new JLabel("New Technologies Details");
lmain.setFont(f1);
lmain.setForeground(new Color(227, 214, 213));
lmain.setBounds(340,10,500,50);
c.add(lmain);
l1=new JLabel("Technology ID");
l1.setFont(fl);
l1.setForeground(Color.WHITE);
l1.setBounds(80,100,150,20);
c.add(l1);
t1=new JTextField();
t1.setFont(f2);
t1.setBounds(280,100,150,20);
t1.setForeground(Color.WHITE);
t1.setBackground(Color.BLACK);
t1.setEditable(false);
c.add(t1);
model=new DefaultTableModel();
String heads[]={ "Id", "Name", "N.O.Q", "Max.
Marks", "Pass. Marks", "Duration"};
model.setColumnIdentifiers(heads);
jt=new JTable();
jt.setModel(model);
 JScrollPane sp=new JScrollPane(jt);
sp.setBounds(0,0,550,450);
p.setBounds(460,90,550,530);
p.setBackground(new Color(0,0,0,0));
p.setVisible(false);
p=new JPanel();
p.setLayout(null);
p1=new JPanel();
p1.setLayout(null);
lmain=new JLabel("New Technologies Details");
lmain.setFont(f1);
lmain.setForeground(new Color(227, 214, 213));
lmain.setBounds(340,10,500,50);
c.add(lmain);
l1=new JLabel("Technology ID");
l1.setFont(fl);
l1.setForeground(Color.WHITE);
l1.setBounds(80,100,150,20);
c.add(l1);
t1=new JTextField();
t1.setFont(f2);
t1.setBounds(280,100,150,20);
t1.setForeground(Color.WHITE);
t1.setBackground(Color.BLACK);
t1.setEditable(false);
c.add(t1);
model=new DefaultTableModel();
String heads[]={ "Id", "Name", "N.O.Q", "Max.
Marks", "Pass. Marks", "Duration"};
model.setColumnIdentifiers(heads);
jt=new JTable();
jt.setModel(model);
 JScrollPane sp=new JScrollPane(jt);
sp.setBounds(0,0,550,450);
p.setBounds(460,90,550,530);
```

```

c.add(l1);
t1=new JTextField();
t1.setFont(f2);
t1.setBounds(280,100,150,20);
t1.setForeground(Color.WHITE);
ImageIcon im=new ImageIcon("pnl.png");
img=new JLabel(im);
img.setBounds(0,-50,550,530);
p1.setBounds(460,90,550,530);
p1.setVisible(true);
p1.setBackground(new Color(0,0,0,0));
p1.add(img);
c.add(p1);
ImageIcon bimg=new
ImageIcon("bg_tech.png");
bg=new JLabel(bimg);
bg.setBounds(0,0,1100,750);
c.add(bg);
l2=new JLabel("Technology Name");
l2.setFont(fl);
l2.setForeground(Color.WHITE);
l2.setBounds(80,170,150,20);
bg.add(l2);
t2=new JTextField();
t2.setFont(f2);
t2.setBounds(280,170,150,20);
t2.addKeyListener(this);
bg.add(t2);
l3=new JLabel("Number Of Question");
l3.setFont(fl);
l3.setForeground(Color.WHITE);
l3.setBounds(80,240,180,20);
bg.add(l3);
t3=new JTextField();
t3.setFont(f2);
t3.setBounds(280,240,150,20);
t3.addKeyListener(this);

bg.add(t3);

l4=new JLabel("Maximum Marks");
l4.setFont(fl);
l4.setForeground(Color.WHITE);
l4.setBounds(80,310,150,20);
bg.add(l4);
t4=new JTextField();

p.setBackground(new Color(0,0,0,0));
p.setVisible(false);
p.add(sp);

t5.setFont(f2);
t5.setBounds(280,380,150,20);
t5.addKeyListener(this);
bg.add(t5);
l6=new JLabel("Duration");
l6.setFont(fl);
l6.setForeground(Color.WHITE);
l6.setBounds(80,450,150,20);
bg.add(l6);
t6=new JTextField();
t6.setFont(f2);
t6.setBounds(280,450,150,20);
t6.addKeyListener(this);
bg.add(t6);
l4=new JLabel("Maximum Marks");
l4.setFont(fl);
l4.setForeground(Color.WHITE);
l4.setBounds(80,310,150,20);
bg.add(l4);
t4=new JTextField();
t4.setFont(f2);
t4.setBounds(280,310,150,20);
t4.addKeyListener(this);
bg.add(t4);
l5=new JLabel("Passing Marks");
l5.setFont(fl);
l5.setForeground(Color.WHITE);
l5.setBounds(80,380,150,20);
bg.add(l5);
t5=new JTextField();
t5.setFont(f2);
t5.setBounds(280,380,150,20);
t5.addKeyListener(this);
bg.add(t5);
l6=new JLabel("Duration");
l6.setFont(fl);
l6.setForeground(Color.WHITE);
l6.setBounds(80,450,150,20);
bg.add(l6);
t6=new JTextField();
t6.setFont(f2);
t6.setBounds(280,450,150,20);

```

```

t4.setFont(f2);
t4.setBounds(280,310,150,20);
t4.addKeyListener(this);
bg.add(t4);
l5=new JLabel("Passing Marks");
l5.setFont(fl);
l5.setForeground(Color.WHITE);
l5.setBounds(80,380,150,20);
bg.add(l5);
t5=new JTextField();
bg.add(t6);
b1=new JButton("Add To Table");
b1.setFont(f2);
b1.setBounds(90,590,150,30);
b1.setBackground(Color.BLACK);
b1.setForeground(Color.WHITE);
b1.addActionListener(this);
bg.add(b1);
b2=new JButton("Cancel");
b2.setFont(f2);
b2.setBounds(290,590,120,30);
b2.setBackground(Color.BLACK);
b2.setForeground(Color.WHITE);
b2.addActionListener(this);
bg.add(b2);
b3=new JButton("Remove From Table");
b3.setFont(f2);
b3.setBounds(0,498,180,30);
b3.setBackground(Color.BLACK);
b3.setForeground(Color.WHITE);
b3.addActionListener(this);
p.add(b3);
b4=new JButton("Submit");
b4.setFont(f2);
b4.setBounds(230,498,120,30);
b4.setBackground(Color.BLACK);
b4.setForeground(Color.WHITE);
b4.addActionListener(this);
p.add(b4);
b5=new JButton("Edit");
b5.setFont(f2);
b5.setBounds(400,498,120,30);
b5.setBackground(Color.BLACK);
b5.setForeground(Color.WHITE);
b5.addActionListener(this);
p.add(b5);

t6.addKeyListener(this);
id++;
t1.setText(String.valueOf(id));
catch(Exception e) {
System.out.print(e);
setVisible(true);
t2.requestFocus();}
public void keyPressed(KeyEvent ke){
char c=ke.getKeyChar();
if(ke.getSource()==t3){
if((c>='0' && c<='9') || (c=='\b')){
t3.setEditable(true);}
else{
t3.setEditable(false);}}
if(ke.getSource()==t4) {
if((c>='0' && c<='9') || (c=='\b')) {
t4.setEditable(true);}
else{
t4.setEditable(false);}}
if(ke.getSource()==t5) {
if((c>='0' && c<='9') || (c=='\b')) {
t5.setEditable(true);}
else{
t5.setEditable(false);}}
if(ke.getSource()==t6) {
if((c>='0' && c<='9') || (c=='\b')) {
t6.setEditable(true);}
else {
t6.setEditable(false);}}
public void keyReleased(KeyEvent ke){ }
public void keyTyped(KeyEvent ke){ }
public void actionPerformed(ActionEvent ae){
if(ae.getSource()==b1){
p1.setVisible(false);
p.setVisible(true);
id=Integer.parseInt(t1.getText());
name=t2.getText();
n_o_q=Integer.parseInt(t3.getText());
m_marks=Integer.parseInt(t4.getText());}
}

```

```

bg.add(p);
try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.
getConnection(
"jdbc:mysql://localhost/technometer","root","");
;
st=con.prepareStatement
("select max(Tech_code) from technology");
rs=st.executeQuery();
rs.next();
id=rs.getInt(1);
if(id==0)
id=1001;
else
t5.setText("");
t6.setText("");
t2.requestFocus();
else if(ae.getSource()==b2){
Admin_Demo ad=new Admin_Demo();
dispose();
else if(ae.getSource()==b4){
int cn=model.getRowCount();
for(int i=0;i<cn;i++){
id=Integer.parseInt(model.getValueAt(i,0).toStr
ing());
name=model.getValueAt(i,1).toString();
n_o_q=Integer.parseInt(model.getValueAt(i,2).t
oString());
m_marks=Integer.parseInt(model.getValueAt(i,3
).toString());
p_marks=Integer.parseInt(model.getValueAt(i,4
).toString());
dur=Integer.parseInt(model.getValueAt(i,5).toSt
ring());
try {
st=con.prepareStatement("insert into
technology values(?,?,?,?,?,?)");
st.setInt(1,id);
st.setString(2,name);
st.setInt(3,n_o_q);
st.setInt(4,m_marks);
st.setInt(5,p_marks);
st.setInt(6,dur);
st.executeUpdate();
catch(Exception e) {
p_marks=Integer.parseInt(t5.getText());
dur=Integer.parseInt(t6.getText());
model.addRow(new
Object[]{id,name,n_o_q,m_marks,p_marks,dur});
id++;
t1.setText(String.valueOf(id));
t2.setText("");
t3.setText("");
t4.setText("");
else if(ae.getSource()==b3){
int r=jt.getSelectedRow();
if(r>=0) {
model.removeRow(r); }
else {
JOptionPane.showMessageDialog(this,"Please Select
a Row");
t2.requestFocus();
else if(ae.getSource()==b5) {
int rw=jt.getSelectedRow();
if(rw==0) {
name=model.getValueAt(rw,1).toString();
n_o_q=Integer.parseInt(model.getValueAt(rw,2).toStr
ing());
m_marks=Integer.parseInt(model.getValueAt(rw,3).t
oString());
p_marks=Integer.parseInt(model.getValueAt(rw,4).to
String());
dur=Integer.parseInt(model.getValueAt(rw,5).toStr
ing());
t2.setText(name);
t3.setText(String.valueOf(n_o_q));
t4.setText(String.valueOf(m_marks));
t5.setText(String.valueOf(p_marks));
t6.setText(String.valueOf(dur));
model.removeRow(rw);}
else {
JOptionPane.showMessageDialog
(this,"Please Select a Row");}
t2.requestFocus();}}}
class New_Technology {
public static void main(String []s) {
New_Technology_Demo nd = new
New_Technology_Demo();}}
```

```
System.out.print(e);}}  
model.setRowCount(0);  
JOptionPane.showMessageDialog(this,"All  
Technologies Added Successfully");  
t2.requestFocus();  
p.setVisible(false);  
p1.setVisible(true);}  
else if(ae.getSource()==b3){  
int r=jt.getSelectedRow();  
if(r>=0) {  
model.removeRow(r); }  
else {  
JOptionPane.showMessageDialog(this,"Please  
Select a Row");}  
t2.requestFocus();}  
else if(ae.getSource()==b5) {  
int rw=jt.getSelectedRow();  
if(rw==0) {  
name=model.getValueAt(rw,1).toString();
```

### **3. Technology (Modify):**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class Modify_Technology_Demo extends JFrame
implements ActionListener, KeyListener {
JLabel lmain,l1,l2,l3,l4,l5,l6,img;
JComboBox t1;
JTextField t2,t3,t4,t5,t6;
JButton b1,b2,b3,b4,b5;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
int id,m_marks,p_marks,n_o_q,dur;
String name;
boolean flag=false;

Modify_Technology_Demo()
{
setTitle("Modify Technology");
setSize(540,620);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon("bg2.png");
img=new JLabel(im);
img.setBounds(0,0,540,620);
c.add(img);

Font f1=new Font("consolas",Font.BOLD,24);
Font f2=new Font("arial",Font.BOLD,15);
Font f1=new Font("arial",Font.BOLD,17);

lmain=new JLabel("Modify Technologies Details");
lmain.setFont(f1);
lmain.setForeground(Color.BLACK);

lmain.setBounds(80,10,500,40);
img.add(lmain);
l1=new JLabel("Technology ID");
l1.setFont(f1);
l1.setBounds(80,100,150,20);
l1.setForeground(Color.BLACK);
img.add(l1);
t1=new JComboBox();
t1.setFont(f2);
t1.setBounds(280,100,150,20);
t1.addActionListener(this);
img.add(t1);
l2=new JLabel("Technology Name");
l2.setFont(f1);
l2.setBounds(80,170,150,20);
l2.setForeground(Color.BLACK);
img.add(l2);
t2=new JTextField();
t2.setFont(f2);
t2.setBounds(280,170,150,20);
t2.addKeyListener(this);
img.add(t2);
l3=new JLabel("Number Of Question");
l3.setFont(f1);
l3.setBounds(80,240,180,20);
l3.setForeground(Color.BLACK);
img.add(l3);
t3=new JTextField();
t3.setFont(f2);
t3.setBounds(280,240,150,20);
t3.addKeyListener(this);
img.add(t3);
l4=new JLabel("Maximum Marks");
l4.setFont(f1);
l4.setForeground(Color.BLACK);
l4.setBounds(80,310,150,20);
img.add(l4);

t4=new JTextField();
t4.setFont(f2);
t4.setBounds(280,310,150,20);
t4.addKeyListener(this);
img.add(t4);
```

```

l5=new JLabel("Passing Marks");
l5.setFont(f1);
l5.setForeground(Color.BLACK);
l5.setBounds(80,380,150,20);
img.add(l5);

t5=new JTextField();
t5.setFont(f2);
t5.setBounds(280,380,150,20);
t5.addKeyListener(this);
img.add(t5);

l6=new JLabel("Duration");
l6.setFont(f1);
l6.setBounds(80,450,150,20);
l6.setForeground(Color.BLACK);
img.add(l6);

t6=new JTextField();
t6.setFont(f2);
t6.setBounds(280,450,150,20);
t6.addKeyListener(this);
img.add(t6);

b1=new JButton("Update");
b1.setFont(f2);
b1.setBounds(90,520,120,30);
b1.setForeground(Color.BLACK);
b1.setBackground(new Color(84,154,218));
b1.addActionListener(this);
img.add(b1);

b2=new JButton("Cancel");
b2.setFont(f2);
b2.setBounds(290,520,150,30);
b2.addActionListener(this);
b2.setBackground(new Color(141,119,194));
b2.setForeground(Color.BLACK);
img.add(b2);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.
getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement
("select tech_code from technology");
rs=st.executeQuery();
{
t5.setEditable(false);
}

t1.addItem("Select an ID");
while(rs.next())
{
t1.addItem(String.valueOf(rs.getInt(1)));
}
flag=true;
}
catch(Exception e)
{
System.out.print(e);
}

setVisible(true);
t2.requestFocus();
}

public void keyPressed(KeyEvent ke)
{
char c=ke.getKeyChar();
if(ke.getSource()==t3)
{
if((c>='0' && c<='9') || (c=='\b'))
{
t3.setEditable(true);
}
else
{
t3.setEditable(false);
}
}
if(ke.getSource()==t4)
{
if((c>='0' && c<='9') || (c=='\b'))
{
t4.setEditable(true);
}
else
{
t4.setEditable(false);
}
}
if(ke.getSource()==t5)
{
if((c>='0' && c<='9') || (c=='\b'))
{
t5.setEditable(true);
}
else
{}}
else if(ae.getSource()==b2) {
}
}

```

```

}
}

if(ke.getSource()==t6)
{
if((c>='0' && c<='9') || (c=='\b'))
{
t6.setEditable(true);
}
else
{
t6.setEditable(false);
}
}

public void keyReleased(KeyEvent ke)
{
}

public void keyTyped(KeyEvent ke)
{
}

public void actionPerformed(ActionEvent ae)
{
if((ae.getSource()==t1) && (flag==true))
{
id=Integer.parseInt((String)t1.getSelectedItem());
try
{
st=con.prepareStatement("select * from technology
where Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
if(rs.next())
{
name=rs.getString(2);
n_o_q=rs.getInt(3);
m_marks=rs.getInt(4);
p_marks=rs.getInt(5);
dur=rs.getInt(6);
t2.setText(name);
t3.setText(String.valueOf(n_o_q));
t4.setText(String.valueOf(m_marks));
t5.setText(String.valueOf(p_marks));
t6.setText(String.valueOf(dur));
}
}
catch(Exception e)
{
System.out.print(e);
}
}
}

Admin_Demo ad=new Admin_Demo();
dispose(); }

else if(ae.getSource()==b1) {
name=t2.getText();
n_o_q=Integer.parseInt(t3.getText());
m_marks=Integer.parseInt(t4.getText());
p_marks=Integer.parseInt(t5.getText());
dur=Integer.parseInt(t6.getText());
try {
st=con.prepareStatement
("update technology set Tech_name=?,Max_marks=?,
Pass_marks=?,Duration=?,N_O_Q=? where
Tech_code=?");
st.setString(1,name);
st.setInt(2,m_marks);
st.setInt(3,p_marks);
st.setInt(4,dur);
st.setInt(5,n_o_q);
st.setInt(6,id);
st.executeUpdate();
JOptionPane.showMessageDialog
(this,"Technology Details Updated Successfully");
st=con.prepareStatement
("update questions set Tech_name=? where
Tech_code=?");
st.setString(1,name);
st.setInt(2,id);
st.executeUpdate();
t2.setText("");
t3.setText("");
t4.setText("");
t5.setText("");
t6.setText("");
t1.setSelectedIndex(0);}
catch(Exception e){
System.out.print(e);
}}
}

class Modify_Technology
{
public static void main(String []s)
{
Modify_Technology_Demo md = new
Modify_Technology_Demo();
}
}

```

## 4. Technology (Delete):

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class Delete_Technology_Demo extends
JFrame implements ActionListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,img;JComboBox t1;
JTextField t2,t3,t4,t5,t6;
JButton b1,b2,b3,b4,b5;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
int id,m_marks,p_marks,n_o_q,dur;
String name;
boolean flag=false;

Delete_Technology_Demo()
{
setTitle("Delete Technology");
setSize(540,620);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
setLocationRelativeTo(null);

c=ContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon("bg3.png");
img=new JLabel(im);
img.setBounds(0,0,540,620);
c.add(img);

Font f1=new Font("consolas",Font.BOLD,24);
l3=new JLabel("Number Of Question");
l3.setFont(f1);
l3.setForeground(Color.BLACK);

Font f2=new Font("arial",Font.BOLD,15);
Font f1=new Font("arial",Font.BOLD,17);

lmain=new JLabel("Delete Technologies");
lmain.setFont(f1);
lmain.setForeground(Color.BLACK);
lmain.setBounds(140,10,450,40);
img.add(lmain);

l1=new JLabel("Technology ID");
l1.setFont(f1);
l1.setForeground(Color.BLACK);
l1.setBounds(80,100,150,20);
img.add(l1);

t1=new JComboBox();
t1.setFont(f2);
t1.setBounds(280,100,150,20);
t1.addActionListener(this);
img.add(t1);

l2=new JLabel("Technology Name");
l2.setFont(f1);
l2.setForeground(Color.BLACK);
l2.setBounds(80,170,150,20);
img.add(l2);

t2=new JTextField();
t2.setFont(f2);
t2.setBounds(280,170,150,20);
t2.setEditable(false);
img.add(t2);

t6=new JTextField();
t6.setFont(f2);
t6.setBounds(280,450,150,20);
t6.setEditable(false);
img.add(t6);}
```

```

l3.setBounds(80,240,180,20);
img.add(l3);

t3=new JTextField();
t3.setFont(f2);
t3.setBounds(280,240,150,20);
t3.setEditable(false);
img.add(t3);

l4=new JLabel("Maximum Marks");
l4.setFont(fl);
l4.setForeground(Color.BLACK);
l4.setBounds(80,310,150,20);
img.add(l4);

t4=new JTextField();
t4.setFont(f2);
t4.setBounds(280,310,150,20);
t4.setEditable(false);
img.add(t4);

l5=new JLabel("Passing Marks");
l5.setFont(fl);
l5.setForeground(Color.BLACK);
l5.setBounds(80,380,150,20);
img.add(l5);

t5=new JTextField();
t5.setFont(f2);
t5.setBounds(280,380,150,20);
t5.setEditable(false);
img.add(t5);

l6=new JLabel("Duration");
l6.setFont(fl);
l6.setForeground(Color.BLACK);
l6.setBounds(80,450,150,20);
img.add(l6);

public void actionPerformed(ActionEvent ae)
{
if((ae.getSource()==t1) && (flag==true))
{
id=Integer.parseInt((String)t1.getSelectedItem());
};

try {
b1=new JButton("Delete");
b1.setFont(f2);
b1.setBounds(90,520,120,30);
b1.setForeground(Color.BLACK);
b1.setBackground(new Color(84,154,218));
b1.addActionListener(this);
img.add(b1);

b2=new JButton("Cancel");
b2.setFont(f2);
b2.setBounds(290,520,120,30);
b2.setForeground(Color.BLACK);
b2.setBackground(new Color(241,139,83));
b2.addActionListener(this);
img.add(b2);

try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.
getConnection
("jdbc:mysql://localhost/technometer","root","");
);
st=con.prepareStatement
("select tech_code from technology");
rs=st.executeQuery();
t1.addItem("Select an ID");
while(rs.next())
{
t1.addItem(String.valueOf(rs.getInt(1)));
}
flag=true;
}
catch(Exception e)
{
System.out.print(e);
}
setVisible(true);
}

("delete from questions where Tech_code=?");
st.setInt(1,id);
st.executeUpdate();
JOptionPane.showMessageDialog
(this,"Technology Details Deleted
Successfully");
t1.removeItem(t1.getSelectedItem());
t2.setText("");
}

```

```

st=con.prepareStatement
("select * from technology where
Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
if(rs.next())
{
name=rs.getString(2);
n_o_q=rs.getInt(3);
m_marks=rs.getInt(4);
p_marks=rs.getInt(5);
dur=rs.getInt(6);
t2.setText(name);
t3.setText(String.valueOf(n_o_q));
t4.setText(String.valueOf(m_marks));
t5.setText(String.valueOf(p_marks));
t6.setText(String.valueOf(dur)); }
catch(Exception e)
{
System.out.print(e); }
else if(ae.getSource()==b2) {
dispose();
Admin_Demo ad=new Admin_Demo(); }
else if(ae.getSource()==b1)
{
try {
st=con.prepareStatement
("delete from technology where
Tech_code=?");
st.setInt(1,id);
st.executeUpdate();
st=con.prepareStatement
t3.setText("");
t4.setText("");
t5.setText("");
t6.setText("");
t1.setSelectedIndex(0);
}
catch(Exception e)
{
System.out.print(e); }
}
class Delete_Technology
{
public static void main(String []s) {
Delete_Technology_Demo dt =
new Delete_Technology_Demo();
}
}

```

## 5. Questions (New):

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class New_Question_Demo extends
JFrame implements ActionListener,KeyListener
,FocusListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,l7,l8,bg,img;
JComboBox t1;
JTextField t2,t3;
JTextArea ta1,ta2,ta3,ta4,ta5;
JButton b1,b2;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
boolean flag=false;
int id;
String nm,ques,op1,op2,op3,op4,cop;

New_Question_Demo()
{
setTitle("New Question");
setSize(1200,680);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
 setLocationRelativeTo(null);

c=ContentPane();
c.setLayout(null);

Font f1=new Font("Lucida Calligraphy",Font.BOLD,33);
Font f2=new Font("arial",Font.BOLD,18);
Font f3=new Font("arial",Font.ITALIC,15);

ImageIcon im=new ImageIcon("bgq.jpg");
bg=new JLabel(im);
bg.setBounds(0,0,1200,680);
c.add(bg);

ta1=new JTextArea();
ta1.setFont(f3);
ta1.setLineWrap(true);

ImageIcon im1=new ImageIcon("q.png");
img=new JLabel(im1);
img.setBounds(850,60,250,210);
bg.add(img);

lmain=new JLabel("New Question Details");
lmain.setFont(f1);
lmain.setForeground(Color.BLACK);
lmain.setBounds(425,25,500,50);
bg.add(lmain);

l1=new JLabel("Technology ID");
l1.setFont(f2);
l1.setForeground(Color.BLACK);
l1.setBounds(80,130,150,30);
bg.add(l1);

t1=new JComboBox();
t1.setFont(f3);
t1.addActionListener(this);
t1.setBounds(280,130,180,25);
bg.add(t1);

l2=new JLabel("Technology Name");
l2.setFont(f2);
l2.setForeground(Color.BLACK);
l2.setBounds(80,200,180,30);
bg.add(l2);

t2=new JTextField();
t2.setFont(f3);
t2.setBounds(280,200,180,25);
t2.setEditable(false);
bg.add(t2);

l3=new JLabel("Question");
l3.setFont(f2);
l3.setForeground(Color.BLACK);
l3.setBounds(130,280,150,30);
bg.add(l3);

catch(Exception e)
{
System.out.print(e);
}
```

```

ta1.setWrapStyleWord(true);
ta1.setBounds(280,280,870,50);
bg.add(ta1);

l4=new JLabel("Option A");
l4.setFont(f2);
l4.setForeground(Color.BLACK);
l4.setBounds(150,360,150,30);
bg.add(l4);

ta2=new JTextArea();
ta2.setFont(f3);
ta2.setLineWrap(true);
ta2.setWrapStyleWord(true);
ta2.setBounds(280,355,300,40);
bg.add(ta2);

l5=new JLabel("Option B");
l5.setFont(f2);
l5.setForeground(Color.BLACK);
l5.setBounds(750,355,150,30);
bg.add(l5);

ta3=new JTextArea();
ta3.setFont(f3);
ta3.setLineWrap(true);
ta3.setWrapStyleWord(true);
ta3.setBounds(850,355,300,40);
bg.add(ta3);

l6=new JLabel("Option C");
l6.setFont(f2);
l6.setForeground(Color.BLACK);
l6.setBounds(150,430,150,30);
bg.add(l6);

ta4=new JTextArea();
ta4.setFont(f3);
ta4.setLineWrap(true);
ta4.setWrapStyleWord(true);
ta4.setBounds(280,430,300,40);
bg.add(ta4);

l7=new JLabel("Option D");
l7.setFont(f2);
l7.setForeground(Color.BLACK);
l7.setBounds(750,440,150,30);
bg.add(l7);

ta5=new JTextArea();

```

```

}
setVisible(true);
ta1.requestFocus();
}

public void keyPressed(KeyEvent ke)
{
char c=ke.getKeyChar();
if(ke.getSource()==t3)
{
if((c=='A') || (c=='a') || (c=='B') || (c=='b') || (c=='C') || (c=='c') || (c=='D') || (c=='d') || (c=='\b'))
{
t3.setEditable(true);
}
else
{
t3.setEditable(false);
}
}
}

public void keyReleased(KeyEvent ke)
{
}

public void keyTyped(KeyEvent ke)
{
}

public void focusLost(FocusEvent fe)
{
if(fe.getSource()==t3)
{
cop=t3.getText();
if(cop.length()==1)
{
}
else
{
JOptionPane.showMessageDialog(this,"Please enter
a valid option");
t3.requestFocus();
}
}
}

public void focusGained(FocusEvent fe)
{
}

```

```

ta5.setFont(f3);
ta5.setLineWrap(true);
ta5.setWrapStyleWord(true);
ta5.setBounds(850,430,300,40);
bg.add(ta5);

l8=new JLabel("Correct Answer");
l8.setFont(f2);
l8.setForeground(Color.BLACK);
l8.setBounds(80,500,150,30);
bg.add(l8);

t3=new JTextField();
t3.setFont(f3);
t3.addKeyListener(this);
t3.addFocusListener(this);
t3.setBounds(280,500,180,25);
bg.add(t3);

b1=new JButton("SAVE");
b1.setFont(f2);
b1.setBounds(400,580,120,30);
b1.addActionListener(this);
bg.add(b1);

b2=new JButton("CANCEL");
b2.setFont(f2);
b2.setBounds(700,580,120,30);
b2.addActionListener(this);
bg.add(b2);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection("jdbc:mysql://local
host/technometer","root","");
st=con.prepareStatement("select Tech_code from
technology");
rs=st.executeQuery();
t1.addItem("Select an ID");
while(rs.next())
{
t1.addItem(String.valueOf(rs.getInt("Tech_code")));
}
flag=true;
}
public void focusGained(FocusEvent fe)
{
}

public void actionPerformed(ActionEvent ae)
{
if((ae.getSource()==t1) && (flag==true))
{
id=Integer.parseInt((String)t1.getSelectedItem());
try
{
st=con.prepareStatement("select * from technology
where Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
if(rs.next())
{
nm=rs.getString(2);
t2.setText(nm);
}
}
catch(Exception e)
{
System.out.print(e);
}
}

else if(ae.getSource()==b2)
{
dispose();
}
else if(ae.getSource()==b1)
{
ques=ta1.getText();
op1=ta2.getText();
op2=ta3.getText();
op3=ta4.getText();
op4=ta5.getText();
cop=t3.getText();

try
{
st=con.prepareStatement("insert into questions
values(?,?,?,?,?,?)");
st.setString(1,ques);
st.setInt(2,id);
st.setString(3,op1);
st.setString(4,op2);
st.setString(5,op3);
st.setString(6,op4);
st.setString(7,cop);
st.setString(8,nm);
st.executeUpdate();
}
}
}

```

```

public void actionPerformed(ActionEvent ae)
{
if((ae.getSource()==t1) && (flag==true))
{
id=Integer.parseInt((String) t1.getSelectedItem());
try
{
st=con.prepareStatement("select * from technology
where Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
if(rs.next())
{
nm=rs.getString(2);
t2.setText(nm);
}
}
catch(Exception e)
{
System.out.print(e);
}
}

else if(ae.getSource()==b2)
{
dispose();
}

else if(ae.getSource()==b1)
{
ques=ta1.getText();
op1=ta2.getText();
op2=ta3.getText();
op3=ta4.getText();
op4=ta5.getText();
cop=t3.getText();

try
{
st=con.prepareStatement("insert into questions
values(?,?,?,?,?,?)");
st.setString(1,ques);
st.setInt(2,id);
st.setString(3,op1);
st.setString(4,op2);
st.setString(5,op3);
st.setString(6,op4);

JOptionPane.showMessageDialog(this,"Question
Added Successfully");
t2.setText("");
ta1.setText("");
ta2.setText("");
ta3.setText("");
ta4.setText("");
ta5.setText("");
t3.setText("");
ta1.requestFocus();
}
catch(Exception e)
{
System.out.print(e);
}
}
}

class New_Question
{
public static void main(String []s)
{
New_Question_Demo nq = new
New_Question_Demo();
}
}

```

## 6. Questions (Modify):

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class Modify_Question_Demo extends
JFrame implements ActionListener,KeyListener,
FocusListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,l7,l8,l9,bg,img;
JComboBox t1,ta1;
JTextField t2,t3;
JTextArea taq,ta2,ta3,ta4,ta5;
JButton b1,b2;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
boolean flag=false,flg=false;
int id;
String nm,nques,ques,op1,op2,op3,op4,cop;

Modify_Question_Demo()
{
setTitle("Modify Questions");
setSize(1250,680);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
 setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

Font f1=new Font("Times New
Roman",Font.BOLD,33);
Font f2=new Font("arial",Font.BOLD,18);
Font f3=new Font("arial",Font.ITALIC,15);

ImageIcon im=new ImageIcon("qbg1.png");
bg=new JLabel(im);
bg.setBounds(0,0,1250,680);
c.add(bg);

ImageIcon im1=new ImageIcon("mimg.png");
img=new JLabel(im1);

img.setBounds(880,-10,350,273);
bg.add(img);
lmain=new JLabel("Modify Question
Details");
lmain.setFont(f1);
lmain.setForeground(Color.BLACK);
lmain.setBounds(425,25,500,50);
bg.add(lmain);

l1=new JLabel("Technology ID");
l1.setFont(f2);
l1.setForeground(Color.BLACK);
l1.setBounds(80,130,150,30);
bg.add(l1);

t1=new JComboBox();
t1.setFont(f3);
t1.addActionListener(this);
t1.setBounds(280,130,180,25);
bg.add(t1);

l2=new JLabel("Technology Name");
l2.setFont(f2);
l2.setForeground(Color.BLACK);
l2.setBounds(500,130,180,30);
bg.add(l2);

t2=new JTextField();
t2.setFont(f3);
t2.setBounds(710,130,180,25);
t2.setEditable(false);
bg.add(t2);

l3=new JLabel("Question");
l3.setFont(f2);
l3.setForeground(Color.BLACK);
l3.setBounds(130,200,150,30);
bg.add(l3);

ta1=new JComboBox();
ta1.setFont(f3);
ta1.addActionListener(this);
ta1.setBounds(280,200,870,45);
bg.add(ta1);}
```

```

l9=new JLabel("New Question");
l9.setFont(f2);
l9.setForeground(Color.BLACK);
l9.setBounds(130,285,180,30);
bg.add(l9);
taq=new JTextArea();
taq.setFont(f3);
taq.setBounds(280,285,870,40);
taq.setLineWrap(true);
taq.setWrapStyleWord(true);
bg.add(taq);

l4=new JLabel("Option A");
l4.setFont(f2);
l4.setForeground(Color.BLACK);
l4.setBounds(150,360,150,30);
bg.add(l4);

ta2=new JTextArea();
ta2.setFont(f3);
ta2.setBounds(280,355,300,40);
ta2.setLineWrap(true);
ta2.setWrapStyleWord(true);
bg.add(ta2);

l5=new JLabel("Option B");
l5.setFont(f2);
l5.setForeground(Color.BLACK);
l5.setBounds(750,355,150,30);
bg.add(l5);

ta3=new JTextArea();
ta3.setFont(f3);
ta3.setLineWrap(true);
ta3.setBounds(850,355,300,40);
ta3.setWrapStyleWord(true);
bg.add(ta3);

l6=new JLabel("Option C");
l6.setFont(f2);
l6.setForeground(Color.BLACK);
l6.setBounds(150,430,150,30);
bg.add(l6);

ta4=new JTextArea();
ta4.setFont(f3);
ta4.setLineWrap(true);
ta4.setBounds(280,430,300,40);
ta4.setWrapStyleWord(true);
bg.add(ta4);

l7=new JLabel("Option D");
l7.setFont(f2);
l7.setForeground(Color.BLACK);
l7.setBounds(750,440,150,30);
bg.add(l7);

ta5=new JTextArea();
ta5.setFont(f3);
ta5.setLineWrap(true);
ta5.setWrapStyleWord(true);
ta5.setBounds(850,430,300,40);
bg.add(ta5);

l8=new JLabel("Correct Answer");
l8.setFont(f2);
l8.setForeground(Color.BLACK);
l8.setBounds(80,500,150,30);
bg.add(l8);

t3=new JTextField();
t3.setFont(f3);
t3.setBounds(280,500,180,25);
t3.addFocusListener(this);
t3.addKeyListener(this);
bg.add(t3);

b1=new JButton("UPDATE");
b1.setFont(f2);
b1.setBounds(450,580,120,30);
b1.addActionListener(this);
bg.add(b1);

b2=new JButton("CANCEL");
b2.setFont(f2);
b2.setBounds(750,580,120,30);
b2.addActionListener(this);
bg.add(b2);

try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","ro
ot","");
st=con.prepareStatement
("select distinct Tech_code from
questions");
rs=st.executeQuery();
t1.addItem("Select an ID");
while(rs.next()) {


```

```

t1.addItem(String.valueOf(rs.getInt("Tech_code")));
}
l7=new JLabel("Option D");
l7.setFont(f2);
l7.setForeground(Color.BLACK);
l7.setBounds(750,440,150,30);
bg.add(l7);

ta5=new JTextArea();
ta5.setFont(f3);
ta5.setLineWrap(true);
ta5.setWrapStyleWord(true);
ta5.setBounds(850,430,300,40);
bg.add(ta5);

l8=new JLabel("Correct Answer");
l8.setFont(f2);
l8.setForeground(Color.BLACK);
l8.setBounds(80,500,150,30);
bg.add(l8);

t3=new JTextField();
t3.setFont(f3);
t3.setBounds(280,500,180,25);
t3.addFocusListener(this);
t3.addKeyListener(this);
bg.add(t3);

b1=new JButton("UPDATE");
b1.setFont(f2);
b1.setBounds(450,580,120,30);
b1.addActionListener(this);
bg.add(b1);

b2=new JButton("CANCEL");
b2.setFont(f2);
b2.setBounds(750,580,120,30);
b2.addActionListener(this);
bg.add(b2);

try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement
("select distinct Tech_code from questions");
rs=st.executeQuery();
t1.addItem("Select an ID");
while(rs.next()) {
{
t1.addItem(String.valueOf(rs.getInt("Tech_
code")));
}
flag=true;
}
catch(Exception e) {
System.out.print(e);
setVisible(true);
taq.requestFocus();
}

public void keyPressed(KeyEvent ke) {
char c=ke.getKeyChar();
if(ke.getSource()==t3) {
if((c=='A') || (c=='a') && (c=='B') || (c==
'b')
&& (c=='C') || (c=='c') && (c=='D') || (c==
'd') && (c=='\b'))
{
t3.setEditable(true);
} else {
t3.setEditable(false);
}
}
}

public void focusLost(FocusEvent fe)
{
if(fe.getSource()==t3)
{
cop=t3.getText();
if(cop.length()==1)
{ }
else {
JOptionPane.showMessageDialog(this,"Plea
se enter a valid option");
t3.requestFocus();
}
}
}

public void focusGained(FocusEvent fe) { }

public void keyReleased(KeyEvent ke) { }
public void keyTyped(KeyEvent ke) { }
public void actionPerformed(ActionEvent
ae) {
if((ae.getSource()==t1) && (flag==true)) {
id=Integer.parseInt((String)
t1.getSelectedItem());
try {
st=con.prepareStatement("select * from
questions where Tech_code=?");
}
}
}
}

```

```

st.setInt(1,id);
rs=st.executeQuery();
if(rs.next())
nm=rs.getString("Tech_Name");
t2.setText(nm);
if((ta1.getComponentCount() )>=0)
{
ta1.removeAllItems();
taq.setText("");
ta2.setText("");
ta3.setText("");
ta4.setText("");
ta5.setText("");
t3.setText("");

ta1.addItem("Select a Question");
st=con.prepareStatement
("select Question from questions where
Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
while(rs.next())
{
ta1.addItem(rs.getString(1));
flg=true;
else
{
st=con.prepareStatement
("select Question from questions where
Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
ta1.addItem("Select a Question");
while(rs.next())
{
ta1.addItem(rs.getString(1));
}
flg=true;
}}
}
catch(Exception e)
{
System.out.print(e);
}
else if(ae.getSource()==b1)
{
nques=taq.getText();
op1=ta2.getText();
op2=ta3.getText();
op3=ta4.getText();
op4=ta5.getText();
cop=t3.getText();
try {
st=con.prepareStatement("update
questions set
Question=?,Option_1=?,Option_2=?,Option
_3=?,Option_4=?,Correct_Option=? where
Tech_code=? and question=?");
st.setString(1,nques);
st.setString(2,op1);
st.setString(3,op2);
st.setString(4,op3);
st.setString(5,op4);
st.setString(6,cop);
st.setInt(7,id);
st.setString(8,ques);
st.executeUpdate();
JOptionPane.showMessageDialog
(this,"Question Updated Successfully");
}
}
else if((ae.getSource()==ta1) && (flg==true))
{
ques=(String) ta1.getSelectedItem();
try {
st=con.prepareStatement("select * from
questions where Question=? and Tech_code=?");
st.setString(1,ques);
st.setInt(2,id);
rs=st.executeQuery();
if(rs.next())
{
nques=rs.getString(1);
op1=rs.getString(3);
op2=rs.getString(4);
op3=rs.getString(5);
op4=rs.getString(6);
cop=rs.getString(7);
taq.setText(nques);
ta2.setText(op1);
ta3.setText(op2);
ta4.setText(op3);
ta5.setText(op4);
t3.setText(cop);}}}
catch(Exception e)
{
System.out.print(e);
}
}
}

```

```
t2.setText("");
taq.setText("");
ta2.setText("");
ta3.setText("");
ta4.setText("");
ta5.setText("");
t3.setText("");
taq.requestFocus();
ta1.removeItem(ta1.getSelectedItem());
ta1.addItem(nques);
ta1.setSelectedIndex(0);
t1.setSelectedIndex(0);
}
catch(Exception e)
{
System.out.print(e);
}
}
}
}
}

class Modify_Question
{
public static void main(String []s)
{
Modify_Question_Demo mq = new
Modify_Question_Demo();
}
}
```

## 7. Questions (Delete):

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class Delete_Question_Demo extends JFrame
    implements ActionListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,l7,l8,bg,img;
JComboBox t1,ta1;
JTextField t2,t3;
JTextArea ta2,ta3,ta4,ta5;
JButton b1,b2;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
boolean flag=false,flg=false;
int id;
String nm,ques,op1,op2,op3,op4,cop;
Delete_Question_Demo()
{
setTitle("Modify Questions");
setSize(1200,680);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
setLocationRelativeTo(null);
c=getContentPane();
c.setLayout(null);
Font f1=new Font("Times New
l2=new JLabel("Technology Name");
l2.setFont(f2);
l2.setForeground(Color.BLACK);
l2.setBounds(80,200,180,30);
bg.add(l2);
t2=new JTextField();
t2.setFont(f3);
t2.setBounds(280,200,180,25);
t2.setEditable(false);
bg.add(t2);
l3=new JLabel("Question");
l3.setFont(f2);
l3.setForeground(Color.BLACK);

Roman",Font.BOLD,33);
Font f2=new Font("arial",Font.BOLD,18);
Font f3=new Font("arial",Font.ITALIC,15);
ImageIcon im=new ImageIcon("qbg2.png");
bg=new JLabel(im);
bg.setBounds(0,0,1200,680);
c.add(bg);
ImageIcon im1=new ImageIcon("dimg.png");
img=new JLabel(im1);
img.setBounds(850,60,250,210);
bg.add(img);
lmain=new JLabel("Delete Question Details");
lmain.setFont(f1);
lmain.setForeground(Color.BLACK);
lmain.setBounds(425,25,500,50);
bg.add(lmain);
l1=new JLabel("Technology ID");
l1.setFont(f2);
l1.setForeground(Color.BLACK);
l1.setBounds(80,130,150,30);
bg.add(l1);
t1=new JComboBox();
t1.setFont(f3);
t1.addActionListener(this);
t1.setBounds(280,130,180,25);
bg.add(t1);
bg.add(l5);
ta3=new JTextArea();
ta3.setFont(f3);
ta3.setLineWrap(true);
ta3.setWrapStyleWord(true);
ta3.setBounds(850,355,300,40);
ta3.setEditable(false);
bg.add(ta3);
l6=new JLabel("Option C");
l6.setFont(f2);
l6.setForeground(Color.BLACK);
l6.setBounds(150,430,150,30);
bg.add(l6);
ta4=new JTextArea();
ta4.setFont(f3);
ta4.setLineWrap(true);
ta4.setWrapStyleWord(true);
ta4.setBounds(850,430,300,40);
ta4.setEditable(false);
bg.add(ta4);
}
```

```

l3.setBounds(130,280,150,30);
bg.add(l3);
ta1=new JComboBox();
ta1.setFont(f3);
ta1.addActionListener(this);
ta1.setBounds(280,280,870,50);
bg.add(ta1);
l4=new JLabel("Option A");
l4.setFont(f2);
l4.setForeground(Color.BLACK);
l4.setBounds(150,360,150,30);
bg.add(l4);
ta2=new JTextArea();
ta2.setFont(f3);
ta2.setBounds(280,355,300,40);
ta2.setLineWrap(true);
ta2.setWrapStyleWord(true);
ta2.setEditable(false);
bg.add(ta2);
l5=new JLabel("Option B");
l5.setFont(f2);
l5.setForeground(Color.BLACK);
l5.setBounds(750,355,150,30);
bg.add(l5);
t3=new JTextField();
t3.setFont(f3);
t3.setBounds(280,500,180,25);
t3.setEditable(false);
bg.add(t3);
b1=new JButton("DELETE");
b1.setFont(f2);
b1.setBounds(400,580,120,30);
b1.addActionListener(this);
bg.add(b1);
b2=new JButton("CANCEL");
b2.setFont(f2);
b2.setBounds(700,580,120,30);
b2.addActionListener(this);
bg.add(b2);
try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.
getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement
("select distinct Tech_code from questions");
rs=st.executeQuery();
t1.addItem("Select an ID");
while(rs.next())
{
ta4.setBounds(280,430,300,40);
ta4.setEditable(false);
bg.add(ta4);
l7=new JLabel("Option D");
l7.setFont(f2);
l7.setForeground(Color.BLACK);
l7.setBounds(750,440,150,30);
bg.add(l7);
ta5=new JTextArea();
ta5.setFont(f3);
ta5.setLineWrap(true);
ta5.setWrapStyleWord(true);
ta5.setBounds(850,430,300,40);
ta5.setEditable(false);
bg.add(ta5);
l8=new JLabel("Correct Answer");
l8.setFont(f2);
l8.setForeground(Color.BLACK);
l8.setBounds(80,500,150,30);
{
System.out.print(e);
}
setVisible(true);
}
public void actionPerformed(ActionEvent ae)
{
if((ae.getSource()==t1) && (flag==true))
{
id=Integer.parseInt((String)
t1.getSelectedItem());
try {
st=con.prepareStatement
("select * from questions where Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
if(rs.next())
{
nm=rs.getString("Tech_Name");
t2.setText(nm);
if((ta1.getComponentCount() )>=0)
{
ta1.removeAllItems();
ta2.setText("");
ta3.setText("");
ta4.setText("");
ta5.setText("");
t3.setText("");
ta1.addItem("Select a Question");
st=con.prepareStatement

```

```

t1.addItem(String.valueOf(rs.getInt("Tech_code")));
}
flag=true;
}
catch(Exception e)
rs=st.executeQuery();
while(rs.next())
{
ta1.addItem(rs.getString(1));
}
flag=true;
}
else
{
st=con.prepareStatement
("select Question from questions where Tech_code=?");
st.setInt(1,id);
rs=st.executeQuery();
ta1.addItem("Select a Question");
while(rs.next())
{
ta1.addItem(rs.getString(1));
}
flag=true;
}
}
catch(Exception e)
{
System.out.print(e);
}
else if((ae.getSource()==ta1) && (flg==true)) {
ques=(String) ta1.getSelectedItem();
try {
st=con.prepareStatement
("select * from questions where Question=?");
st.setString(1,ques);
rs=st.executeQuery();
if(rs.next())
ta1.setSelectedIndex(0);
}
catch(Exception e)
{
System.out.print(e);
}
}
class Delete_Question
{
public static void main(String []s)
{
("select Question from questions where
Tech_code=?");
st.setInt(1,id);
{
op1=rs.getString(3);
op2=rs.getString(4);
op3=rs.getString(5);
op4=rs.getString(6);
cop=rs.getString(7);
ta2.setText(op1);
ta3.setText(op2);
ta4.setText(op3);
ta5.setText(op4);
t3.setText(cop);
}
catch(Exception e)
{
System.out.print(e);
}
else if(ae.getSource()==b2) {
dispose(); }
else if(ae.getSource()==b1) {
try {
st=con.prepareStatement
("delete from questions where
tech_code=? and question=?");
st.setInt(1,id);
st.setString(2,ques);
st.executeUpdate();
JOptionPane.showMessageDialog
(this,"Question Deleted Successfully");
ta1.removeItem(ta1.getSelectedItem());
ta2.setText("");
ta3.setText("");
ta4.setText("");
ta5.setText("");
t3.setText("");
}
}
}
}

```

```
Delete_Question_Demo dq = new  
Delete_Question_Demo();  
}  
}
```

## **8. Registration (New):**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
import java.util.Date;
import java.text.SimpleDateFormat;
import java.util.*;
import org.jdesktop.swingx.*;
import org.jdesktop.swingx.impl.*;
import org.jdesktop.swingx.util.*;
class New_Registration_Demo extends JFrame
implements ActionListener,KeyListener,
FocusListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,l7,l8,img;
JComboBox t5,cbg;
JTextField t1,t2,t3,t4,t6;
JButton b1,b2;
Container c;
Connection con;
PreparedStatement st;
ResultSet rs;
boolean flag=false;
int en;
String cont,gen,name,tech,eml,cdt;
int cddt,cmh,cyr,edt,eyr,bdt,byr;
String
eddt,emh,edyr,cddd,cdmh,cdyr,bddt,bmh,bdry;
UtilDateModel model,model1;
JDatePanelImpl datePanel,datePanel1;
JDatePickerImpl datePicker,datePicker1;
Properties p;
New_Registration_Demo() {
setTitle("New Registration");
setSize(1200,720);
setResizable(false);
 setLocationRelativeTo(null);
c=ContentPane();
c.setLayout(null);
p=new Properties();
p.put("text.today","today");
p.put("text.month","month");
p.put("text.year","year");
model=new UtilDateModel();
model1=new UtilDateModel();
datePanel=new JDatePanelImpl(model,p);
datePanel1=new JDatePanelImpl(model1,p);
datePicker = new JDatePickerImpl
(datePanel,new DateComponentFormatter());
datePicker1 = new JDatePickerImpl
(datePanel1,new
DateComponentFormatter());
ImageIcon im = new ImageIcon ("bg.png");
img=new JLabel(im);
img.setBounds(0,0,1200,720);
c.add(img);
Font f1=new Font("forte",Font.BOLD,30);
Font f2=new Font("Lucida
Handwriting",Font.BOLD,18);
Font f3=new Font("arial",Font.BOLD,15);
Font fb=new Font("Magneto",Font.BOLD,22);
lmain=new JLabel("New Registration Details");
lmain.setFont(f1);
lmain.setForeground(new
Color(255,255,255));
lmain.setBounds(450,10,600,45);
img.add(lmain);
l1=new JLabel("Enrollment Number");
```

```

l1.setFont(f2);
l1.setForeground(Color.WHITE);
l1.setBounds(80,100,220,30);
img.add(l1);
t1=new JTextField();
t1.setFont(f3);
t1.setEditable(false);
t1.setBounds(350,100,150,25);
img.add(t1);
l2=new JLabel("Name");
l2.setFont(f2);
l2.setForeground(Color.WHITE);
l2.setBounds(80,170,150,30);
img.add(l2);
t2=new JTextField();
t2.setFont(f3);
t2.addActionListener(this);
t2.setBounds(350,170,200,25);
img.add(t2);
l3=new JLabel("Contact");
l3.setFont(f2);
l3.setForeground(Color.WHITE);
l3.setBounds(80,310,150,30);
img.add(l3);
t3=new JTextField();
t3.setFont(f3);
t3.addActionListener(this);
t3.addFocusListener(this);
t3.setBounds(350,310,150,25);
img.add(t3);
l4=new JLabel("Gender");
l4.setFont(f2);
l4.setForeground(Color.WHITE);
l4.setBounds(720,170,100,30);
img.add(l4);
cbg=new JComboBox();
cbg.setFont(f3);
cbg.setBounds(850,170,200,25);
img.add(cbg);
cbg.addItem("Select Gender");
cbg.addItem("Male");
cbg.addItem("Female");
cbg.addItem("Others");
l5=new JLabel("Technology");
l5.setFont(f2);
l5.setForeground(Color.WHITE);
l5.setBounds(230,450,150,30);
img.add(l5);
t5=new JComboBox();
t5.setFont(f3);
t5.setBounds(410,450,200,25);
img.add(t5);
l6=new JLabel("Date of Birth");
l6.setFont(f2);
l6.setForeground(Color.WHITE);
l6.setBounds(80,240,150,30);
img.add(l6);
datePicker.setBounds(350,240,200,25);
img.add(datePicker);
l7=new JLabel("Date of Examination");
l7.setFont(f2);
l7.setForeground(Color.WHITE);

```

```

l7.setBounds(80,380,230,30);
img.add(l7);
datePicker1.setBounds(350,380,200,25);
img.add(datePicker1);
l8=new JLabel("Email");
l8.setFont(f2);
l8.setForeground(Color.WHITE);
l8.setBounds(620,310,150,30);
img.add(l8);
t6=new JTextField();
t6.setFont(f3);
t6.setBounds(750,310,400,25);
img.add(t6);
b1=new JButton("Save");
b1.setFont(fb);
b1.addActionListener(this);
b1.setBounds(400,590,150,30);
img.add(b1);
b2=new JButton("Cancel");
b2.setFont(fb);
b2.addActionListener(this);
b2.setBounds(680,590,150,30);
img.add(b2);
Date date = new Date();
SimpleDateFormat fdt = new SimpleDateFormat("dd/MMM/yyyy");
cdt= fdt.format(date);
try {
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement
("select      max(Enrollment_No)      from
candidate");
rs=st.executeQuery();
rs.next();
en=rs.getInt(1);
if(en==0)
en=1001;
else
en++;
t1.setText(String.valueOf(en));
st=con.prepareStatement
("select Tech_name from Technology");
rs=st.executeQuery();
t5.addItem("Select Technology");
while(rs.next()) {
t5.addItem(rs.getString("Tech_name"));
flag=true; }
catch(Exception e) {
System.out.print(e); }
setVisible(true);
t2.requestFocus(); }
public void keyPressed(KeyEvent ke) {
char c=ke.getKeyChar();
if(ke.getSource()==t2) {
if((c>='a' && c<='z') ||
(c>='A' && c<='Z') || (c==' ') || (c=='\b')) {
t2.setEditable(true); }
else {
t2.setEditable(false); }
}
else if(ke.getSource()==t3)
{

```



```

st.setString(2,name);
st.setString(3,cont);
st.setString(4,gen);
st.setString(5,tech);
st.setString(6,db);
st.setString(7,de);
st.setString(8,euml);
st.executeUpdate();
JOptionPane.showMessageDialog
(this,"Registration Done Successfully");
st=con.prepareStatement
("select max(Enrollment_No) from Candidate");
rs=st.executeQuery();
rs.next();
en=rs.getInt(1);
if(en==0)
en=1001;
else
en++;
t1.setText(String.valueOf(en));
t2.setText("");
t3.setText("");
t6.setText("");
cbg.setSelectedIndex(0);
t5.setSelectedIndex(0);
t2.requestFocus();
}
catch(Exception e)
{
System.out.print(e); }
else
{
}
}
else
{
JOptionPane.showMessageDialog
(this,"Invalid Date Of Birth");
datePicker.requestFocus();
}
}
else
{
JOptionPane.showMessageDialog
(this,"Please Select a value");
}}}
class New_Registration
{
public static void main(String []s)
{
New_Registration_Demonr=new
New_Registration_Demo();
}
}

```

## 9. Registration (Modify):

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
import java.util.Date;
import java.text.SimpleDateFormat;

class Modify_Reg_Demo extends JFrame implements
ActionListener,KeyListener,FocusListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,l7,l8,img;
JComboBox t1,t4,t5;
JTextField t2,t3,t6,t7,t8;
JButton b1,b2;
Connection con;
PreparedStatement st;
ResultSet rs;
boolean flag=false;
Container c;
int en;
String name,gen,cont,tech,dob,doe,eml;
int cddt,cmh,cyr,edt,eyr,bdt,byr;
String
eddt,emh,edyr,cdddt,cdmh,cdt,cdyr,bddt,bmh,bdryr;

Modify_Reg_Demo()
{
setTitle("Modify Registration");
setSize(1200,720);
setResizable(false);
setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon("bg.png");
img=new JLabel(im);
img.setBounds(0,0,1200,720);
c.add(img);

Font f1=new Font("Modern No. 20",Font.BOLD,30);
Font f2=new Font("Monotype Corsiva",Font.BOLD,25);
Font f3=new Font("arial",Font.BOLD,15);
Font fb=new Font("Maiandra GD",Font.BOLD,22);

lmain=new JLabel("Modify Registration Details");
lmain.setFont(f1);
lmain.setForeground(Color.WHITE);
lmain.setBounds(450,10,600,45);
img.add(lmain);

l1=new JLabel("Enrollment Number");
l1.setFont(f2);
l1.setForeground(Color.WHITE);
l1.setBounds(80,100,220,20);
img.add(l1);

t1=new JComboBox();
t1.setFont(f3);
t1.addActionListener(this);
```

```

t1.setBounds(350,100,260,25);
img.add(t1);

l2=new JLabel("Name");
l2.setFont(f2);
l2.setForeground(Color.WHITE);
l2.setBounds(80,170,150,20);
img.add(l2);

t2=new JTextField();
t2.setFont(f3);
t2.addKeyListener(this);
t2.setBounds(350,170,200,25);
img.add(t2);

l3=new JLabel("Contact");
l3.setFont(f2);
l3.setForeground(Color.WHITE);
l3.setBounds(80,310,150,30);
img.add(l3);

t3=new JTextField();
t3.setFont(f3);
t3.addKeyListener(this);
t3.addFocusListener(this);
t3.setBounds(350,310,150,25);
img.add(t3);

l4=new JLabel("Gender");
l4.setFont(f2);
l4.setForeground(Color.WHITE);
l4.setBounds(770,170,100,30);
img.add(l4);

t4=new JComboBox();
t4.setFont(f3);
t4.setBounds(900,170,200,25);
img.add(t4);

t4.addItem("Select Gender");
t4.addItem("Male");
t4.addItem("Female");
t4.addItem("Others");

l5=new JLabel("Technology");
l5.setFont(f2);
l5.setForeground(Color.WHITE);
l5.setBounds(230,450,150,30);
img.add(l5);

t5=new JComboBox();
t5.setFont(f3);
t5.setBounds(410,450,200,25);
img.add(t5);

l6=new JLabel("Date of Birth");
l6.setFont(f2);

```

```

l6.setForeground(Color.WHITE);
l6.setBounds(80,240,150,30);
img.add(l6);

t7=new JTextField();
t7.setFont(f3);
t7.setBounds(350,240,200,25);
img.add(t7);

l7=new JLabel("Date of Examination");
l7.setFont(f2);
l7.setForeground(Color.WHITE);
l7.setBounds(80,380,230,30);
img.add(l7);

t8=new JTextField();
t8.setFont(f3);
t8.setBounds(350,380,200,25);
img.add(t8);

l8=new JLabel("Email");
l8.setFont(f2);
l8.setForeground(Color.WHITE);
l8.setBounds(600,310,150,30);
img.add(l8);

t6=new JTextField();
t6.setFont(f3);

```

```

t6.setBounds(730,310,400,25);
img.add(t6);

b1=new JButton("Update");
b1.setFont(fb);
b1.addActionListener(this);
b1.setBounds(400,590,150,30);
img.add(b1);

b2=new JButton("Cancel");
b2.setFont(fb);
b2.addActionListener(this);
b2.setBounds(680,590,150,30);
img.add(b2);

Date date = new Date();
SimpleDateFormat fdt = new
SimpleDateFormat("dd/MMM/yyyy");
cdt= fdt.format(date);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement("select Enrollment_No
from candidate");
rs=st.executeQuery();
t1.addItem("Select an Enrollment Number");
while(rs.next())
{
t1.addItem(String.valueOf(rs.getInt(1)));
}

```

```

}

st=con.prepareStatement("select    Tech_name
from Technology");
rs=st.executeQuery();
t5.addItem("Select Technology");
while(rs.next())
{
t5.addItem(rs.getString("Tech_name"));
}
flag=true;
}
catch(Exception e)
{
System.out.print(e);
}

setVisible(true);
t2.requestFocus();
}

public void keyPressed(KeyEvent ke)
{
char c=ke.getKeyChar();
if(ke.getSource()==t2)
{
if((c>='a' && c<='z') || (c>='A' && c<='Z') || (c=='')
|| (c=='\b'))
{
t2.setEditable(true);
}
else
{
t2.setEditable(false);
}
}
else if(ke.getSource()==t3)
{
if((c>='0' && c<='9') || (c=='\b'))
{
t3.setEditable(true);
}
else
{
t3.setEditable(false);
}}}

public void keyReleased(KeyEvent ke) { }
public void keyTyped(KeyEvent ke) { }
public void focusLost(FocusEvent fe) {
if(fe.getSource()==t3)
{
cont=t3.getText();
if(cont.length()==10)
{
}
else
{
JOptionPane.showMessageDialog(this,"Please
enter valid number");
t3.requestFocus();
}
}
}

```

```

}

public void focusGained(FocusEvent fe) { }

public void actionPerformed(ActionEvent ae)
{
if((ae.getSource()==t1) && (flag==true))
{
en=Integer.parseInt((String)
t1.getSelectedItem()));

try
{
st=con.prepareStatement
("select*fromcandidatewhere
Enrollment_No=?");
st.setInt(1,en);
rs=st.executeQuery();
if(rs.next())
{
name=rs.getString("Name");
cont=rs.getString("Contact");
gen=rs.getString("Gender");
tech=rs.getString("Technology");
dob=rs.getString("DOB");
doe=rs.getString("DOE");
eml=rs.getString("Email");
t2.setText(name);
t3.setText(cont);
t4.setSelectedItem(gen);
t5.setSelectedItem(tech);
t6.setText(eml);
t7.setText(dob);
t8.setText(doe);
}
}
catch(Exception e)
{
System.out.print(e);
}
else if(ae.getSource()==b2)
{
Admin_Demo ad=new Admin_Demo();
dispose();
}
else if(ae.getSource()==b1)
{
name=t2.getText();
cont=t3.getText();
gen=(String) t4.getSelectedItem();
tech=(String) t5.getSelectedItem();
eml=t6.getText();
dob=t7.getText();
doe=t8.getText();

bddt= dob.substring(0,2);
bmh= dob.substring(3,6);
bdyr= dob.substring(7);

bdt=Integer.parseInt(bddt);
}
}
}

```

```

byr=Integer.parseInt(bdyr);

cddd=cdt.substring(0,2);
cdmh=cdt.substring(3,6);
cdyr=cdt.substring(7);

cddt=Integer.parseInt(cddd);
cyr=Integer.parseInt(cdyr);

eddt=doe.substring(0,2);
emh=doe.substring(3,6);
edyr=doe.substring(7);

edt=Integer.parseInt(eddt);
eyr=Integer.parseInt(edyr);

if((cyr-byr) >= 15)
{
if(((edt-cddt) >=1) || (emh.equals(cmh))) &&
((eyr-cyr) ==0))
{
try
{
st=con.prepareStatement
("update candidate set Name=?,Contact=?,
Gender=?,Technology=?,DOB=?,DOE=?,Email=?
where Enrollment_No=?");
st.setString(1,name);
st.setString(2,cont);
st.setString(3,gen);
st.setString(4,tech);
st.setString(5,dob);
st.setString(6,doe);
st.setString(7,eml);
st.setInt(8,en);
st.executeUpdate();
JOptionPane.showMessageDialog(this,"Registration
Updated Successfully");
t1.setSelectedIndex(0);
t2.setText("");
t3.setText("");
t6.setText("");
t7.setText("");
t8.setText("");
t4.setSelectedIndex(0);
t5.setSelectedIndex(0);
t2.requestFocus();
}
catch(Exception e)
{
System.out.print(e);
}
else
{
JOptionPane.showMessageDialog(this,"Invalid Date
Of Examination");
t8.requestFocus();
}
else
{
JOptionPane.showMessageDialog(this,"Invalid Date
Of Birth");
}
}
}

```

```
t7.requestFocus();
}

}

}

class Modify_Registration
{
public static void main(String []s)
{
Modify_Reg_Demo      mr=      new
Modify_Reg_Demo();
}
}
```

## **10. Registration (Delete):**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class Delete_Reg_Demo extends JFrame
implements ActionListener
{
JLabel lmain,l1,l2,l3,l4,l5,l6,l7,l8,img;
JComboBox t1;
JTextField t2,t3,t4,t5,t6,t7,t8;
JButton b1,b2;
Connection con;
PreparedStatement st;
ResultSet rs;
boolean flag=false;
Container c;
int en;
String name,gen,cont,tech,eml,dob,doe;

Delete_Reg_Demo()
{
setTitle("Delete Registration");
setSize(1200,720);
setResizable(false);
setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon("bg.png");
img=new JLabel(im);
img.setBounds(0,0,1200,720);
c.add(img);

Font f1=new Font
("Modern No. 20",Font.BOLD,30);
Font f2=new Font
("Monotype Corsiva",Font.BOLD,25);
Font f3=new Font("arial",Font.BOLD,15);
Font fb=new Font
("Maiandra GD",Font.BOLD,22);

lmain=new JLabel("Delete Registration Details");
lmain.setFont(f1);
lmain.setForeground(Color.WHITE);
lmain.setBounds(450,10,600,45);
img.add(lmain);

l1=new JLabel("Enrollment Number");
l1.setFont(f2);
l1.setForeground(Color.WHITE);
l1.setBounds(80,100,220,20);
img.add(l1);

t1=new JComboBox();
t1.setFont(f3);
t1.addActionListener(this);
t1.setBounds(350,100,260,25);
img.add(t1);

l2=new JLabel("Name");
l2.setFont(f2);
l2.setForeground(Color.WHITE);
l2.setBounds(80,250,220,20);
img.add(l2);

b1=new JButton("Delete");
b1.setFont(f3);
b1.setBounds(450,350,200,50);
img.add(b1);

b2=new JButton("Cancel");
b2.setFont(f3);
b2.setBounds(450,400,200,50);
img.add(b2);

try
{
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/test","root","");
st=con.prepareStatement("select * from student");
rs=st.executeQuery();

while(rs.next())
{
l1.setText(rs.getString("enroll"));
t1.addItem(rs.getString("enroll"));
}
}
catch(Exception e)
{
e.printStackTrace();
}

b1.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
try
{
flag=true;
st=con.prepareStatement("delete from student where enroll=?");
st.setString(1,t1.getSelectedItem().toString());
st.executeUpdate();
st.close();
con.close();
}
catch(Exception e)
{
e.printStackTrace();
}
}
});

b2.addActionListener(new ActionListener()
{
public void actionPerformed(ActionEvent ae)
{
try
{
st.close();
con.close();
}
catch(Exception e)
{
e.printStackTrace();
}
}
});
}
```

```

l2.setFont(f2);
l2.setForeground(Color.WHITE);
l2.setBounds(80,170,150,20);
img.add(l2);

t2=new JTextField();
t2.setFont(f3);
t2.setEditable(false);
t2.setBounds(350,170,200,25);
img.add(t2);

l3=new JLabel("Contact");
l3.setFont(f2);
l3.setForeground(Color.WHITE);
l3.setBounds(80,310,150,30);
img.add(l3);

t3=new JTextField();
t3.setFont(f3);
t3.setEditable(false);
t3.setBounds(350,310,150,25);
img.add(t3);

l4=new JLabel("Gender");
l4.setFont(f2);
l4.setForeground(Color.WHITE);
l4.setBounds(770,170,100,30);
img.add(l4);

t4=new JTextField();
t4.setFont(f3);
t4.setEditable(false);
t4.setBounds(900,170,200,25);
img.add(t4);

l5=new JLabel("Technology");
l5.setFont(f2);
l5.setForeground(Color.WHITE);
l5.setBounds(230,450,150,30);
img.add(l5);

t5=new JTextField();
t5.setFont(f3);
t5.setEditable(false);
t5.setBounds(410,450,200,25);
img.add(t5);

l6=new JLabel("Date of Birth");
l6.setFont(f2);
l6.setForeground(Color.WHITE);
l6.setBounds(80,240,150,30);
img.add(l6);

t7=new JTextField();
t7.setFont(f3);
t7.setEditable(false);
t7.setBounds(350,240,200,25);
img.add(t7);

```

```

l7=new JLabel("Date of Examination");
l7.setFont(f2);
l7.setForeground(Color.WHITE);
l7.setBounds(80,380,230,30);
img.add(l7);

t8=new JTextField();
t8.setFont(f3);
t8.setEditable(false);
t8.setBounds(350,380,200,25);
img.add(t8);

l8=new JLabel("Email");
l8.setFont(f2);
l8.setForeground(Color.WHITE);
l8.setBounds(600,310,150,30);
img.add(l8);

t6=new JTextField();
t6.setFont(f3);
t6.setEditable(false);
t6.setBounds(730,310,400,25);
img.add(t6);

b1=new JButton("Delete");
b1.setFont(fb);
b1.addActionListener(this);
b1.setBounds(400,590,150,30);

img.add(b1);

b2=new JButton("Cancel");
b2.setFont(fb);
b2.addActionListener(this);
b2.setBounds(680,590,150,30);
img.add(b2);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement("select Enrollment_No
from candidate");
rs=st.executeQuery();
t1.addItem("Select an Enrollment Number");
while(rs.next())
{
t1.addItem(String.valueOf(rs.getInt(1)));
}
flag=true;
}
catch(Exception e)
{
System.out.print(e);
}
setVisible(true);
}

public void actionPerformed(ActionEvent ae)

```

```

{
if((ae.getSource()==t1) && (flag==true))
{
en=Integer.parseInt((String) t1.getSelectedItem());
try
{
st=con.prepareStatement("select * from candidate
where Enrollment_No=?");
st.setInt(1,en);
rs=st.executeQuery();
if(rs.next())
{
name=rs.getString("Name");
cont=rs.getString("Contact");
gen=rs.getString("Gender");
tech=rs.getString("Technology");
dob=rs.getString("DOB");
doe=rs.getString("DOE");
eml=rs.getString("Email");

t2.setText(name);
t3.setText(cont);
t4.setText(gen);
t5.setText(tech);
t6.setText(eml);
t7.setText(dob);
t8.setText(doe);

}
}
catch(Exception e)
{
System.out.print(e);
}
}

else if(ae.getSource()==b2)
{
Admin_Demo ad=new Admin_Demo();
dispose();
}
else if(ae.getSource()==b1)
{
if(t1.getSelectedIndex()!=0)
{
try
{
st=con.prepareStatement("delete from candidate
where Enrollment_No=?");
st.setInt(1,en);
st.executeUpdate();
JOptionPane.showMessageDialog(this,"Registration
Deleted Successfully");
t2.setText("");
t3.setText("");
t6.setText("");
t4.setText("");
t5.setText("");
t7.setText("");
}
}
}
}

```

```
t8.setText("");
t1.removeItem(t1.getSelectedItem());
t1.setSelectedIndex(0);
}
catch(Exception e)
{
System.out.print(e);
}
}
else
{
JOptionPane.showMessageDialog(this,"Please
Select an enrollment number");
}
}
}
}
}
```

```
class Delete_Registration
{
public static void main(String []s)
{
Delete_Reg_Demo dr= new Delete_Reg_Demo();
}
}
```

## 11. Examination :

```
import javax.swing.*;           {  
import java.awt.*;             setTitle("Examination");  
import java.sql.*;             setSize(900,600);  
import java.awt.event.*;        setResizable(false);  
import java.text.SimpleDateFormat; setDefaultCloseOperation(EXIT_ON_CLOSE);  
import java.util.Date;          setLocationRelativeTo(null);  
  
class Examination_Demo extends JFrame implements ActionListener  
{  
    JLabel l1,l2,l3,l4,l5,l6,l7,img;  
    JTextField t1,t2,t3,t4,t5,t6;  
    JComboBox c1;  
    JButton b1,b2,b3;  
    Container c;  
    Font ft1,ft2,ft3;  
    Connection con;  
    PreparedStatement st;  
    ResultSet rs;  
    boolean flag=false;  
    int en,techc;  
    String name,cont,gen,eml,tech,cdt;  
    ImageIcon im=new ImageIcon  
    ("exmn_bg.jpg");  
    img=new JLabel(im);  
    img.setBounds(0,0,900,600);  
    c.add(img);  
  
    l1=new JLabel("Enrollment No.");  
    l1.setBounds(80,50,200,25);  
    l1.setForeground(Color.WHITE);  
    l1.setFont(ft1);  
    img.add(l1);  
  
    Examination_Demo()  
}
```

```

c1=new JComboBox();
c1.setBounds(300,50,200,25);
c1.setForeground(Color.BLACK);
c1.addActionListener(this);
c1.addItem("Enrollment Number");
c1.setFont(ft2);
img.add(c1);

l2=new JLabel("Date");
l2.setBounds(600,50,50,25);
l2.setForeground(Color.WHITE);
l2.setFont(ft1);
img.add(l2);

Date date = new Date();
SimpleDateFormat fdt = new SimpleDateFormat("dd/MMM/yyyy");
cdt= fdt.format(date);

t1=new JTextField(cdt);
t1.setBounds(700,50,120,25);
t1.setForeground(Color.BLACK);
t1.setEditable(false);
t1.setFont(ft2);
img.add(t1);

l3=new JLabel("Name");
l3.setBounds(80,125,200,25);
l3.setForeground(Color.WHITE);
l3.setFont(ft1);
img.add(l3);

t2=new JTextField();
t2.setBounds(300,125,200,25);
t2.setFont(ft2);
t2.setForeground(Color.BLACK);
t2.setEditable(false);
img.add(t2);

l4=new JLabel("Contact No.");
l4.setBounds(80,200,200,25);
l4.setForeground(Color.WHITE);
l4.setFont(ft1);
img.add(l4);

t3=new JTextField();
t3.setBounds(300,200,200,25);
t3.setForeground(Color.BLACK);
t3.setFont(ft2);

```

```
t3.setEditable(false);
img.add(t3);

l5=new JLabel("Gender");
l5.setBounds(80,275,200,25);
l5.setForeground(Color.WHITE);
l5.setFont(ft1);
img.add(l5);

t4=new JTextField();
t4.setBounds(300,275,200,25);
t4.setFont(ft2);
t4.setForeground(Color.BLACK);
t4.setEditable(false);
img.add(t4);

l6=new JLabel("Email ID");
l6.setBounds(80,350,200,25);
l6.setForeground(Color.WHITE);
l6.setFont(ft1);
img.add(l6);

t5=new JTextField();
t5.setBounds(300,350,300,25);
t5.setFont(ft2);
t5.setForeground(Color.BLACK);
t5.setEditable(false);
img.add(t5);

t5.setFont(ft2);
t5.setForeground(Color.BLACK);
t5.setEditable(false);
img.add(t5);

l7=new JLabel("Technology");
l7.setBounds(80,425,200,25);
l7.setForeground(Color.WHITE);
l7.setFont(ft1);
img.add(l7);

t6=new JTextField();
t6.setBounds(300,425,200,25);
t6.setEditable(false);
t6.setForeground(Color.BLACK);
t6.setFont(ft2);
img.add(t6);

b1=new JButton("Start Exam");
b1.setBounds(120,500,150,30);
b1.setForeground(Color.WHITE);
b1.setBackground(Color.BLACK);
b1.addActionListener(this);
b1.setFont(ft3);
```

```

img.add(b1);

b2=new JButton("Edit");
b2.setBounds(375,500,150,30);
b2.setForeground(Color.WHITE);
b2.setBackground(Color.BLACK);
b2.addActionListener(this);
b2.setFont(ft3);
img.add(b2);

b3=new JButton("Close");
b3.setBounds(630,500,150,30);
b3.addActionListener(this);
b3.setForeground(Color.WHITE);
b3.setBackground(Color.BLACK);
b3.setFont(ft3);
img.add(b3);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.
getConnection
("jdbc:mysql://localhost/
technometer","root","");
st=con.prepareStatement
("select Enrollment_No from candidate
where doe=?");
st.setString(1,cdt);
}

rs=st.executeQuery();
while(rs.next())
{
c1.addItem(String.valueOf(rs.getInt(1)));
}
flag=true;
}
catch(Exception e) { }
setVisible(true);
}

Public void actionPerformed
(ActionEvent ae)
{
if((ae.getSource()==c1) && (flag==true))
{
en=Integer.parseInt((String)
c1.getSelectedItem());
try {
st=con.prepareStatement("select * from
candidate where Enrollment_No=?");
st.setInt(1,en);
rs=st.executeQuery();
if(rs.next())
{
name=rs.getString("Name");
cont=rs.getString("Contact");
gen=rs.getString("Gender");
}
}
}
}

```

```

eml=rs.getString("Email");
tech=rs.getString("Technology");

t2.setText(name);
t3.setText(cont);
t4.setText(gen);
t5.setText(eml);
t6.setText(tech);

st=con.prepareStatement("select * from
technology where Tech_name=?");
st.setString(1,tech);
rs=st.executeQuery();
if(rs.next())
{
techc=rs.getInt(1);
}

}
}

catch(Exception e)
{
}

else if(ae.getSource()==b1)
{
}

if(c1.getSelectedIndex()!=0)
{
dispose();
Inst_Demo id=new Inst_Demo
(en,techc,tech, cdt);
}
else
{
JOptionPane.showMessageDialog
(this," Please Select an enrollment
number");
c1.requestFocus();
}
}

else if(ae.getSource()==b2)
{
dispose();
Modify_Reg_Demo mrd = new
Modify_Reg_Demo();
}

else if(ae.getSource()==b3)
{
dispose();
Admin_Demo ad=new Admin_Demo();
}}
}

class Examination
{
public static void main(String []s)
{
Examination_Demo exd = new
Examination_Demo();
}
}

```

## 12. Instruction:

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

class Inst_Demo extends JFrame
implements ActionListener
{
JLabel lmain,l1,l2,l3,l4,l5,bg;
JButton b1,b2;
Font ftm,ft1,ft2;
Container c;
int en,techc;
String exmdt,tchname;

Inst_Demo(int enr, int tech, String
technm, String exdt)
{
setUndecorated(true);
setSize(1200,500);
setResizable(false);
setLocationRelativeTo(null);

en=enr;
techc=tech;
tchname=technm;
exmdt=exdt;
}

c=getContentPane();
c.setLayout(null);

ftm=new Font("Old English Text
MT",Font.BOLD,60);
ft1=new
Font("TimesNewRoman",Font.BOLD,18);
ft2=new Font("arial",Font.BOLD,20);

ImageIcon bimg=new ImageIcon
("inst_bg.jpg");
bg=new JLabel(bimg);
bg.setBounds(0,0,1200,500);
c.add(bg);

lmain=new JLabel("Instructions");
lmain.setBounds(35,50,400,50);
lmain.setForeground(Color.RED);
lmain.setFont(ftm);
bg.add(lmain);

l1=new JLabel("1. The examination will
comprise of Objective type Multiple
Choice Questions (MCQs).");
l1.setBounds(70,150,900,25);
l1.setForeground(Color.WHITE);
l1.setFont(ft1);
bg.add(l1);
```

```
I2=new JLabel("2. All questions are compulsory and each carries One mark.");
I2.setBounds(70,200,700,25);
I2.setForeground(Color.WHITE);
I2.setFont(ft1);
bg.add(I2);

I3=new JLabel("3. The examination does not require using any paper, pen, pencil and calculator.");
I3.setBounds(70,250,700,25);
I3.setForeground(Color.WHITE);
I3.setFont(ft1);
bg.add(I3);

I4=new JLabel("4. Each student will get questions and answers in different order selected randomly from a fixed Question Databank.");
I4.setBounds(70,300,1050,25);
I4.setForeground(Color.WHITE);
I4.setFont(ft1);
bg.add(I4);

I5=new JLabel("5. There will be NO NEGATIVE MARKING for the wrong answers.");
I5.setBounds(70,350,700,25);
I5.setForeground(Color.WHITE);
I5.setFont(ft1);

I2=new JLabel("2. All questions are compulsory and each carries One mark.");
I2.setBounds(70,200,700,25);
I2.setForeground(Color.WHITE);
I2.setFont(ft1);
bg.add(I2);

I3=new JLabel("3. The examination does not require using any paper, pen, pencil and calculator.");
I3.setBounds(70,250,700,25);
I3.setForeground(Color.WHITE);
I3.setFont(ft1);
bg.add(I3);

I4=new JLabel("4. Each student will get questions and answers in different order selected randomly from a fixed Question Databank.");
I4.setBounds(70,300,1050,25);
I4.setForeground(Color.WHITE);
I4.setFont(ft1);
bg.add(I4);

I5=new JLabel("5. There will be NO NEGATIVE MARKING for the wrong answers.");
I5.setBounds(70,350,700,25);
I5.setForeground(Color.WHITE);
I5.setFont(ft1);
```

```
I2=new JLabel("2. All questions are compulsory and each carries One mark.");
I2.setBounds(70,200,700,25);
I2.setForeground(Color.WHITE);
I2.setFont(ft1);
bg.add(I2);

I3=new JLabel("3. The examination does not require using any paper, pen, pencil and calculator.");
I3.setBounds(70,250,700,25);
I3.setForeground(Color.WHITE);
I3.setFont(ft1);
bg.add(I3);

I4=new JLabel("4. Each student will get questions and answers in different order selected randomly from a fixed Question Databank.");
I4.setBounds(70,300,1050,25);
I4.setForeground(Color.WHITE);
I4.setFont(ft1);
bg.add(I4);

I5=new JLabel("5. There will be NO NEGATIVE MARKING for the wrong answers.");
I5.setBounds(70,350,700,25);
I5.setForeground(Color.WHITE);
I5.setFont(ft1);

I2=new JLabel("2. All questions are compulsory and each carries One mark.");
I2.setBounds(70,200,700,25);
I2.setForeground(Color.WHITE);
I2.setFont(ft1);
bg.add(I2);

I3=new JLabel("3. The examination does not require using any paper, pen, pencil and calculator.");
I3.setBounds(70,250,700,25);
I3.setForeground(Color.WHITE);
I3.setFont(ft1);
bg.add(I3);

I4=new JLabel("4. Each student will get questions and answers in different order selected randomly from a fixed Question Databank.");
I4.setBounds(70,300,1050,25);
I4.setForeground(Color.WHITE);
I4.setFont(ft1);
bg.add(I4);

I5=new JLabel("5. There will be NO NEGATIVE MARKING for the wrong answers.");
I5.setBounds(70,350,700,25);
I5.setForeground(Color.WHITE);
I5.setFont(ft1);
```

```
{  
if(ae.getSource()==b2)  
{  
dispose();  
}  
else if(ae.getSource()==b1)  
{  
Exam_Demo ed=new  
Exam_Demo(en,techc,tchname,  
exmdt);  
dispose();  
}  
}  
}  
  
}  
class Instruction  
{  
public static void main(String []s)  
{  
//Inst_Demo id=new Inst_Demo();  
}  
}
```

## 13. Exam:

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
import java.text.SimpleDateFormat;
import java.util.Date;
import javax.swing.Timer;

class Exam_Demo extends JFrame
implements
ActionListener, ItemListener
{
JLabel img,enm,entm,tcnm,technm,dd,dt,
totaltm,totm,elapsd,qn,t1,l2,cdt,ttm,ltm;
JTextArea l1;
JSeparator sep;
JRadioButton op1,op2,op3,op4;
JButton b1,b2,b3,b4;
Container c;
int
en,tech,rand,scr=0,ind=0,min=00,sec=00;
String exmdt;
Connection con;
PreparedStatement st;
ResultSet rs;
String
sop,tchnm,ques,opa,opb,opc,opd,cop;
String
pcop,pques,popa,popb,popc,popd,psop;
Timer time;

Exam_Demo(int enr, int techcode, String
tch, String exdt)
```

```
{
setSize(1200,650);
setResizable(false);
setUndecorated(true);
setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon
("exm_bg.jpg");
img=new JLabel(im);
img.setBounds(0,0,1200,650);
c.add(img);

Font f1=new Font("algerian",Font.BOLD,22);
Font f2=new Font("arial",Font.BOLD,18);
Font f3=new Font("arial",Font.BOLD,15);
Font f4=new Font("arial",Font.BOLD,20);
Font f5=new Font
("Monotype Corsiva",Font.BOLD,22);
Font f6=new Font("forte",Font.BOLD,20);

en=enr;
tech=techcode;
tchnm=tch;
exmdt=exdt;

enm=new JLabel("Enrollment Number :");
enm.setBounds(50,50,250,35);
enm.setForeground(new Color(196, 18,
196));
enm.setFont(f1);
img.add(enm);
```

```

entm=new JLabel(String.valueOf(en));
entm.setBounds(350,50,80,35);
entm.setForeground(Color.BLACK);
entm.setFont(f5);
img.add(entm);

tcnm=new JLabel("Technology :");
tcnm.setBounds(50,100,200,35);
tcnm.setForeground(new Color(196, 18, 196));
tcnm.setFont(f1);
img.add(tcnm);

technm=new JLabel(tchnm);
technm.setBounds(350,100,50,35);
technm.setForeground(Color.BLACK);
technm.setFont(f5);
img.add(technm);

dt=new JLabel("Date :");
dt.setBounds(550,50,80,35);
dt.setForeground(new Color(196, 18, 196));
dt.setFont(f1);
img.add(dt);

SimpleDateFormat dformat=new SimpleDateFormat("dd/MMM/YYYY");
Date date=new Date();
cdt=new JLabel(dformat.format(date));
cdt.setBounds(650,50,120,30);
cdt.setFont(f5);
img.add(cdt);

totaltm=new JLabel("Duration :");
totaltm.setBounds(900,50,150,35);
totaltm.setForeground(new Color(196, 18, 196));
totaltm.setFont(f1);
img.add(totaltm);

totm=new JLabel("30 mins");
totm.setBounds(1100,50,80,35);
totm.setFont(f5);
img.add(totm);

elapsd=new JLabel("Elapsed Time :");
elapsd.setBounds(900,100,200,35);
elapsd.setForeground(new Color(196, 18, 196));
elapsd.setFont(f1);
img.add(elapsd);

ttm=new JLabel("");
ttm.setBounds(1100,100,30,30);
ttm.setForeground(Color.RED);
ttm.setFont(f5);
img.add(ttm);

dd=new JLabel(":");
dd.setBounds(1120,100,10,30);
dd.setForeground(Color.RED);
dd.setFont(f5);
img.add(dd);

ltm=new JLabel("");
ltm.setBounds(1135,100,30,30);
ltm.setForeground(Color.RED);

```

```
ltm.setFont(f5);                      st.executeUpdate();  
img.add(ltm);  
  
}  
  
time=new Timer(1000,new ActionListener()  
{  
  
    public void actionPerformed(ActionEvent ae)  
    {  
        ltm.setText(String.valueOf(sec));  
        ttm.setText(String.valueOf(min));  
  
        if(sec==60)  
        {  
            sec=00;  
            min++;  
            if(min==30)  
            {  
                time.stop();  
                try  
                {  
                    st=con.prepareStatement("insert into result  
values(?, ?, ?, ?)");  
                    st.setInt(1,tech);  
                    st.setInt(2,en);  
                    st.setString(3,exmdt);  
                    st.setInt(4,scr);  
                    st.executeUpdate();  
  
                    st=con.prepareStatement("update  
candidate set exam='Yes' where enrollment_no=?");  
                    st.setInt(1,en);  
  
                    b2.setEnabled(false);  
                    JOptionPane.showMessageDialog(null," Your Time is Over");  
                    dispose();  
                    Resultusr_Demo rud=new  
                    Resultusr_Demo(en);  
                    sep=new JSeparator();  
                    sep.setOrientation(SwingConstants.HORIZONTAL);  
                    sep.setBounds(0,150,1200,20);  
                    sep.setForeground(Color.BLACK);  
                    img.add(sep);  
  
                    qn=new JLabel("");  
                    qn.setBounds(120,195,30,35);  
                    qn.setFont(f2);  
                    img.add(qn);  
                }  
            }  
        }  
    }  
});  
time.start();
```

```

l1=new JTextArea("");
l1.setBackground(new Color(0,0,0,0));
l1.setEditable(false);
l1.setLineWrap(true);
l1.setOpaque(false);
l1.setWrapStyleWord(true);
l1.setBounds(150,200,550,40);
l1.setFont(f2);
img.add(l1);

op1=new JRadioButton("");
op1.setBounds(180,270,800,40);
op1.setBackground(new Color(0,0,0,0));
op1.setOpaque(false);
op1.setFont(f3);
op1.addItemListener(this);
img.add(op1);

op2=new JRadioButton("");
op2.setBounds(180,340,800,40);
op2.setOpaque(false);
op2.setBackground(new Color(0,0,0,0));
op2.setFont(f3);
op2.addItemListener(this);
img.add(op2);

op3=new JRadioButton("");
op3.setBounds(180,410,800,40);
op3.setBackground(new Color(0,0,0,0));
op3.setOpaque(false);
op3.setFont(f3);
op3.addItemListener(this);
img.add(op3);

op4=new JRadioButton("");
op4.setBounds(180,480,800,40);
op4.setBackground(new Color(0,0,0,0));
op4.setOpaque(false);
op4.setFont(f3);
op4.addItemListener(this);
img.add(op4);

ButtonGroup grp=new ButtonGroup();
grp.add(op1);
grp.add(op2);
grp.add(op3);
grp.add(op4);

l2=new JLabel("Answer :");
l2.setBounds(180,550,80,20);
l2.setFont(f2);
img.add(l2);

t1=new JLabel();
t1.setBounds(270,550,100,20);
t1.setFont(f4);
t1.setForeground(Color.RED);
img.add(t1);

b1=new JButton("Previous");
b1.setBounds(200,600,150,30);
b1.setBackground(new Color(242, 73, 242));
b1.setFont(f6);
b1.addActionListener(this);
img.add(b1);

```

```

b2=new JButton("Next");
b2.setBounds(450,600,150,30);
b2.setBackground(new Color(242, 73, 242));
b2.setFont(f6);
b2.addActionListener(this);
img.add(b2);

b3=new JButton("Submit");
b3.setBounds(700,600,150,30);
b3.setBackground(new Color(242, 73, 242));
b3.setEnabled(false);
b3.setFont(f6);
b3.addActionListener(this);
img.add(b3);

b4=new JButton("End");
b4.setBounds(950,600,150,30);
b4.setBackground(new Color(242, 73, 242));
b4.addActionListener(this);
b4.setFont(f6);
img.add(b4);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/
technometer","root","");
st=con.prepareStatement
("select * from questions where
Tech_code=? limit 25");
st.setInt(1,tech);
rs=st.executeQuery();

while(rs.next())
{
ques=rs.getString(1);
opa=rs.getString(3);
opb=rs.getString(4);
opc=rs.getString(5);
opd=rs.getString(6);
cop=rs.getString(7);

l1.setText(ques);
op1.setText(opa);
op2.setText(opb);
op3.setText(opc);
op4.setText(opd);
ind++;
qn.setText(String.valueOf(ind));
break;
}
catch (Exception e)
{
System.out.print(e);
}

if(ind==1)
{
b1.setEnabled(false);
setVisible(true);
}

public void itemStateChanged(ItemEvent ie)
{
if(ie.getSource()==op1)
{
sop="A";
t1.setText(String.valueOf(sop));
}
}
}

```

```

}

else if(ie.getSource()==op2)
{
sop="B";
t1.setText(String.valueOf(sop));
}

else if(ie.getSource()==op3)
{
sop="C";
t1.setText(String.valueOf(sop));
}

else if(ie.getSource()==op4)
{
sop="D";
t1.setText(String.valueOf(sop));
}

op1.setForeground(Color.BLACK);
op2.setForeground(Color.BLACK);
op3.setForeground(Color.BLACK);
op4.setForeground(Color.BLACK);
}

public void actionPerformed(ActionEvent ae)
{
if(ae.getSource()==b1)
{
if(psop.equalsIgnoreCase(pcop))
{
scr-=2;
}
ind--;
if(ind==1)
{
b1.setEnabled(false);
}
if(ind==1)
{
b1.setEnabled(true);
}

if(opa.equalsIgnoreCase(psop))
{
op1.setSelected(true);
}

if(opb.equalsIgnoreCase(psop))
{
op2.setSelected(true);
}

if(opc.equalsIgnoreCase(psop))
{
op3.setSelected(true);
}

if(opd.equalsIgnoreCase(psop))
{
op4.setSelected(true);
}
}
qn.setText(String.valueOf(ind));
}

l1.setText(pques);
op1.setText(popa);
op2.setText(popb);
op3.setText(popc);
op4.setText(popd);
}

```

```

}

else if(ie.getSource()==op2)
{
sop="B";
t1.setText(String.valueOf(sop));
}

else if(ie.getSource()==op3)
{
sop="C";
t1.setText(String.valueOf(sop));
}

else if(ie.getSource()==op4)
{
sop="D";
t1.setText(String.valueOf(sop));
}

op1.setForeground(Color.BLACK);
op2.setForeground(Color.BLACK);
op3.setForeground(Color.BLACK);
op4.setForeground(Color.BLACK);
}

public void actionPerformed(ActionEvent ae)
{
if(ae.getSource()==b1)
{
if(psop.equalsIgnoreCase(pcop))
{
scr-=2;
}
ind--;
if(ind==1)
{
b1.setEnabled(false);
}
if(ind==1)
{
b1.setEnabled(true);
}

if(opa.equalsIgnoreCase(psop))
{
op1.setSelected(true);
}

if(opb.equalsIgnoreCase(psop))
{
op2.setSelected(true);
}

if(opc.equalsIgnoreCase(psop))
{
op3.setSelected(true);
}

if(opd.equalsIgnoreCase(psop))
{
op4.setSelected(true);
}
}
qn.setText(String.valueOf(ind));
}

l1.setText(pques);
op1.setText(popa);
op2.setText(popb);
op3.setText(popc);
op4.setText(popd);
}

```

```

}

else if(ae.getSource()==b2)
{
if(sop.equalsIgnoreCase(cop))
{
scr=scr+2;

}

ind++;
qn.setText(String.valueOf(ind));

b1.setEnabled(true);

op1.setSelected(false);
op2.setSelected(false);
op3.setSelected(false);
op4.setSelected(false);

pques=ques;
popa=opa;
popb=opb;
popc=opc;
popd=opd;
pcop=cop;
psop=sop;

try
{
while(rs.next())
{
ques=rs.getString(1);
opa=rs.getString(3);
opb=rs.getString(4);
opc=rs.getString(5);
opd=rs.getString(6);
cop=rs.getString(7);

dispose();
Resultusr_Demo rud=new
}
l1.setText(ques);
op1.setText(opa);
op2.setText(opb);
op3.setText(opc);
op4.setText(opd);
break;
}

catch(Exception e)
{
System.out.print(e);
}

if(ind ==25)
{
if(sop.equalsIgnoreCase(cop))
{
scr+=2;
}

b2.setEnabled(false);
b3.setEnabled(true);
}

else if(ae.getSource()==b3)
{
try
{
st=con.prepareStatement("insert into result
values(?,?,?,?,?)");
st.setInt(1,tech);
st.setInt(2,en);
st.setString(3,exmdt);
st.setInt(4,scr);
st.executeUpdate();

st=con.prepareStatement("update
candidate      set      exam='Yes'      where
enrollment_no=?");
st.setInt(1,en);
st.executeUpdate();
}

catch(Exception e)
{
System.out.print(e); }
}
}

```

```
Resultusr_Demo(en);
}
else if(ae.getSource()==b4)
{
dispose();
Examination_User_Demo exd=new
Examination_User_Demo(en);
}

}
```

## **14. Examination (Admin):**

```
import javax.swing.*;  
import java.awt.*;  
import java.sql.*;  
import java.awt.event.*;  
import java.text.SimpleDateFormat;  
import java.util.Date;  
import javax.swing.Timer;  
  
class Exam_Demo extends JFrame  
implements ActionListener, ItemListener  
{  
JLabel img,enm,entm,tcnm,technm,dd,dt,  
totaltm,tottm,elapsd,qn,t1,l2,cdt,ttm,ltm;  
JTextArea l1;  
JSeparator sep;  
JRadioButton op1,op2,op3,op4;  
JButton b1,b2,b3,b4;  
Container c;  
int  
en,tech,rand,scr=0,ind=0,min=00,sec=00;  
String exmdt;  
Connection con;  
PreparedStatement st;  
ResultSet rs;  
String  
sop,tchnm,ques,opa,opb,opc,opd,cop;  
String  
pcop,pques,popa,popb,popc,popd,psop;  
Timer time;  
  
Exam_Demo(int enr, int techcode, String  
tch, String exdt)
```

```
{  
setSize(1200,650);  
setResizable(false);  
setUndecorated(true);  
setLocationRelativeTo(null);  
  
c=getContentPane();  
c.setLayout(null);  
  
ImageIcon im=new  
ImageIcon("exm_bg.jpg");  
img=new JLabel(im);  
img.setBounds(0,0,1200,650);  
c.add(img);  
  
Font f1=new Font("algerian",Font.BOLD,22);  
Font f2=new Font("arial",Font.BOLD,18);  
Font f3=new Font("arial",Font.BOLD,15);  
Font f4=new Font("arial",Font.BOLD,20);  
Font f5=new Font("Monotype  
Corsiva",Font.BOLD,22);  
Font f6=new Font("forte",Font.BOLD,20);  
  
en=enr;  
tech=techcode;  
tchnm=tch;  
exmdt=exdt;  
  
enm=new JLabel("Enrollment Number :");  
enm.setBounds(50,50,250,35);  
enm.setForeground(new Color(196, 18, 196));  
enm.setFont(f1);  
img.add(enm);
```

```

entm=new JLabel(String.valueOf(en));
entm.setBounds(350,50,80,35);
entm.setForeground(Color.BLACK);
entm.setFont(f5);
img.add(entm);

tcnm=new JLabel("Technology :");
tcnm.setBounds(50,100,200,35);
tcnm.setForeground(new Color(196, 18, 196));
tcnm.setFont(f1);
img.add(tcnm);

technm=new JLabel(tchnm);
technm.setBounds(350,100,50,35);
technm.setForeground(Color.BLACK);
technm.setFont(f5);
img.add(technm);

dt=new JLabel("Date :");
dt.setBounds(550,50,80,35);
dt.setForeground(new Color(196, 18, 196));
dt.setFont(f1);
img.add(dt);

SimpleDateFormat dformat=new SimpleDateFormat("dd/MMM/YYYY");
Date date=new Date();
cdt=new JLabel(dformat.format(date));
cdt.setBounds(650,50,120,30);
cdt.setFont(f5);
img.add(cdt);

totaltm=new JLabel("Duration :");
totaltm.setBounds(900,50,150,35);
totaltm.setForeground(new Color(196, 18, 196));
totaltm.setFont(f1);
img.add(totaltm);

totm=new JLabel("30 mins");
totm.setBounds(1100,50,80,35);
totm.setFont(f5);
img.add(totm);

elapsd=new JLabel("Elapsed Time :");
elapsd.setBounds(900,100,200,35);
elapsd.setForeground(new Color(196, 18, 196));
elapsd.setFont(f1);
img.add(elapsd);

ttm=new JLabel("");
ttm.setBounds(1100,100,30,30);
ttm.setForeground(Color.RED);
ttm.setFont(f5);
img.add(ttm);

dd=new JLabel(":");
dd.setBounds(1120,100,10,30);
dd.setForeground(Color.RED);
dd.setFont(f5);
img.add(dd);

```

```

itm=new JLabel("");
itm.setBounds(1135,100,30,30);
itm.setForeground(Color.RED);
itm.setFont(f5);
img.add(itm);

time=new Timer(1000,new ActionListener() {
    public void actionPerformed(ActionEvent ae) {
        itm.setText(String.valueOf(sec));
        ttm.setText(String.valueOf(min));

        if(sec==60)
        {
            sec=00;
            min++;
            if(min==30)
            {
                time.stop();
                try
                {
                    st=con.prepareStatement("insert into
result values(?, ?, ?, ?)");
                    st.setInt(1,tech);
                    st.setInt(2,en);
                    st.setString(3,exmdt);
                    st.setInt(4,scr);
                    st.executeUpdate();
                    st=con.prepareStatement
                    ("update candidate set exam='Yes' where
enrollment_no=?");
                    st.setInt(1,en);
                    st.executeUpdate();
                }
                catch(Exception e)
                {
                    System.out.print(e);
                }
                b2.setEnabled(false);
                JOptionPane.showMessageDialog
                (null,"Your Time is Over");
                dispose();
                Resultusr_Demo rud=new Resultusr_Demo(en);
            }
            sec++;
        }
    }
});

if(sec==60)
{
    sec=00;
    min++;
    if(min==30)
    {
        time.stop();
        try
        {
            st=con.prepareStatement("insert into
result values(?, ?, ?, ?)");
            st.setInt(1,tech);
            st.setInt(2,en);
            st.setString(3,exmdt);
            st.setInt(4,scr);
            st.executeUpdate();
            st=con.prepareStatement
            ("update candidate set exam='Yes' where
enrollment_no=?");
            st.setInt(1,en);
            st.executeUpdate();
        }
        catch(Exception e)
        {
            System.out.print(e);
        }
        b2.setEnabled(false);
        JOptionPane.showMessageDialog
        (null,"Your Time is Over");
        dispose();
        Resultusr_Demo rud=new Resultusr_Demo(en);
    }
    sec++;
}
});
}
});
```

```

qn=new JLabel("");
qn.setBounds(120,195,30,35);
qn.setFont(f2);
img.add(qn);

l1=new JTextArea("");
l1.setBackground(new Color(0,0,0,0));
l1.setEditable(false);
l1.setLineWrap(true);
l1.setOpaque(false);
l1.setWrapStyleWord(true);
l1.setBounds(150,200,550,40);
l1.setFont(f2);
img.add(l1);

op1=new JRadioButton("");
op1.setBounds(180,270,800,40);
op1.setBackground(new Color(0,0,0,0));
op1.setOpaque(false);
op1.setFont(f3);
op1.addItemListener(this);
img.add(op1);

op2=new JRadioButton("");
op2.setBounds(180,340,800,40);
op2.setOpaque(false);
op2.setBackground(new Color(0,0,0,0));
op2.setFont(f3);
op2.addItemListener(this);
img.add(op2);

op3=new JRadioButton("");
op3.setBounds(180,410,800,40);
op3.setBackground(new Color(0,0,0,0));
op3.setOpaque(false);
op3.setFont(f3);
op3.addItemListener(this);
img.add(op3);

op4=new JRadioButton("");
op4.setBounds(180,480,800,40);
op4.setBackground(new Color(0,0,0,0));
op4.setOpaque(false);
op4.setFont(f3);
op4.addItemListener(this);
img.add(op4);

ButtonGroup grp=new ButtonGroup();
grp.add(op1);
grp.add(op2);
grp.add(op3);
grp.add(op4);

l2=new JLabel("Answer :");
l2.setBounds(180,550,80,20);
l2.setFont(f2);
img.add(l2);

t1=new JLabel();
t1.setBounds(270,550,100,20);
t1.setFont(f4);
t1.setForeground(Color.RED);
img.add(t1);

```

```

b1=new JButton("Previous");
b1.setBounds(200,600,150,30);
b1.setBackground(new Color(242, 73,
242));
b1.setFont(f6);
b1.addActionListener(this);
img.add(b1);

b2=new JButton("Next");
b2.setBounds(450,600,150,30);
b2.setBackground(new Color(242, 73,
242));
b2.setFont(f6);
b2.addActionListener(this);
img.add(b2);

b3=new JButton("Submit");
b3.setBounds(700,600,150,30);
b3.setBackground(new Color(242, 73,
242));
b3.setEnabled(false);
b3.setFont(f6);
b3.addActionListener(this);
img.add(b3);

b4=new JButton("End");
b4.setBounds(950,600,150,30);
b4.setBackground(new Color(242, 73,
242));
b4.setFont(f6);
img.add(b4);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement("select      *      from
questions where Tech_code=? limit 25");
st.setInt(1,tech);
rs=st.executeQuery();

while(rs.next())
{
ques=rs.getString(1);
opa=rs.getString(3);
opb=rs.getString(4);
opc=rs.getString(5);
opd=rs.getString(6);
cop=rs.getString(7);

l1.setText(ques);
op1.setText(opa);
op2.setText(opb);
op3.setText(opc);
op4.setText(opd);

ind++;
qn.setText(String.valueOf(ind));
break;
}
}

```

```

        catch (Exception e)
        {
            System.out.print(e);
        }

        if(ind==1)
        {
            b1.setEnabled(false);
        }

        setVisible(true);
    }

    public void itemStateChanged(ItemEvent ie)
    {
        if(ie.getSource()==op1)
        {
            sop="A";
            t1.setText(String.valueOf(sop));
        }

        else if(ie.getSource()==op2)
        {
            sop="B";
            t1.setText(String.valueOf(sop));
        }

        else if(ie.getSource()==op3)
        {
            sop="C";
        }
    }

    public void actionPerformed(ActionEvent ae)
    {
        if(ae.getSource()==b1)
        {
            if(psop.equalsIgnoreCase(pcop))
            {
                scr-=2;
            }

            ind--;
            if(ind==1)
            {
                b1.setEnabled(false);
            }

            if(ind==1)
            {
                b1.setEnabled(true);
            }
        }
    }
}

```

```

if(opa.equalsIgnoreCase(psop))
{
    op1.setSelected(true);
}
if(opb.equalsIgnoreCase(psop))
{
    op2.setSelected(true);
}
if(opc.equalsIgnoreCase(psop))
{
    op3.setSelected(true);
}
if(opd.equalsIgnoreCase(psop))
{
    op4.setSelected(true);
}

qn.setText(String.valueOf(ind));

l1.setText(pques);
op1.setText(popa);
op2.setText(popb);
op3.setText(popc);
op4.setText(popd);

}

else if(ae.getSource()==b2)
{
if(sop.equalsIgnoreCase(cop))

```

```

break;                                st.executeUpdate();
}
}
catch(Exception e)
{
System.out.print(e);
}

if(ind ==25)
{
if(sop.equalsIgnoreCase(cop))
{
scr+=2;
}
b2.setEnabled(false);
b3.setEnabled(true);
}

else if(ae.getSource()==b3)
{
try
{
st=con.prepareStatement("insert into result
values(?,?,?,?,?)");
st.setInt(1,tech);
st.setInt(2,en);
st.setString(3,exmdt);
st.setInt(4,scr);
}
}
else
{
st=con.prepareStatement("update
candidate    set    exam='Yes'    where
enrollment_no=?");
st.setInt(1,en);
st.executeUpdate();
}
catch(Exception e)
{
System.out.print(e);
dispose();
Resultadm_Demo rad=new
Resultadm_Demo();
}
else if(ae.getSource()==b4)
{
dispose();
Examination_Demo exd=new
Examination_Demo();
}
}
}

```

## **15. Student:**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
import java.text.SimpleDateFormat;
import java.util.Date;

class Student_Demo extends JFrame
implements ActionListener, MouseListener
{
JLabel lmain,l1,img1,bg,logout;
JTextArea ta1,ta2;
JMenuBar mb;
JMenu m1,m2,m3;
JMenuItem mi1,mi2,mi3,mi4,mi5;
Container c;
int enrol;
Connection con;
PreparedStatement st;
ResultSet rs;
String doe,cdt;

Student_Demo(int en)
{
enrol=en;

setTitle("Student Account");
setSize(800,500);
setResizable(false);
setDefaultCloseOperation(EXIT_ON_CLOSE);
 setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);
Font ft1=new Font
("Georgia",Font.BOLD,32);
Font ft2=new Font(
"Times New Roman",Font.BOLD,26);
Font ftmb=new Font
("Franklin Gothic",Font.BOLD,15);
Font ftmi=new Font
("Consolas",Font.BOLD,17);
Font ftta=new Font
("Modern No. 20",Font.BOLD,18);
Font ftta2=new Font("Matura MT Script
Capitals",Font.BOLD,20);

ImageIcon im1=new ImageIcon
("stu_bg.png");
bg=new JLabel(im1);
bg.setBounds(0,0,800,500);
c.add(bg);

ImageIcon im2=new ImageIcon
("usr_img.png");
img1=new JLabel(im2);
img1.setBounds(500,90,170,300);
bg.add(img1);

ImageIcon im3=new ImageIcon
("logout.png");
logout=new JLabel(im3);
logout.addMouseListener(this);
logout.setBounds(680,350,80,80);
bg.add(logout);

mb=new JMenuBar();
setJMenuBar(mb);

m1=new JMenu("Edit");
```

```

m1.setFont(ftmb);
mb.add(m1);

mi1=new JMenuItem
("Modify Registration");
mi2=new JMenuItem("Delete Registration");
mi1.setFont(ftmi);
mi2.setFont(ftmi);

m1.add(mi1);
m1.addSeparator();
m1.add(mi2);

m2=new JMenu("Exam");
m2.setFont(ftmb);
mb.add(m2);

mi3=new JMenuItem("Examination");
mi4=new JMenuItem("Result");
mi4.setEnabled(false);

mi3.setFont(ftmi);
mi4.setFont(ftmi);

m2.add(mi3);
m2.addSeparator();
m2.add(mi4);

m3=new JMenu("Exit");
m3.setFont(ftmb);
mb.add(m3);

mi5=new JMenuItem("Quit");
mi5.setFont(ftmi);

m3.add(mi5);
mi1.addActionListener(this);
mi2.addActionListener(this);
mi3.addActionListener(this);
mi4.addActionListener(this);
mi5.addActionListener(this);

lmain=new JLabel("");
lmain.setBounds(120,30,300,30);
lmain.setForeground(new Color(97, 14,
117));
lmain.setFont(ft1);
bg.add(lmain);

l1=new JLabel("Logout");
l1.setBounds(590,350,150,80);
l1.setForeground(Color.RED);
l1.setFont(ft2);
bg.add(l1);

ta1=new JTextArea("Technometer is a cost-
effective, scalable way to convert traditional
pen and paper based exams to paperless
mode. It can simplify overall examination
management and result in generation
activity.");

```

```

ta1.setBounds(50,120,350,120);
ta1.setForeground(Color.WHITE);
ta1.setBackground(new Color(0,0,0));
ta1.setEditable(false);
ta1.setLineWrap(true);
ta1.setWrapStyleWord(true);
ta1.setFont(ftta);
bg.add(ta1);

ta2=new JTextArea("Mistakes are proof that you
are trying");
ta2.setBounds(50,300,280,70);
ta2.setForeground(Color.BLACK);
ta2.setBackground(new Color(0,0,0));
ta2.setEditable(false);
ta2.setLineWrap(true);
ta2.setWrapStyleWord(true);
ta2.setFont(ftta2);
bg.add(ta2);

Date date = new Date();
SimpleDateFormat      fdt      =      new
SimpleDateFormat("dd/MMM/yyyy");
cdt= fdt.format(date);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement("select doe,name from
candidate where Enrollment_No=?");
st.setInt(1,enrol);
rs=st.executeQuery();
if(rs.next())
{
doe=rs.getString(1);
lmain.setText(rs.getString(2));
}
st=con.prepareStatement("select      *
from result where Enrollment_No=?");
st.setInt(1,enrol);
rs=st.executeQuery();
if(rs.next())
{
mi4.setEnabled(true);
}
else
{
mi4.setEnabled(false);
}
}
catch(Exception e)
{
System.out.print(e);
}

if(doe.equalsIgnoreCase(cdt))
{
mi3.setEnabled(true);
}
else
{
mi3.setEnabled(false);
}
setVisible(true);
}

public void mousePressed(MouseEvent
me)
{
}

```

```
public void mouseReleased(MouseEvent me)
{
}
public void mouseClicked(MouseEvent me)
{
if(me.getSource()==logout)
{
Login_Demo ld=new Login_Demo();
dispose();
}
}
public void mouseEntered(MouseEvent me)
{
}
public void mouseExited(MouseEvent me)
{
}
public void actionPerformed(ActionEvent ae)
{
if(ae.getSource()==mi1)
{
Modify_Regusr_Demo mr= new
Modify_Regusr_Demo(enrol);
dispose();
}
else if(ae.getSource()==mi2)
{
Delete_Regusr_Demo dr= new
Delete_Regusr_Demo(enrol);
dispose();
}
else if(ae.getSource()==mi3)
{
Examination_User_Demo exd=new
Examination_User_Demo(enrol);
dispose();
}
else if(ae.getSource()==mi4)
{
Resultusr_Demo rud=new
Resultusr_Demo(enrol);
dispose();
}
else if(ae.getSource()==mi5)
{
}
}
class Student
{
public static void main(String []s)
{
Student_Demo sd=new
Student_Demo(1023);
}
}
```

## **16. Result (Admin):**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;
import javax.swing.table.*;

class Resultadm_Demo extends JFrame implements
ActionListener
{
JLabel img,lmain;
JButton b1;
Connection con;
PreparedStatement st;
ResultSet rs;
Container c;
int tech,res,en,tm=30;
String doe,nm,tch;
DefaultTableModel model;
JTable jt;

Resultadm_Demo()
{
setSize(1200,720);
setResizable(false);
setUndecorated(true);
 setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon("resadm_bg.jpg");
img=new JLabel(im);

img.setBounds(0,0,1200,720);
c.add(img);

Font f1=new Font("algerian",Font.BOLD,72);
Font f2=new Font
("Monotype Corsiva",Font.BOLD,18);
Font f3=new Font
("Imprint MT Shadow",Font.BOLD,22);

lmain=new JLabel("RESULT");
lmain.setBounds(500,40,300,80);
lmain.setForeground(Color.WHITE);
lmain.setFont(f1);
img.add(lmain);

model=new DefaultTableModel();
String heads[]={ "ID","Name","Tech_code",
"Tech_name","DOE","Total","Marks Obt."};
model.setColumnIdentifiers(heads);

jt=new JTable();
jt.setFont(f2);
jt.setModel(model);

JTableHeader tblhr = jt.getTableHeader();
tblhr.setFont(f3);

JScrollPane sp=new JScrollPane(jt);
sp.setBounds(150,145,900,430);
img.add(sp);

b1=new JButton("CLOSE");
b1.setBounds(525,660,150,30);
b1.setForeground(Color.WHITE);
b1.setBackground(new Color(109,21,248));
```

```

b1.addActionListener(this);
}
b1.setFont(f2);
img.add(b1);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement("select * from result");
rs=st.executeQuery();

while(rs.next())
{
tech=rs.getInt(1);
en=rs.getInt(2);
doe=rs.getString(3);
res=rs.getInt(4);

st=con.prepareStatement
("select name,technology from candidate where
Exam='Yes'");
rs=st.executeQuery();
while (rs.next())
{
nm=rs.getString("name");
tch=rs.getString("technology");

model.addRow(new
Object[]{en,nm,tech,tch,doe,tm,res});

}
}

catch(Exception e)
{
System.out.print(e);
}

setVisible(true);

```

## **17. Result (Student):**

```
import javax.swing.*;
import java.awt.*;
import java.sql.*;
import java.awt.event.*;

class Resultusr_Demo extends JFrame implements
ActionListener
{
JLabel
img,lmain,l1,l2,l3,l4,l5,l6,l7,l8,l9,l10,l11,l12,l13,l14;
JButton b1;
Connection con;
PreparedStatement st;
ResultSet rs;
Container c;
int tech,res,en;
String doe,nm,tch;

Resultusr_Demo(int enr)
{
setSize(800,720);
setResizable(false);
setUndecorated(true);
setLocationRelativeTo(null);

c=getContentPane();
c.setLayout(null);

ImageIcon im=new ImageIcon("res_bg.jpg");
img=new JLabel(im);

img.setBounds(0,0,800,720);
c.add(img);

Font f1=new Font
("algerian",Font.BOLD,72);
Font f2=new Font
("Monotype Corsiva",Font.BOLD,22);
Font f3=new Font
("Imprint MT Shadow",Font.BOLD,22);
Font f4=new Font
("arial",Font.BOLD,20);

en=enr;

lmain=new JLabel("RESULT");
lmain.setBounds(270,60,300,80);
lmain.setForeground(Color.WHITE);
lmain.setFont(f1);
img.add(lmain);

l1=new JLabel("Enrollment Number");
l1.setBounds(220,170,250,30);
l1.setForeground(Color.WHITE);
l1.setFont(f3);
img.add(l1);

l2=new JLabel("");
l2.setBounds(520,170,250,30);
l2.setForeground(Color.WHITE);
l2.setFont(f2);
img.add(l2);

l3=new JLabel("Student Name");
l3.setBounds(220,225,250,30);
l3.setForeground(Color.WHITE);
```

```

l3.setFont(f3);
img.add(l3);

l4=new JLabel("");
l4.setBounds(520,225,250,30);
l4.setForeground(Color.WHITE);
l4.setFont(f2);
img.add(l4);

l5=new JLabel("Technology Code");
l5.setBounds(220,285,250,30);
l5.setForeground(Color.WHITE);
l5.setFont(f3);
img.add(l5);

l6=new JLabel("");
l6.setBounds(520,285,250,30);
l6.setForeground(Color.WHITE);
l6.setFont(f2);
img.add(l6);

l7=new JLabel("Technology Name");
l7.setBounds(220,345,250,30);
l7.setForeground(Color.WHITE);
l7.setFont(f3);
img.add(l7);

l8=new JLabel("");
l8.setBounds(520,345,250,30);
l8.setForeground(Color.WHITE);

l8.setFont(f2);
img.add(l8);

l9=new JLabel("Date Of Examination");
l9.setBounds(220,410,300,30);
l9.setForeground(Color.WHITE);
l9.setFont(f3);
img.add(l9);

l10=new JLabel("");
l10.setBounds(520,410,250,30);
l10.setForeground(Color.WHITE);
l10.setFont(f2);
img.add(l10);

l11=new JLabel("Total Marks");
l11.setBounds(220,475,250,30);
l11.setForeground(Color.WHITE);
l11.setFont(f3);
img.add(l11);

l12=new JLabel("50");
l12.setBounds(520,475,250,30);
l12.setForeground(Color.WHITE);
l12.setFont(f2);
img.add(l12);

l13=new JLabel("Marks Obtained");
l13.setBounds(220,530,250,30);
l13.setForeground(Color.WHITE);

```

```

l13.setFont(f3);
img.add(l13);

l14=new JLabel("");
l14.setBounds(520,530,250,30);
l14.setForeground(Color.RED);
l14.setFont(f2);
img.add(l14);

b1=new JButton("CLOSE");
b1.setBounds(320,660,150,30);
b1.setForeground(Color.WHITE);
b1.setBackground(new Color(109,21,248));
b1.addActionListener(this);
b1.setFont(f2);
img.add(b1);

try
{
Class.forName("com.mysql.cj.jdbc.Driver");
con=DriverManager.getConnection
("jdbc:mysql://localhost/technometer","root","");
st=con.prepareStatement
("select * from result where Enrollment_No=?");
st.setInt(1,en);
rs=st.executeQuery();

if(rs.next())
{
tech=rs.getInt(1);
doe=rs.getString(3);
res=rs.getInt(4);

l2.setText(String.valueOf(en));
l6.setText(String.valueOf(tech));
l10.setText(doe);
l14.setText(String.valueOf(res));
}

st=con.prepareStatement("select
name,technology    from    candidate
where Enrollment_No=?");
st.setInt(1,en);
rs=st.executeQuery();
if(rs.next())
{
nm=rs.getString("name");
tch=rs.getString("technology");

l4.setText(nm);
l8.setText(tch);
}

catch(Exception e)
{
System.out.print(e);
}

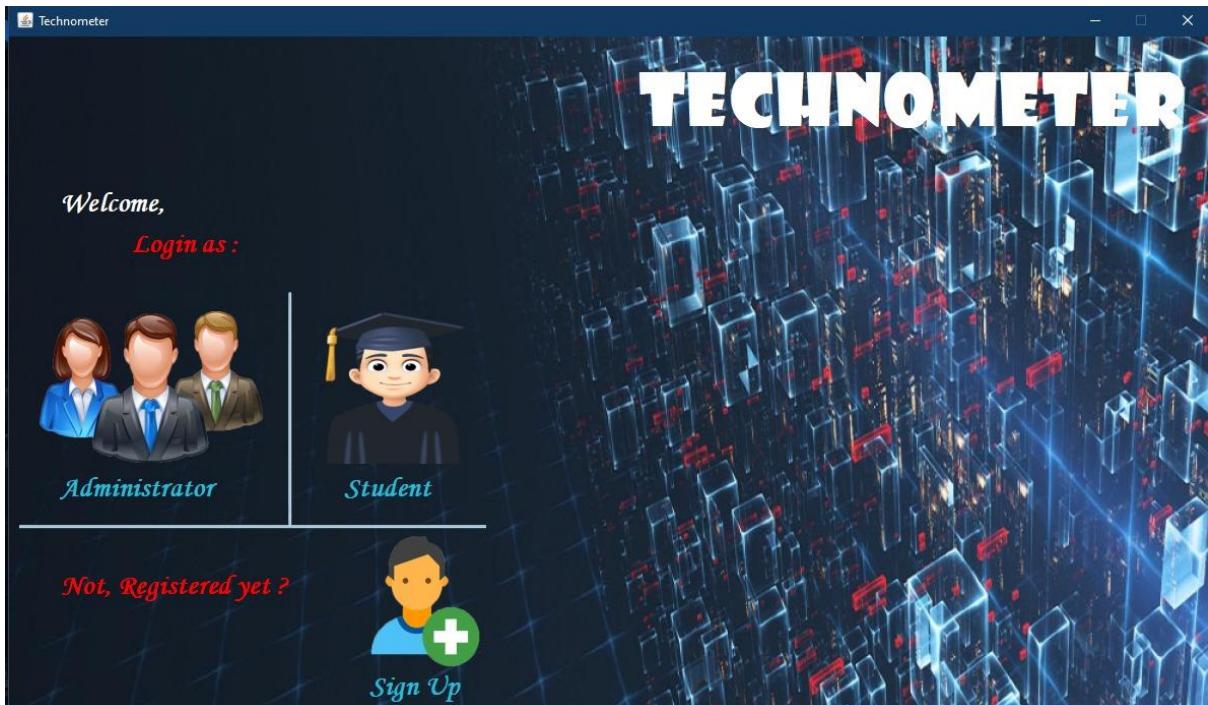
setVisible(true);
}

public void actionPerformed
(ActionEvent ae)
{
if(ae.getSource()==b1)
{
dispose();
Student_Demo sd=new
Student_Demo(en);
}}}

```

## Input & Output Screens:

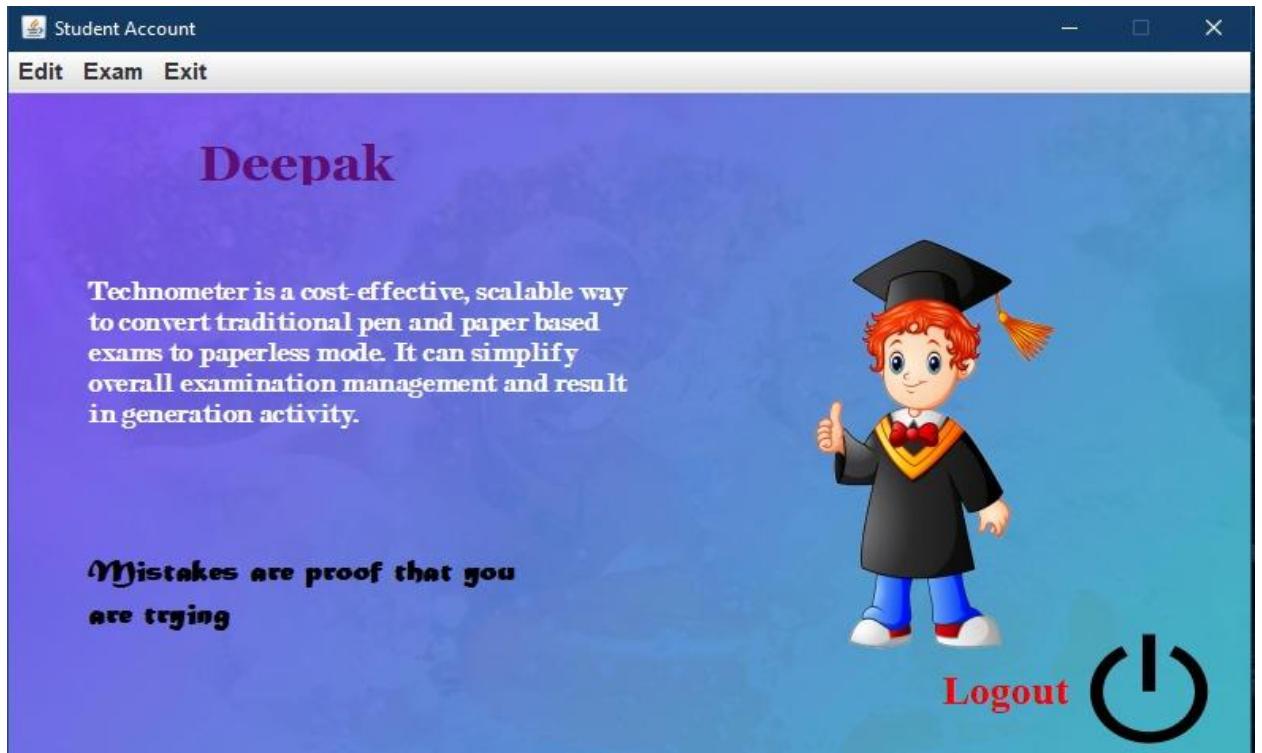
### 1. Login :



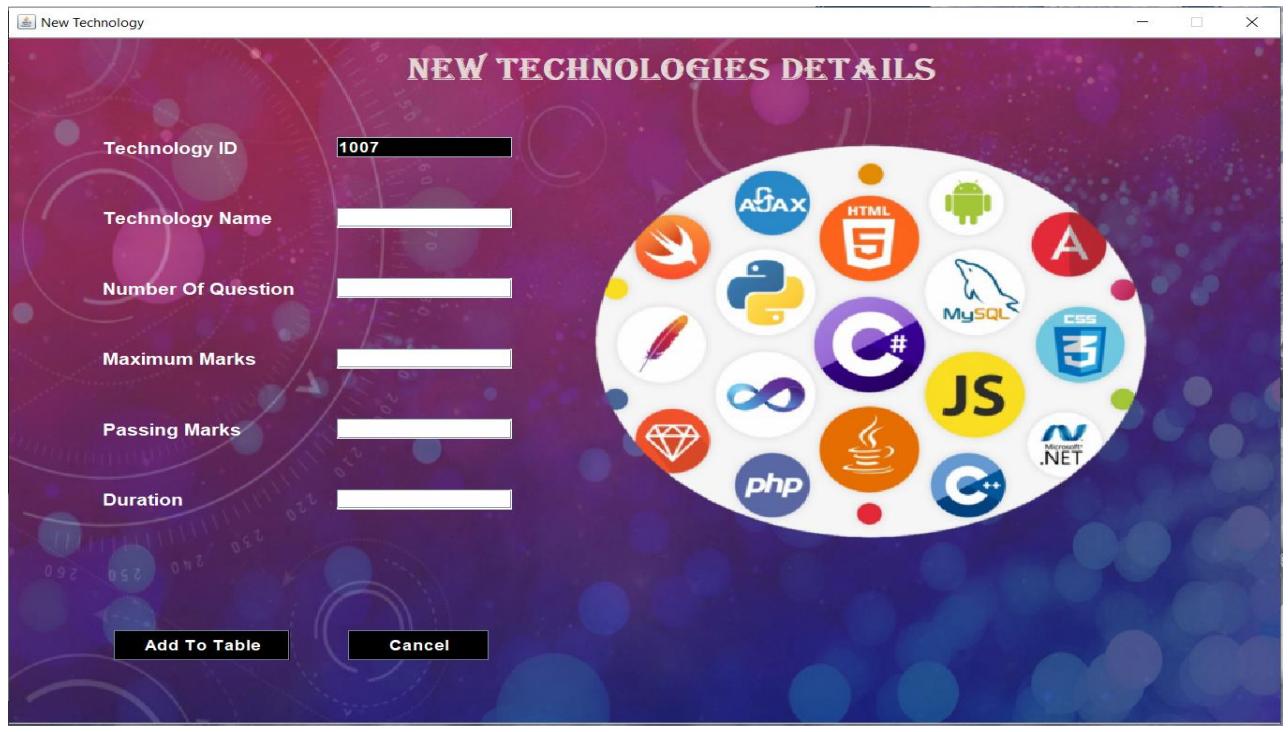
### 2. Admin :



### **3. Student:**



### **4. New Technology:**



## **5. Modify Technology:**

The screenshot shows a Windows application window titled "Modify Technologies Details". The window has a blue header bar with the title. Below the header, there are five input fields for modifying technology details: "Technology ID" (dropdown menu), "Technology Name" (text input), "Number Of Question" (text input), "Maximum Marks" (text input), and "Passing Marks" (text input). At the bottom of the window are two buttons: "Update" (blue) and "Cancel" (purple).

## **6. Delete Technology:**

The screenshot shows a Windows application window titled "Delete Technologies". The window has a blue header bar with the title. Below the header, there are five input fields for deleting technology details: "Technology ID" (dropdown menu), "Technology Name" (text input), "Number Of Question" (text input), "Maximum Marks" (text input), and "Passing Marks" (text input). At the bottom of the window are two buttons: "Delete" (blue) and "Cancel" (orange).

## **7. New Question:**

New Question Details



Technology ID	<input type="button" value="Select an ID"/>
Technology Name	<input type="text"/>
Question	<input type="text"/>
Option A	<input type="text"/>
Option C	<input type="text"/>
Correct Answer	<input type="text"/>

**SAVE**      **CANCEL**

## **8. Modify Question:**

Modify Question Details



Technology ID	<input type="button" value="Select an ID"/>	Technology Name	<input type="text"/>
Question	<input type="text"/>		
New Question	<input type="text"/>		
Option A	<input type="text"/>	Option B	<input type="text"/>
Option C	<input type="text"/>	Option D	<input type="text"/>
Correct Answer	<input type="text"/>		

**UPDATE**      **CANCEL**

## **9. Delete Question:**

Modify Questions

### Delete Question Details



Technology ID: Select an ID

Technology Name:

Question:

Option A:  Option B:

Option C:  Option D:

Correct Answer:

**DELETE**      **CANCEL**

## **10. New Registration:**

New Registration

### New Registration Details



Enrollment Number: 1023

Name:  Gender: Select Gender

Date of Birth:  ...

Contact:  Email:

Date of Examination:  ...

Technology: Select Technology

**Save**      **Cancel**

## **11. Modify Registration:**

Modify Registration

### Modify Registration Details

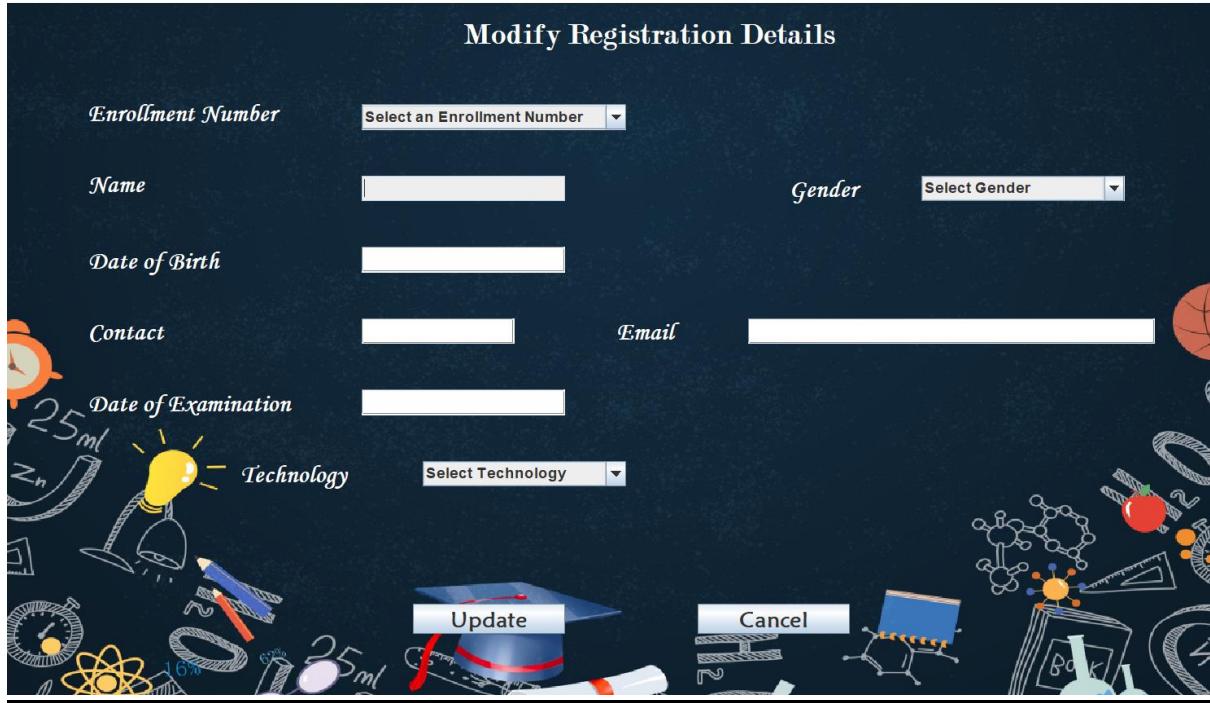
*Enrollment Number*

*Name*  *Gender*

*Date of Birth*

*Contact*  *Email*

*Date of Examination*  *Technology*



## **12. Delete Registration:**

Delete Registration

### Delete Registration Details

*Enrollment Number*

*Name*  *Gender*

*Date of Birth*

*Contact*  *Email*

*Date of Examination*  *Technology*



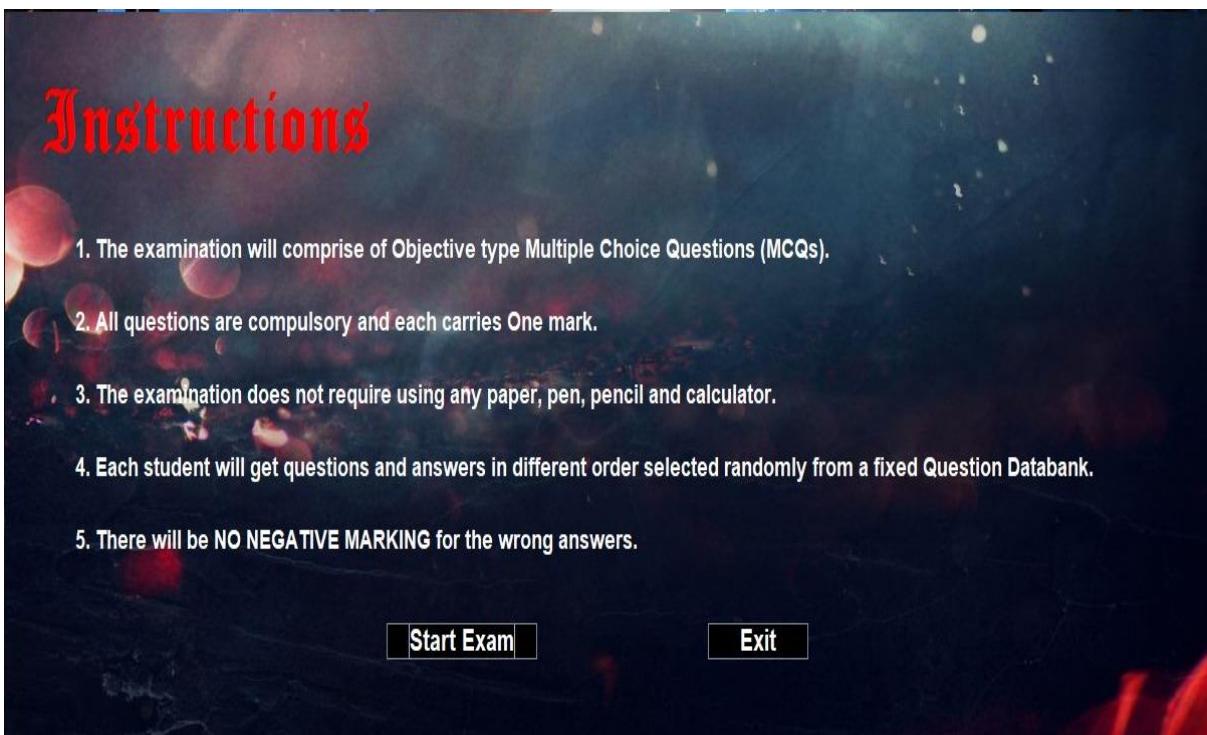
## **13. Examination:**

The screenshot shows a Windows application window titled "Examination". The form contains fields for "Enrollment No." (dropdown menu), "Date" (set to "21/Mar/2021"), "Name" (text input), "Contact No." (text input), "Gender" (text input), "Email ID" (text input), and "Technology" (text input). At the bottom are three buttons: "Start Exam", "Edit", and "Close". The background features a dark blue network-like graphic.

Enrollment No.	Enrollment Number	Date
Name		21/Mar/2021
Contact No.		
Gender		
Email ID		
Technology		

**Start Exam**   **Edit**   **Close**

## **14. Instructions:**



## **15. Exam:**

<b>ENROLLMENT NUMBER :</b>	<b>1005</b>	<b>DATE :</b>	<b>22/Mar/2021</b>	<b>DURATION :</b>	<b>30 mins</b>
<b>TECHNOLOGY :</b>	<b>C++</b>			<b>ELAPSED TIME :</b>	<b>0 : 2</b>

1 Which of the following is the correct syntax of including a user defined header files in C++?

- #include <userdefined.h>
- #include <userdefined>
- #include "userdefined"
- #include [userdefined]

Answer :

**Previous**      **Next**      **Submit**      **End**

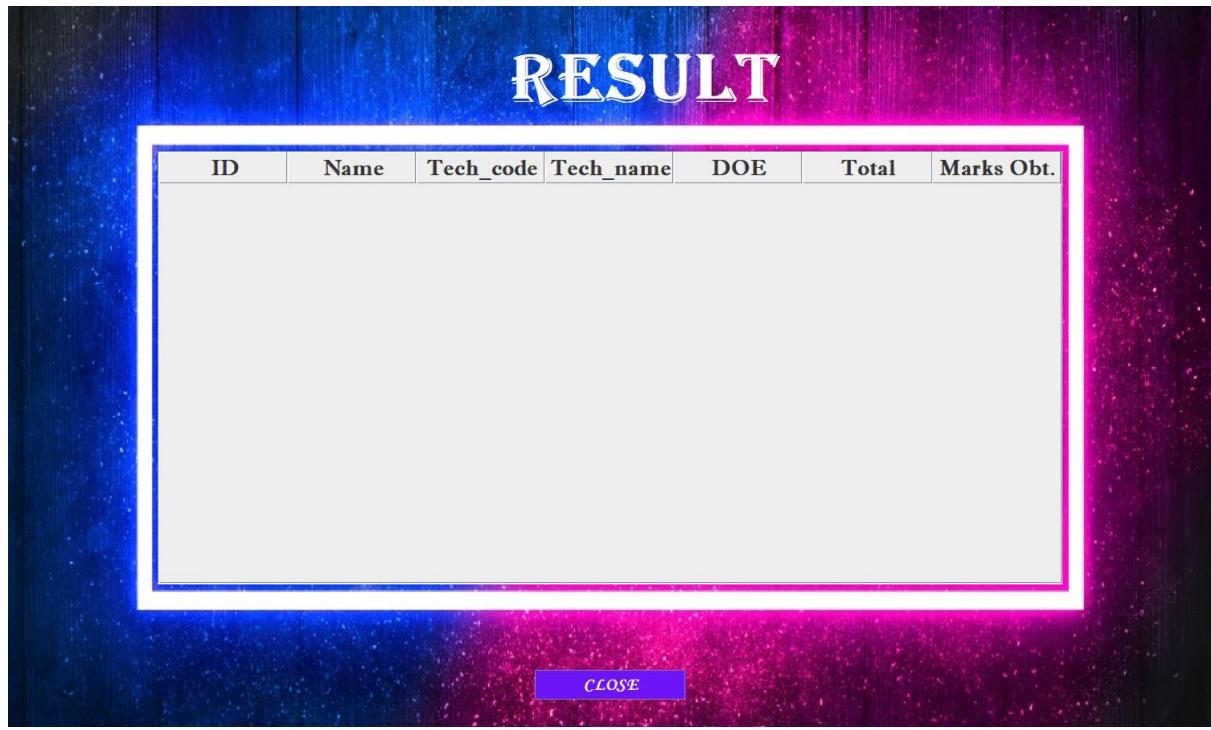
## **16. Result (Of students):**

# **RESULT**

<b>Enrollment Number</b>	<b>1005</b>
<b>Student Name</b>	<b>Deepak</b>
<b>Technology Code</b>	<b>1002</b>
<b>Technology Name</b>	<b>C++</b>
<b>Date Of Examination</b>	<b>22/Mar/2021</b>
<b>Total Marks</b>	<b>50</b>
<b>Marks Obtained</b>	<b>2</b>

**CLOSE**

## **17. Result (All students):**



## **Testing:**

1. While entering the data, the words overflowed the Text Field boundaries. And hence the information was not visible properly.

To resolve this issue, we used setLineWrap(true) method.

2. Radio Buttons were not visible completely.

To resolve this issue, we use setOpaque(false).

3. While entering the date in Date of Birth, user was able to enter the date in any format. No particular format was there. We used a calendar, to get accurate date from the user.

4. Registration ID had to be entered by the user manually. This could have created duplicity. Since Registration ID is a Primary key, it cannot have redundancy.

To resolve, we generated the Registration ID automatically.

5. Using a variable from one program to another created complications.

To resolve the complications, we use the ‘Message Passing’ Feature of ‘Object Oriented Programming System’ (OOPS).

6. While working on the JPanel, components were added miscellaneous.

So, we set the Layout to Null through setLayout(null).

7. To get input of date, we used the date picker, but while retrieving, it didn’t set on the date picker and the calendar.

So, we used Text Field instead of JDatePicker.

8. Setting Bounds of the Images and Icons were not possible.  
So, we compressed the size according to our requirements and then added it on the frame.

## **Limitations of the Project:**

- Skipping of Question is not possible.
- The transaction of examination is done in Offline mode.
- Questions are not randomly chosen. So every time the questions sequence will be the same.
- No Admin can be created or deleted through the Application. It can only be done directly from the database through the Database Administrator.
- No option for Password recovery is provided. Again, it can only be done with the help of Database.
- Scores are stored “Data-wise” not “Time-wise”. So, whenever a student attempts the exam more than once, his/her scores will be stored more than once for the same day.
- While attempting questions, the radio button doesn’t loses the focus on the previous selected option.
- The student can only use previous button only once on every question.

## **Future Scope of the Project: -**

This is the modern era of technology where everything become online. Internet is connecting more people at a faster rate than ever before. As we know that, many of the coaching institutes and learning centers are also developing interest in conducting online test through the online examination software for their students instead of pen & paper-based exam. It will conduct the exams at ease. It also provides staff arrangement and less administrative duties and it will also provide a global connectivity to the concerned organization. It clearly proves that the online examination software is the future of assessment methodology.

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- [www.tutorialspoint.com](http://www.tutorialspoint.com)