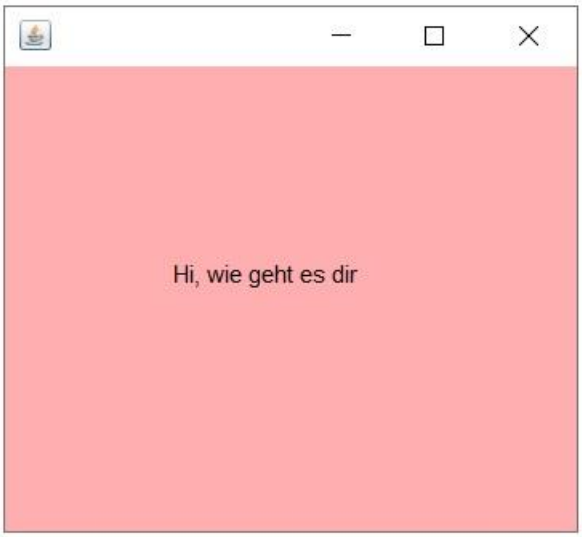
Question 9- Using AWT, write a program to display a string in frame window with pink colour as background.

Ans 9 –

```
import java.awt.*;
import java.awt.event.*;
public class FrameDisplay extends Frame{
Label label;
FrameDisplay(){
addWindowListener(new WindowAdapter(){
public void windowClosing(WindowEvent e) {
dispose();
}
});
label = new Label("Hi, wie geht es dir");
label.setBounds(90,110,120,50);
add(label);
setBackground(Color.pink);
setSize(300,270);
setLayout(null);
setVisible(true);
}
public static void main(String args[]){
new FrameDisplay();
}
}
```

Output –



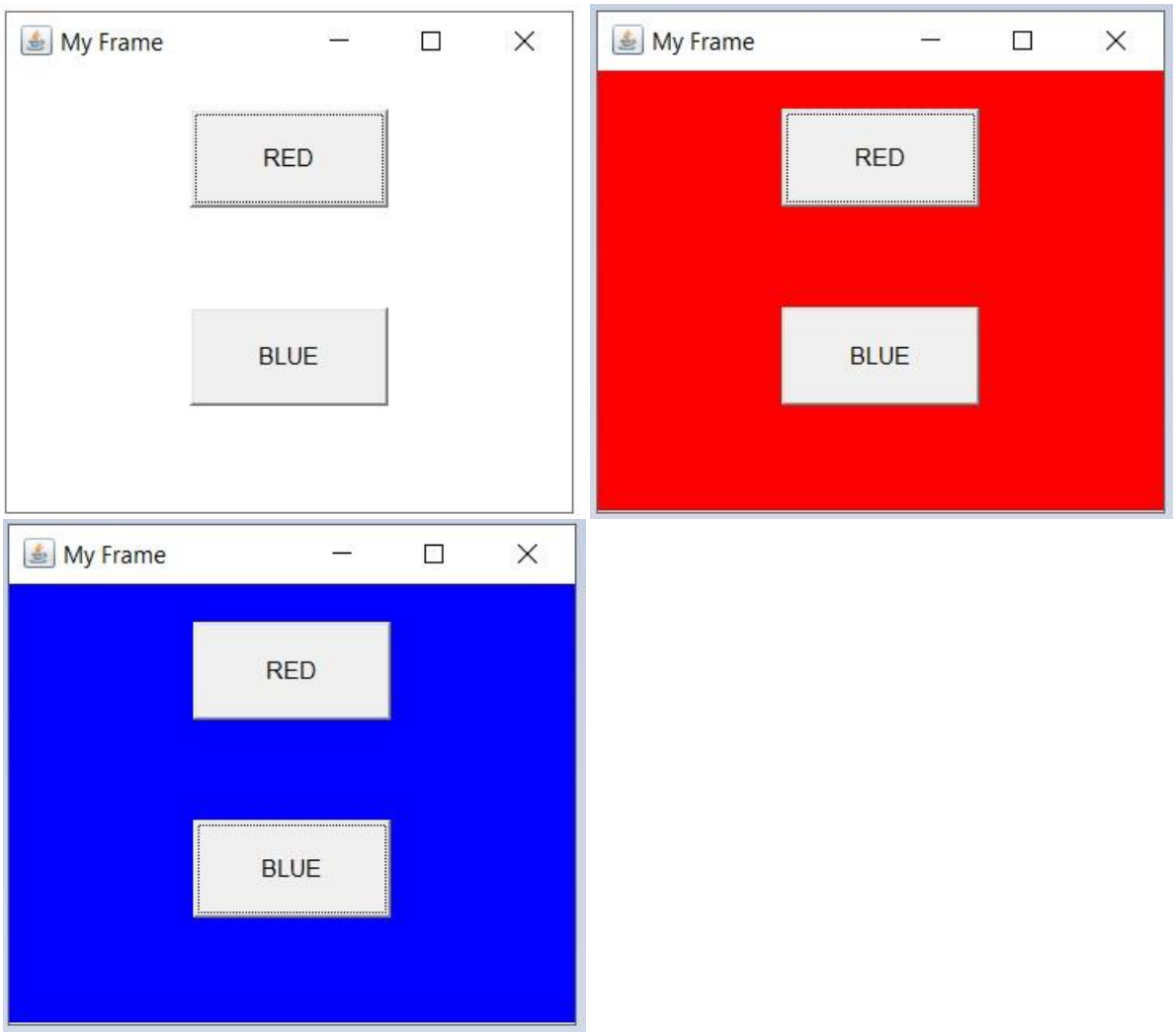
Question 10.

Using AWT, write a program to create two buttons named “Red” and “Blue”. When a button is pressed the background colour should be set to the colour named by the button’s label.

Ans 10 –

```
import java.awt.*;
import java.awt.event.*;
public class BgColor extends WindowAdapter implements ActionListener{
Frame frame;
Button button1, button2;
BgColor(){
frame = new Frame("My Frame");
button1 = new Button("RED");
button2 = new Button("BLUE");
button1.setBounds(100,50,100,50);
button2.setBounds(100,150,100,50);
frame.add(button1);
frame.add(button2);
frame.addWindowListener(this);
button1.addActionListener(this);
button2.addActionListener(this);
frame.setSize(300,260);
frame.setLayout(null);
frame.setVisible(true);
}
public void actionPerformed(ActionEvent e){
if(e.getSource()==button1){
frame.setBackground(Color.red);
}
else if(e.getSource()==button2){
frame.setBackground(Color.blue);
}
}
public void windowClosing(WindowEvent e) {
frame.dispose();
}
public static void main(String args[]){
new BgColor();
}
}
```

Output –



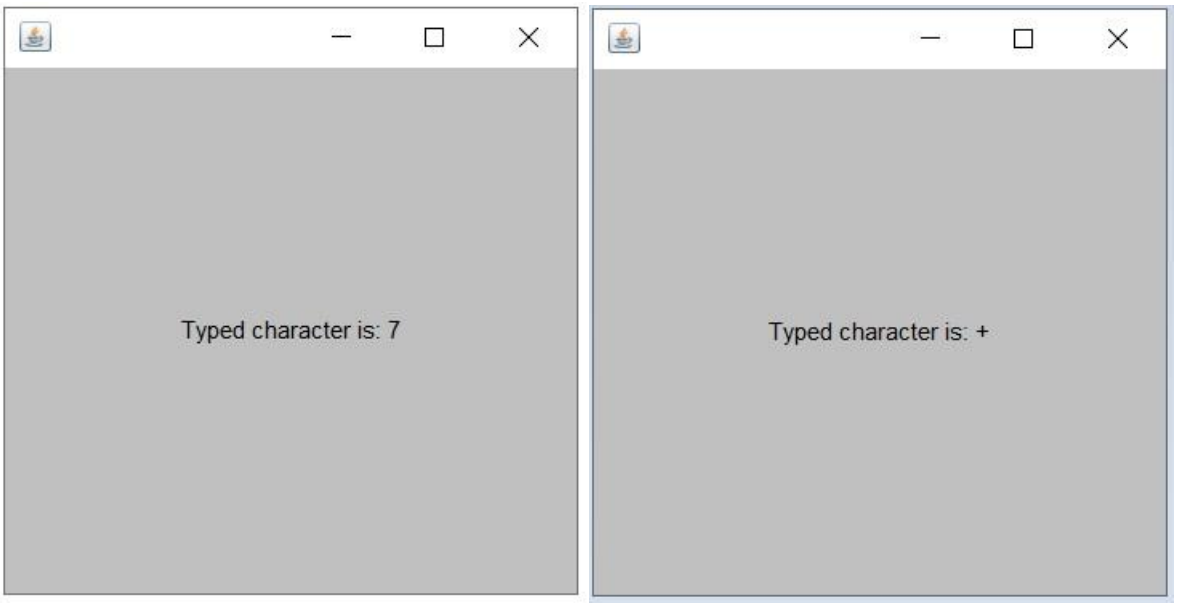
Question 11. Using AWT, write a program using appropriate adapter class to display the message (“Typed character is: <typedCharacter>”) in the frame window when user types any key.

Ans11 –

```
import java.awt.*;
import java.awt.event.*;
public class keyTyped extends KeyAdapter
{
Frame f;
Label label;
keyTyped()
{
f = new Frame();
```

```
label = new Label();
label.setBounds(25, 35, 200, 100);
label.setBackground(Color.LIGHT_GRAY);
label.setAlignment(label.CENTER);
f.add(label);
f.addKeyListener(this);
f.setFocusable(true);
f.setSize(300,300);
f.setVisible(true);
f.addWindowListener(new WindowAdapter() {
public void windowClosing (WindowEvent e) {
f.dispose();
}
});
}
// 3 overrided methods of classs KeyAdapter
public void keyPressed(KeyEvent e) { }
public void keyReleased(KeyEvent e) { }
public void keyTyped(KeyEvent e)
{
char ch = e.getKeyChar();
label.setText("Typed character is: "+ch);
}
public static void main(String snrao[])
{
new keyTyped();
}
}
```

Output –



Question 12. Using AWT, write a program to create two buttons labelled ‘A’ and ‘B’. When button ‘A’ is pressed, it displays your personal information (Name, Course, Roll No, College) and when button ‘B’ is pressed, it displays your CGPA in previous semester.

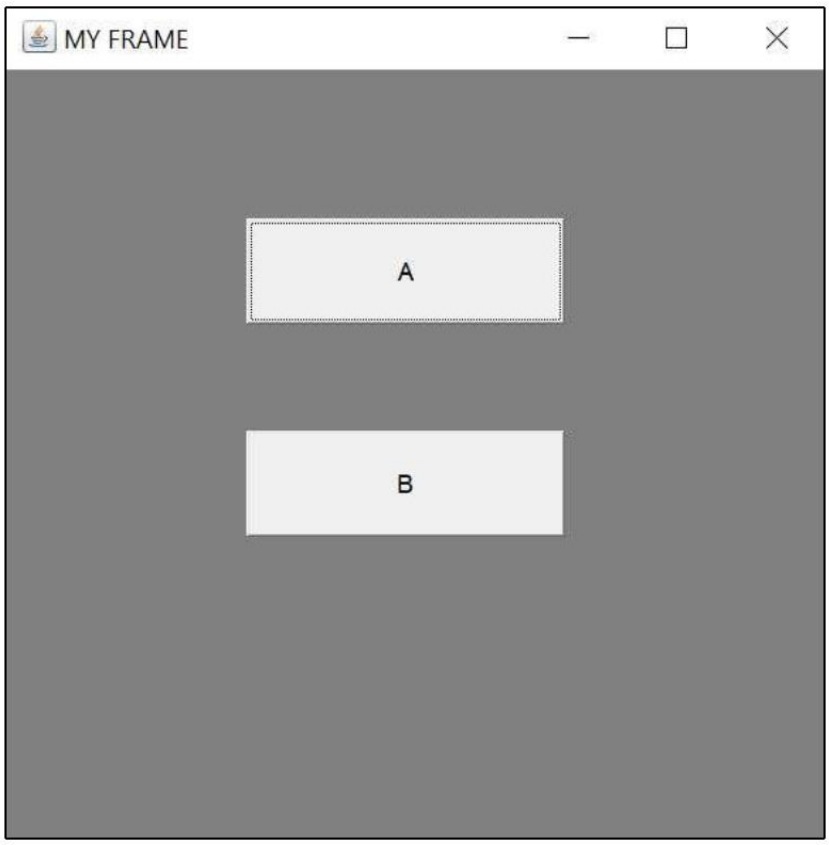
Ans 12 –

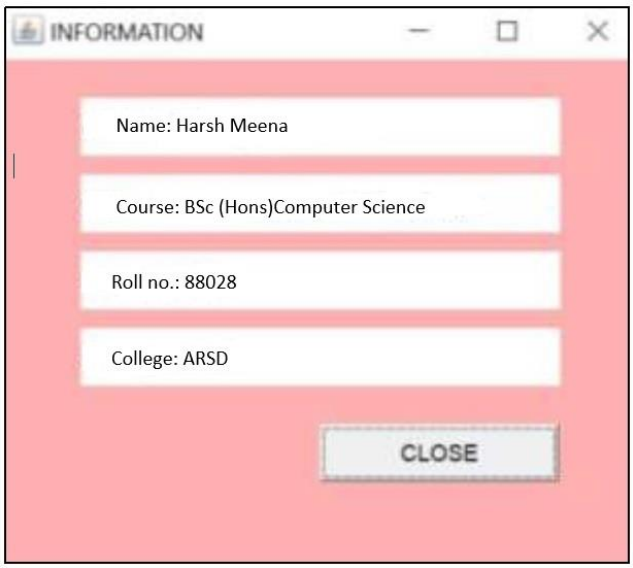
```
//Main class
import java.awt.*;
import java.awt.event.*;
public class Main extends WindowAdapter implements ActionListener{
Frame frame;
Button button1, button2;
Main()
{
frame = new Frame("MY FRAME");
button1 = new Button("A");
button2 = new Button("B");
button1.setBounds(120,100,150,50);
button2.setBounds(120,200,150,50);
button1.addActionListener(this);
button2.addActionListener(this);
frame.addWindowListener(this);
frame.add(button1);
frame.add(button2);
frame.setBackground(Color.gray);
frame.setSize(400,400);
frame.setLayout(null);
frame.setVisible(true);
}
public void windowClosing(WindowEvent e){
frame.dispose();
}
public static void main(String args[]){
new Main();
}
public void actionPerformed(ActionEvent e){
if(e.getSource()==button1){
new Info("Harsh Meena" , "BSc (Hons)Computer Science" , "88028","ARSD");}
if(e.getSource()==button2){
new CGPA("9.5");
}
}
}
//Information class
import java.awt.*;
```

```
import java.awt.event.*;
public class Info extends WindowAdapter implements ActionListener{
Frame frame1;
Label lName, lCourse, lRollNo, lClg;
Button button;
Info(String name, String course, String rollno, String clg){
frame1 = new Frame("INFORMATION");
lName = new Label();
lName.setBounds(50,50,250,30);
lCourse = new Label();
lCourse.setBounds(50,90,250,30);
lRollNo = new Label();
lRollNo.setBounds(50,130,250,30);
lClg = new Label();
lClg.setBounds(50,170,250,30);
button = new Button("CLOSE");
button.setBounds(175,220,125,30);
button.addActionListener(this);
lName.setText("Name: "+name);
lName.setBackground(Color.white);
lCourse.setText("Course: "+course);
lCourse.setBackground(Color.white);
lRollNo.setText("Roll No: "+rollno);
lRollNo.setBackground(Color.white);
lClg.setText("College: "+clg);
lClg.setBackground(Color.white);
frame1.add(lName);
frame1.add(lCourse);
frame1.add(lRollNo);
frame1.add(lClg);
frame1.add(button);
frame1.setBackground(Color.pink);
frame1.addWindowListener(this);
frame1.setSize(350,300);
frame1.setLayout(null);
frame1.setVisible(true);
}
public void actionPerformed(ActionEvent e){
frame1.dispose();
}
public void windowClosing(WindowEvent e){
frame1.dispose();
}
}
//CGPA class
import java.awt.*;
import java.awt.event.*;
```

```
public class CGPA extends WindowAdapter implements ActionListener{
Frame frame2;
Label label;
TextField tf;
Button button;
CGPA(String cgpa)
{
frame2 = new Frame("CGPA");
label = new Label("CGPA: ");
label.setBounds(50,50,50,30);
tf = new TextField(cgpa);
tf.setBounds(110,50,150,30);
button = new Button("CLOSE");
button.setBounds(170,110,90,30);
button.addActionListener(this);
frame2.add(label);
frame2.add(tf);
frame2.add(button);
frame2.setBackground(Color.orange);
frame2.addWindowListener(this);
frame2.setSize(310,190);
frame2.setLayout(null);
frame2.setVisible(true);
}
public void actionPerformed(ActionEvent e){
frame2.dispose();
}
public void windowClosing(WindowEvent e){
frame2.dispose();
}
}
```

Output –


MY FRAME
A
B


INFORMATION
Name: Harsh Meena
Course: BSc (Hons)Computer Science
Roll no.: 88028
College: ARSD
CLOSE


CGPA
CGPA:
9.5
CLOSE