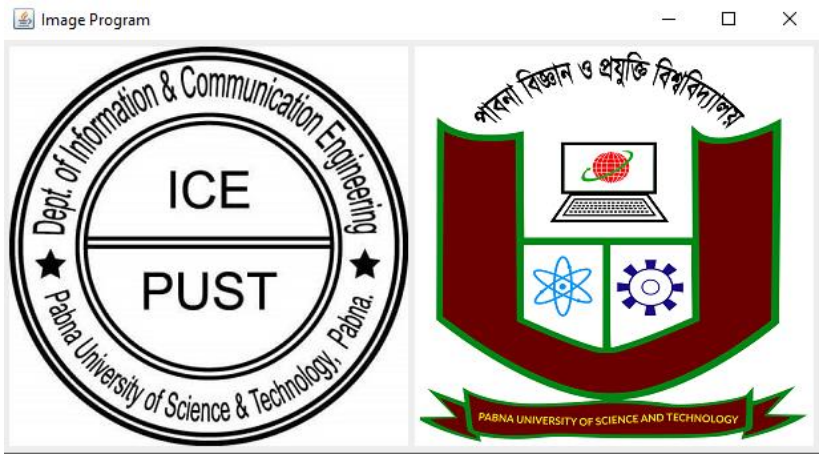
Java GUI Programs

Lab-01: Write a JAVA Program to Display Image using JFrame

 # Source Code in JAVA:

```
import java.awt.FlowLayout;

import javax.swing.ImageIcon;
import javax.swing.JFrame;
import javax.swing.JLabel;

public class Image extends JFrame {
	private ImageIcon image1;
	private JLabel label1;
	private ImageIcon image2;
	private JLabel label2;

	Image(){
		setLayout(new FlowLayout());
		image1 = new ImageIcon(getClass().getResource("ice.jpg"));
		label1 = new JLabel(image1);
		add(label1);

		image2 = new ImageIcon(getClass().getResource("pust.png"));
		label2 = new JLabel(image2);
		add(label2);

	}

	public static void main(String args[]) {

		Image gui = new Image();
		gui.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
		gui.setVisible(true);
		gui.pack();
		gui.setTitle("Image Program");
	}

}
```

 # Output:

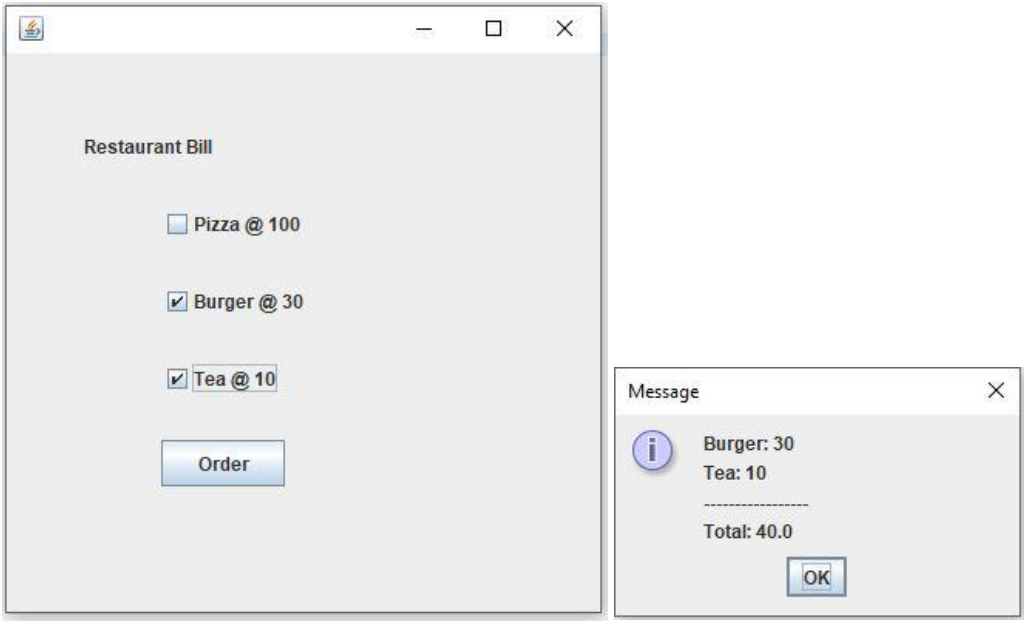


Lab-02: Write a JAVA Program for generating Restaurant Bill

 # Source Code in JAVA:

```
import javax.swing.*;
import java.awt.event.*;
public class BillGeneration extends JFrame implements ActionListener{
    JLabel l;
    JCheckBox cb1,cb2,cb3;
    JButton b;
    BillGeneration(){
        l=new JLabel("Food Ordering System");
        l.setBounds(50,50,300,20);
        cb1=new JCheckBox("Pizza @ 100");
        cb1.setBounds(100,100,150,20);
        cb2=new JCheckBox("Burger @ 30");
        cb2.setBounds(100,150,150,20);
        cb3=new JCheckBox("Tea @ 10");
        cb3.setBounds(100,200,150,20);
        b=new JButton("Order");
        b.setBounds(100,250,80,30);
        b.addActionListener(this);
        add(l);add(cb1);add(cb2);add(cb3);add(b);
        setSize(400,400);
        setLayout(null);
        setVisible(true);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
    }
    public void actionPerformed(ActionEvent e){
        float amount=0;
        String msg="";
        if(cb1.isSelected()){
            amount+=100;
            msg="Pizza: 100\n";
        }
        if(cb2.isSelected()){
            amount+=30;
            msg+="Burger: 30\n";
        }
        if(cb3.isSelected()){
            amount+=10;
            msg+="Tea: 10\n";
        }
        msg+="-----------------\n";
        JOptionPane.showMessageDialog(this,msg+"Total: "+amount);
    }
    public static void main(String[] args) {
        new BillGeneration();
    }
}
```

 # Output:



Lab-03: Write a JAVA Program to Create a Student form in GUI

 # Source Code in JAVA:

```
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JPanel;
import javax.swing.JTextField;

public class form implements ActionListener {

	private static JLabel success;
	private static JFrame frame;
	private static JLabel label1,label2,label3;
	private static JPanel panel;
	private static JButton button;
	private static JTextField userText1, userText2, userText3;

	public static void main(String[] args) {


	    frame = new JFrame();
	     panel = new JPanel();
	    frame.setSize(400, 300);
	    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

	    frame.add(panel);
	    panel.setLayout(null);

	    //Setting all Three Lebels
	    label1= new JLabel("Name");
	    label1.setBounds(10,10,80,25);
	    panel.add(label1);
```

```
                label2 = new JLabel("Roll");
                label2.setBounds(10,60,80,25);
                panel.add(label2);
                label3 = new JLabel("Department");
                label3.setBounds(10,110,80,25);
                panel.add(label3);

                //Creating all Textfields
                userText1 = new JTextField("Enter Your Name");
                userText1.setBounds(100,10,200,25);
                panel.add(userText1);
                JTextField userText2 = new JTextField("Enter Your Name");
                userText2.setBounds(100,60,200,25);
                panel.add(userText2);
                JTextField userText3 = new JTextField("Enter Your Name");
                userText3.setBounds(100,110,200,25);
                panel.add(userText3);

                button = new JButton("Save");
                button.setBounds(150, 160, 80, 25);
                button.addActionListener(new form());
                panel.add(button);

                success = new JLabel("");
                success.setBounds(130,210,300,25);
                panel.add(success);

                frame.setVisible(true);

        }

        @Override
        public void actionPerformed(ActionEvent e) {
                // TODO Auto-generated method stub
                success.setText("Saved Successfully");
        }

}
```

 # Output:

Lab-04: Write a JAVA Program to develop a simple calculator in GUI

 # Source Code in JAVA:

```
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.*;
public class calculator extends JFrame implements ActionListener
{
   JButton b10,b11,b12,b13,b14,b15;
   JButton b[]=new JButton[10];
    int i,r,n1,n2;
    JTextField res;
    char op;
   public calculator()
  {
     super("Calulator");
      setLayout(new BorderLayout());
      JPanel p=new JPanel();
      p.setLayout(new GridLayout(4,4));
      for(int i=0;i<=9;i++)
      {
        b[i]=new JButton(i+"");
        p.add(b[i]);
        b[i].addActionListener(this);
      }
      b10=new JButton("+");
      p.add(b10);
      b10.addActionListener(this);

      b11=new JButton("-");
      p.add(b11);
      b11.addActionListener(this);

      b12=new JButton("*");
      p.add(b12);
      b12.addActionListener(this);

      b13=new JButton("/");
      p.add(b13);
      b13.addActionListener(this);

      b14=new JButton("=");
      p.add(b14);
      b14.addActionListener(this);

      b15=new JButton("C");
      p.add(b15);
      b15.addActionListener(this);

      res=new JTextField(10);
      add(p,BorderLayout.CENTER);
      add(res,BorderLayout.NORTH);
      setVisible(true);
      setSize(200,200);
     }
public void actionPerformed(ActionEvent ae)
```

```
{
  JButton pb=(JButton)ae.getSource();
       if(pb==b15)
       {
        r=n1=n2=0;
        res.setText("");
       }
       else
              if(pb==b14)
              {
               n2=Integer.parseInt(res.getText());
               eval();
               res.setText(""+r);
              }

              else
              {
                boolean opf=false;
                if(pb==b10)
                     { op='+';
                       opf=true;
                     }
                if(pb==b11)
                     { op='-';opf=true;}
                if(pb==b12)
                     { op='*';opf=true;}
                if(pb==b13)
                     { op='/';opf=true;}

                if(opf==false)
                {
                 for(i=0;i<10;i++)
                 {
                     if(pb==b[i])
                     {
                     String t=res.getText();
                     t+=i;
                     res.setText(t);
                     }
                 }
                }
                else
                {
                     n1=Integer.parseInt(res.getText());
                     res.setText("");
                }
              }
}
int eval()
{
       switch(op)
       {
       case '+':   r=n1+n2;  break;
       case '-':    r=n1-n2;   break;
       case '*':    r=n1*n2; break;
       case '/':    r=n1/n2; break;

       }
       return 0;
```

```
}

  public static void main(String arg[])
  {
      new calculator();
   }
}
```

 # Output: