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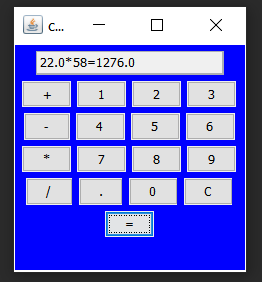
Lab: 11

1.Design a calculator to perform the operation (+,-,\*,/) on both integer and float values.

Ans:

package com.company;  
import java.awt.event.\*;  
import javax.swing.\*;  
import java.awt.\*;  
class calculator extends JFrame implements ActionListener {  
 static JFrame *f*;  
 static JTextField *l*;  
 String s0, s1, s2;  
 calculator()  
 {  
 s0 = s1 = s2 = "";  
 }  
 public static void main(String args[])  
 {  
 *f* = new JFrame("calculator");  
  
 try {  
 UIManager.*setLookAndFeel*(UIManager.*getSystemLookAndFeelClassName*());  
 }  
 catch (Exception e) {  
 System.*err*.println(e.getMessage());  
 }  
 calculator c = new calculator();  
 *l* = new JTextField(16);  
 *l*.setEditable(false);  
 JButton b0, b1, b2, b3, b4, b5, b6, b7, b8, b9, ba, bs, bd, bm, be, beq, beq1;  
 b0 = new JButton("0");  
 b1 = new JButton("1");  
 b2 = new JButton("2");  
 b3 = new JButton("3");  
 b4 = new JButton("4");  
 b5 = new JButton("5");  
 b6 = new JButton("6");  
 b7 = new JButton("7");  
 b8 = new JButton("8");  
 b9 = new JButton("9");  
 beq1 = new JButton("=");  
 ba = new JButton("+");  
 bs = new JButton("-");  
 bd = new JButton("/");  
 bm = new JButton("\*");  
 beq = new JButton("C");  
 be = new JButton(".");  
 JPanel p = new JPanel();  
 bm.addActionListener(c);  
 bd.addActionListener(c);  
 bs.addActionListener(c);  
 ba.addActionListener(c);  
 b9.addActionListener(c);  
 b8.addActionListener(c);  
 b7.addActionListener(c);  
 b6.addActionListener(c);  
 b5.addActionListener(c);  
 b4.addActionListener(c);  
 b3.addActionListener(c);  
 b2.addActionListener(c);  
 b1.addActionListener(c);  
 b0.addActionListener(c);  
 be.addActionListener(c);  
 beq.addActionListener(c);  
 beq1.addActionListener(c);  
 p.add(*l*);  
 p.add(ba);  
 p.add(b1);  
 p.add(b2);  
 p.add(b3);  
 p.add(bs);  
 p.add(b4);  
 p.add(b5);  
 p.add(b6);  
 p.add(bm);  
 p.add(b7);  
 p.add(b8);  
 p.add(b9);  
 p.add(bd);  
 p.add(be);  
 p.add(b0);  
 p.add(beq);  
 p.add(beq1);  
 p.setBackground(Color.*blue*);  
 *f*.add(p);  
 *f*.setSize(200, 220);  
 *f*.show();  
 }  
 public void actionPerformed(ActionEvent e)  
 {  
 String s = e.getActionCommand();  
 if ((s.charAt(0) >= '0' && s.charAt(0) <= '9') || s.charAt(0) == '.') {  
 if (!s1.equals(""))  
 s2 = s2 + s;  
 else  
 s0 = s0 + s;  
 *l*.setText(s0 + s1 + s2);  
 }  
 else if (s.charAt(0) == 'C') {  
 s0 = s1 = s2 = "";  
 *l*.setText(s0 + s1 + s2);  
 }  
 else if (s.charAt(0) == '=') {  
 double te;  
 if (s1.equals("+"))  
 te = (Double.*parseDouble*(s0) + Double.*parseDouble*(s2));  
 else if (s1.equals("-"))  
 te = (Double.*parseDouble*(s0) - Double.*parseDouble*(s2));  
 else if (s1.equals("/"))  
 te = (Double.*parseDouble*(s0) / Double.*parseDouble*(s2));  
 else  
 te = (Double.*parseDouble*(s0) \* Double.*parseDouble*(s2));  
 *l*.setText(s0 + s1 + s2 + "=" + te);  
 s0 = Double.*toString*(te);  
 s1 = s2 = "";  
 }  
 else {  
 if (s1.equals("") || s2.equals(""))  
 s1 = s;  
 else {  
 double te;  
 if (s1.equals("+"))  
 te = (Double.*parseDouble*(s0) + Double.*parseDouble*(s2));  
 else if (s1.equals("-"))  
 te = (Double.*parseDouble*(s0) - Double.*parseDouble*(s2));  
 else if (s1.equals("/"))  
 te = (Double.*parseDouble*(s0) / Double.*parseDouble*(s2));  
 else  
 te = (Double.*parseDouble*(s0) \* Double.*parseDouble*(s2));  
 s0 = Double.*toString*(te);  
 s1 = s;  
 s2 = "";  
 }  
 *l*.setText(s0 + s1 + s2);  
 }  
 }  
}

Output:



2. Write a swing program to get the details (Name, Regno, address, Dept, CGPA) of students and display in table format.

Ans:

package com.company;  
import java.awt.\*;  
import javax.swing.\*;  
class Main {  
 JFrame f;  
 JTable table;  
 JScrollPane sp;  
 public Main() {  
 f = new JFrame("Details of Student");  
 f.setSize(600,600);  
 f.setLayout(new FlowLayout());  
 f.setDefaultCloseOperation(f.*EXIT\_ON\_CLOSE*);  
 String data[][] = { {"GuruTheja","19BCD7034","Vijayawada","CSE","9.8" },{"Bhuvanesh","19BCD7088","Agiripalli","CSE","9.8"}};  
 String column[] = { "Name","RegNo","Address","Dept","CGPA"};  
 table = new JTable(data,column);  
 f.add(table);  
 sp = new JScrollPane(table);  
 sp.setHorizontalScrollBarPolicy(JScrollPane.*HORIZONTAL\_SCROLLBAR\_ALWAYS*);  
 sp.setVerticalScrollBarPolicy(JScrollPane.*VERTICAL\_SCROLLBAR\_ALWAYS*);  
 f.add(sp);  
 JTextArea textArea = new JTextArea(20, 20);  
 JScrollPane scrollableTextArea = new JScrollPane(textArea);  
 f.setVisible(true);  
 }  
 public static void main(String[] args) {  
 new Main();  
 }  
}

Output:

