Project 1 :

Work on a project it could be a simple library management system, a basic chat application, or a calculator with a GUI. You can choose any project of your choice.

**Ans : -**

package intenship\_voc;

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

public class BasicCalculator {

private JFrame frame;

private JPanel panel;

private JTextField display;

private String currentInput = "";

private double result = 0.0;

private String operator = "";

public BasicCalculator() {

frame = new JFrame("Basic Calculator");

frame.setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

frame.setSize(300, 400);

frame.setLayout(new BorderLayout());

display = new JTextField();

display.setHorizontalAlignment(JTextField.***RIGHT***);

display.setEditable(false);

frame.add(display, BorderLayout.***NORTH***);

panel = new JPanel();

panel.setLayout(new GridLayout(4, 4));

String[] buttonLabels = {

"7", "8", "9", "/",

"4", "5", "6", "\*",

"1", "2", "3", "-",

"0", "C", "=", "+"

};

for (String label : buttonLabels) {

JButton button = new JButton(label);

button.addActionListener(new ButtonClickListener());

panel.add(button);

}

frame.add(panel, BorderLayout.***CENTER***);

frame.setVisible(true);

}

private class ButtonClickListener implements ActionListener {

public void actionPerformed(ActionEvent e) {

String command = e.getActionCommand();

if (command.matches("[0-9]")) {

currentInput += command;

display.setText(currentInput);

} else if (command.equals("C")) {

currentInput = "";

result = 0.0;

operator = "";

display.setText("");

} else if (command.equals("=")) {

if (!operator.isEmpty()) {

double input = Double.*parseDouble*(currentInput);

switch (operator) {

case "+":

result += input;

break;

case "-":

result -= input;

break;

case "\*":

result \*= input;

break;

case "/":

if (input != 0) {

result /= input;

} else {

display.setText("Error");

return;

}

break;

}

currentInput = "";

operator = "";

display.setText(String.*valueOf*(result));

}

} else {

if (!currentInput.isEmpty()) {

if (!operator.isEmpty()) {

double input = Double.*parseDouble*(currentInput);

switch (operator) {

case "+":

result += input;

break;

case "-":

result -= input;

break;

case "\*":

result \*= input;

break;

case "/":

if (input != 0) {

result /= input;

} else {

display.setText("Error");

return;

}

break;

}

display.setText(String.*valueOf*(result));

} else {

result = Double.*parseDouble*(currentInput);

}

operator = command;

currentInput = "";

}

}

}

}

public static void main(String[] args) {

SwingUtilities.*invokeLater*(() -> {

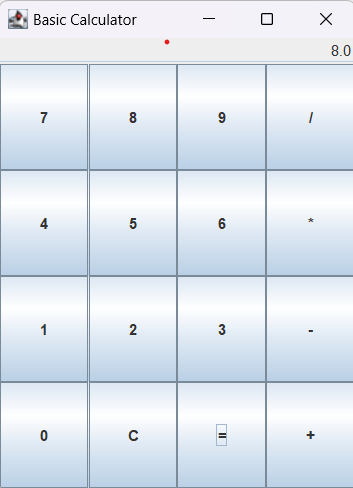
new BasicCalculator();

});

}

}

**Output : -**

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