**Slip23**

[October 03, 2024](https://nilambariblogfortybsc-cs.blogspot.com/2024/10/slip23.html)

 Q1) Define a class MyNumber having one private int data member. Write a default constructor to initialize it to 0 and another constructor to initialize it to a value (Use this). Write methods isNegative, isPositive, isZero, isOdd, isEven. Create an object in main.Use command line arguments to pass a value to the Object. [10 marks]

class MyNumber

{

private int no;

MyNumber()

{

no=5;

}

MyNumber(int no)

{

this.no=no;

}

public void isNegative()

{

if(no<0)

System.out.println("Given number is negative");

}

public void isPositive()

{

if(no>0)

System.out.println("Given number is Positive");

}

public void isZero()

{

if(no==0)

System.out.println("Given number is Zero");

}

public void isOdd()

{

if(no%2!=0)

System.out.println("Given number is Odd");

}

public void isEven()

{

if(no%2==0)

System.out.println("Given      is Even");

}

 public static void main(String args[])

{

MyNumber n1=new MyNumber();

System.out.println(n1.no+" Details");

n1.isNegative();

n1.isPositive();

n1.isZero();

n1.isOdd();

n1.isEven();

int n=Integer.parseInt(args[0]);

MyNumber n2=new MyNumber(n);

System.out.println(n2.no+" Details");

n2.isNegative();

n2.isPositive();

n2.isZero();

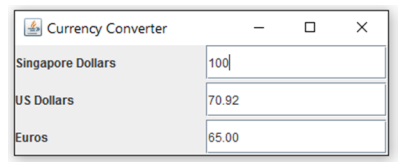
n2.isOdd();

n2.isEven();

}

}

Q2) Write a simple currency converter, as shown in the figure. User can enter the amount of "Singapore Dollars", "US Dollars", or "Euros", in floating-point number. The converted values shall be displayed to 2 decimal places. Assume that 1 USD = 1.41 SGD, 1 USD = 0.92 Euro, 1 SGD = 0.65 Euro.

[](https://blogger.googleusercontent.com/img/a/AVvXsEjInCLT-lR4bi24lUU6Q6beFud3RNtMTtHSDPLkOgmYyHxFlTsznKPTQkBABLeBAfFto_qqw_03I3DA3G86qMj1mQLd9J1xieapx3tdi2nxjoAOveGDwZWMQSeRfgQcSG_lEQMbs3VrtBlr-uBByV-Wfj7-iFLCAWTNKGPs1hULL45r0109dE4WU4owM7w)

import javax.swing.\*;

import java.awt.event.\*;

import java.awt.\*;

import java.text.DecimalFormat;

public class Slip23\_2 extends JFrame{

    // Conversion rates

     double USD\_TO\_SGD = 1.41;

     double USD\_TO\_EUR = 0.92;

     double SGD\_TO\_EUR = 0.65;

     JLabel sgdLabel,usdLabel,eurLabel;

     JTextField usdField,sgdField,eurField ;

    public static void main(String[] args)

{

new  Slip23\_2();

}

        // Create a new frame (window)

        Slip23\_2()

{

        setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

        setSize(300, 200);

        sgdLabel = new JLabel("Singapore Dollars");

        sgdField = new JTextField();

        usdLabel = new JLabel("US Dollars");

        usdField = new JTextField();

        usdField.setEditable(false);

        eurLabel = new JLabel("Euros");

        eurField = new JTextField();

        eurField.setEditable(false);

setLayout(new GridLayout(3,2,5,5));

        sgdField.addActionListener(new ActionListener() {

            @Override

            public void actionPerformed(ActionEvent e) {

                try {

                    double sgdAmount = Double.parseDouble(sgdField.getText());

                    // Perform conversions

                    double usdAmount = sgdAmount / USD\_TO\_SGD;

                    double eurAmount = sgdAmount \* SGD\_TO\_EUR;

                    // Format the output to two decimal places

                    DecimalFormat df = new DecimalFormat("#.00");

                    usdField.setText(df.format(usdAmount));

                    eurField.setText(df.format(eurAmount));

                } catch (NumberFormatException ex) {

                    JOptionPane.showMessageDialog(null, "Please enter a valid number.");

                }

            }

        });

        add(sgdLabel);

        add(sgdField);

        add(usdLabel);

        add(usdField);

        add(eurLabel);

        add(eurField);

        setVisible(true);

    }

}