OOJ LAB PROGRAM 10 WRITE UP

(10)

```
import java.awt.*;
import java.awt.event.*;
class NumException extends Exception{
    public String toString ()
    {
        return "there is an Arithmetic
              Exception.";
    }
}

class Format Exception extends Exception
{
    public String toString ()
    {
        return "there is an Format Exception";
    }
}

public class dividenums extends Frame
implements ActionListener {
    TextField num1, num2;
    Button div;
    double result;
    String msg ="the result is : 0.0";
    public dividenums ()
    {
        setLayout (new FlowLayout ());
        Label num1n = new Label ("Numerator
              : ", Label.RIGHT);
        Label num2n = new Label ("Denominator
              : ", Label.RIGHT);
        Button div = new Button ("Divide ");
        num1 = new TextField (5);
        num2 = new TextField (5);
```

```java
add (num2n);
add (num1);
add (num2n);
add (num2);
add (div);

num1 . add ActionListener (this);
num 2. add Action Listener (this);
div. add Action Listener (this);

add WindowListener (new window Adapter()
{
    public void windowClosing (window
    Event we)
    {
        System . exit (0);
    }
});
}
public boolean isDouble (double num)
{
    double dec;
    dec = num - (int) num;
    if (dec == 0.0)
        return false;
    else
        return true;
}
public double divide (double a, double b)
throws NumException, FormatException
{
    if (b == 0.0)
    {
        throw new NumException();
```

```java
        }
        else if (isDouble(a) || isDouble(b))
        {
            throw new FormatException();
        }
        return (double) a/b;
    }
    public void actionPerformed(Action
    Event ae)
    {
        double a, b;
        a = double parseDouble (num1.getText)
        b = double.parseDouble (num2.getText);
        try {
            result = divide (a, b);
            msg = ("the result is:" + result);
        }
        catch (NumException ne)
        {
        }
        catch (NumException fe)
        {
        }
        msg = fe.toString();
    }
    repaint();
    }
    public void paint (Graphics g)
    {
        g.drawString (msg, 50, 150);
    }
    public static void main (String args[])
    {
        dividenums appwin = new dividenums();
```

```
appwin. setSize (new Dimension (350,
300));
appwin. setSize (new Dimension (350, 300)
;
appwin. setTitle ("Bicycle two Member");
appwin. setVisible (true);
;

}
```