

8) wrote a program which creates two threads, one thread displaying "BMS College of Engineering" once every ten seconds and another displaying "CSE" once every two seconds.

→ class DisplayMessageThread extends Thread {
private final String message;
private final long interval;
DisplayMessageThread(String message, long interval) {
this.message = message;
this.interval = interval;
}

public void run() {
try {
while (true) {

System.out.println(message);
Thread.sleep(interval);

}

} catch (InterruptedException e) {

System.out.println(Thread.currentThread());

getNome() + " Interrupted.");

}

}

}

public class TwoThreadDemo {

public static void main(String[] args) {

DisplayMessageThread thread1 = new

DisplayMessageThread("BMS College of Engineering", 10000);

DisplayMessageThread thread2 = new

DisplayMessageThread("CSE", 2000);

thread1.setNome("Thread 1");

```
thread1.start();  
thread2.start();  
try {  
    Thread.sleep(30000);  
}  
catch ( InterruptedException e ) {  
    System.out.println("main thread interrupted");  
}
```

```
3  
thread1.interrupt();  
thread2.interrupt();  
System.out.println("main thread exiting.");  
}  
3
```

Output:

CSE

BMS College of Engineering.

CSE

CSE

CSE

CSE

BMS College of Engineering

CSE

CSE

CSE

CSE

CSE

BMS College of Engineering.

main thread exiting.

Thread 1 interrupted.

Thread 2 interrupted.

19/02/24

a) write a program that creates a user interface to perform integer division. The user enters two numbers in the text fields, num1 & num2. The division of num1 and num2 is displayed in the result field when the Divide button is clicked. If num1 or num2 were not an integer, the program would throw a NumberFormatException.

If num2 were zero, the program would throw an ArithmeticException and display the exception in a message dialog box.

```
→ import .java.awt.*;
import .java.awt.event;
public class Division extends Frame implements
ActionListener
{
    JTextField num1, num2;
    Button dResult;
    Label outResult;
    String out = "";
    double result;
    int flag = 0;
    public Division()
    {
        setLayout (new FlowLayout());
        dResult = new Button ("Result");
        Label number1 = new Label ("Number 1:", Label.RIGHT);
        Label number2 = new Label ("Number 2:", Label.RIGHT);
        num1 = new JTextField(5);
        num2 = new JTextField(5);
        outResult = new Label ("Result:", Label.RIGHT);
```

```
add (number 1);
add (num 1);
add (number 2);
add (num 2);
add (dResult);
add (outResult);
num1.add ActionListener (H1);
num2.add ActionListener (H2);
dResult.add ActionListener (H3);
add windowListener (new window adapted)
{
    public void windowClosing (WindowEvent we)
}
```

```
System.exit (0);
```

```
} ;
}
public void actionPerformed (ActionEvent ae)
{
    int n1, n2;
    if (ae.getSource () == dResult)
```

```
n1 = Integer.parseInt (num1.getText ());
n2 = Integer.parseInt (num2.getText ());
out = n1 + " " + n2;
resultnum = n1 / n2;
out += String.valueOf (resultnum);
repaint ();
}
```

exception e2)

flag = 1;

out = "Number Format Exception ! "+e1;
exponent();

}

catch (ArithmeticException e2)

{

flag = 1;

out = "Divide by 0 Exception ! "+e2;
exponent();

}

}

public void paint (Graphics g)

{

if (flag == 0)

g. drawString (out, outResult . getwidth (), outResult . getheight (), outResult . getFont ()) ;
else
g + outResult . getwidth () - 8);

g. drawString (out, 100, 200);

flag = 0;

}

public static void main (String [] args)

{

DimensionManager dm = new DimensionManager ();
dm . setsize (new Dimension (800, 600));
dm . setTitle ("DimensionofIntegers");
dm . setResizable (true);

}

→ 9

AWT

Division mas

```
import java.awt.*;  
import java.awt.event.*;  
public class Divisionmas extends Frame  
implements ActionListener  
{
```

```
    JTextField num1, num2;  
    JButton dResult;  
    Label outResult;  
    String out = "";  
    double resultnum;  
    int flag = 0;  
    public Divisionmas()  
    {
```

```
        setLayout(new FlowLayout());  
        dResult = new JButton("RESULT");  
        Label number1 = new Label("number 1:",  
            Label.RIGHT);  
        Label number2 = new Label("number 2:",  
            Label.RIGHT);  
        num1 = new JTextField(5);  
        num2 = new JTextField(5);  
        outResult = new  
        Label("Result:", Label.RIGHT);  
        add(number1);  
        add(num1);  
        add(number2);  
        add(num2);  
        add(dResult);  
        add(outResult);
```

```

num1 = addActionListener (this);
num2 = addActionListener (this);
deult = addActionListener (this);
addWindowListener (new windowAdapter ())
{
}

```

```

public void
windowClosing (WindowEvent we)
{
    System.exit (0);
}
}

```

```

public void actionPerformed (ActionEvent ae)
{
}

```

```
double n1, n2;
```

```
try
```

```
{
```

```
if (ae.getSource () == dResult)
{
}
```

```
n1 = Double.parseDouble (num1.getText ());

```

```
n2 = Double.parseDouble (num2.getText ());

```

```
out = n1 + " / " + n2;

```

```
resultNum = n1 / n2;

```

```
out += String.valueOf (resultNum);
repaint ();

```

```
}
```

```
Catch (ArithmexcException e)
```

```
{
```

```
flag = 1;

```

```
out = "Divide by 0 Exceptional ! " + e;

```

```
repaint ();

```

```
}
```

catch (NumberFormatException e)

{

flag = 1;

out = "Number Format Exception!" +
e.getMessage();

exponent();

}

}

public void paint (Graphics g)

{

if (flag == 0)

g.drawString (out, outResult .getx() +
outResult .getWidth(), outResult .getY() +
outResult .getHeight() - 8);

else

g.drawString (out, 100, 200);

flag = 0;

public static void main (String [] args)

{

DivisionPanel dm = new DivisionPanel();

dm . setSize (new Dimension (800, 400));

dm . setTitle ("Division Of Integers");

dm . setVisible (true);

}

}

→ number 1: 4 number 2: 2

Result: 4.0 2.0 2.0

8
9/09/2014