```
Class thread implements run
{
    thread t;
thread 1()
 {
t = new thread (this, "thread1");
      t.start()
}
 public void run()
 {
    for(;;)
{
 try
{ System.out.println("BMS college");
      thread.sleep(100000);
 }
 catch(Interrupted exception ie)
 {
 System.out.println("Interrupted");
}
 }
 }
 }
   Class thread2 implements Runnable
{
  thread t2;
  thread 2()
 {
 t2 = new thread (this, "thread 2");
     t2.start();
}
}
```

```
}
public void run()
{
for(;;)
{
try
{ System.out.println("CSE");
  Thread.sleep(2000);
}
catch (interrupted exception (2000);
}
catch (interrupted exception ie)
{
System.out.println("Interrupted");
}
}
}
}
public class threadmain
{
public static void main (String args[])
{
System.out.println("enter control+c to stop");
Thread t1 = new thread1();
Thread t2 = new thread2();
}
}
```

```
class CarService {

public static void main(String args[]){

Car_Queue q= new Car_Queue();

new Car_Owner(q);
new Car_Mechanic(q);

System.out.println("Press Ctrl+C to stop.");

}
}

class Car_Queue{

int n;

boolean valueSet = false;

synchronized int get()
{

while(!valueSet)

try{

wait();
```

```
}

catch (InterruptedException e)
{

System.out.println("InterruptedException caught");

}
System.out.println("Service Provided:"+n);

valueSet = false;

notify();

return n;

}

synchronized void put(int n)

{

while(valueSet)

try{

wait();
}
catch(InterruptedException e)
```

```
{

System.out.println("InterruptedException caught");

}

this.n=n;

valueSet = true;

System.out.println("Order placed:"+n);

notify();

}
}

class Car_Mechanic implements Runnable
{

Car_Queue q;

Car_Mechanic(Car_Queue q)
{

this.q=q;

new Thread(this,"Car_Mechanic").start();
}
```

```
public void run(){

int i=0;

while(true){

q.put(i++);



}
}
}

class Car_Owner implements Runnable {

Car_Queue q;

Car_Owner(Car_Queue q)
{

this.q=q;

new Thread(this,"Car_Owner").start();
}



public void run()
```

Command Prompt

```
Order placed:4756
Service Provided:4756
Order placed:4757
Service Provided:4757
Order placed:4758
Service Provided:4758
Order placed:4759
Service Provided:4759
Order placed:4760
Service Provided:4760
Order placed:4761
Service Provided:4761
Order placed:4762
Service Provided:4762
Order placed:4763
Service Provided:4763
Order placed:4764
Service Provided:4764
Order placed:4765
Service Provided:4765
Order placed:4766
Service Provided:4766
Order placed:4767
Service Provided:4767
Order placed:4768
Service Provided:4768
Order placed:4769
Service Provided:4769
Order placed:4770
Service Provided:4770
Order placed:4771
Service Provided:4771
Order placed:4772
Service Provided:4772
Order placed:4773
Service Provided:4773
Order placed:4774
Service Provided:4774
Order placed:4775
Service Provided:4775
Order placed:4776
Service Provided:4776
Order placed:4777
Service Provided:4777
Order placed:4778
Service Provided:4778
Order placed:4779
Service Provided:4779
Order placed:4780
Service Provided:4780
Order placed:4781
Service Provided:4781
Order placed:4782
Service Provided:4782
Order placed:4783

C:\Users\TEMP.ADMIN.002\Documents\oo ilab>
```

```
class CarService {
public static void main(String args[])
{
Car_Queue q = new Car_queue();

new Car_owner(q);
new Car_Mechanic(q);

System.out.println("press Ctrl+C to stop");
}
}
class Car_queue{

int n;

boolean valueSet = false;

synchronized int get()
{
while(!valueSet)
try{
wait();
}
catch(InterruptedException e)
{
System.out.println("InterruptedException ca
}
System.out.println("Service provided: "+n);
valueSet = false;
notify();
return n;
}
```

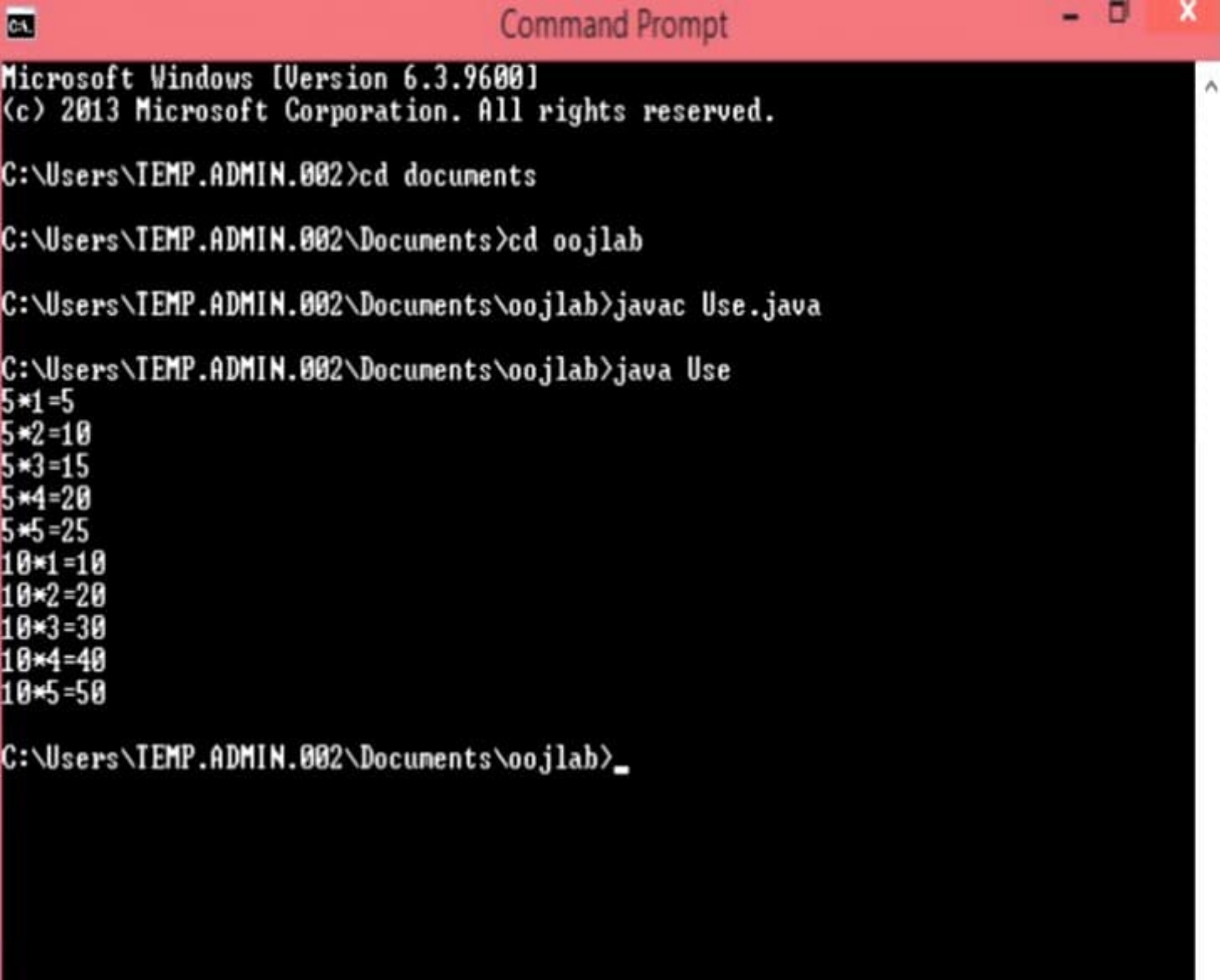
```
synchronized void put (int n)
{
 while (valueSet)
  try {
    wait();
  }
  catch (InterruptException e)
{
System.out.println("InterruptedException
                                caught")
}
 this.n = n;
 valueSet = true;
 System.out.println("Produced placed:"+n);
notify();
}
}

class Car_Mechanic implements Runnable
{
  car_queue q;
 Car_Mechanic (car_queue q)
 {
  this.q = q;
 new Thread (this, "Car_Mechanic").start
}

 public void run(){

 int i = 0;
 while(true) {
q.put (i++);
  }
 }
```

```
class Table
{

void printTable(int n)
        {

synchronized(this)

{

for(int i=1;i<=5;i++)

{

System.out.println(+n+"*"+i+"="+(n*i));

try

{

Thread.sleep(400);

}

catch(Exception e)

{

System.out.println(e);
```

```
}

}

}

}
}


class Mythread1 extends Thread
{

Table t;

Mythread1(Table t)

{

this.t=t;

}

public void run()

{

t.printTable(5);
```

```
}
}


class Mythread2 extends Thread
{
Table t;
Mythread2(Table t)
{
this.t=t;
}
public void run()
{
t.printTable(10);
}
}
```

```
class Use
{

public static void main(String args[])

{

Table obj = new Table();

Mythread1 th1 = new Mythread1(obj);

Mythread2 th2 = new Mythread2(obj);

th1.start();

th2.start();

}

}
```


Command Prompt
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.
C:\Users\TEMP.ADMIN.002>cd documents
C:\Users\TEMP.ADMIN.002\Documents>cd oojlab
C:\Users\TEMP.ADMIN.002\Documents\oojlab>javac Use.java
C:\Users\TEMP.ADMIN.002\Documents\oojlab>java Use
5*1=5
5*2=10
5*3=15
5*4=20
5*5=25
10*1=10
10*2=20
10*3=30
10*4=40
10*5=50
C:\Users\TEMP.ADMIN.002\Documents\oojlab>

```
class Table
{
  Void printtable (int n)
  {
    Synchronized (this)
    {
      for (int i = 1; i<=5; i++)
      {
        System.out.println (tn + "*" + i + "=" + (n*i));

        try
        {
          Thread.sleep(400);
        }
        catch (exception e)
        {
          System.out.println(e);
        }
      }
    }
  }
}

class mythread1 extends Thread
{
  table t;
  mythread1 (table t)
  {
    this.t = t;
  }
    public .void run()
    {
      t.printtable(5); }}
```

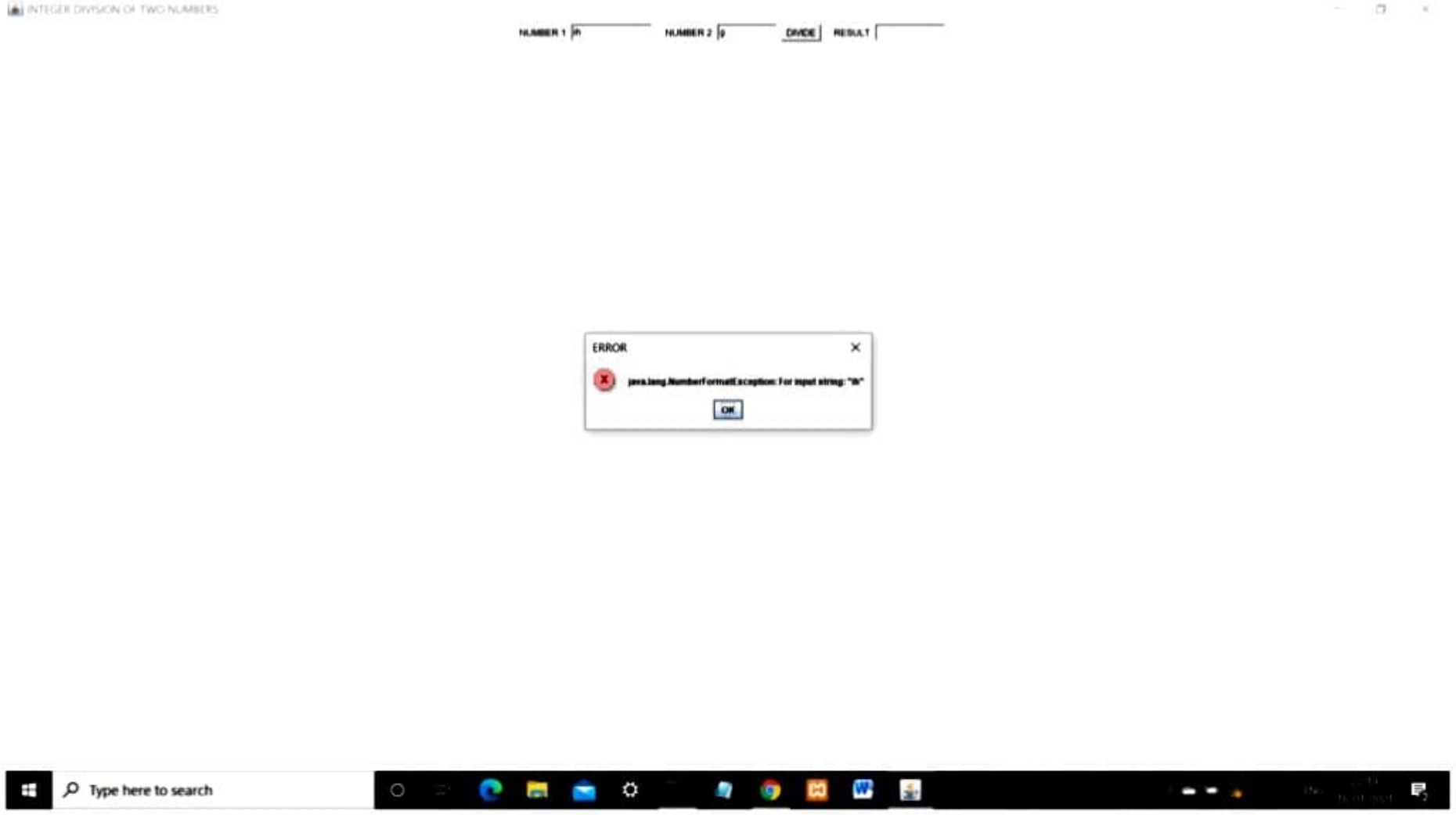
```
class MyThread2 extends Thread
{
  table t;
  MyThread2(table t)
{
    this.t = t;
  }
  }
    class Use
  public static void main(String args[])
{
  table obj = new table();
  MyThread1 th1 = new myThread(obj);
  MyThread2 th2 = new myThread(obj);

      th1.start();
      th2.start();
    }
    }
```

```
import javax.swing.*;
public class integerdivision extends Frame implements ActionListener{
 TextField n1,n2,res;
Label ln1,ln2,lres;
Button b;
public integerdivision(){
setLayout(new FlowLayout());
Label ln1=new Label("NUMBER 1",Label.RIGHT);
Label ln2=new Label("NUMBER 2",Label.RIGHT);
Label lres=new Label("RESULT",Label.RIGHT);
n1=new TextField(12);
n2=new TextField(8);
res=new TextField(10);
b=new Button("DIVIDE");
 add(ln1);
 add(n1);
 add(ln2);
 add(n2);
 add(b);
 add(lres);
 add(res);
 b.addActionListener(this);
 addWindowListener(new WindowAdapter1());
}
public void actionPerformed(ActionEvent ae)
{
 if(ae.getSource()==b)
```

```
mport java.awt.*;
mport java.awt.event.*;
mport javax.swing.*;
ublic class integerdivision extends Frame implements ActionListener{
TextField n1,n2,res;
Label ln1,ln2,lres;
Button b;
public integerdivision(){
setLayout(new FlowLayout());
Label ln1=new Label("NUMBER 1",Label.RIGHT);
Label ln2=new Label("NUMBER 2",Label.RIGHT);
Label lres=new Label("RESULT",Label.RIGHT);
n1=new TextField(12);
n2=new TextField(8);
res=new TextField(10);
b=new Button("DIVIDE");
add(ln1);
add(n1);
add(ln2);
add(n2);
add(b);
add(lres);
add(res);
b.addActionListener(this);
addWindowListener(new WindowAdapter1());
}
ublic void actionPerformed(ActionEvent ae)
```

```
b.addActionListener(this);
addWindowListener(new WindowAdapter1());
}
public void actionPerformed(ActionEvent ae)
{
if(ae.getSource()==b)
{
try{
int num1=Integer.parseInt(n1.getText());
int num2=Integer.parseInt(n2.getText());
int num3=num1/num2;
res.setText(String.valueOf(num3));
}catch(NumberFormatException ne ){
JOptionPane.showMessageDialog(this,ne,"ERROR",
JOptionPane.ERROR_MESSAGE);
}
catch(ArithmeticException a){
JOptionPane.showMessageDialog(this,a,"ERROR",
JOptionPane.ERROR_MESSAGE);
}
}
}
public static void main(String args[])
{
integerdivision i=new integerdivision();
i.setSize(new Dimension(400,400));
i.setTitle("INTEGER DIVISION OF TWO NUMBERS");
```


INTEGER DIVISION OF TWO NUMBERS
NUMBER 1 10
NUMBER 2 5
DIVIDE
RESULT 2
Type here to search


INTEGER DIVISION OF TWO NUMBERS
NUMBER 1
th
NUMBER 2
0
DIVIDE
RESULT
ERROR
java.lang.NumberFormatException: For input string: "th"
OK
Type here to search

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
public class integerdivision extends Frame implements ActionLis
{
 Textfield n1, n2, res;
 Label ln1, ln2, lres;
 Button b;
 public integerdivision()
{
 setLayout (new FlowLayout());
 Label ln1 = new Label ("NUMBER 1", Label.RIGHT);
 Label ln2 = new Label ("NUMBER 2", Label.RIGHT);
 Label lres = new Label ("RESULT", Label.RIGHT);
  n1 = new TextField (12);
  n2 = new TextField (8);
 res = new Textfield (10);
  b = new Button ("DIVIDE");
  add (ln1);
  add (n1);
  add (ln2);
  add (n2);
  add (lres);
  add (res);
 b.addActionListener (this);
 addWindowListener (new WindowAdapter1 ());
}
 public void action Performed (ActionEvent ae)
 {
  if (ae.getSource() == b)
  {
```

```
try
{
int num1 = Integer.parseInt (n1.getText());
int num2 = Integer.parseInt (n2.getText());
int num3 = num1/num2;
res.getText (String.valueOf (num3)); }
catch (NumberFormatException ne)
{
JOptionPane.showMessageDialog (this, ne, "ERROR",
  JOptionPane.ERROR_MESSAGE);
}
catch (ArithmeticException a)
{
JOptionPane.showMessageDialog (this, ne, "ERROR",
JOptionPane.ERROR_MESSAGE),
}
}catch
}
public static void main (String args[])
{
integersdivision ; = new integersdivision ();
}
setsize (new Dimension (400,400));
i.setTitle ("INTEGER DIVISION OF TWO NUMBERS");
i.setVisible (true),
}
class WindowAdapter 1 extends.WindowAdapter {
public void WindowClosing (WindowEvent.we)
{
System.exit (0);
}}}
```