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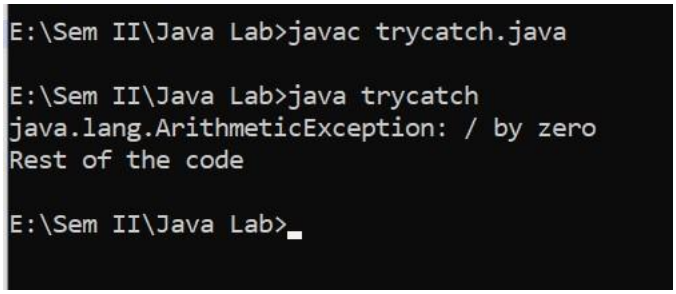
1 Exception Handling public

```
class trycatch
{
	public static void main(String args[])
	{
try
		{
			int a=20/0;
		}
		catch(ArithmeticException e)
		{
			System.out.println(e);
		}
		System.out.println("Rest of the code");
	}
}
```

Output



2 Try Catch public

```
class trycatch1
```

```
{
	public static void main(String args[])
	{
		try
		{
			int a=20/0;
		}
		catch(Exception e)
		{
			System.out.println("Can not devided by zero");
		}

	}
}
```

```
E:\Sem II\Java Lab>javac trycatch1.java

E:\Sem II\Java Lab>java trycatch1
Can not devided by zero

E:\Sem II\Java Lab>
```

3 Multiple Catch Block

```
public class Multiple {

   public static void main(String[] args) {

try{
	  int a[]=new int[5];
a[5]=30/0;
	 }
```

```
        catch(ArithmeticException e)
          {
           System.out.println("Arithmetic Exception occurs");
          }
        catch(ArrayIndexOutOfBoundsException e)
          {
           System.out.println("ArrayIndexOutOfBounds Exception occurs");
          }
        catch(Exception e)
          {
           System.out.println("Parent Exception occurs");
          }
        System.out.println("rest of the code");
   }
}
```

Output

```
E:\Sem II\Java Lab>javac Multiple.java

E:\Sem II\Java Lab>java Multiple
Arithmetic Exception occurs
rest of the code

E:\Sem II\Java Lab>
```

4 Nested try class

```
trynest
{
        public static void main(String args[])
        {
try
```

```
		{
	try
			{
				System.out.println("Arithmetic");
				int a=45/0;
			}
				catch(ArithmeticException e)
				{
					System.out.println(e);
				}
		try
		{
			int a[]=new int[5];
			a[5]=4;
		}
		catch(ArrayIndexOutOfBoundsException e)
		{
			System.out.println(e);
		}
		System.out.println("Other");
		}
		catch(Exception e)
		{
			System.out.println("Handeled the exeption of outer block");
		}
		System.out.println("Normal Flow");
	}
}
```

Output

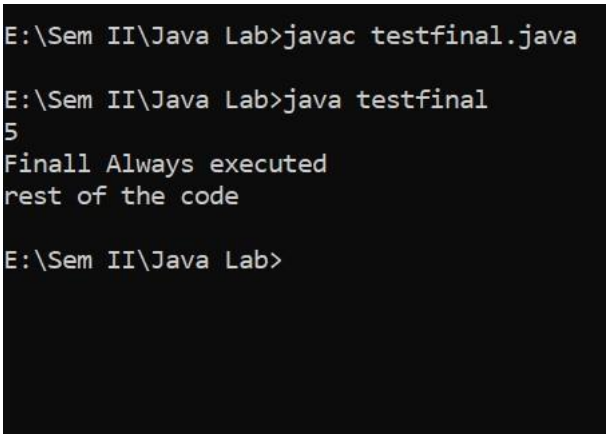
```
E:\Sem II\Java Lab>javac trynest.java

E:\Sem II\Java Lab>java trynest
Arithmetic
java.lang.ArithmeticException: / by zero
java.lang.ArrayIndexOutOfBoundsException: 5
Other
Normal Flow

E:\Sem II\Java Lab>
```

5 Finally Block class

```
testfinal
{
        public static void main(String args[])
        {
try
                {
                        int a=25/5;
                System.out.println(a);
                }
                catch(NullPointerException e)
                {
                        System.out.println(e);
                }
finally
{
System.out.println("Finall Always executed");
}
{
System.out.println("rest of the code");
}
```

```
        }
}
```

Output



6 Sleep Method class SleepMethod

extends Thread {

public void run(){

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

Thread.sleep(500);

}catch(InterruptedException e){

System.out.println(e);

}

System.out.println(i);

}

}

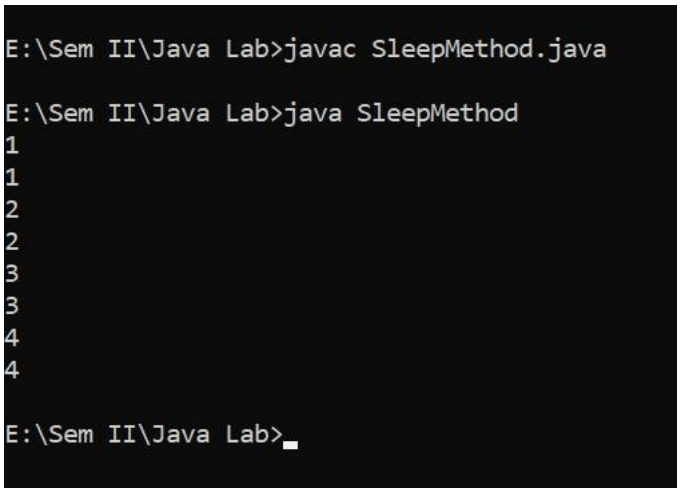
public static void main(String args[]) throws InterruptedException{

SleepMethod t1= new SleepMethod();

SleepMethod t2= new SleepMethod();

```
t1.start();
t2.start();

}

}
```

Output

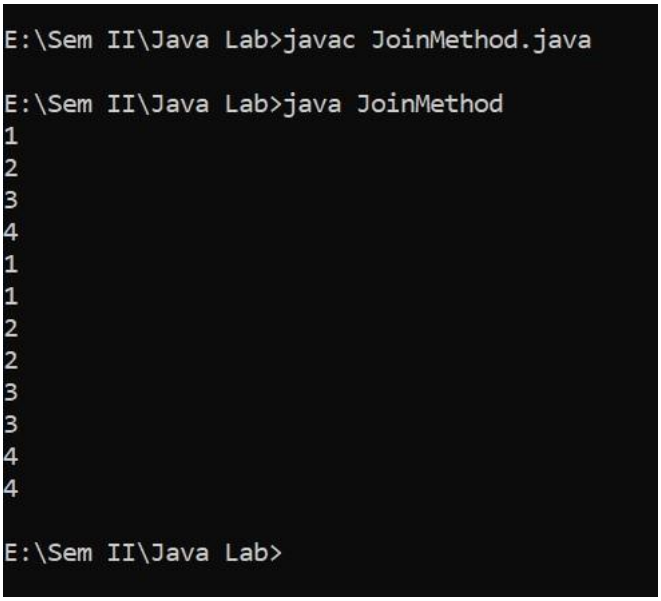


7

```
public class JoinMethod extends Thread
{
 public void run()
 {
 for(int i=1; i<=4; i++)
 {
 try
 {
 Thread.sleep(500);
 }catch(Exception e){System.out.println(e);}
 System.out.println(i);
```

```
 }
}
 public static void main(String args[])
 {
 JoinMethod t1 = new JoinMethod();
 JoinMethod t2 = new JoinMethod();
JoinMethod t3 = new JoinMethod();

 t1.start();

 try
 {
 t1.join();
 }catch(Exception e){System.out.println(e);}

 t2.start();
t3.start();
 }
}
```

Output

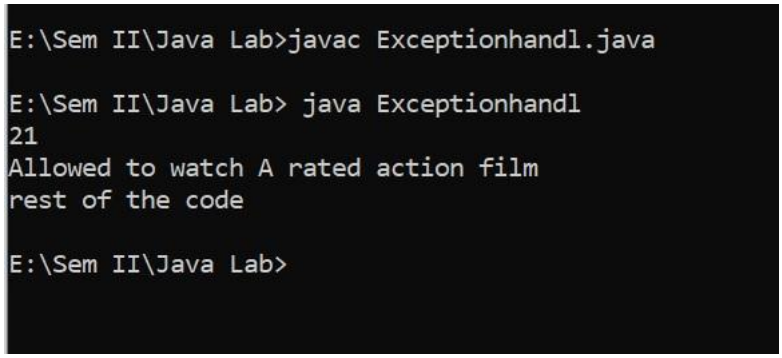


8 Custom Exception

```
import java.util.Scanner; class
CheckAgeException extends Exception
{
 public CheckAgeException (String str)
 {

 super(str);
 } }
public class Exceptionhandl
{


 static void checkAge (int age) throws CheckAgeException{
 if(age< 18){

 throw new CheckAgeException("Cannot watch adult action movie");
 }
```

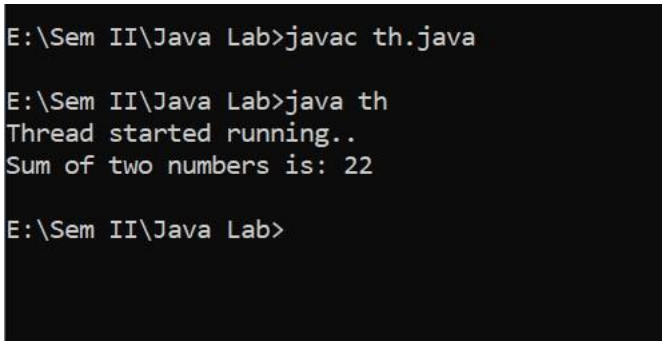
```
else {
 System.out.println("Allowed to watch A rated action film");
 }
 }

 public static void main(String args[])
 {
 Scanner sc = new Scanner(System.in) ;
int age=sc.nextInt();
 try
 {

 checkAge(age);
 }
 catch (CheckAgeException ex)
 {
 System.out.println("Caught the exception");

 // printing the message from InvalidAgeException object
 System.out.println("Exception occured: " + ex);
 }

 System.out.println("rest of the code");
 }
}
```

Output



9 Runnable Interface Program

```
public class th extends Thread {


 public void run()
 {
 int  a=  10;     int
b=12;   int result
= a+b;
 System.out.println("Thread started running..");
 System.out.println("Sum of two numbers is: "+ result);
 }
 public static void main( String args[] )
 {


 th t1 = new th();
 t1.start();
 }
}
```


E:\Sem II\Java Lab>javac th.java
E:\Sem II\Java Lab>java th
Thread started running..
Sum of two numbers is: 22
E:\Sem II\Java Lab>