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Roll no-17

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Experiment no-11

Experiment name-Implements programs based on try catch and finally block.

Try We specify the block of code that might give rise to the exception in a special block with a “Try” keyword.

Catch When the exception is raised it needs to be caught by the program. This is done using a “catch” keyword. So a catch block follows the try block that raises an exception. The keyword catch should always be used with a try.

Finally Sometimes we have an important code in our program that needs to be executed irrespective of whether or not the exception is thrown. This code is placed in a special block starting with the “Finally” keyword. The Finally block follows the Try-catch block.

1.Program using try and catch block.

Input-

```
class EXCEPTION
{
    public static void main(String args[])
    {
        System.out.println("main method called");
        int a=10,b=0,c;
        try
        {
            c=a/b;
            System.out.println(+c);
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
        System.out.println("main methd found");
    }
}
```

```
}  
}
```

Output-

```
Microsoft Windows [Version 10.0.22621.3155]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\Vaishnavi\Desktop\v\classwork>javac EXCEPTION.java  
  
C:\Users\Vaishnavi\Desktop\v\classwork>java EXCEPTION  
main method called  
java.lang.ArithmeticException: / by zero  
main methd found
```

2.java program using finally keyword.

```
class EXCEPTION
```

```
{  
    public static void main(String args[])  
    {  
        try  
        {  
            String s=null;  
            System.out.println(s.toUpperCase());  
        }  
        catch(Exception e)  
        {  
            System.out.println(e);  
        }  
        finally  
        {  
            try  
            {  
                System.out.println(10/0);  
            }  
            catch(Exception e)  
            {
```

```
        System.out.println(e);
    }
    finally
    {
        System.out.println("hey");
    }
}
}
```

Output-

```
C:\Users\Vaishnavi\Desktop\v\classwork>javac EXCEPTION.java

C:\Users\Vaishnavi\Desktop\v\classwork>java EXCEPTION
java.lang.NullPointerException: Cannot invoke "String.toUpperCase()" because "<local1>" is null
java.lang.ArithmeticException: / by zero
hey
```

3.java program using nested try.

Input-

class EXCEPTION

```
{
    public static void main(String args[])
    {
        try
        {
            try
            {
                int arr[]={2,4,67};
                System.out.println(+arr[5]);
            }
            catch(ArrayIndexOutOfBoundsException e)
            {
                System.out.println(e);
            }
            System.out.println(10/0);
        }
    }
}
```

```
        catch(Exception e)
        {
            System.out.println(e);
        }
    }
}
```

Output-

```
C:\Users\Vaishnavi\Desktop\v\classwork>javac EXCEPTION.java
C:\Users\Vaishnavi\Desktop\v\classwork>java EXCEPTION
java.lang.ArrayIndexOutOfBoundsException: Index 5 out of bounds for length 3
java.lang.ArithmeticException: / by zero
C:\Users\Vaishnavi\Desktop\v\classwork>
```