



# PRESENTATION

NAME : SAHIB ZAMAN  
BS/IT SECTION " B "  
SECOND SEMESTER

TOPIC

JAVA EXCEPTION HANDLING

# WHAT IS EXCEPTION ??

- An Exception is an unwanted or unexpected event. Which occurs during the execution of a program at run time. That disrupts the normal flow of the program.
- There Are Two Types Of Exception In Java.
  - Syntax Exception
  - Runtime Exception

# SYNTAX EXCEPTION

When compiler find something wrong with our program it throws a syntax error.

# SYNTAX EXCEPTION Example

```
public class ExceptionTryAndCatch {  
    public static void main(String[] args) {  
        |  
        int a =10;  
        int b = 5_    //      Syntax  
        System.out.println(a+b);  
    }  
}
```

Build Output x

intelliJ IDEA: build failed At 15/11/2021 6:27 PM with 2 sec, 935 ms

ExceptionTryAndCatch.java src\com\company 1 error

! ';' expected :106

E:\windows!0\intelliJ IDEA\src\com\company\ExceptionTryA  
java: ';' expected

# RUNTIME EXCEPTION

- The Runtime Exception is the parent class in all exceptions of the Java programming language that are expected to crash or break down the program or application when they occur. ... Runtime Exceptions are also used when a condition that can't happen.

# RUNTIME EXCEPTION EXAMPLE

```
public class ExceptionTryAndCatch {  
    public static void main(String[] args) {  
  
        |  
        int a = 10;  
        int b = 0;  
        int c = a/b;  
        System.out.println(c);  
  
    }  
}
```



# HOW TO HANDLE EXCEPTION!

WE HAVE FOUR EXAMPLE OF HANDLING THE EXCEPTION AND USING THE TRY / CATCH.

1: NULL EXCEPTION

2: ARITHMETIC EXCEPTION

3: NUMBER FORMAT

4: ARRAY INDEX OUT OF BOUNDS

# NULL POINT EXCEPTION

```
public class ExceptionTryAndCatch {  
    public static void main(String[] args) {  
        // 1: Null Point Exception  
        try {  
            System.out.println("Code Start");  
  
            String a = null;  
            System.out.println(a.length());  
        }  
        catch (NullPointerException a){  
            System.out.println("null point exception");  
        }  
        System.out.println("Code End");  
    }  
}
```

ExceptionTryAndCatch x

"C:\Program Files\Java\jdk-17.0.1\bin\java.exe" "-javaagent:C:

Code Start

null point exception

Code End"

Process finished with exit code 0

|



# ARITHMETIC EXCEPTION

```
public class ExceptionTryAndCatch {  
    public static void main(String[] args) {  
        System.out.println("\nCode Start\n");  
        try {  
            int a = 20;  
            int b = 0;  
            int c = a/b;  
            System.out.println("the result is :"+c);  
        }  
        catch (ArithmeticException exception ){  
            System.out.println("Arithmetic Exception");  
        }  
        System.out.println("\nCode End\n");  
    }  
}
```

ExceptionTryAndCatch ×

```
"C:\Program Files\Java\jdk-17.0.1\bin\java.exe" "-javaagent:C:\P  
"Code Start"  
Arithmetic Exception  
"Code End"
```

# INDEX OUT OF BOUNDS

```
public class ExceptionTryAndCatch {  
    public static void main(String[] args) {  
        int array[] = new int[5];  
        try {  
            array[0]=1;  
            array[1]=2;  
            array[2]=3;  
            array[3]=4;  
            array[4]=5;  
            array[5]=6;  
            for (int i = 0; i < array.length; i++) {  
                System.out.println(array[i]);  
            }  
        }  
        catch (ArrayIndexOutOfBoundsException e){  
            System.out.println("Array index number out of bound");  
        }  
        System.out.println("\n\n\nEnd of Code");  
    }  
}
```

```
"C:\Program Files\Java\jdk-17.0.1\bin\java.  
Array index number out of bound
```

```
End of Code
```

# NUMBER FORMAT EXCEPTION

```
public class ExceptionTryAndCatch {  
    public static void main(String[] args) {  
        System.out.println("\"Code Start\"");  
        try {  
            // 4: Number format Exception  
            Scanner sc = new Scanner(System.in);  
            String str = "abc";  
            int integer = Integer.parseInt(str);  
            System.out.println(integer);  
        }  
        catch (Exception exception ){  
            System.out.println("Number format exception");  
        }  
        System.out.println("\"Code End\"");  
    }  
}
```

ExceptionTryAndCatch ×

```
"C:\Program Files\Java\jdk-17.0.1\bin\java.exe" "-javaagent:C:\Pr  
"Code Start"  
Number format exception  
"Code End"
```

The background is a blue gradient. In the corners, there are white line art designs resembling circuit boards or neural networks, with lines and small circles connecting them.

THANK YOU