

LAPORAN PRAKTIKUM

Praktikum Pemrograman Berorientasi Objek

Exception Handling



Nama : Muhammad Azhar Rasyad

No Mahasiswa : 0110217029

Prodi : Teknik Informatika 1

Sekolah Tinggi Teknologi Terpadu Nurul Fikri

2018

Praktikum #6 Pemrograman Berorientasi Objek

1. **Exception Handling**, merupakan penangalan masalah ketika terjadi error.

Contoh 1 :

- Source Code Exception :

```
import java.io.*;

public class Eksepsi
{
    public static void main (String [] args)
    {
        int[] A = new int[5];
        // Error
        int i = 10;
        // Tidak Error
        // int i = 1;

        try
        {
            A[i] = 100;
            System.out.println("Hasil : " + A[i]);
        }
        catch (Exception e)
        {
            System.out.println("Kesalahan = Array yang dipilih tidak
terdaftar");
        }
    }
}
```

- Hasil Compile Exception Catch :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac Eksepsi.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java Eksepsi
Kesalahan = Array yang dipilih tidak terdaftar
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

- Hasil Compile Exception Try :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac Eksepsi.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java Eksepsi
Hasil : 100
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

Contoh 2 :

- Source Code Exception :

```
public class Eksepsi2
{
    public static void main (String [] args)
    {
        int pembilang = 12;
        // Tidak Error
        int penyebut = 5;
        // Error
        // int penyebut = 0;

        try
        {
            int hasil = pembilang / penyebut;
            System.out.println("Hasil = " + hasil);
        }
        catch (ArithmeticException e)
        {
            System.out.println("Kesalahan = Terdapat pembagian dengan nol");
            System.out.println("Statement setelah blok try-catch");
        }
        catch (Exception ae)
        {
            System.out.println("Eksepsi Generik...");
        }
    }
}
```

- Hasil Compile Exception Try :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac Eksepsi2.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java Eksepsi2
Hasil = 2
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

- Hasil Compile Exception Catch :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac Eksepsi2.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java Eksepsi2
Kesalahan = Terdapat pembagian dengan nol
Statement setelah blok try-catch
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

Contoh 3 :

- Source Code Exception Handling :

```
public class Eksepsi3
{
    public static void main(String [] args)
    {
        int[] A = new int[5];

        try
        {
            for(int i = 0; i < 5; i++)
            {
                A[i] = i * 10;
            }

            System.out.println("Nilai pada indeks ke 9 : " + A[9]);
        }
        catch (ArrayIndexOutOfBoundsException e)
        {
            System.out.println("Tidak terdapat indeks ke " +
e.getMessage());
        }

        for(int i = 0; i < 5; i++)
        {
            System.out.println("Elemen ke-" + i + " : " + A[i]);
        }
    }
}
```

- Hasil Compile Exception Handling :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac Eksepsi3.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java Eksepsi3
Tidak terdapat indeks ke 9
Elemen ke-0 : 0
Elemen ke-1 : 10
Elemen ke-2 : 20
Elemen ke-3 : 30
Elemen ke-4 : 40
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

Tugas Praktikum #6 Pemrograman Berorientasi Objek

1. NullPointerException

- Source Code Exception :

```
public class NullPointerException_Demo
{
    public static void main(String args[])
    {
        String a = null; //null value
        System.out.println(a.charAt(0));
    }
}
```

- Hasil Compile Exception :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac NullPointerException_Demo.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java NullPointerException_Demo
Exception in thread "main" java.lang.NullPointerException
    at NullPointerException_Demo.main(NullPointerException_Demo.java:6)
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

- Source Code Exception Handling :

```
public class NullPointerException_Demo
{
    public static void main(String args[])
    {
        try
        {
            String a = null; //null value
            System.out.println(a.charAt(0));
        }
        catch(NullPointerException e)
        {
            System.out.println("NullPointerException..");
        }
    }
}
```

- Hasil Compile Exception Handling :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac NullPointerException_Demo.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java NullPointerException_Demo
NullPointerException..
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

- Sumber : <https://www.geeksforgeeks.org/types-of-exception-in-java-with-examples/>

2. FileNotFoundException

- Source Code Exception :

```
import java.io.File;
import java.io.FileNotFoundException;
import java.io.FileReader;

public class File_notFound_Demo
{
    public static void main(String args[])
    {
        // Following file does not exist
        File file = new File("E://file.txt");
        FileReader fr = new FileReader(file);
    }
}
```

- Hasil Compile Exception :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac File_notFound_Demo.java
File_notFound_Demo.java:11: error: unreported exception FileNotFoundException; must be caught or declared to be thrown
        FileReader fr = new FileReader(file);
                        ^
1 error
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

- Source Code Exception Handling :

```
import java.io.File;
import java.io.FileNotFoundException;
import java.io.FileReader;

public class File_notFound_Demo
{
    public static void main(String args[])
    {
        try
        {
            // Following file does not exist
            File file = new File("E://file.txt");
            FileReader fr = new FileReader(file);
        }
        catch (FileNotFoundException e)
        {
            System.out.println("File does not exist");
        }
    }
}
```

- Hasil Compile Exception Handling :

```
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ javac File_notFound_Demo.java
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$ java File_notFound_Demo
File does not exist
mazharrasyad@mazharrasyad:~/PBO/Praktikum 6$
```

- Sumber : <https://www.geeksforgeeks.org/types-of-exception-in-java-with-examples/>

3. StringIndexOutOfBoundsException

- Source Code Exception :

```
public class StringIndexOutOfBounds_Demo
{
    public static void main(String args[])
    {
        String a = "This is like chipping "; // length is 22
        char c = a.charAt(24); // accessing 25th element
        System.out.println(c);
    }
}
```

- Hasil Compile Exception :

```
mazharrasyad@mazharrasyad:~/PB0/Praktikum 6$ javac StringIndexOutOfBounds_Demo.java
mazharrasyad@mazharrasyad:~/PB0/Praktikum 6$ java StringIndexOutOfBounds_Demo
Exception in thread "main" java.lang.StringIndexOutOfBoundsException: String index out of range: 24
    at java.lang.String.charAt(String.java:658)
    at StringIndexOutOfBounds_Demo.main(StringIndexOutOfBounds_Demo.java:6)
mazharrasyad@mazharrasyad:~/PB0/Praktikum 6$
```

- Source Code Exception Handling :

```
public class StringIndexOutOfBounds_Demo
{
    public static void main(String args[])
    {
        try
        {
            String a = "This is like chipping "; // length is 22
            char c = a.charAt(24); // accessing 25th element
            System.out.println(c);
        }
        catch(StringIndexOutOfBoundsException e)
        {
            System.out.println("StringIndexOutOfBoundsException");
        }
    }
}
```

- Hasil Compile Exception Handling :

```
mazharrasyad@mazharrasyad:~/PB0/Praktikum 6$ javac StringIndexOutOfBounds_Demo.java
mazharrasyad@mazharrasyad:~/PB0/Praktikum 6$ java StringIndexOutOfBounds_Demo
StringIndexOutOfBoundsException
mazharrasyad@mazharrasyad:~/PB0/Praktikum 6$
```

- Sumber : <https://www.geeksforgeeks.org/types-of-exception-in-java-with-examples/>

----- Selesai -----

Referensi

- <http://hilite.me/>