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|-----------------------------|---|---|
| <i>Session Date</i>         | : | 13 September 2019   |
| <i>Semester</i>             | : | Gasal   |
| <i>Subject</i>              | : | 1132102 – Pemrograman Berorientasi Objek  |
| <i>Week/Session</i>         | : | 1/3   |
| <i>Key Topics</i>           | : | Programs, Data Types, Variables, Operators  |
| <i>Objectives</i>           | : | <ul style="list-style-type: none"> <li>- Students understand various data types in Java Programming Language</li> <li>- Students understand how to declare, initialize, and scope of variables</li> <li>- Students understand concept of array in Java</li> <li>- Students understand how to declare constants and use it properly</li> <li>- Students understand various operator and typecasting in Java</li> </ul> |
| <i>Duration</i>             | : | 100 minutes   |
| <i>Delivery</i>             | : | -   |
| <i>Deadline of delivery</i> | : | -   |
| <i>Place of delivery</i>    | : | -   |
| <i>Lecturer</i>             | : | TMP   |
| <i>Instructor</i>           | : | SEP   |

## 1. Getting familiar with program in Java

### Latihan01.java

```
// import package (yang berisikan class System
// sebenarnya tidak perlu ditulis karena diloat otomatis)
import java.lang.*;

// biasakan memberi nama class dengan diawali huruf kapital
// apabila nama class terdiri dari dua kata atau lebih,
// setiap huruf pertama dari kata dibuat huruf kapital
// contoh: class BukuPelajaran

public class Latihan01 {
    public static void main(String[] args)
    {
        System.out.println("Hello Wolrd!");
    }
}
```

### Latihan02.java

```
public class Latihan02 {
    public static void main(String[] args) {
        Latihan02.cetak();
    }
    //we'll learn about what static means later
    public static void cetak(){
        System.out.println("Hello, world! from method cetak");
    }
}
```

## 2. Getting familiar with various data types in Java

### Latihan03.java

```
public class Latihan03 {
    public static void main(String[] args) {
        System.out.println("Range Byte: " + Byte.MIN_VALUE + "
until " + Byte.MAX_VALUE);
        System.out.println("Range Integer: " + Integer.MIN_VALUE
+ " until " + Integer.MAX_VALUE);
        System.out.println("Range Float: " + Float.MIN_VALUE + "
until " + Float.MAX_VALUE);
        System.out.println("Range Double: " + Double.MIN_VALUE +
" until " + Double.MAX_VALUE);
    }
}
```

## 3. Getting familiar with variables and constants

### Latihan04.java

```
import java.util.Scanner;

public class Latihan04 {
    public static void main(String[] args) {
        String nama; // variable dengan tipe String
        int umur; // variabel dengan tipe integer

        Scanner sc = new Scanner(System.in);

        System.out.println("Masukkan nama Anda: ");
        nama = sc.next();
        System.out.println("Masukkan umur Anda: ");
        umur = sc.nextInt();

        System.out.println("Hello, " + nama + ".
Umur Anda " + umur);
    }
}
```

### Latihan05.java

```
public class Latihan05 {
    public static void main(String[] args) {
        final float PI = 3.14f; //konstanta
        float a, r = 10.8f; //variable
        a = PI * r * r;
        System.out.println(a);
    }
}
```

#### 4. Getting familiar with array in Java

Latihan06.java

```
public class Latihan06 {  
    public static void main(String[] args) {  
        int myArray[] = new int[3];  
  
        myArray[0] = 1;  
        myArray[1] = 2;  
        myArray[2] = 3;  
  
        System.out.println(myArray[0] + ", " +  
                           myArray[1] + ", " +  
                           myArray[2]);  
    }  
}
```

#### 5. Getting familiar with operators and typecasting Java

Latihan07.java

```
public class Latihan07 {  
    public static void main(String[] args) {  
        short a = 5;  
        int b;  
        b = a; // automatic type conversion  
        float c = 23.123456f;  
        int d;  
        d = (int) c;  
        System.out.println(d);  
        // d menyimpan nilai c  
        // yang fractional componentnya sudah dihilangkan  
    }  
}
```

## Latihan08.java

```
public class Latihan08 {  
    public static void main(String[] args) {  
        short a = 5, b;  
        b = (a + 1); // warning  
        // karena (a + 1) dipromote jadi int  
        // dan tidak dapat disimpan pada b (short)  
        //fix menjadi b = (short) (a + 1)  
        int c = 3;  
        long d = 5;  
        d = d + c; // d + c otomatis dipromote jadi long  
        System.out.println(d);  
    }  
}
```

**Selamat Mengerjakan 😊**