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Tugas 2

1. Percobaan 1 : Pendeklarasian variabel dan pemberian nilai

   Jawaban:

   Hasil: variabel hanya dideklarasikan tanpa ditampilkan hasil akhir (outputnya).

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>javac Assign.java

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java Assign

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

   Perubahan: menambahkan ***'System.out.println()'*** untuk menampilkan output. Ada kekeliruan yang terdapat pada variabel z yang menggunakan float integer sehingga huruf ***'f'*** yang terdapat dibaris belakang angka tidak dapat ditampilkan karena huruf bersifat string.

```
public class Assign {
    public static void main (String args[]) {
        int x, y;
        float z= 3.414f;
        double w = 3.1415;
        boolean truth = true;
        char c;
        String str;
        String str1 = "bye";
        c = 'A';
        str = "Hi out here!";
        x =6;
        y = 1000;

        System.out.println("Nilai variabel x: " + x);
        System.out.println("Nilai variabel y: " + y);
        System.out.println("Nilai variabel z: " + z);
        System.out.println("Nilai variabel w: " + w);
        System.out.println("Nilai variabel truth: " + truth);
        System.out.println("Nilai variabel c: " + c);
        System.out.println("Nilai variabel str: " + str);
        System.out.println("Nilai variabel str1: " + str1);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java Assign
Nilai variabel x: 6
Nilai variabel y: 1000
Nilai variabel z: 3.414
Nilai variabel w: 3.1415
Nilai variabel truth: true
Nilai variabel c: A
Nilai variabel str: Hi out here!
Nilai variabel str1: bye

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

2. Percobaan 2 : Nilai default variabel
   Hasil: variabel tidak memiliki nilai.

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java DefValue
Default boolean : false
Default integer : 0
Default double :0.0
Default long : 0
Default float : 0.0
Default byte : 0
Default char :

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

   Perubahan: membuat nilai pada setiap variabel.

```java
public class DefValue {
    static boolean b = true;
    static int i = 42;
    static double d = 3.14;
    static long l = 1234567890L;
    static char c = 'A';
    static float f = 2.718f;
    static byte y = 127;

    public static void main(String args[]) {
        DefValue val = new DefValue();
        System.out.println("Default boolean : " + val.b);
        System.out.println("Default integer : " + val.i);
        System.out.println("Default double :" + val.d);
        System.out.println("Default long : " + val.l);
        System.out.println("Default float : " + val.f);
        System.out.println("Default byte : " + val.y);
        System.out.println("Default char : " + val.c);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java DefValue
Default boolean : true
Default integer : 42
Default double :3.14
Default long : 1234567890
Default float : 2.718
Default byte : 127
Default char : A

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

3. Percobaan 3 : Menggambarkan pass by value
   Perubahan: pendefinisian ***'MyDate'***.

```java
class MyDate {
    private int day;
    private int month;
    private int year;

    public MyDate(int day, int month, int year) {
        this.day = day;
        this.month = month;
        this.year = year;
    }

    public void setDay(int day) {
        this.day = day;
    }

    public void setDate(int day, int month, int year) {
        this.day = day;
        this.month = month;
        this.year = year;
    }

    public void print() {
        System.out.println("Date: " + day + "/" + month + "/" + year);
    }
}

public class PassTest {
    public static void changeInt(int value) {
        value = 55;
    }

    public static void changeObjectRef(MyDate ref) {
        ref.setDate(1, 1, 2000);
    }

    public static void changeObjectAttr(MyDate ref) {
        ref.setDay(4);
```

```
    }

    public static void main(String args[]) {
        MyDate date;
        int val;

        val = 11;
        changeInt(val);
        System.out.println("Int value is: " + val);

        date = new MyDate(22, 7, 1964);
        changeObjectRef(date);
        date.print();

        changeObjectAttr(date);
        date.print();
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java
Int value is: 11
Date: 1/1/2000
Date: 4/1/2000

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

4. Percobaan 4 : Menggunakan bilangan basis 8 (Octal)

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```
public class Octal {

    public static void main (String[] args) {
        int six = 06;
        int seven = 07;
        int eight = 010;
        int nine = 011;

        System.out.println("Octal six : "+ six);
        System.out.println("Octal seven : "+ seven);
        System.out.println("Octal eight : "+ eight);
        System.out.println("Octal nine : "+ nine);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java Octal
Octal six : 6
Octal seven : 7
Octal eight : 8
Octal nine : 9

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

5. Percobaan 5 : Menggunakan unicode
Perubahan:

```
public class CobaUnicode {
    public static void main (String[] args) {
        char \u0061 = 'a';
        char \u0062 = 'b';
        char c = '\u0063';
        String kata = "\u0061\u0062\u0063";

        System.out.println("a : "+ a);
        System.out.println("b : "+ b);
        System.out.println("c : "+ c);
        System.out.println("kata : "+ kata);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java CobaUnicode
a : a
b : b
c : c
kata : abc

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

6. Percobaan 6 : Primitive conversion – assignment

```
class PrimitifConversionAssignment {
    public static void main(String[] args) {
        int i;
        double d;
        i = 10;
        d = 1;
        System.out.println("Nilai d : "+ d);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java PrimitifConversionAssignment
Nilai d : 1.0

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

7. Percobaan 7 : Primitive conversion – assignment
Perubahan: Tipe data double tidak bisa dikonversi menjadi short secara langsung, maka dilakukan casting.

```
class PrimitifConversionAssignment2 {
    public static void main(String[] args) {
        double d;
        short s;
        d = 1.2345;
        s = (short) d;
        System.out.println("Nilai d : " + s);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java
Nilai d : 1

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```

8. Percobaan 8 : Primitive conversion – assignment

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>java Primitive
Hasil = 3
```

9. Percobaan 9 : Primitive conversion – assignment
Perubahan: Tipe data double tidak bisa dikonversi menjadi short secara langsung, maka dilakukan casting.

```
public class AssignPrimitive {
    public static void main(String[] args) {
        double f = 2.32323;
        short s = (short) f;
        System.out.println("Hasil = " + s);
    }
}
```

```
C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>ja
Hasil = 2

C:\Users\nadaf\Documents\PrakPBO\Pertemuan1\Praktikum2>
```