

LATIHAN JOBSHEET 2

PRAKTIKUM ALGORITMA DAN STRUKTUR DATA

Latihan 1.

Objek:

```
package minggu2.latihan;

public class Barang {
    String nama;
    int hargaSatuan, jumlah;

    Barang() {
    }
    Barang(String nm, int hs, int jm){
        nama = nm;
        hargaSatuan = hs;
        jumlah = jm;
    }

    int hitungHargaTotal() {
        return jumlah * hargaSatuan;
    }

    int hitungDiskon() {
        int diskon = 0;
        if(hitungHargaTotal() > 100000){
            diskon = hargaSatuan * jumlah * 10/100;
        } else if(hitungHargaTotal() >= 50000 && hitungHargaTotal() <=
100000){
            diskon = hargaSatuan * jumlah * 5/100;
        }
        return diskon;
    }

    int hitungHargaBayar() {
        return hitungHargaTotal() - hitungDiskon();
    }
}
```

Main Class:

```
package minggu2.latihan;

public class BarangMain {
    public static void main (String[] args){
        Barang a1 = new Barang("Buku", 4000, 50);
        Barang a2 = new Barang("Pulpen", 1500, 50);
        Barang a3 = new Barang("Pensil", 950, 50);
        System.out.println("Nama Barang = " + a1.nama);
        System.out.println("Harga Total = Rp. " + a1.hitungHargaTotal());
        System.out.println("Diskon \t    = Rp. " + a1.hitungDiskon());
        System.out.println("Harga Bayar = Rp. " + a1.hitungHargaBayar());
        System.out.println();
        System.out.println("Nama Barang = " + a2.nama);
        System.out.println("Harga Total = Rp. " + a2.hitungHargaTotal());
        System.out.println("Diskon \t    = Rp. " + a2.hitungDiskon());
        System.out.println("Harga Bayar = Rp. " + a2.hitungHargaBayar());
        System.out.println();
        System.out.println("Nama Barang = " + a3.nama);
        System.out.println("Harga Total = Rp. " + a3.hitungHargaTotal());
        System.out.println("Diskon \t    = Rp. " + a3.hitungDiskon());
        System.out.println("Harga Bayar = Rp. " + a3.hitungHargaBayar());
        System.out.println();
    }
}
```

Output:

```
PS D:\Kuliah\Semester 2\Praktikum Algoritma dan Struktur Data\StrukturData> d:; cd 'd:\Kuliah\Semester 2\Praktikum Algoritma dan Struktur Data\StrukturData'; & 'C:\Program Files\Java\jdk1.8.0_121\bin\java.exe' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\User\workspaceStorage\19b2f714e6e12e34f31285c0e593a0b2\redhat.java\jdt_ws\StrukturData_f998caf\bin' 'minggu2.latihan.BarangMain'
Nama Barang = Buku
Harga Total = Rp. 200000
Diskon      = Rp. 20000
Harga Bayar = Rp. 180000

Nama Barang = Pulpen
Harga Total = Rp. 75000
Diskon      = Rp. 3750
Harga Bayar = Rp. 71250

Nama Barang = Pensil
Harga Total = Rp. 47500
Diskon      = Rp. 0
Harga Bayar = Rp. 47500
```

Latihan 2.

Objek:

```
package minggu2.latihan;

public class PacMan {
    int x, y, width, height;

    PacMan(){
    }
    PacMan(int w, int h, int kx, int ky){
        x = kx;
        y = ky;
        width = w;
        height = h;
    }

    void moveLeft(int n){
        if(x-n > 0){
            x = x - n;
        } else if(width-x <= 0){
            x = 0;
        }
    }

    void moveRight(int n){
        if(x + n < width){
            x = x + n;
        } else{
            x = width;
        }
    }

    void moveUp(int n){
        if(y + n < height){
            y = y + n;
        } else{
            y = height;
        }
    }

    void moveDown(int n){
        if(y-n > 0){
            y = y - n;
        } else if(height-y <= 0){
            y = 0;
        }
    }
}
```

```

    void printPosition(){
        System.out.println("Posisi PacMan sekarang");
        System.out.println("Koordinat x : " + x);
        System.out.println("Koordinat y : " + y);
    }
}

```

Main Class:

```

package minggu2.latihan;

public class PacManMain {
    public static void main (String[] args){
        PacMan pm = new PacMan(20, 20, 10, 15);
        pm.moveLeft(7);
        pm.moveRight(5);
        pm.moveUp(4);
        pm.moveDown(10);
        pm.printPosition();
    }
}

```

Output:

```

PS D:\Kuliah\Semester 2\Praktikum Algoritma dan Struktur Data\StrukturData> & 'C:\Program Files\Java\jdk1.8.0_121\bin\java.exe' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\User\workspaceStorage\19b2f714e6e12e34f31285c0e593a0b2\redhat.java\jdt_ws\StrukturData_f998caf\bin' 'minggu2.latihan.PacManMain'
Posisi PacMan sekarang
Koordinat x : 8
Koordinat y : 9
PS D:\Kuliah\Semester 2\Praktikum Algoritma dan Struktur Data\StrukturData> █

```