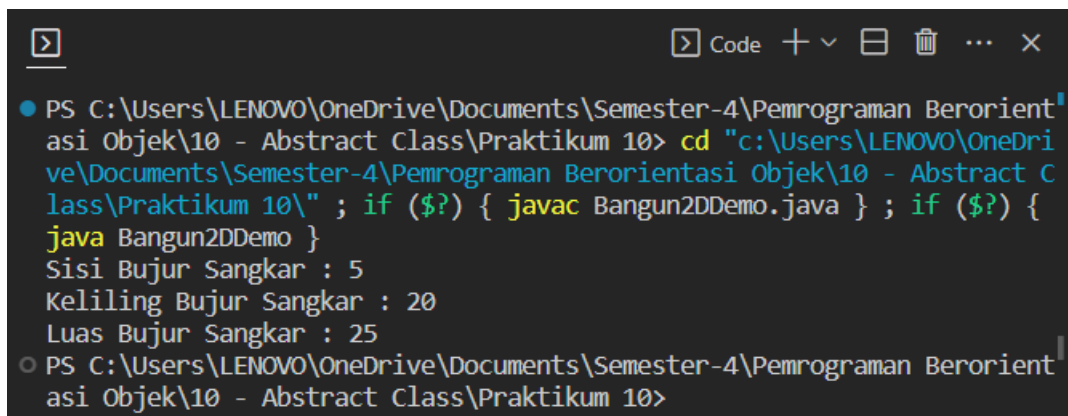# Dokumentasi Praktikum PBO 10

Mata Kuliah   :   PBO - TI - S1

Pertemuan   :   10

NIM   :   A11.2021.13254

Nama   :   Yohanes Dimas Pratama

Contoh Program Abstract Class

Hasil Program:

```
PS C:\Users\LENOVO\OneDrive\Documents\Semester-4\Pemrograman Berorient
asi Objek\10 - Abstract Class\Praktikum 10> cd "c:\Users\LENOVO\OneDri
ve\Documents\Semester-4\Pemrograman Berorientasi Objek\10 - Abstract C
lass\Praktikum 10\" ; if ($?) { javac Bangun2DDemo.java } ; if ($?) {
java Bangun2DDemo }
Sisi Bujur Sangkar : 5
Keliling Bujur Sangkar : 20
Luas Bujur Sangkar : 25
PS C:\Users\LENOVO\OneDrive\Documents\Semester-4\Pemrograman Berorient
asi Objek\10 - Abstract Class\Praktikum 10>
```

Code Program:

*BujurSangkar.java

```java
public class BujurSangkar extends Bangun2D{
    private int sisi;
    public BujurSangkar(int sisi) {
        this.sisi = sisi;
        System.out.println("Sisi Bujur Sangkar : " + sisi);
    }

    public void cetakLuas() {
        int luas = sisi * sisi;
        System.out.println("Luas Bujur Sangkar : " + luas);
    }

    public void cetakKeliling() {
        int keliling = 4 * sisi;
        System.out.println("Keliling Bujur Sangkar : " + keliling);
    }
}
```
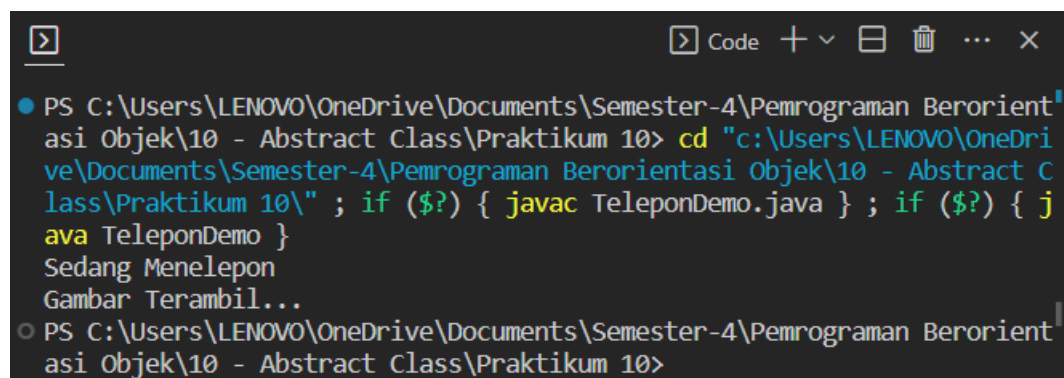
*Bangun2DDemo.java

```java
public class Bangun2DDemo {
    public static void main(String[] args) {
        BujurSangkar bs = new BujurSangkar(5);
        bs.cetakKeliling();
        bs.cetakLuas();
    }
}
```

Latihan 1

Hasil Program:

Code Program:

*TeleponDemo.java

```java
interface Kamera {
    public void setPixel(float pixel);

    public void ambilGambar();
}

interface Radio {
    public void setGelombang(String gel);
}

class Telepon {
    protected long nomor;

    public void telpon() {
        System.out.println("Sedang Menelepon");
    }
}

class Handphone extends Telepon implements Kamera, Radio {
    private String gelombang;
    private float pixel;
```

```java
    public void ambilGambar() {
        System.out.println("Gambar Terambil...");
    }

    public void setGelombang(String gel) {
        this.gelombang = gel;
    }

    public void setPixel(float pixel) {
        this.pixel = pixel;
    }

    public void setNomor(long no) {
        this.nomor = no;
    }
}

public class TeleponDemo {
    public static void main(String[] args) {
        Handphone hp = new Handphone();
        hp.setNomor(8183434);

        hp.telpon();
        hp.setPixel(1024);
        hp.ambilGambar();
        hp.setGelombang("FM 101.2");
    }
}
```
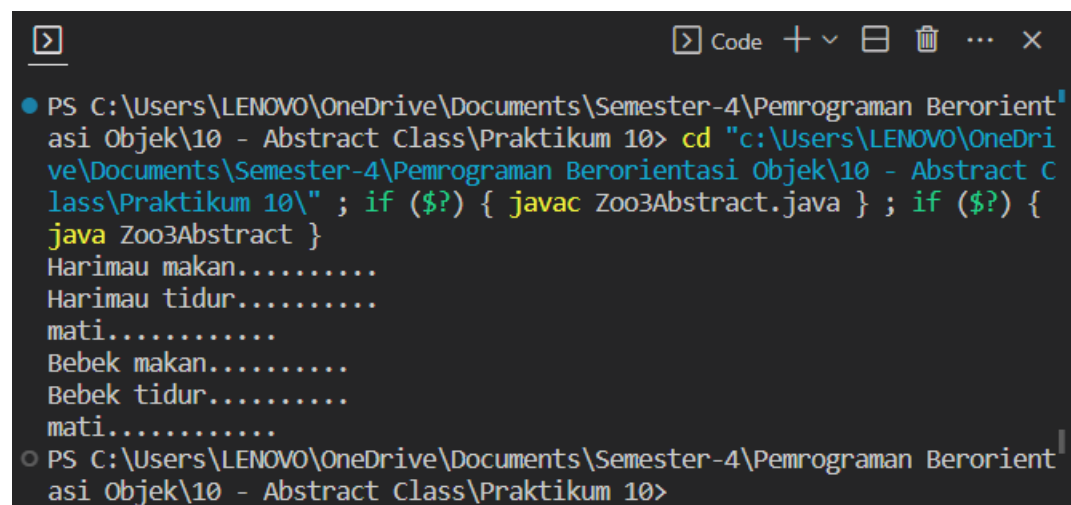
Latihan 2

Hasil Program:


```
PS C:\Users\LENOVO\OneDrive\Documents\Semester-4\Pemrograman Berorient
asi Objek\10 - Abstract Class\Praktikum 10> cd "c:\Users\LENOVO\OneDri
ve\Documents\Semester-4\Pemrograman Berorientasi Objek\10 - Abstract C
lass\Praktikum 10\" ; if ($?) { javac Zoo3Abstract.java } ; if ($?) {
java Zoo3Abstract }
Harimau makan..........
Harimau tidur..........
mati...........
Bebek makan..........
Bebek tidur..........
mati...........
PS C:\Users\LENOVO\OneDrive\Documents\Semester-4\Pemrograman Berorient
asi Objek\10 - Abstract Class\Praktikum 10>
```

Code Program:

*Zoo3Abstract.java

```java
abstract class Binatang { // abstract class
    abstract void makan(); // method abstract

    abstract void tidur();

    void mati() {
        System.out.println("mati............");
    }
}

class Harimau extends Binatang {
    void makan() {
        System.out.println("Harimau makan..........");
    }

    void tidur() {
        System.out.println("Harimau tidur.......... ");
    }
}

class Bebek extends Binatang {
    void makan() {
        System.out.println("Bebek makan..........");
    }

    void tidur() {
        System.out.println("Bebek tidur..........");
    }
}

public class Zoo3Abstract {
    static void test(Binatang a) {

        a.makan();
        a.tidur();
        a.mati();
    }

    public static void main(String[] a) {
        Harimau macan = new Harimau();
        Bebek duck = new Bebek();
        test(macan);
        test(duck);
    }
}
```

Latihan 3

Hasil Program:

```
PS C:\Users\LENOVO\OneDrive\Documents\Semester-4\Pemrograman Berorient
asi Objek\10 - Abstract Class\Praktikum 10> cd "c:\Users\LENOVO\OneDri
ve\Documents\Semester-4\Pemrograman Berorientasi Objek\10 - Abstract C
lass\Praktikum 10\" ; if ($?) { javac MebelDemo.java } ; if ($?) { jav
a MebelDemo }
Almari Pakaian
Bahan    : Jati
Harga    : 375000
Pintu    : 4
Roda     : false
Meja Makan
Bahan    : Jati Tua
Harga    : 625000
Pintu    : 6
Roda     : Kotak
PS C:\Users\LENOVO\OneDrive\Documents\Semester-4\Pemrograman Berorient
asi Objek\10 - Abstract Class\Praktikum 10>
```

Code Program:

*MebelDemo.java

```java
class Mebel {
    int harga;
    String bahan;
}

class Almari extends Mebel {
    boolean roda;
}

class Meja extends Mebel {
    int jmlkaki;
}

class MejaMakan extends Meja {
    int jmlKursi;
}

interface Discountable {
public void discount(int harga);
}

class MejaTamu extends Meja implements Discountable {
    String bentukKaca;
```

```java
    public void discount(int harga) {
        this.harga = (harga) - ((int) (harga * 0.5));
    }
}

class AlmariPakaian extends Almari implements Discountable {
    int jmlPintu;

    public void discount(int harga) {
        this.harga = (harga) - ((int) (harga * 0.5));
    }
}

class AlmariMakan extends Almari implements Discountable {
    int jmlRoda;

    public void discount(int harga) {
        this.harga = (harga) - ((int) (harga * 0.5));
    }
}

public class MebelDemo {
    public static void main(String[] args) {
        AlmariPakaian almariPakaian = new AlmariPakaian();
        almariPakaian.bahan = "Jati";
        almariPakaian.harga = 750000;
        almariPakaian.jmlPintu = 4;
        almariPakaian.roda = false;
        almariPakaian.discount(almariPakaian.harga);
        System.out.println("Almari Pakaian");
        System.out.println("Bahan\t: " + almariPakaian.bahan);
        System.out.println("Harga\t: " + almariPakaian.harga);
        System.out.println("Pintu\t: " + almariPakaian.jmlPintu);
        System.out.println("Roda\t: " + almariPakaian.roda);
        MejaTamu mejaMakan = new MejaTamu();
        mejaMakan.bahan = "Jati Tua";

        mejaMakan.harga = 1250000;
        mejaMakan.jmlkaki = 6;
        mejaMakan.bentukKaca = "Kotak";
        mejaMakan.discount(mejaMakan.harga);
        System.out.println("Meja Makan");
        System.out.println("Bahan\t: " + mejaMakan.bahan);
        System.out.println("Harga\t: " + mejaMakan.harga);
        System.out.println("Pintu\t: " + mejaMakan.jmlkaki);
        System.out.println("Roda\t: " + mejaMakan.bentukKaca);
    }
}
```