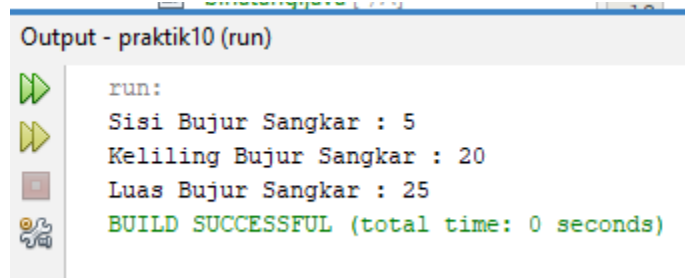Mata Kuliah : PBO – TI – S1
Pertemuan : 10
NIM : A11.2022.14532
Nama : Najma Aura Dias Prameswari

1. Tugas 1 : abstract class bangun2d
   Hasil program :


   ```
   Output - praktik10 (run)

   run:
   Sisi Bujur Sangkar : 5
   Keliling Bujur Sangkar : 20
   Luas Bujur Sangkar : 25
   BUILD SUCCESSFUL (total time: 0 seconds)
   ```
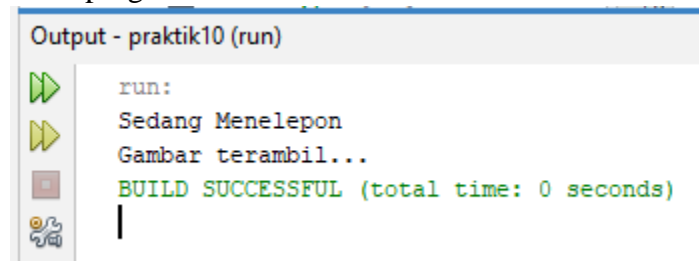
   Code program :

   ```java
   public abstract class bangun2d {
       public abstract void cetakLuas();
       public abstract void cetakKeliling();

   }

   public class bangun2d_Demo {
       public static void main(String[]args)
       {
       bujursangkar bs=new bujursangkar(5);
       bs.cetakKeliling();
       bs.cetakLuas();
       }
   }
   ```

2. Tugas 2 : abstract class telepon
   Hasil program :


   ```
   Output - praktik10 (run)

   run:
   Sedang Menelepon
   Gambar terambil...
   BUILD SUCCESSFUL (total time: 0 seconds)
   ```

   Code program :

```java
public interface kamera {
   public void setPixel(float pixel);
   public void ambilGambar();
}

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

abstract class telepon {
   protected long nomer;
   public void telepon()
   {
   System.out.println("Sedang Menelepon");
   }
}

class handphone extends telepon implements kamera, radio {
   private String gelombang;
   private float pixel;

   @Override
   public void ambilGambar()
   {
   System.out.println("Gambar terambil...");
   }
   @Override
   public void setGelombang(String gel)
   {
   this.gelombang=gel;
   }
   @Override
   public void setPixel(float pixel)
   {
   this.pixel=pixel;
   }
   public void setNomor(long no)
   {
   this.nomer=no;
   }
}
```
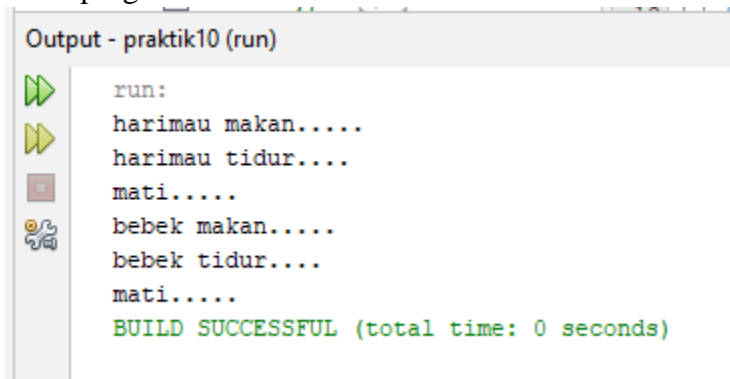
```java
public class teleponDemo {
    public static void main(String[]args)
    {
    handphone hp=new handphone();
    hp.setNomor(8183434);

    hp.telepon();
    hp.setPixel(1024);
    hp.ambilGambar();
    hp.setGelombang("FM 101.2");
    }
}
```

3. Tugas 3 : abstract class binatang
   Hasil program :

Code program :

```java
abstract class binatang {
    abstract void makan();
    abstract void tidur();
    void mati(){
        System.out.println("mati.....");
    }
}

class harimau extends binatang{
    @Override
    void makan(){
        System.out.println("harimau makan.....");
    }
    @Override
    void tidur(){
```

```java
        System.out.println("harimau tidur....");
    }
}

class bebek extends binatang{
    @Override
    void makan(){
        System.out.println("bebek makan.....");
    }
    @Override
    void tidur(){
        System.out.println("bebek tidur....");
    }
}

public class zoo3absctract {
    static void test(binatang a){
        a.makan();
        a.tidur();
        a.mati();

    }

    public static void main(String[]args){
        harimau macan = new harimau();
        bebek donald = new bebek();
        test(macan);
        test(donald);

    }
}
```

4. Tugas 4 : class diagram
   Hasil program :

```
Output - praktik10 (run)

  run:
  Almari Makan:
  Harga: 4500
  Bahan: kayu jati
  Jumlah Roda: 4

  Almari Pakaian:
  Harga: 6300
  Bahan: kayu mahoni
  Jumlah Pintu: 3

  Meja Makan:
  Harga: 3000
  Bahan: kayu pinus
  Jumlah Kaki: 4
  Jumlah Kursi: 6

  Meja Tamu:
  Harga: 1800
  Bahan: kayu merbau
  Jumlah Kaki: 4
  Bentuk Kaca: bulat
  BUILD SUCCESSFUL (total time: 0 seconds)
```

Code program :

```java
public class mebel {
    protected int harga;
    protected String bahan;
}

public class meja extends mebel {
    protected int jmlkaki;
}

public class mejamakan extends meja{
    protected int jmlkursi;
}

public class mejatamu extends meja implements discountable{
    protected String bentuk_kaca;

    @Override
    public void discount(int harga){
```

```java
            this.harga = this.harga - harga;
        }
    }

public class almari extends mebel{
    protected boolean roda;
}

public class almarimakan extends almari implements discountable {
    protected int jmlroda;

    @Override
    public void discount(int harga){
        this.harga = this.harga - harga;
    }
}

public class almaripakaian extends almari implements discountable{
    protected int jmlpintu;

    @Override
    public void discount(int harga){
        this.harga = this.harga - harga;
    }
}

public class demo_latihan3 {
    public static void main(String[]args){
        almarimakan almkn = new almarimakan();
        almkn.harga = 5000;
        almkn.bahan = "kayu jati";
        almkn.roda = true;
        almkn.jmlroda = 4;

        almaripakaian almpki = new almaripakaian();
        almpki.harga = 7000;
        almpki.bahan = "kayu mahoni";
        almpki.roda = false;
        almpki.jmlpintu = 3;

        mejamakan mj = new mejamakan();
        mj.harga = 3000;
        mj.bahan = "kayu pinus";
```

```java
        mj.jmlkaki = 4;
        mj.jmlkursi = 6;

        mejatamu mjtm = new mejatamu();
        mjtm.harga = 2000;
        mjtm.bahan = "kayu merbau";
        mjtm.jmlkaki = 4;
        mjtm.bentuk_kaca = "bulat";

        almkn.discount(500);//nama alias
        almpki.discount(700);//nama alias
        mjtm.discount(200);// nama alias

        // Display information
        System.out.println("Almari Makan:");
        System.out.println("Harga: " + almkn.harga);
        System.out.println("Bahan: " + almkn.bahan);
        System.out.println("Jumlah Roda: " + almkn.jmlroda);
        System.out.println();

        System.out.println("Almari Pakaian:");
        System.out.println("Harga: " + almpki.harga);
        System.out.println("Bahan: " + almpki.bahan);
        System.out.println("Jumlah Pintu: " + almpki.jmlpintu);
        System.out.println();

        System.out.println("Meja Makan:");
        System.out.println("Harga: " + mj .harga);
        System.out.println("Bahan: " + mj .bahan);
        System.out.println("Jumlah Kaki: " + mj .jmlkaki);
        System.out.println("Jumlah Kursi: " + mj .jmlkursi);
        System.out.println();

        System.out.println("Meja Tamu:");
        System.out.println("Harga: " + mjtm.harga);
        System.out.println("Bahan: " + mjtm.bahan);
        System.out.println("Jumlah Kaki: " + mjtm.jmlkaki);
        System.out.println("Bentuk Kaca: " + mjtm.bentuk_kaca);


    }
}
```