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NIM   : A11.2022.14668

Kelompok   : A11.4415

PRAKTIKUM 10

Bangun2D.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public abstract class Bangun2D {
    public abstract void cetakLuas();
    public abstract void cetakKeliling();
}
```

BujurSangkar.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class BujurSangkar extends Bangun2D {
    private int sisi;

    public BujurSangkar(int sisi) {
        this.sisi = sisi;
        System.out.println("Sisi Bujur Sangkar\t: " + sisi);
```

```
    }

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

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

Bangun2DDemo.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class Bangun2DDemo {

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

Output

```
--- exec:3.1.0:exec (default-cli) @ PRAKTIKUM_10 ---
Sisi Bujur Sangkar       : 5
Keliling Bujur Sangkar   : 20
Luas Bujur Sangkar       : 25
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  1.020 s
Finished at: 2024-06-04T14:45:56+07:00
------------------------------------------------------------------------
```

Latihan 1

Kamera.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public interface Kamera {
    public void setPixel(float pixel);
    public void ambilGambar();
}
```

Telepon.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
abstract class Telepon {
    protected long nomer;
    public void telpon() {
        System.out.println("Sedang Menelepon");
    }
}
```

Handphone.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
```

```java
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class Handphone extends Telepon implements Kamera, Radio {
    private String gelombang;
    private float pixel;
    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.nomer=no;
    }
}
```

TeleponDemo.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
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");
```

```
        }
}
```

Output

```
--- compiler:3.11.0:compile (default-compile) @ PRAKTIKUM_10 ---
Nothing to compile - all classes are up to date

--- exec:3.1.0:exec (default-cli) @ PRAKTIKUM_10 ---
Sedang Menelepon
Gambar terambil...
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  0.892 s
Finished at: 2024-06-04T14:50:14+07:00
------------------------------------------------------------------------
```

Latihan 2

Binatang.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
abstract class Binatang {
    abstract void makan();
    abstract void tidur();
    void mati() {
        System.out.println("Mati..........");
    }
}
```

Harimau.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
```

```
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
class Harimau extends Binatang {
    void makan() {
        System.out.println("Harimau Makan..........");
    }
    void tidur() {
        System.out.println("Harimau tidur..........");
    }
}
```

Bebek.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */

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

Zoo3Abstract.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
```

```java
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class Zoo3Abstract {
    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();

        // Binatang b = new Binatang(); -> error abstract class tidak bisa
dibuat objek

        test(macan);
        test(donald);
    }
}
```

Output

```
--- exec:3.1.0:exec (default-cli) @ PRAKTIKUM_10 ---
Harimau Makan..........
Harimau tidur..........
Mati..........
Bebek Makan..........
Bebek tidur..........
Mati..........
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  1.052 s
Finished at: 2024-06-04T14:53:40+07:00
------------------------------------------------------------------------
```

Latihan 3

Mebel

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class Mebel {
    public int harga;
    public String bahan;
}
```

Discountable.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public interface Discountable {
    public void discount(int harga);
}
```

Meja.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
```

```
 *
 * @author Restu
 */
public class Meja extends Mebel {
    public int jmlKaki;
}
```

MejaMakan.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class MejaMakan extends Meja {
    public int jmlKursi;

    void cetak() {
        System.out.println("Harga\t\t: " + harga);
        System.out.println("Bahan\t\t: " + bahan);
        System.out.println("Jumlah Kaki\t: " + jmlKursi);
        System.out.println("Jumlah Kaki\t: " + jmlKaki);
        System.out.println("Bayar\t\t: " + (harga));
    }
}
```

MejaTamu.java

```java
/*
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default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class MejaTamu extends Meja implements Discountable {

    public String bentukKaca;
```

```java
    float discount;

    public void discount(int harga) {
        discount = harga * 0.1f;
    }

    void cetak() {
        System.out.println("Harga\t\t: " + harga);
        System.out.println("Bahan\t\t: " + bahan);
        System.out.println("Jumlah Kaki\t: " + jmlKaki);
        System.out.println("Kaca\t\t: " + bentukKaca);
        System.out.println("Discount\t: " + discount);
        System.out.println("Bayar\t\t: " + (harga - discount));
    }
}
```

Almari.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class Almari extends Mebel {
    boolean roda;
}
```

AlmariMakan.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
```

```java
public class AlmariMakan extends Almari implements Discountable {

    int jmlRoda;
    float discount;

    public void discount(int harga) {
        discount = harga * 0.15f;
    }
    void cetak(){
        System.out.println("Harga\t\t: " + harga);
        System.out.println("Bahan\t\t: " + bahan);
        System.out.println("Jumlah Roda\t: " + jmlRoda);
        System.out.println("Discount\t: " + discount);
        System.out.println("Bayar\t\t: " + (harga - discount));
    }
}
```

AlmariPakaian.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class AlmariPakaian extends Almari implements Discountable {

    int jmlPintu;
    float discount;

    public void discount(int harga) {
        discount = harga * 0.15f;
    }

    void cetak() {
        System.out.println("Harga\t\t: " + harga);
        System.out.println("Bahan\t\t: " + bahan);
        System.out.println("Jumlah Pintu\t: " + jmlPintu);
        System.out.println("Roda\t\t :" + roda);
        System.out.println("Discount\t: " + discount);
        System.out.println("Bayar\t\t: " + (harga - discount));
    }
```

```
}
```

MebelDemo.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package com.restu.praktikum_10;

/**
 *
 * @author Restu
 */
public class MebelDemo {

    public static void main(String[] args) {
        System.out.println("--------------MEJA TAMU--------------");
        MejaTamu mt = new MejaTamu();
        mt.harga = 5000000;
        mt.bahan = "Jati";
        mt.jmlKaki = 4;
        mt.bentukKaca = "Oval";
        mt.discount(mt.harga);
        mt.cetak();
        System.out.println("--------------MEJA MAKAN--------------");
        MejaMakan mm = new MejaMakan();
        mm.harga = 5000000;
        mm.bahan = "Jati";
        mm.jmlKaki = 4;
        mm.jmlKursi = 6;
        mm.cetak();
        System.out.println("--------------ALMARI PAKAIAN--------------");
        AlmariPakaian ap = new AlmariPakaian();
        ap.harga = 5000000;
        ap.bahan = "Stainless";
        ap.jmlPintu = 3;
        ap.roda = false;
        ap.discount(ap.harga);
        ap.cetak();
        System.out.println("--------------ALMARI MAKAN--------------");
        AlmariMakan am = new AlmariMakan();
        am.harga = 5000000;
        am.bahan = "Stainless";
        am.jmlRoda = 4;
        am.discount(ap.harga);
```

```
        am.cetak();
    }
}
```

Output

```
--- exec:3.1.0:exec (default-cli) @ PRAKTIKUM_10 ---
--------------MEJA TAMU--------------
Harga           : 5000000
Bahan           : Jati
Jumlah Kaki     : 4
Kaca            : Oval
Discount        : 500000.0
Bayar           : 4500000.0
--------------MEJA MAKAN--------------
Harga           : 5000000
Bahan           : Jati
Jumlah Kaki     : 6
Jumlah Kaki     : 4
Bayar           : 5000000
--------------ALMARI PAKAIAN--------------
Harga           : 5000000
Bahan           : Stainless
Jumlah Pintu    : 3
Roda            :false
Discount        : 750000.0
Bayar           : 4250000.0
--------------ALMARI MAKAN--------------
Harga           : 5000000
Bahan           : Stainless
Jumlah Roda     : 4
Discount        : 750000.0
Bayar           : 4250000.0
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  0.991 s
Finished at: 2024-06-04T15:01:17+07:00
------------------------------------------------------------------------
```