PEMROGRAMAN BERBASIS OBJEK

“Tugas Class dan Objek”

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PROGRAM STUDI INFORMATIKA

FAKULTAS ILMU KOMPUTER

UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN”

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A. SOURCECODE LUAS DAN KELILING BIDANG (PERSEGI, PERSEGI PANJANG, LINGKARAN, OVAL / ELIPS)

a. Persegi

```
package tugasdiagram;
public class square{
    public double side;
    public double calculated_area_of_square(){
        double area_square;
        area_square = side * side;
        return area_square;
    }
    public double calculated_perimeter_of_square(){
        double perimeter_square;
        perimeter_square= side *4;
        return perimeter_square;
    }}
```

b. Persegi Panjang

```
package tugasdiagram;
public class rectangle{
    public double width;
    public double lenght;
    public double calculated_area_of_rectangle(){
        double area_rectangle;
        area_rectangle = width * lenght;
        return area_rectangle;
    }
    public double calculated_perimeter_of_rectangle(){
        double perimeter_rectangle;
        perimeter_rectangle = (this.lenght *2) +
(this.width*2);
         return perimeter_rectangle;
    }}
```

c. Lingkaran

```
package tugasdiagram;


public class Circle {
    double phi=3.14;
    public double r;
    public double calculated_area_of_circle(){
        double area_circle;
        area_circle = phi * this.r * this.r;
        return area_circle;
    }
    public double calculated_perimeter_of_circle(){
        double perimeter_circle;
        perimeter_circle = 2 * phi * this.r;
        return perimeter_circle;
    }}
```

d. Oval / Elips

```
package tugasdiagram;
public class Oval {
    double phi=3.14;
    public double semi_major;
    public double semi_minor;
    public double calculated_area_of_oval(){
        double area_oval;
        area_oval = phi * this.semi_major *
this.semi_minor;
        return area_oval;
    }
    public double calculated_perimeter_of_oval(){
        double perimeter_oval;
        double a =
Math.sqrt(((this.semi_major*this.semi_major)+(this.semi_mi
nor*this.semi_minor))/2);
        perimeter_oval = 2 * phi *a;
        return perimeter_oval;}}
```

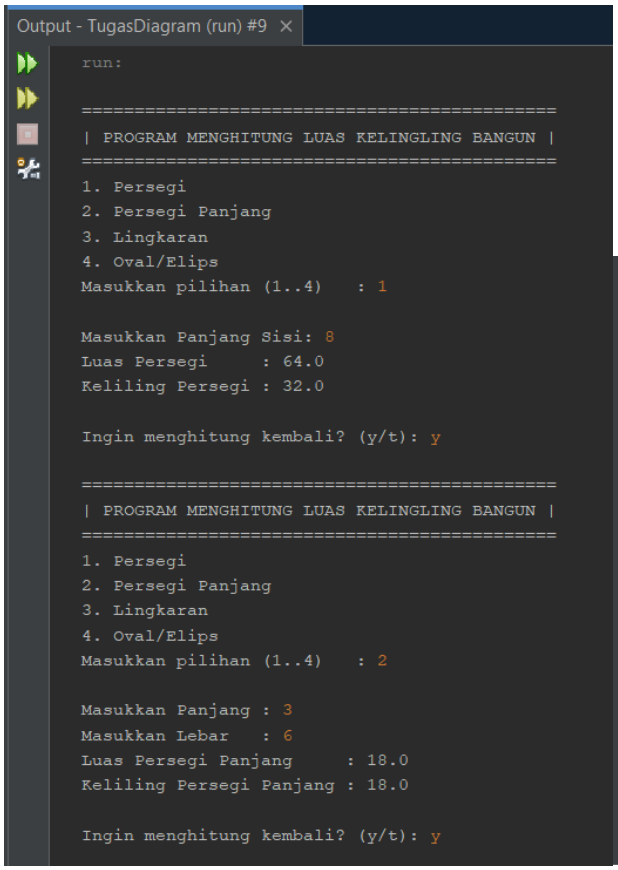
B. SOURCECODE MAIN

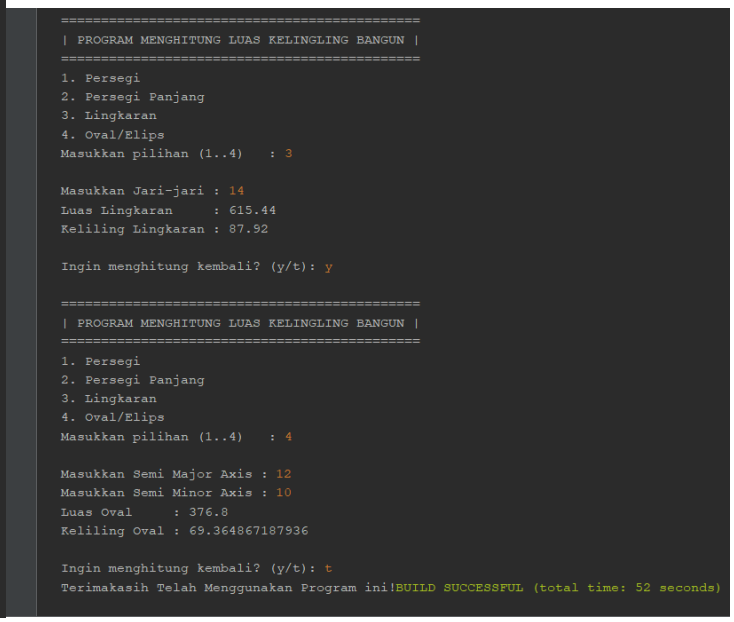
```
package tugasdiagram;

import java.util.Scanner;


public class Main {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        char ulang;

        do{


System.out.println("\n=================================
=========");

        System.out.println("| PROGRAM MENGHITUNG LUAS
KELINGLING BANGUN |");


System.out.println("=================================
=======");

        System.out.println("1. Persegi");

        System.out.println("2. Persegi Panjang");

        System.out.println("3. Lingkaran");

        System.out.println("4. Oval/Elips");

        System.out.print("Masukkan pilihan (1..4)   : ");

        int pilihan = sc.nextInt();

        switch(pilihan){

            case 1 :

                square square_1=new square();

                System.out.print("\nMasukkan Panjang Sisi:
");

                square_1.side = sc.nextDouble();

                System.out.println("Luas Persegi     : " +
square_1.calculated_area_of_square());

                System.out.println("Keliling Persegi : " +
square_1.calculated_perimeter_of_square());

                break;
```

```
            case 2 :
                rectangle rectangle_1 = new rectangle();
                System.out.print("\nMasukkan Panjang : ");
                rectangle_1.lenght = sc.nextDouble();
                System.out.print("Masukkan Lebar   : ");
                rectangle_1.width = sc.nextDouble();
                System.out.println("Luas Persegi
Panjang     : " +
rectangle_1.calculated_area_of_rectangle());
                System.out.println("Keliling Persegi
Panjang : " +
rectangle_1.calculated_perimeter_of_rectangle());
                break;
            case 3 :
                Circle circle_1 = new Circle();
                System.out.print("\nMasukkan Jari-jari :
");
                circle_1.r = sc.nextDouble();
                System.out.println("Luas Lingkaran     : "
+ circle_1.calculated_area_of_circle());
                System.out.println("Keliling Lingkaran : "
+ circle_1.calculated_perimeter_of_circle());
                break;
            case 4 :
                Oval oval_1 = new Oval();
                System.out.print("\nMasukkan Semi Major
Axis : ");
                oval_1.semi_major = sc.nextDouble();
                System.out.print("Masukkan Semi Minor
Axis : ");
                oval_1.semi_minor = sc.nextDouble();
                System.out.println("Luas Oval     : " +
oval_1.calculated_area_of_oval());
                System.out.println("Keliling Oval : " +
oval_1.calculated_perimeter_of_oval());
                break;
            default :
                System.out.println("PILIHAN YANG ANDA
MASUKKAN TIDAK TERSEDIA");
                break;
```

```
        }

            System.out.print("\nIngin menghitung kembali?
(y/t): ");

            ulang = sc.next().charAt(0);

        }while (ulang != 't');

         System.out.print("Terimakasih Telah Menggunakan
Program ini!");

    }

}
```

C. OUTPUT





D. LINK GITHUB

Berikut Link Repository Github untuk Matakuliah PBO

https://github.com/Auraachn/PBO.git