LAPORAN PRAKTIKUM PBO

Polymorphism & Interface

Logo, company name

Description automatically generated

Disusun oleh :

Muhamad Rafli Nur Ikhsan

201511048

D-3 Teknik Informatika 2B

Jurusan Teknik Komputer dan Informatika

Program studi D3 Teknik Informatika

Politeknik Negeri Bandung

1. Soal 1

* SS Akhir Program

Text

Description automatically generated

* Write an abstract class Shape with the following properties:
* An instance variable shapeName of type String
* An abstract method area()
* A toString method that returns the name of the shape

Text

Description automatically generated

* The file Sphere.java contains a class for a sphere which is a descendant of Shape. A sphere has a radius and its area (surface area) is given by the formula 4\*PI\*radius^2. Define similar classes for a rectangle and a cylinder. Both the Rectangle class and the Cylinder class are descendants of the Shape class. A rectangle is defined by its length and width and its area is length times width. A cylinder is defined by a radius and height and its area (surface area) is PI\*radius^2\*height. Define the toString method in a way similar to that for the Sphere class.

Text

Description automatically generated

Text

Description automatically generated

* The file Paint.java contains a class for a type of paint (which has a "coverage" and a method to compute the amountvof paint needed to paint a shape). Correct the return statement in the amount method so the correct amount will bevreturned. Use the fact that the amount of paint needed is the area of the shape divided by the coverage for the paint. (NOTE: Leave the print statement - it is there for illustration purposes, so you can see the method operating on different types of Shape objects.)

Text

Description automatically generated

* The file PaintThings.java contains a program that computes the amount of paint needed to paint various shapes. A paint object has been instantiated. Add the following to complete the program:
* Instantiate the three shape objects: deck to be a 20 by 35 foot rectangle, bigBall to be a sphere of radius 15, and tank to be a cylinder of radius 10 and height 30.
* Make the appropriate method calls to assign the correct values to the three amount variables.
* Run the program and test it. You should see polymorphism in action as the amount method computes the amount of paint for various shapes.

Text

Description automatically generated

1. Soal 2

* SS akhir program

Text

Description automatically generated

Text

Description automatically generated