

ACTIVITY

Object Oriented Programming in Java

1. Create a program that will compute the following (Fifty points):

- a. Area of square = side² 0
- b. Area of a rectangle = length x breadth
- c. Diameter of a circle = radius x 2

The menu should be similar to this:

Calculate the area of:

1. Square
2. Rectangle
3. Circle

- Make the use of classes and objects, parent class is Shape

2. Create a class named Telephone (Fifty points):

Attributes (all private)

Manufacturer (string)

Network (string) possible values are "PLDT", "Globe", "Smart", etc.

Country code (int)

Area code (int)

Number (int)

Actions

Call (phone number as parameter)

display only on screen "Calling <number>..."

Receive (phone number as parameter)

display on screen "Accepting call from <number>..."

Reject (phone number as parameter)

display on screen "Incoming call from <number> rejected..."

Create the appropriate constructor(s), accessor(s), mutator(s), and methods.

continued on the next page...

Create a class named SmartFone which is a subclass of the above mentioned class:

Attributes (all private)

Owner (string)

Color (string)

Actions

Install application (app name as parameter)

display only on screen "Installing <app name>..."

Uninstall application (app name as parameter)

display only on screen "Removing <app name>..."

Create the appropriate constructor(s), accessor(s), mutator(s), and methods.

Create a separate main program for the class SmartFone to check if all defined attributes and actions are working properly. Name will be FoneMain.

Instructions for passing:

- Copy and paste all programs in a text file, format is LastFirstMI.txt e.g. CortesMichaelB.txt
- The text file created is the one that you will send to your president for collation