Assignment questions Mastering java 8

DESIGN PATTERNS and SOLID PRINCIPLES with JAVA

Problem Statement : Factory pattern

Create one interface Shape with two member functions

public double perimeterCalculation();

public double areaCalculation();

Create class Circle which uses Shape interface with one attribute double radius.

Create class Ellipse which uses Shape interface with two attributes double

longRadius and double shortRadius. Override interface's methods in both the

classes.

Create the class ShapeFactory with two overloaded static methods

getShapeFactory(double x) or getShapeFactory(double x,double y). These methods

will create either Circle object or Ellipse object returned as Shape object.

In Main class with main() you need to create a menu as follows:

1.Circle

2.Ellipse

3.Exit

Enter choice(1-3):

If Circle is chosen then value of radius of circle is asked to enter, in case ellipse, the

values of both major and minor radiuses are asked to enter. Finally you need to

display area and perimeter of respective shape.

Assignment Link: https://github.com/TharunPatel20/UST-
techAcademy/tree/main/USTJavaCourse/Module8DesignPatternsandSOLIDPrincipleswithJava
/src/factoryPattern