



AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)

Faculty of Science and Technology (FST)
Department of Computer Science (CS)

Course title: CSC 1205: Object Oriented Programming 1 (JAVA)

Topic: Developing a basic java class with Inheritance.

Look at the following class notation and class diagram carefully. Then develop the program.

| Lab Task 1 | Lab Task 2 |
|--|---|
| <p>Class Diagram</p> | <p>Class Diagram</p> |
| Shape <hr/> double x Shape() Shape(double x) void setX(double x) double getX() double getArea() //returns -9.99 as shape has no area to calculate | Shape <hr/> double x Shape() Shape(double x) void setX(double x) double getX() double getArea() //returns -9.99 as shape has no area to calculate |
| Circle <hr/> Circle() Circle(double x) double getArea() //calculate and returns the area of the circle (πx^2) void showInfo() | Square <hr/> Square() Square(double x) double getArea() //calculate and returns the area of the square (x^2) void showInfo() |
| Rectangle <hr/> double y Rectangle() Rectangle(double x, double y) void setY(double y) double getY() double getArea() //calculate and returns the area of the rectangle (xy) void showInfo() | Triangle <hr/> double y Triangle() Triangle(double x, double y) void setY(double y) double getY() double getArea() //calculate and returns the area of the rectangle ($0.5xy$) void showInfo() |
| Start <hr/> The Start class contains the main method. Inside the main method, create two objects of Circle class and two objects of Rectangle class. Then demonstrate all the methods and constructors. | Start <hr/> The Start class contains the main method. Inside the main method, create two objects of Square class and two objects of Triangle class. Then demonstrate all the methods and constructors. |