Anastasia Yazvinskaya

CIT 260 - 04

W08 Exercise: Assignment 8 (program 8.1)

Task: Design a Rectangle class. Create a UML class diagram that shows your design. Your UML class diagram must be submitted as part of this assignment. Your Rectangle class should contain the following:

1. Two data fields named width and height, that specify the width and height of the rectangle. The default values for both width and height should be 1.
2. A no-arg constructor that creates a default rectangle object.
3. A parameterized constructor that creates a rectangle object with the specified height and width.
4. Getter and setter methods for height and width.
5. A method named getArea( ) that computes and returns the area of the rectangle.
6. A method names getPerimeter( ) that computes and returns the perimeter of the rectangle.
7. Your file should have the proper file prologue (comments) and each method should have the proper method prologue (comments).

UML diagram:

Rectangle
-width: double
-height: double
+Rectangle()
+ Rectangle (:double, :double)
+getWidth(): double
+setWidth(:double): void
+getHeight(): double
+setHeight(:double): void
+getArea(): double
+getPerimeter(): double