

CISC 3321

Programming Assignment 7 (20 Pts)

Due at 10:00 PM Central (MyCampus)

Topic(s): Classes & Objects

Create a class named Rectangle with the following specs:

- It has a length and width attributes with default values of 1 (I am sure you know to research the formulas to get the length and the width)
- It has two read-only properties that calculate the perimeter and the area
- It also has properties for the above attributes of length and width
- Include at least one constructor and demonstrate the use of this reference there
- The set accessors should validate the length and width making sure that they are floating-point numbers greater than 0.0 and less than 20.0. Else throw and handle any exception
- Write an application (another class containing the main method) to test your class
- Have a menu that consists of three choices (1 = set length, 2 = set width, 3 = exit). It would be nice if you can make it a method (optional)

Simple look-and-feel

```
1. Set Length
2. Set Width
3. Exit
Choice: 1
Enter length: 10
Length: 10
Width: 1
Perimeter: 22
Area: 10

1. Set Length
2. Set Width
3. Exit
Choice: 2
Enter width: 15
Length: 10
Width: 15
Perimeter: 50
Area: 150
```