

## CSCI212 Spring 2018

### Lab-4

#### Goals

- To write your first class which is a blue print for an object you will create.
- To declare instance variables of this class.
- To write methods that assign values to the instance variables.
- To write methods that retrieve the values of the instance variables.
- To write any other methods including toString method.

#### Problem 1

- Write a class called Circle.
- It has one instance variable, radius and its data type is double.
- Write a method to set the value of the radius.
- write an area method to calculate the area and return.
- Calculate the perimeter and return in perimeter method.
- Write a toString method.
- Write CircleDemo class where you test your circle object.
- Draw a UML diagram and show me before you begin coding.

**problem 2:** Consider a TV set. We want to write a class to operate it. What instance variables do we need? What are the actions that we can make the TV object do to itself (These are going to be the methods for you to write). You need to write a toString method to print the state of your TV. Think about these and draw a UML diagram for yourself and show it to me. After you decided on the instance variable, and methods, you can code. Do not begin coding as soon as you read a question. Take time to understand the problem first.