

CSC 600 - Assignment 5 - Object Oriented Programming

Due: Saturday, December 16th. 2017 @ midnight

NO LATE ASSIGNMENTS

For this assignment we will implement a set of classes that show a simple case of OOP in python.

1. Create a class named Point. The Point class will have two private data fields **x** and **y**.

Implement the following functions for the Point class

- `__init__`
- `__eq__`
- `__repr__`
- `__str__`
- `dist_from_origin`
- `dist_from_point`

2. Create another class named Circle, that inherits the members from the Point class. The circle class will add another **private data-field** named **radius**.

In addition, it will need to re-implement the following functions:

- `__init__`
- `__eq__`
- `__repr__`
- `__str__`

Then, implement the new member functions:

- `area`
- `circumference`
- `edge_dist_from_origin`
- `circle_intersect_with`
 - o two circles are said to intersect if the distance between the center of the circles is greater than the difference of the circle's radius and less-than equal to the sum of the circle's radius.