CSC 1103 – Object Oriented Programming | INDIVIDUAL ASSIGNMENT 2 | Semester 2, 2019/2020

1. INSTRUCTIONS:

- Name, Matric number & Section should be included in the comments of the program file/s, at the beginning.
- Submit your files by uploading them to the google classroom.
- All files must be submitted as .java or .txt.
- This is an **exploratory assignment**. You are free to refer to any online/offline resources as long as you don't plagiarise and refer to your sources. Any form of plagiarism is highly unacceptable.
- **Assignment bears 10 Marks (10% of your Total Course Evaluation).**

2. IMPORTANT DATES

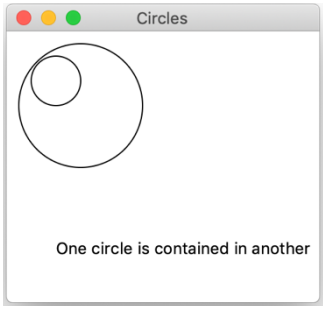
SUBMISSION DEADLINE	**30th July 2020, 11: 59 PM**

- Any assignment submitted by **27th July 2020, 11:30 PM** will be given a **bonus** of 2 Marks. The bonus will be given, if the assignment scores at least **7 Marks** upon checking.

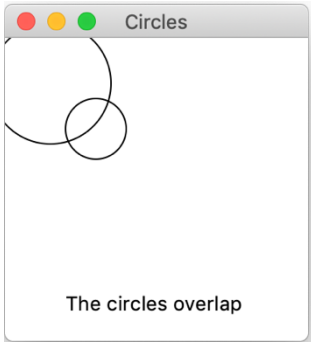
3. EXERCISES

Exercise 1: Write a program to display 2 circles. The diameter, x and y coordinates of the circle need to be based on user input. On creating the circles, the program should also evaluate the circle's position in respect to one another, whether the circles are overlapping or not and whether one circle is contained in another or not. Multiple outputs are provided below as a sample:

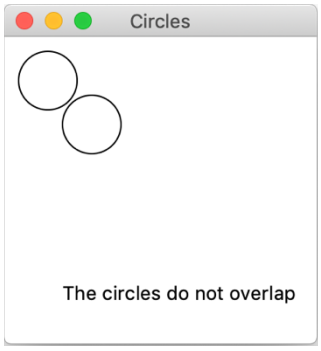
Sample Output 1:



Sample Output 2:

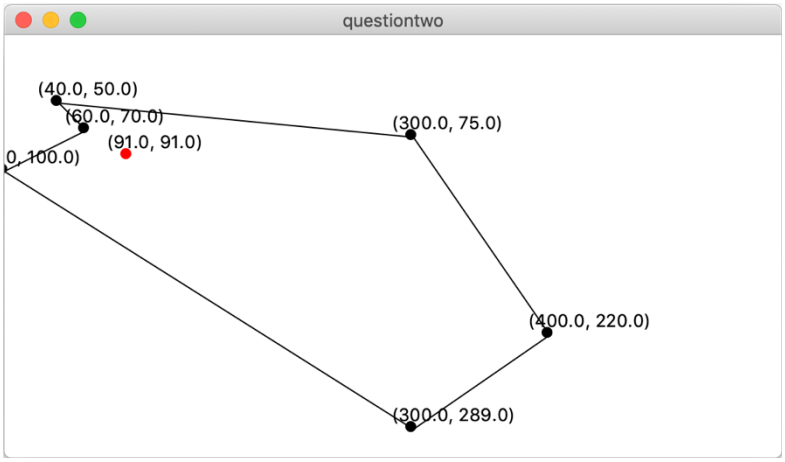


Sample Output 3:



Exercise 2: Write a program to draw a polygon, using user input for coordinates of its six vertices clockwise. You are required to find one particular point in the polygon such that it has the shortest distance to all six vertices. You will need to check every pixel point inside using the contains() method to determine such a point.

Sample Output:



*****END OF DOCUMENT*****