Department of Computer Science The City College of CUNY

CSc 22100 F (37716): Software Design Laboratory [Spring 2017]

## Exercise 1

A <u>printout</u> showing the problem, solution method, codes developed and outputs produced is due during and before the end of the class on <u>Wednesday</u>, <u>22 February 2017</u>. The deadline is strictly observed.

Using GUI components discussed in the class, you are required to develop a Java application that displays a Venn diagram showing the intersection of two sets A and B represented by ovals:

- a. The code is applicable to rectangular panels of variable height and width;
- b. The sets may or may not be intersecting;
- c. The ovals dimensions should be proportional to the panel height and width;
- d. The ovals have different colors of your choice;
- e. If the sets are intersecting, then the overlapping area will have a different color;
- f. The diagram is properly labeled.

The output[s] should illustrate the conditions stated above and show all possible situations (A = B, A  $\cap$  B =  $\Phi$ , A  $\cap$  B  $\neq$   $\Phi$ , where  $\cap$  denotes the intersection of two sets and  $\Phi$  is the empty set).

Hesham A Auda 10 February 2017