## SE311 SPRING 2021-2022 / 11-03-2022

**Lab Work 1 Singleton Pattern** 

**Goal: Singleton Pattern** 

## **Singleton Pattern**

Please download Test.java file from Blackboard under LAB 1 folder.

- 1. Your task is to modify the **Singleton** class inside the Test. *java* file, so that it allows creation of at most three instances of Singleton. Use the following guidelines in your implementation.
  - a. Create a HashMap<String, Singleton> to store the instances. Each instance will have a name.
  - b. Create a method called registerInstances to create the three instances.
  - c. Implement a getInstance method, which accepts the name of the instance as a parameter and returns that instance. Note that getInstance will only return the instance. It will not create any instance.
  - d. Implement error checking via the Exception facility of the language.
- 2. Write a main to test your program.
- 3. BONUS: Modify registerInstances method to accept an ArrayList of names and create that many instance.