Guidelines for Project 1

Please email any questions to JLaiQC@gmail.com with the subject heading specifying the enrolled class.

1. Main class is not a thread, threads must be manually specified; that is, either implement Runnable interface or extend from Thread class.

2. Initiate all the threads from the main class. No threads should be initiated within any other threads, as each thread type is unique. The only exception to this rule is if you implement your main class as a thread itself.

3. The program states to create three different types of thread – speaker, visitor and clock threads. For both speaker and visitor threads, there are more than one instance of the thread. A generic class of each type of thread should be created to specify the same activity performed by all threads of the same type. You may either implement main class as the clock thread (but remember to implement Runnable or extend from Thread) or create another thread class named Clock.

4. Specify tasks of each class in its own body. Do not specify all the activities in one class and leave all other class body empty.

5. Interleaving refers different threads will be performing different tasks at the same time, and answering to each other. There should be printout messages indicating this interleaving. A sample output of simple interleaving of speaker and visitor threads is as follows:

```
[15] Visitor-1 arrives Ellis Island and waits in the lobby.
[16] Visitor-2 arrives Ellis Island and waits in the lobby.
[16] Visitor-3 arrives Ellis Island and waits in the lobby.
[17] Speaker arrives and waits for the show to start.
[17] Clock sets session 1 and notifies all visitor to enter the room.
[17] Visitor-1 enters the room and takes an available seat.
```

6. `Thread.sleep()` is not busy wait. Busy wait implementation is as follow :
   `while (condition) { }`

7. "Synchronized" is the lock on the object, only one thread can have access to the body of the synchronized method or synchronized block.

8. Please follow proper commenting techniques, correct whitespace and indentations. There's no need for line by line commenting, but non-self explanatory variables and blocks of important codes or methods should be commented.

9. Separate the classes into separate files. Do not leave all the classes in one file.

10. Make sure the program compiles and run. By submitting a program that does not compile nor run shows no effort is put into the program. Programs that do not compile nor run will not be graded.

Project Submission

Archive all *.java files into single compressed file with your full name and project number as the filename, eg. JohnDoe_340P1.zip. And include the subject heading

CS340 : Project # - LastName, FirstName

Grading Criteria

5% Program Documentation (documentation explaining the control structures)

5% Programming Style (self-explanatory variable names, correct indentation & whitespace, correct programming structure)

40% Program Execution (output following project description)

50% Program Logic