CS6502: Week 3 Lab Exercises

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Exercise 1

The lab in this week is again **unsupervised**. Your main task today is to continue practicing Python.

In Sulis class page, there is a forum "Labs (week 3)" created. In the forum, there are two topics:

- *Discussion*, use this topic to post your questions and discuss with your fellow classmates.

- *Submission*, where you submit your exercises.

Below are steps that you should follow for this week's lab exercise.

1. If you don't have Python installed, please install it first.

2. Read though the The Python Tutorial, and practice each of the code snippets in your local Python IDE. You are expected to finish the following sections.

    - Input and Output

    - Errors and Exceptions

    - Classes
        - Pay attention to Iterators/Generators
        - `yield` statement

    - Brief Tour of the Standard Library (part 1 and part 2)

3. Under *Submission* topic, start a new conversation.

    - Use your student Id as the conversation title.

    - Take a full screenshot of your IDE, and insert it to the Message section

    - Zip all codes you wrote, and click "Add attachments" to attach it

    - Click post, and your submission is completed.

4. That's it, good job!

Exercise 2

[SE students only]

In addition to the exercise above, your second task is to set up a single node cluster in your local machine. Although windows is a supported platform for Hadoop, you are encouraged to use Linux for the following exercise.

In Sulis class page, under forum "Labs (week 3)", in addition to the two topics mentioned above, there is the third topic created specifically for you.

- Hadoop Setup Exercise

Below are steps that you should follow for this Hadoop setup exercise.

1. If you are not using Linux, please consider install one first (either dual boot or using VM).

2. Read though the link Hadoop single node cluster setup, and set up your cluster by following the steps.

3. After previous step, please do a screen recording of you completing each of the operations below.

   - Start the DataNode, NameNode daemon.
   - Run "`jps`" command to check process status.
   - Stop the daemons.
   - Run "`jps`" to check the status again.

4. Under *Hadoop Setup Exercise* topic, start a new conversation.

   - Use your student Id as the conversation title
   - Add the screen-recording to the message section (Note that you may need to upload the recording to somewhere before you can embed the video here)
   - Alternatively, click "Add attachments" to attach video
   - Click post, and your submission is completed.

5. That's it, good job! Now you have practiced your first Hadoop cluster setup, keep up the good work.