CSCI 70900: Programming in a high level language

Asynchronous Work + Homework for Course Week #1 – 8/28/2023

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Reminder: this is a 3-credit course. Although 1.5 hours are synchronous, there are additional asynchronous exercises as well as required homework. It is best to start this work early in the week so that you have ample time to complete all portions.

Week #1: Asynchronous Work + Homework

Environmental Setup

1. Set up your GitHub account http://www.github.com/.
    a. Every week's asynchronous work and assignment should be developed within a repository in GitHub.
    b. Create a repository for **709-week1**. The coding work (assigned below) will be placed in that repository.
2. Set up your local development environment. Ideally, you have a choice of one of three environments:
    a. **Ubuntu** (whether via WSL, bootable USB or natively installed) + apt + nano + javac.
    b. **Windows/MacOS-based** (Visual Studio Code or Notepad++) + GitHub Desktop + your choice of an OpenJDK compiler (e.g., https://jdk.java.net/20/ or https://adoptium.net/).
    c. **Cloud-based** (repl.it). While the cloud option is attractive for many reasons, it is still recommended to have a local option (such as a or b).
        i. This optional video discusses connecting Repl.it to Github: https://youtu.be/io-JbjGXCf0?list=PL9KxKa8NpFxJF3PmYcixDqBv28Sqi0q6o&t=265. It is prepared by my predecessor Professor Mike Zamansky.
3. Send your instructor a link to your 709-week1 repository as a private message on our Slack platform.

Initial Reading and Viewing

4. Read the **Preface** to our textbook to understand how this book will assist you in your exploration of the Java programming language: https://books.trinket.io/thinkjava2/preface.html.
5. Read **Chapter 1** of our textbook. This material will summarize much of what we discussed in our first synchronous session: https://books.trinket.io/thinkjava2/chapter1.html. The exercises provided at the end of the chapter are not required. However, these are worth reading and worth quickly following as an optional exercise. Remember that Computer Science is best learned by experiencing the right and the wrong, not simply listening and reading a text.
6. In our first synchronous session we briefly discussed compiled vs. interpreted languages. View this **video** to review: "Compiler and Interpreter: Compiled Language vs Interpreted Programming Languages" https://www.youtube.com/watch?v=I1f45REi3k4.

Engaging in Data Types Work (Textbook, Chapter 2)

7. Engage in work related to Data Types.

a. Read **Chapter 2** of the textbook.
b. View the following video to assist you in remembering how to get started in Java. These videos were developed by Professor Mike Zamansky, my predecessor (and former HS teacher!). A review of data types, done in repl.it: https://www.youtube.com/watch?v=l6Q6BVfnCl0. This video also compares Java to Scratch and is especially useful for those who have used that latter language in the past.
c. Complete Chapter 2, Exercise 2 and 3.
d. Commit both of these solutions to a repository named **709-week1**.

Engaging in Input and Output Work (Textbook, Chapter 3)

8. Engage in work related to Input and Output.
   a. Read **Chapter 3** of the textbook.
   b. Complete Chapter 3, Exercise 2, 3, and 4.
   c. Commit both solutions to a repository named **709-week1**.

Complete the Reaction Log

1. Write a reaction log (150 or more words). This log should be completed after reading/viewing all this week's materials:
   a. Textbook Preface.
   b. Textbook Chapter 1.
   c. Textbook Chapter 2.
   d. Textbook Chapter 3.
   e. Coding Mentors video (item #5).
   f. Zamansky video (item #6b).
2. Answer the following:
   a. What are the top things you learned from these out-of-class readings, videos, and exercises?
   b. What information surprised you? What might you share with others or your current/future students?
   c. What might you consider implementing in your own classroom?
   d. What do you need to explore more? What the knowledge and skills that you may need to return to in the future to strengthen?
   e. ***While it is good to reference specific materials in your discussion, please do not summarize the materials.***
3. Please remember that Reaction Logs are "low-stakes" assignments. They are meant as a space for you to reflect on what you've learned over the week.
4. This document will be updated with the submission methodology.