Richard Hayes Crowley

01/28/2021

CSC\_157\_Lab\_01 Q&A   
  
**(1) What is meant by Sequential Program Control?**

Sequential program control is a synchronous, step-by-step process through which a series of instructions are passed to the computer. Statements in a sequential program are passed line-by-line and are executed as they are written in the code.

**(2) Without using selection control or repetitive control, how would you modify the program to account for a coupon, for a new energy - saving appliance, that the program user can implement to lower the total cost?**

Without using selection (e.g., if/else statements and other such tests) or repetitive (loops / recursion) control, I could modify my program to include an input preceding the total cost calculation in which the user has the opportunity to enter a coupon (e.g., 10% off) the entire annual cost, or after each step in the program and before the user enters the next appliance (e.g., “10% Maytag dishwasher” bill, etc.). As for selecting a more energy efficient appliance, the user could choose from a list of appliances, though I’m not sure how to implement that without using “selection control” (if/else statements).

**(3) What is the purpose of adding comment statements?**

So that other developers can understand what my code does, and so that I can understand what my code does in the future.

**(4)** **What is the function of the interpreter?**

The python shell interpreter executes the python program, takes user input, processes it, outputs processed data (e.g., print statements, etc.) or stores it (e.g., log files).

**(5)** **Why is it important to test your program?**

It is important to test your program for all edge cases, and to build in exception error handling wherever possible, to ensure the best possible user experience. Automated testing (e.g., Unit Testing scripts in a continuous integration build and test environment) can help prevent future breaking changes as an application grows.