PSEC Assignment 2
Due: Monday 10th February 2020 8am (30%)

Assignment 2 Overview

This **individual** assignment should be coded in Python. A **demo** is required upon submission, hence must be able to run on the Visual Studio Code or any other Python compiler agreed upon between you and your tutor.

Aside from the demo, your **Python codes** must be submitted to your tutor through blackboard by the assignment due date. The standard SP late submission penalty will be applied.

–   50% marks reduction per day. 0 mark after 1 working day.

Warning: Plagiarism means passing off as one's own the ideas, works, writings, etc., which belong to another person. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turning it in as your own, even if you would have the permission of that person. Plagiarism is a serious offence and disciplinary action will be taken against you. If you are guilty of plagiarism, you may fail all modules in the semester, or even be liable for expulsion.

Singapore Polytechnic Automated Menu 2

The basic requirement of this assignment requires you to

- Build upon what you have done for Assignment 1 – the Singapore Polytechnic Automated Menu (SPAM) System
- Implement the SPAM system using sockets, one to act as the server (file system) and the other to serve as the client (front end)
- The client socket would be an extension of your Assignment 1, where the menu is displayed to the user and the user may place his orders
- The server socket will supply input files, based on the day of week, to determine the menu to be served for that day
- The client will read the files from the server to determine the menu for that day, proceed to take orders and check out as with Assignment 1.

```
Menu for today:
==================

1. Beef Steak       :      $12.00
2. Truffle Fries    :      $4.20
3. Fish and Chips   :      $8.50
4. Chicken Chop     :      $10.00
Press any key to continue...█
```

```
Menu for today:
==================

1. Abalone Noodles       :      $12.00
2. Roast Duck Noodles    :      $4.20
3. Wanton Noodles        :      $8.50
4. Shrimp Dumpling Noodles:     $10.00
Press any key to continue...█
```

Some sample menus retrieved on different days of week

```
==================
Welcome to SPAM:
==================

    1. Display Today's Menu
    2. Search Menu
    3. Display Cart
    4. Check Out
    5. Exit SPAM


    Please input your choice of action (ENTER to exit):5



Thank you for using SPAM and goodbye!
Server stop at Thu Nov 14 10:38:17 2019
```

A way to stop server at the end of the day

Advanced features can include, but not limited to the following;

- Recording daily transactions into a transaction log and send back to server
- Displaying menu for other days
- Preorder of items for other days
- Administrative system for staff to update items of the menu and sending back to server
- Implementing discount system for specified users
- Saving of favorite items or carts for future use
- Better output display than what is given in the examples
- Any innovative features students can think of

Marking Scheme

Category	Description	Weightage
Functional Requirements	Program Flow - Logical sequence of actions - Usability of system - Display output is presentable	15 marks
	Computation accuracy - Extraction of day from date - Transfer of right files to/from server - Read and write files - Start and stop server - etc	20 marks
Programming techniques	- proper choice of programming constructs, lists, dictionary - proper choice of algorithms - proper server coding techniques - use of loops and conditionals for optimum program flow - proper breakdown of the program with appropriate functions - proper comments and naming conventions	35 marks
Demo	- ability to execute - ability to explain code - Q&A	10 marks
Advanced features **Students are recommended to complete the basic assignment before attempting any advanced features**	- Login and user tracking - Admin system for updating menu items - Storing transactions into files and sending back to server - Implementing discount system for specified users - Better output display than what is given in the examples - Any other innovative features	20 marks Each feature 1-5 mark max, depending on complexity