Fall 2021: CSEE5590/490 – Special Topics

Python and Deep Learning - ICP-2

Lesson Overview:
This lesson will focus on installation and making one familiar with python programming concepts.

Programming elements:
Python Conditional Statements, Data structure, functions.

Lecture-2:

1. Write a program, which reads heights (inches.) customers into a list and convert these heights to centimeters in a separate list using:
   1) Nested interactive loop.
   2) List comprehensions

   (Read input from user to check if no more data (Y, N)).

   Example: L1: [150,155, 145, 148]
   Output: [68.03, 70.3, 65.77, 67.13]

2. Write a program that takes two strings from the user: first_name, last_name. Pass these variables to fullname function that should return the (full name).
   - For example:
     - First_name = "Ahmed", last_name = "Albishri"
     - Full_name = "Ahmed Albishri"
   - Write function named "string_alternative" that returns every other char in the full_name string.
     Str = "**G**o**o**d e**v**e**n**i**n**g"
     Output: Go vnn

   Note: You need to create a function named "string_alternative" for this program and call it from main function.

3. Write a python program to find the wordcount in a file (input.txt) for each line and then print the output.
   - Finally store the output in **output.txt** file.

   Example:

   Input: a file includes two lines:

   Python Course

   Deep Learning Course

Output:

Python Course

Deep Learning Course

Word_Count:

Python: 1
Course: 2
Deep: 1
Learning: 1

Note: Your program should work for any number of lines.

** Follow the IPC rubric guidelines.

Submission Guidelines:

1. Once finished present your work to TA during class time.
2. Once evaluated submit your source code and documentation to GitHub and represent the work in a ReadMe file properly (short summary for the ICP).

After class submission:

1. Complete your work and submit to your repo before the deadline.
2. Record a short video (1~3) minute, explaining the technical part and method used.
3. Add video link to ReadMe file.

Note: *Cheating, plagiarism, disruptive behavior and other forms of unacceptable conduct are subject to strong sanctions in accordance with university policy. See detailed description of university policy at the following URL: https://catalog.umkc.edu/special-notices/academic-honesty/*