CSC101

Lab Assignment: 1

Due date: Friday 11.59pm

Total marks: 20

(\*\*Do not copy from each other\*\*) You will get a straight zero.

* Submit your answer in a word/ pdf document. Name the word document in this format Name\_ID (if your name is Karim and ID 145 then name it as Karim\_145)

For today's assignment, you need to work out TWO things:

\* How can a list be printed in an organized manner?

\* How the code can be made more efficient, e.g., by using a repetition command to print the entire list

Study and run the following codes separately. Work out the differences and find the errors. Answer the questions that follow;

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Printing List:

Price\_list = ["Litchi", 2.50, "Mango", 55.00, "Apple", 37.00, "Papaya", 33.00, "Watermelon", 55.00]

print(Price\_list)

Q1. Explain what the print() function does in this case. If there were a 500 items in the list, what would the same print() function do? (2 marks)

Printing item of List:

Price\_list = ["Litchi", 2.50, "Mango", 55.00, "Apple", 37.00, "Papaya", 33.00, "Watermelon", 55.00]

print(Price\_list[0])

Q2. What change would you have to make to the print() function to print Papaya 33.00 on the screen? (2 marks)

Q3. Write a program to print all the items in the list. How many print statements have you used? (2 marks)

Printing using for:

Price\_list = ["Litchi", 2.50, "Mango", 55.00, "Apple", 37.00, "Papaya", 33.00, "Watermelon", 55.00]

for i in range(0, 10):

  print(Price\_list[i])

Q4. What does this program print? (1 mark)

Q5. In the for i in range(0, 10) command, what is the purpose of each of the following:

\* for            (1 mark)

\* i                (1 mark)

\* range.      (1 mark)

\* 0               (1 mark)

\* 10             (1 mark)

Q6. Explain why the for and range function is more efficient? (1 mark)

Printing using for ver 1:

Price\_list = ["Litchi", 2.50, "Mango", 55.00, "Apple", 37.00, "Papaya", 33.00, "Watermelon", 55.00]

for i in range(0, 10):

  print(Price\_list[i],Price\_list[i+1])

Q7. Explain what is wrong with the output when you run the above program. (1 mark)

Printing using for ver 2:

Price\_list = ["Litchi", 2.50, "Mango", 55.00, "Apple", 37.00, "Papaya", 33.00, "Watermelon", 55.00]

print("Price List:")

print("-----------")

for i in range(0, 10, 2):

  print(Price\_list[i],Price\_list[i+1])

Q8. Run the program. What is the difference between the output from ver1 and ver2? (1 mark)

Q9. Explain why the range function (0, 10, 2) works better in this case. (1 mark)

Q10. Explain, with examples, TWO things you learned by doing this assignment. (4 marks)

Codes

https://docs.google.com/document/d/1S27GMoiuSDaygbtZYfF98wxHJnBkZzKKi0AN7vJF3PQ/edit?usp=sharing