SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

ANL252
Python for Data Analytics

Tutor-Marked Assignment

JANUARY 2023 Presentation

TUTOR-MARKED ASSIGNMENT (TMA)

This assignment is worth 18% of the final mark for ANL252 Python for Data Analytics.

The cut-off date for this assignment is **5 February 2023, 2355hrs**.

Up to 25 marks of penalties will be imposed for inappropriate or poor paraphrasing. For serious cases, they will be investigated by the examination department. More information on effective paraphrasing strategies can be found on https://academicguides.waldenu.edu/writingcenter/evidence/paraphrase/effective.

If your course involves programming, you are urged to read the following articles as well:
https://wiki.cs.astate.edu/index.php/Plagiarism_in_a_Programming_Context

https://www.turnitin.com/blog/plagiarism-and-programming-how-to-code-without-plagiarizing-2

Note to Students:

You are to include the following particulars in your submission: Course Code, Title of the TMA, SUSS PI No., Your Name, and Submission Date.

The submitted report must be in **word document** format.

Question 1

Plagiarism is a serious violation of academic integrity and is not condoned in institutions of learning.

(a) Discuss the issue of plagiarism in coding, and explain why this happens and how one can avoid this in general. Present your answer using succinct bullet points, with a word count of no more than 200.

(20 marks)

(b) Source for a piece of Python code, between 20 to 50 lines (excluding comments), that performs/provides some meaningful task/output (e.g., a code that does binary search) from Internet. Provide this code in text format and a link to this source. Explain briefly what this piece of code does.

(15 marks)

(c) Propose, using at least 5 bullet points, on how the code sourced in 1(b) can be rewritten in a way that avoids plagiarism.

(10 marks)

(d) Using Python, rewrite the code sourced in 1(b) in a way that achieves the same outcome while avoiding plagiarism. Provide the rewritten code and corresponding output in **text format** in the report. Screenshots of the codes are not permitted and doing so will attract a **10-mark deduction**.

(20 marks)

Question 2

There are 5 specified items available in some stationery inventory.

The code in Appendix 1 provides a user interactive input to update the corresponding quantity and list price of the stationery inventory till the user expresses not to continue.

The updated information is then stored temporarily in a variable, called 'updated_inventory'.

(a) Provide a critique of the code in Appendix 1 in bullet points and explain how the code can be better written.

(10 marks)

(b) Using Python, rewrite the code in Appendix 1 based on the critique and suggestions in 2(a). The rewritten code should achieve a similar outcome and store the updated information entered by the user in a variable. Provide the rewritten code and corresponding output in **text format** in the report. Screenshots of the codes are not permitted and doing so will attract a **10-mark deduction**.

(25 marks)

Appendix 1

```
inventory = ['pen', 'pencil', 'ruler', 'eraser', 'marker']
print(f'This is the list of stationery inventory available {inventory}.\nPlease enter any one
of them.')

continue_query = 'yes'
updated_inventory = []

while continue_query == 'yes' :

    stationery = str(input("What is type of stationery to be updated? "))
    qty = (input("What is current quantity? "))
    price = (input("What is the current list price? "))

    entered_input = [stationery,qty,price]
    updated_inventory.append(entered_input)

    continue_query = str(input("Would you like to continue? (Indicate yes or no)"))
```

---- END OF ASSIGNMENT ----