SCIT

School of Computing and Information Technology

ASSIGNMENT 1 – PART 1

CSIT110– Programming Fundamental Using Python

Session 1: July to September 2024

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INSTRUCTIONS TO CANDIDATES

1. The assignment consists of two parts. This is the part 1 of the assignment.
2. Part 2 is Moodle quiz. Should be done in class.
3. The name of the program must be **YourName_A1.**py (Only one Python file); remember to replace **YourName** by your actual "shorter" name.
4. **Total mark of Assignment 1 is 6 marks; 4 marks for Part II.**

Your program, should begin with

 # Full Name:
 # Tutorial Group
 # Declaration: …… tell me if it is your own work …. and whether you have
 # passed your program to your friends.

Objective

The following features should be explored in your design:

- use of meaningful identifiers
- user friendly
- formatted outputs i.e., the use of **print** statements
- some basic programming styles for indentations alignment of statements
- comment statements
- etc

Task (6 marks)

We need to pay for some of the online services. I remember, one day, I entered a clinic; and I took a bit "longer" to talk to Dr, the clinic charged me a bit more 😊 .

To those students who use WhatsApp, have you realized that there is a feature called Meta AI. One day, I simply entered: "**Write a pyj**" (I have not yet completed my sentence and accidentally pressed the enter key), I received immediately the following message (1 or 2 seconds, may be even less!!!):

My goodness, that was what I wanted AI to do … Meta AI read my mind and showed me the result 😊

Our objective for this assignment is to develop a system for payments to various online services.

Task 1

You display a welcome message and prompt the user to enter an email address . The following shows some simple interactions and displays:

```
Welcome to our online services

*********
* Task 1 *
*********



Enter an email address for validation: akheng@uow.edu.au
==> Please validate a link sent to your email to continue :)
Press any key or enter to continue
```

You do not have to worry about what you have to do when you "receive" that email 😊

Task 2

The service company creates some services and lists down the charges for each service. The following shows some interactions and displays:

```
*********
* Task 2 *
*********


We provide the following three services
=======================================
        Booking of Service 1:   ChatGPT
        Booking of Service 2:   Mahjong Game
        Booking of Service 3:   Online poker

Cost of various services (cents per second)
===========================================
        Cost of service ChatGPT:        20
        Cost of service Mahjong Game:   10
        Cost of service Online poker:   35

Summary of various costs
========================

Service                         Cost per sec
--------------------------------------------
ChatGPT                           20 cent(s)
Mahjong Game                      10 cent(s)
Online poker                      35 cent(s)
```

Note that information of services and their costs are entered upon execution of your program (you should not hard code them).

Task 3

Users can now request services by entering the number of hours / minutes / seconds (separated by spaces when entering the three values).

The following shows the interactions and displays:

```
*********
* Task 3 *
*********

Booking of various services (hours minutes seconds)
====================================================

Enter hours minutes seconds for ChatGPT:        1 20 45
Enter hours minutes seconds for Mahjong Game:   3 30 0
Enter hours minutes second for Online poker:    5 30 59

You have booked the following services
======================================

Service              Hours      Minutes    Seconds
--------------------------------------------------
ChatGPT              1          20         45
Mahjong Game         3          30         0
Online poker         5          30         59
```

Task 4

Oh no!! User discovers that the number of hours / minutes / seconds for the 1st service and the 3rd service MUST be swapped. Have a few statements to swap them. *To get better marks for the submission, use ONLY one statement to swap all the values!!!*

The following shows the interactions and displays:

```
*********
* Task 4 *
*********


After the swaps of timings
============================

Service              Hours      Minutes    Seconds
--------------------------------------------------
ChatGPT              5          30         59
Mahjong Game         3          30         0
Online poker         1          20         45
```

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Task 5

```
*********
* Task 5 *
*********


Summary of charges
==================

Service          Hours    Minutes    Seconds   Usage (secs)   Unit charge   Total costs
-------------------------------------------------------------------------------------
ChatGPT            5         30         59        19859            20          397180
Mahjong game       3         30         0         12600            10          126000
Online poker       1         20         45        4845             35          169575
=====================================================================================
Total cost                                                                    692755
Singapore $                                                                   6927.55

Thank you for using our service
An invoice of payment $ 6927.55 will be sent to akheng@uow.edu.au
```

Python interpreter tends to close the displayed windows "very fast"!!! Let me have an opportunity to see your results; please add in the following input instruction to be the last statement of your program:

 # last statement of your program
input ("Enter any character to end")

```
Enter any character to end
```

IMPORTANT

The name of your program must be **YourName_A1.py** and make sure that this file can be executed. Upload **ONLY** the Python file to Moodle**. ALL ZIP FILE SUBMISSION WILL BE REJECTED**

No re-submission will be allowed after grading.

In the above file, remember to put down your name and the following declaration (some similar contents):

#Tell me if it is your own work, and whether you have passed your
 # program to your friends etc etc etc
 # and willing to accept whatever penalty given to you.

- **Wrong file name -0.2 mark**
- **No declaration, no name etc -0.3 mark**
- **No demo -0.5**