The Open University of Sri Lanka
Department of Electrical and Computer Engineering
Bachelor of Technology Honours in Engineering – Level 3
Bachelor of Software Engineering – Level 3
EEI3372 – Programming in Python
Academic Year 2021/2022
Lab Test 03

Test Date: 08 - 05 - 2022 Time : 2 Hours

Instructions

- ***This test consists of 2 parts Part A, Part B***
- ***Part A has two activities, and you must select one activity out of two.***
- ***Part B is compulsory.***
- ***For functions and variables, you can define your own names.***
- ***Copying is strictly not allowed. If copied 0 marks will receive for viva and the submission.***
- ***Once completed Submit a PDF or a word file to LMS***

PART A

Select one from Part A

Activity 1

When a user enters a mark, the mark needs to be graded using the below criteria.

Mark	Grade
100 >= 75	A
74 >= 65	B
64>= 55	C
55>= 40	D
40>0	F

If the user enters a mark more than 100 or below 0, an error message needs to be displayed saying invalid mark.

Write a python program for the above scenario using proper functions.

Activity 2

Create a simple python program where a user can enter the name, age, address, city and mobile number and display all the details afterwards.

Ex- If the user enter below details

Name – Kasun

Age – 25

Address – 458 Nawala Road Colombo

City – Colombo

Mobile No – 077777777

A message should be displayed saying,

"Below are the details you entered:

Ex- If the user enter below details

Name – Kasun

Age – 25

Address – 458 Nwala Road Colombo

City – Colombo

Mobile No – 07777777"'

PART B

Part B is compulsory

Activity 3

Write a program that lets user enter in a potentially unlimited series of price values. Ensure that the numbers entered are greater than 0. You cannot assume that the user will enter an integer or a float. If they input a negative number (or zero) you should continually prompt them to enter a valid number until they do so. When the user enters a price with a value of 0 you can stop collecting prices.

Then use their input to generate a summary report that includes the cost of all items purchased, the average cost of each item, highest priced item, and lowest priced item, number of items above & below the average. Below is a sample running of this program. Don't worry about formatting your numbers for this problem.

Enter a price, 0 to end: apple That's not a number!

Enter a price, 0 to end: -5 Prices must be positive!

Enter a price, 0 to end: 10
Enter a price, 0 to end: 20
Enter a price, 0 to end: 30
Enter a price, 0 to end: 40
Enter a price, 0 to end: 50
Enter a price, 0 to end: 0

Total cost: 150.0
Average cost: 30.0
Highest price: 50.0
Lowest price: 10.0
# of prices >= the average: 3
# of prices < the average: 2