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| **Programming I**  *PRG1*  Diploma in CSF / IT / DS / IM / CICTP  Year 1 (2023/24) Semester 1 | Week **13** |
| 60 minutes |
| **Revision for Programming Aptitude Test 2** | |

**Instructions**

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| **Prior to test**   * Create a folder on your desktop with your student id as the name * Download the data file, **“sales.txt”**, that you are using in this test to that folder with the same file name * Create a python file in that folder with the following naming convention   S12345678.py  ***[ replace S12345678 with your own student ID ]***   * In the file, enter your **name**, **id** and **group** in the first line as comment:   e.g. # *John Tan (S12345678) – IT01*  **Submission**   * Submission is to be done in POLITEMall for the actual test, but you are not required to submit this revision exercise. |

**Plagiarism Warning:**

**If a student is found to have submitted work not done by him/her, he/she will not be awarded any marks for this practical test. Disciplinary action may also be taken.**

**Similar action will be taken for student who allows other student(s) to copy his/her work, or posting any solutions or code related to the practical test before the end of the hour for the test.**

**Question 1**

An IT company selling Apple products has 2 branches in Singapore. The data file sales.txt stores the products and the number of units sold for the 2 branches in year 2022.

Write a Python program to:

1. Read the data from the file sales.txt into a list of lists and print the list.

Sample output:

[['Branch', 'Product', 'Units Sold'], ['Orchard', 'MacBook Air', '205'], ['Orchard', 'MacBook Pro', '89'], ['Orchard', 'iMac', '57'], ['MBS', 'MacBook Air', '28'], ['MBS', 'MacBook Pro', '22']]

1. Compute and display the total number of units sold for each of the products. The following shows the required output.

Branch Product Units Sold

Orchard MacBook Air 205

Orchard MacBook Pro 89

Orchard iMac 57

MBS MacBook Air 28

MBS MacBook Pro 22

Product Total Units Sold

MacBook Air 233

MacBook Pro 111

iMac 57

You are required to make use of the following lists in your program.

The following list stores the products:

product\_list = ['MacBook Air', 'MacBook Pro', 'iMac']

The total of number of units sold for each of the products are to be computed and stored in another list:

Total\_units\_list = [0, 0, 0]

You are also required to make use of **nested loops**.

\*\*\* END OF PAPER \*\*\*