**LEE KONG CHIAN FACULTY OF ENGINEERING AND SCIENCE**

**UNIVERSITI TUNKU ABDUL RAHMAN**

**UEEN 1043 Object-Oriented Concepts and Programming Techniques**

**Practical Assessment 1: Advanced Data Types**

**Assessment**

You are given a CSV file named ***employee\_performance.csv*** containing employee performance data.  
Each row in the CSV file represents an employee’s information with the following columns:

Employee ID, Name, Department, Sales

Write a Python program with clear and concise comments to complete the following tasks. **You are not allowed to import any additional libraries.**

(a) Read data from the CSV file and store the data using an appropriate Python container to proceed the subsequent tasks. Remove any leading or trailing spaces from values to ensure accurate data processing.

(b) The performance rating for each employee is determined based on the Sales performance:

* Excellent: Sales >= 100,000
* Good: 80,000 <= Sales < 100,000
* Average: 60,000 <= Sales < 80,000
* Poor: Sales < 60,000

Count and display the number of employees under each performance rating as follows.

Performance Rating Summary:

- Excellent: ? employees

- Good: ? employees

- ???

(b) Determine the highest-performing employee in each department based on sales figures. Print the top performer (Name and Sales) per department in the following format:

Top Performers by Department:

- Automation: ? (RM ? sales)

- Electrical: ? (RM ? sales)

- ???

**Submission (Group)**

* Submit the assessment as ONE(1) python script file via WBLE before the end of the practical session. Penalties will be imposed on any error, late submission, or plagiarism detected.
* State the program, name, id for each group member in the .py file.
* Name your script file in the following format:
  + **PA1\_<Group>.py** e.g. **PA1\_Group1.py**

**Marking Rubrics**

* 8-10 Program runs successfully with minor/no issues
* 5-7 Program runs but contains some errors
* 3-4 Program has errors with illogical implementation
* 0-2 Program has critical errors or is incomplete