

# Programming Exam 8

**Date/Time: 2024.05.28 08:10 – 09:00**

(程式檔命名學號\_quiz8.py，上傳至 Moodle PE8 上傳區)

## Problem: Some Analysis on NBA 2022-23 Standings

Your task is to Write a Python program to reads the NBA 2022-23 standings from a CSV file named “nba\_standings.csv”. The CSV file contains multiple columns, and the first 9 columns with their meanings in order are: Conference (Eastern or Western), Team, W-L (Win-Loss Record), PCT (win-loss percentage), GB (game back, how far behind the team is from the leading team), PF (points for), PA (points against), Home (home record), Away (away record). Based on the CSV file, you are asked to answer the following three questions.

- (1) Which teams from the Eastern Conference had the win-loss percentage of Home lower than the win-loss percentage of Away? (東區哪些球隊的主場勝率低於客場勝率)
- (2) Which conference had a higher average difference about “PF minus PA”? (哪一區的球隊擁有較高的“平均得分減掉失分”)
- (3) Generate a ranking list of all teams such that a team wins more against the other conference’s team gets higher rank position. (根據每支球隊和另一區球隊的對戰紀錄來對所有球隊排序，對戰另一區擁有較高勝率的球隊會被排序在前面的位置)

No Sample Input and Output for this PE. By running your program, make sure the answer to each question is clearly presented. You can decide the output format by yourself.

<b>Note: You need to write comments (註解) for each part in your code.</b>
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