Data Visualisation

Question 1

Write a python program for visualising the football statistical data by importing a large football datasets (50MB-1GB) from kaggle. Plot the different forms of graphs using Matplotlib and Seaborn libraries.

Question 2

Write a python program for importing Medical image data into NumPy, SciPy, and Pandas arrays. Demonstrate the ways of representing the medical images in two-dimensional (2D) and three-dimensional (3D) format.

Note: You can use any form (CSV, JSON, and XLSX) of medical image dataset (50MB-1GB).

Question 3

Write a python program for importing data from a database engine SQLite3. For this exercise you can use **world.sql** example table which holds the world's city names and populations. This table has more than 5,000 entries.

Query: SELECT ID, Name, Population FROM City ORDER BY Population DESC LIMIT 1000

ID, Name, and Population are columns (fields) of the table City from which we select data. ORDER BY tells the database engine to sort our data by the Population column, and DESC means descending order. LIMIT allows us to get just the first 1,000 records found.

Hint:

To be able to read from the database, you need to:

1. Connect to the database engine (or the file in the case of SQLite).

2. Run the query against the selected tables.

3. Read the result returned from the database engine.

ID	Name	Population
1024	Mumbai (Bombay)	10500000
2331	Seoul	9981619
206	São Paulo	9968485
1890	Shanghai	9696300
939	Jakarta	9604900
2822	Karachi	9269265
3357	Istanbul	8787958
2515	Ciudad de México	8591309
3580	Moscow	8389200
3793	New York	8008278
1532	Tokyo	7980230
1891	Peking	7472000
456	London	7285000
1025	Delhi	7206704
608	Cairo	6789479
1380	Teheran	6758845
2890	Lima	6464693
1892	Chongqing	6351600
3320	Bangkok	6320174
2257	Santafé de Bogotá	6260862