
Principles of Programming

CT4029

Workbook – Session 8

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Section A

The following questions should be solved using the `files_application.xlsx` dataset available on Week 8 in Moodle page.

1. Exercise 1 :

Write a Pandas program to import given excel data (`file_application.xlsx`) into a Pandas data frame.

2. Exercise 2:

Write a Pandas program to read specific columns including Player name, Position, and Time Played from `file_application.xlsx`.

3. Exercise 3:

Write a Pandas program to find the sum, mean, max, min value of 'Touches' column of `file_application.xlsx` file.

4. Exercise 4:

Write a Pandas program to import some excel data (`file_application.xlsx`) skipping first twenty rows into a Pandas data frame.

5. Exercise 5:

Write a Pandas program to import excel data (`file_application.xlsx`) into a Pandas data frame and display the last ten rows.

6. Exercise 6:

1. Write a Pandas program to import given excel data (`file_application.xlsx`) into a data frame and find details where 'Rating' > 80.
2. Write a Pandas program to import given excel data (`file_application.xlsx`) into a data frame and find details where 'Rating' > 80 and 'Total Successful Passes' > 20.

7. Exercise 7:

Write a Pandas program to import given excel data (`file_application.xlsx`) into a Pandas data frame and find a list of specified players by name.

8. Exercise 8:

Write a Pandas program to import given excel data (file_application.xlsx) into a Pandas data frame and find a list of players where Date>15/02/2016.

9. Exercise 9:

Write a Pandas program to import given excel data (file_application.xlsx) into a Pandas data frame and convert the data to use the 'Successful Passes Own Half' as the index.

10. Exercise 10:

Write a Pandas program to import given excel data (file_application.xlsx) into a Pandas data frame and plot the histogram of the range of players where the number of 'Touches' is comprised between 20 and 80.