Come on the Arsenal!



Score processor

Given the results for the first number of weeks of a football league season write a program that will process the scores and output the statistics for each team (ordered by Team name) and the current league standings (ordered by points). The results are provided in a text file (*Results.txt* (https://canvas.qub.ac.uk/courses/11041/files/1679860?wrap=1) \(\text{(https://canvas.qub.ac.uk/courses/11041/files/1679860/download?download_frd=1) } \).

The result for each match is guaranteed to be in the format:

<Team1 Team1Score Team2Score Team2>

e.g. Arsenal 4 Spurs 0.

Note: Each team name is one string (i.e. no spaces).

Development suggestions

- 1. Develop a class to store the details for each team to support the application output, e.g. Team name, Played, Goals For, Goals Against, Win, Draw, Loss and Total Points.
- 2. Read each line (match result) in the text file.
- 3. Use a Collections Map

E.g. private static Map<String, Team> teams = new HashMap<String, Team>();

(String being the team name and Team being the class developed in step 1.)

- 4. Process the results (There are 3 points for a win, 1 for a draw and 0 for a loss.)
- 5. To output the individual team statistics, order the values (alphabetically) by team name, hint use a **SortedSet**
- 6. To output the League tables convert the **values** in the **HashMap** to a **List** Develop and use a **comparator** to order (sort) by Points.

Example output...

| Spurs | | |
|---------------|---|---|
| Games played | : | 3 |
| Goals for | : | 2 |
| Goals against | : | 4 |
| Wins | • | 0 |
| Draws | : | 1 |
| Losses | • | 2 |
| Points | : | 1 |
| | | |

| Team | Play |
|---------|------|
| Arsenal | 3 |
| WestHam | 3 |
| WBA | 2 |
| Swansea | 4 |
| Stoke | 4 |
| Norwich | 4 |

Stoke Games played : 4 Goals for : 4

Goals for : 4
Goals against : 4

Wins : 1 Draws : 2 Losses : 1

Points : 5

Solutions:

<u>Team-1.java (https://canvas.qub.ac.uk/courses/11041/files/1679857?wrap=1)</u> ↓ (https://canvas.qub.ac.uk/courses/11041/files/1679857/download?download_frd=1)

<u>ComparePoints.java (https://canvas.qub.ac.uk/courses/11041/files/1679858?wrap=1)</u> ↓ (https://canvas.qub.ac.uk/courses/11041/files/1679858/download_frd=1)

ScoreManager.java (https://canvas.qub.ac.uk/courses/11041/files/1679859?wrap=1) ↓ (https://canvas.qub.ac.uk/courses/11041/files/1679859/download?download frd=1)

video code walk through ...