

League.java

```

1 //2018.Resit
2
3 import java.util.ArrayList;
4 import java.util.Collections;
5
6 public class League {
7     private String      name;
8     private ArrayList<Team> teams;
9     private ArrayList<Game> games;
10
11     public League(String nme) {
12         name = nme;
13         teams = new ArrayList<Team>();
14         games = new ArrayList<Game>();
15     }
16
17     public void addTeam(Team t) {
18         teams.add(t);
19     }
20
21     public void addGame(Game g) {
22         games.add(g);
23     }
24
25     public void printGames() {
26         System.out.println("Record of games played in the " + name);
27         System.out.println("Home      Away      Location      H      A");
28         for (Game g : games) {
29             String s = "";
30             s += g.getHomeTeam() + getSpaces(10 - g.getHomeTeam().length());
31             s += g.getAwayTeam() + getSpaces(10 - g.getAwayTeam().length());
32             s += g.getCity() + getSpaces(15 - g.getCity().length());
33             s += g.getScore(g.getHomeTeam()) + getSpaces(getRequiredSpaces(5,
34                 g.getScore(g.getHomeTeam())));
35             s += g.getScore(g.getAwayTeam()) + getSpaces(getRequiredSpaces(5,
36                 g.getScore(g.getAwayTeam())));
37             System.out.println(s);
38         }
39
40     public void printGameResults(String team) {
41         System.out.println("Record of games played by " + team + " in the " + name);
42         System.out.println("Home      Away      Location      H      A");
43         for (Game g : games) {
44             if (g.getHomeTeam().equals(team) || g.getAwayTeam().equals(team)) {
45                 String s = "";
46                 s += g.getHomeTeam() + getSpaces(10 - g.getHomeTeam().length());
47                 s += g.getAwayTeam() + getSpaces(10 - g.getAwayTeam().length());
48                 s += g.getCity() + getSpaces(15 - g.getCity().length());
49                 s += g.getScore(g.getHomeTeam()) + getSpaces(getRequiredSpaces(5,
50                     g.getScore(g.getHomeTeam())));
51                 s += g.getScore(g.getAwayTeam()) + getSpaces(getRequiredSpaces(5,
52                     g.getScore(g.getAwayTeam())));
53                 System.out.println(s);
54             }
55         }
56
57     private void sortLeagueTable() {
58         Collections.sort(teams);
59     }
60
61     public void printLeagueTable() {

```

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59     sortLeagueTable();
60     System.out.println("Table for the " + name);
61     System.out.println("Team      P    W    L    D    TB    LB    PTS");
62     for (Team t : teams) {
63         int space = 15 - t.getName().length();
64
65         String s = t.getName();
66         s += getSpaces(space);
67
68         int played = t.getNumGames();
69         int losses = t.getNumLosses();
70         int draws = t.getNumDraws();
71         int wins = t.getNumWins();
72         int tryBonus = t.getNumTryBonus();
73         int loseBonus = t.getNumLosingBonus();
74         int points = t.getNumPoints();
75         s += played + getSpaces(getRequiredSpaces(4, played));
76         s += wins + getSpaces(getRequiredSpaces(4, wins));
77         s += losses + getSpaces(getRequiredSpaces(4, losses));
78         s += draws + getSpaces(getRequiredSpaces(4, draws));
79         s += tryBonus + getSpaces(getRequiredSpaces(4, tryBonus));
80         s += loseBonus + getSpaces(getRequiredSpaces(4, loseBonus));
81         s += points + getSpaces(getRequiredSpaces(4, points));
82         System.out.println(s);
83     }
84 }
85
86 private int getRequiredSpaces(int total, int n) {
87     int i = (int) Math.floor(Math.Log10(n));
88     if (n == 0) {
89         return total - 1;
90     }
91     return total - i - 1;
92 }
93
94 private String getSpaces(int space) {
95     String s = "";
96     for (int i = 0; i < space; i++) {
97         s += " ";
98     }
99     return s;
100 }
101 }
102

```