MSc Software Development

Queen’s University of Belfast

Java Programming Project May 2017

**Six Nations Rugby Tournament League Table\***

**Problem Description**

Design, implement, test and demonstrate an effective object-oriented Java solution to the requirements and additional specifications below, thereby developing a system to administer the scores and league table for the Six Nations Rugby Tournament.

**System Requirements**

1. The system shall produce randomised fixtures to schedule the teams to play each other once (dates are not required). The fixtures are played in a series of five rounds of three matches each.
2. The system shall enable a user to enter the scores for each match played in each round.
3. The system shall system shall enable the bulk upload from a text file all scores for an individual round of games.
4. The system shall display an up-to-date league table.
5. The league table shall consist of the following information for each team: games played, points scored, points conceded, number of tries scored, number of bonus points and total points.
6. The league table shall display teams in descending order of points scored.
7. The data used for the system should be persistent.
8. The system shall provide the ability to search the stored data (results and league table).

**Specification of Points System**

* The Team that wins a Match shall be awarded 4 Match Points or, if it scores more than 3 tries in the process, 5 Match Points.
* The Team that loses a Match will be awarded 0 Match Points or, if it scores more than 3 tries in the process and loses by a margin of fewer than 8 points, 2 Match Points.
* Teams that draw a Match shall each be awarded 2 Match Points and any that score more than 3 tries in the process shall be awarded a further 1 Match Point.
* A Team that wins all five of its Matches (a “Grand Slam”) shall be awarded a further 3 Match Points.

\* Adapted from a document created by Aidan McGowan, Lecturer in Computer Science, Queen’s University of Belfast, 2017.