



Software Requirements Specification

IPL FANTASY LEAGUE

1.2



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1. Introduction

This document explains in detail about a project to test various programming skills of an individual. This will also enable us to access level of understanding an individual has about Web application technologies. It also provides detailed instructions that should be followed while executing this assignment.

2. Scope

2.1 Problem Statement

IPL Fantasy League System is a web based application for bidding. This application will have two types of users namely, admin and bidder. Both users have their own set of privileges to use the application. This system should allow new users to register themselves and use all the authorized functionalities.

A bidder can sign in with the help of email-id or any of the social network logins (E.g. Google+, Facebook, Twitter, LinkedIn). Bidders can get all the match schedules and he/she will be able to bid on a team for a match before the start of the match using the application. When the bidder bids on a team he/she would be able to change his/her team before the match starts. The application shows the match details which includes the playing team, the venue of the match and current standing of the teams on the points table. Bidder can cancel the bid on the match but will not lose any points. When bidder bids on the match, the system should display match winner at the end of the match and update the team standings in the tournament and user points table.

Admin is responsible for scheduling and rescheduling of matches, updating team statistics. System must be able to send updates to the bidders whenever required. Admin can schedule and reschedule matches using this application depending upon the weather conditions, declare match winner, update overview at the end of the match and flush points table after the commencement of the tournament.

Application should also provide facility to admin for managing the tournament and cancelling match. When bidders bid on a match, the admin should be able to view all the bidders bidding on a particular team and the percentage of users supporting a team.

2.2 Key Features

- Application should allow bidders to register by providing registration screen and validate their access.
- Application should allow bidders to predict match winners before start of match.
- Bidders can predict the match winner only till toss occurs.
- At any time, bidder should be able to see his/her points and his/her position in the overall bidder standings. Bidder should be able to see top 3 leader positions.
- Application should allow admin to schedule and reschedule matches, declare match winner, manage teams and tournaments.



- It should update the team point table, bidder point table and generate leader board.

3. Acronyms & Abbreviations

SRS – Software Requirements Specification

GUI – Graphical User Interface

4. Functional Requirements

- *User Management*

The application should be able to create users by providing a screen for “Registration”.

- *Login*

The application should provide a login screen for registered users to login to the application

- *Predict Winner*

The application should allow the user to predict the winner of the match before toss happens for the match on which the user is predicting. This should be dynamic as the matches can have different start time. Start time will also be influenced by disruptions like rains. User should not be able to see what others users have predicted. Users can change their team only till the toss happens. Once the toss happens everything should be frozen for that match

- *Point System*

For every win, users get points. There are no negative points, meaning if the user loses the bid, he or she does not lose his/her points. Point system is very dynamic.

At the start of the tournament when every team is at zero points, every user who wins the prediction, wins 2 points.

If the difference in the points between two teams playing, is less than or equal to 6 but greater than zero, then the person who predicts:

- Team with higher points will win, gets 2 points
- Team with lower points will win, gets 3 points

If the difference in the points between two teams playing is greater than 6 , then the person who predicts:

- Team with higher points will win, gets 2 points
- Team with lower points will win, gets 5 points

<Students to come up with a flowchart for this points tally>

- *Leader Board*

At every time the user should be able to see his/her points and his/her position in the overall user standings. He/she should also be able to see top 3 leader positions



4.1 Persona's / Actors

Types of users

Persona/Actors	Description
Admin	Admin logged in with valid credentials
Bidder	Any user who has already registered with our system

4.2 Epics

Epics of IFL System

Epic Id	Epic
EP-IFL-1	User Authentication Module
EP-IFL-2	Administration Module
EP-IFL-3	User Activities
EP-IFL-4	Point System

4.3 User Story

User Story : EP1_US_IFL_1

Bidder should be able to Register.

Business Rules:

For each new bidder unique ID should be generated.

Non-registered bidder should be able to register themselves using email-id.

User Story : EP1_US_IFL_2

Bidder should be able to Login.

Business Rules:

Username and Password should match with authentication criteria.

Username and password can't be left blank.

If username and password is invalid then it should display "invalid username and password".

After successful login user should be able to use the provided functionality of the system.

User Story : EP2_US_IFL_5

Admin should be able to manage Tournament.

Business Rules:

Number of teams participated should be 8 in one tournament.

For each new tournament unique ID should be generated.

Admin should conduct one tournament at a time.

Admin to be able to schedule matches (date, time and location)



User Story : EP2_US_IFL_6

Admin should be able to manage Team.

Business Rules:

Each team should include 15 players.

For each team unique ID should generated.

Admin should be able to add and manage all teams.

User Story : EP2_US_IFL_7

Admin should be able to update the match statistics.

Business Rules:

Match statistic should include the date and match result of all the earlier matches

System should display the match statistics.

Admin should be able to update the match results and the same reflected in the statistics dashboard

User Story : EP2_US_IFL_8

Admin should be able to update the team statistics.

Business Rules:

Description of players and team.

Team statistics should contain Team and player performance.

System should display the team statistics.

User Story : EP2_US_IFL_9

Admin should be able to schedule matches.

Business Rules:

In scheduling date and time of the match should be displayed.

Each team should play only once with remaining teams.

Admin should be able to re-schedule the matches. Match should be rescheduled in case of bad weather conditions.

User Story : EP2_US_IFL_11

Admin should be able to declare result.

Business Rules:

Result of the match should include name of the winner team along with score.

Admin should be able to declare the winning and losing teams of the match.

User Story : EP2_US_IFL_12

Admin should be able to edit details of match and stadium.

Business Rules:

Description of matches and stadium should include location of stadium and match details.

Admin should be able to display details of match and stadium.

User Story : EP2_US_IFL_13

Only admin should know the number of bidders bidding on the teams.

Business Rules:



Admin should be able to see the number bidders who are bidding along with their details.

Non-admin users should not be able to see the other bidder details

User Story : EP2_US_IFL_14

Only admin should know the percentage of bidders bidding on a particular team.

Business Rules:

Percentage wise bidding between two teams must be shown.

System should be able to display the details of bidding percentage of two teams.

User Story: EP3_US_IFL_15

The bidder should be able to view the bidder leader board.

Business Rules:

All bidders should be able to view the table which displays the top 3 leader position.

Bidders should not be able to see what other bidders have predicted.

Every bidder should be able to see his points and his position in the overall user standings.

All bidders should be able to see the top 3 leaders with their name and position.

User Story: EP3_US_IFL_16

The Bidders should be able to view the Team leader board.

Business Rules:

The team should be arranged in ascending order of their points.

The Bidders should have the privileges to view the team standings.

Bidders can make use of this and make decisions on their biddings.

User Story: EP3_US_IFL_17

The bidder should be able to choose the team he/she wishes to bid for.

Business Rules:

Bidder can change their team only till the toss happens.

Once a toss happens everything is frozen for that match.

User Story: EP4_US_IFL_18

Every bidder will score points based on his/her prediction. Users will score points based on the team positions on the team leader board.

Business Rules:

At the start of the tournament, when every team is at 0pts, every bidder who wins the prediction, wins 2pts.

If the difference in the points between two teams playing, is less than or equal to 6 but greater than zero, the person who predicts:

- Team with higher points will win, gets 2pts.
- Team with lesser points will win, gets 3pts.

If the difference in the points between two teams playing, is greater than 6 then the person who predicts:

- Team with higher points will win, gets 2pts.
- Team with lesser points will win, gets 5pts.



5. System Details

5.1 Use Case Diagram

<To be filled by the students>

5.2 Class diagram

<to be filled by the students>

5.3 Sequence Diagram

<To be filled by the students>

5.4 E-R Diagram

<To be filled by the students>

6. Technical Details

6.1 Technology Details

- Build Tool: Apache Maven latest version
- JDK: 1.8 any latest update available
- Spring Framework – Spring Microservices, Spring Boot
- Logging: Slf4j with Log4j
- DB: Oracle / MySQL / MongoDB
- IDE: STS or Eclipse
- Data Layer: JPA, Spring Transaction Management with Hibernate JPA Implementation.
- UI Layer: React, Bootstrap
- Devops Tools : Git, Docker, Jenkins, Kafka

6.2 UI Screens

<To be filled by the students>