1.   Introduction

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyse and give an in-depth insight of the complete Cricket Database System by defining the problem statement in detail. Nevertheless, it also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features. The detailed requirements of the Cricket Database System are provided in this document.

1.1   Purpose

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, I shall predict and sort out how I hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

1.2   Document Conventions

TERM	DEFINITION
Admin/Administrator	System administrator who is given specific permissions for managing and controlling the system.
SRS	Software Requirements Specification –This document
User	Someone who interacts with the application.
Cricketer/Players	People who play cricket and whose stats are provided by this software.

1.3   Intended Audience and Reading Suggestions

This Software Requirements document is intended for:

- Developers who view project capabilities and more easily understand where their efforts should be targeted to improve or add more features to it both design and code wise as it sets the guidelines for future development.
- Project Testers can use this document as a base for their testing strategy as some bugs are easier to find using a requirements documents. This way testing becomes more methodologically organised.
- This document can be viewed by users who wish to provide extended functionalities for the existing software or just wish to implement it.

1.4   Product Scope

I have to design a software to computerize cricket management, to manage the database containing records of players of all countries who are members of ICC and also country records against each other and update these records whenever an ODI takes place. The database would contain various stats such as name, age, runs scored, wickets taken, strike rate, high score and so on.

The web-page will be developed using HTML, CSS, Php and MySQL.
This SRS is also aimed at specifying requirements of software to be developed but it can also be applied to assist in the selection of in-house and commercial software products. The standard can be used to create software requirements specifications directly or can be used as a model for defining an organization or project specific standard. It does not identify any specific method, nomenclature or tool for preparing an SRS.
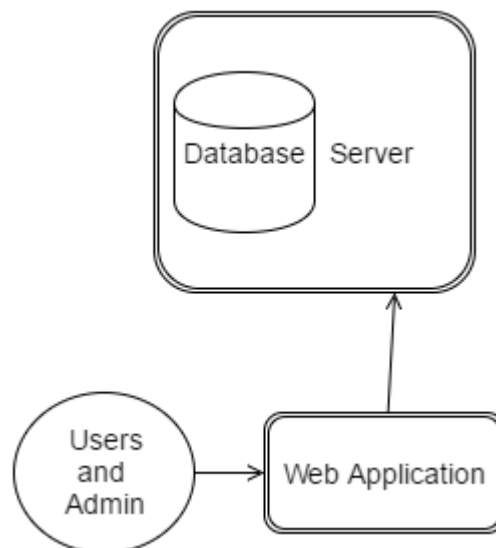
1.5   References

[1] IEEE Software Engineering Standards Committee, "IEEE Std 830 - 1999, IEEE Recommended
Practice for Software Requirements Specifications by Karl E. Wiegers".

2.   Overall Description

This document contains the problem statement that the current system is facing which is hampering the growth opportunities of the company. It further contains a list of the stakeholders and users of the proposed solution. It also illustrates the needs and wants of the stakeholders that were identified in the brainstorming exercise as part of the requirements workshop. It further lists and briefly describes the major features and a brief description of each of the proposed system. It provides the detail product functions of cricket management system with user characteristics permitted constraints, assumptions and dependencies and requirements subsets.

2.1   Product Perspective

The system consists of two parts: a web application and a server. The web app will be used by users and administrators who wish to access/view/modify the statistics of cricketers stored in the database on the server.

Block Diagram

2.2   Product Functions

2.2.1   Configuring Statistics using Log in.

●   The system shall display all the cricket statistics.

●   The system shall allow user to find statistics.

●   The system shall enable admin to add one or more statistics to the database.

●   The system shall allow user to provide feedback to resolve conflict in the current statistics.

2.2.2   Provide comprehensive cricketer details without Log in.

●   The system shall display detailed statistics of the demanded cricketer.

2.2.3   Provide Search facility.

●   The system shall enable user to enter the search statistics on the screen.
●   The system shall enable user to select multiple options on the screen to find statistics.
●   The system shall display all the matching statistics based on the search
●   The system shall notify the user when no matching product is found on the search.

2.2.4   Maintain customer profile.

●   The system shall allow user and admin to create profile and set his credential.
●   The system shall authenticate user credentials to view the profile.
●   The admin will be a different account type which will be approved by the existing admins.

2.2.5   Provide personalized profile

●   The system shall allow user to register for admin accounts and make changes in the database.

2.2.6   Allow updation methods.
●   The system shall allow admins to update stats for changes.

2.3   User Classes and Characteristics
Three types of user can access this software: Privileged users, Non-Privileged users and Administrators.
Their characteristics are defined as follows:

User Class	Characteristics
Administrator	Add, delete and modify the information.
Privileged Users	Can view statistics and post comments.
Unprivileged Users	Can view only statistics.

2.4   Operating Environment

The software is a website so it can be viewed on any computer that has an internet browser and network connectivity.

2.5   Design and Implementation Constraints

- The user's computer is constrained by the server's capabilities. It is a website so it solely depends on network connectivity for data transfer.
- The website will be constrained by the capacity of the database. Multiple accesses to the database simultaneously should not hinder the performance.

2.6   Assumptions and Dependencies

- The computers must be equipped with web browsers such as Internet explorer.
- A general knowledge of basic computer skills is required to use the product.

3.   External Interface Requirements

3.1   User Interfaces

- The user interface for the software shall be compatible to any browser such as Internet Explorer, Mozilla or Chrome by which user can access to the system.
- The user interface shall be implemented using any tool or software package like Bootstrap, php, html.

3.2   Hardware Interfaces

- Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

3.3   Software Interfaces

- The cricket management system shall communicate with the Configurator to identify all the available components to configure the product.
- The cricket management system shall communicate with the content manager to get the product specifications, statistics.
- The cricket management system shall communicate with system to identify available statistics.
- The cricket management system shall communicate with admin for tracking changes of Updation methods.

3.4   Communication Interfaces

- The cricket management system shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

4.   System Features

This sections describes each application's feature in detail in terms of stimulus/ response sequence and their functional requirements.

4.1   View Statistics

4.1.1 Description and Priority

The users should be able to view statistics of players and this is the main function of the website and hence is of the highest priority.

4.1.2 Stimulus/Response Sequences

Stimulus: User enters the required details of the players.
Response: The requested details of the players.

4.1.3 Functional Requirements

- Getdetails – Retreive the details entered by the user
- Getdata – Send the query to the database to get data of requested players
- Displaydata – Display the requested data in an easy to read form.

4.2   User authentication

4.2.1 Description and Priority

The admins will be required to login to their account before making updates. The users who wish to give feedback should be logged in before doing so.

4.2.2 Stimulus/Response Sequences

Stimulus: Admin visits the website.
Response: Admin is validated and redirected to a page that has functions which that particular user has access to.

Stimulus: User wants to provide feedback.
Response: User is validated and redirected to a page that has functions which that particular user has access to.

4.2.3 Functional Requirements

- Admin/user enters_credentials – The admin or the user provide their account details for authentication.
- Admin/user credentials_authenticate – The credentials provided is authenticated against those stored on the server.
  Admin/user credentials_redirect – The admin or the user will be redirected to a page that has functions which that particular user has access to after successful login.

4.3   Statistics Updation

4.3.1 Description and Priority

The admin will be provided with function to update statistics, which the admin performs on a regular basis to maintain correctness of statistics.

4.3.2 Stimulus/Response Sequences

Stimulus: Admin enters the updated statistics.
Response: Success or failure reflecting the updation of statistics.

4.3.3 Functional Requirements

- Getdetails – Retreive the details entered by the admin
- Updatedata – Send the query to the database to update the data of requested players
- Is_data_updated– Display whether the data has been updated or not.

5.   Other Non-functional Requirements

5.1   Performance Requirements

● The product shall be based on web and has to be run from a web server.
● The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.
● The performance shall depend upon hardware components of the client/customer.

5.2   Safety Requirements

This is a software product, a website. There are no safety requirements as such. There can be no physical harm caused by the usage of the application.

5.3   Security Requirements

5.3.1 Data Transfer:

● The system shall use secure sockets in all transactions that include any confidential customer information.
● The system shall automatically log out all users after a period of inactivity.
● The system shall confirm all transactions with the customer's web browser.
● The system shall not leave any cookies on the customer's computer containing any of the user's confidential information.

5.3.2 Data Storage:

● The user's web browser shall never display a user's password. It shall always be echoed with special characters representing typed characters.
● The system's back-end servers shall never display a customer's password. The customer's password may be reset but never shown.
● The system's back-end servers shall only be accessible to authenticated administrators.
● The system's back-end databases shall be encrypted.

5.4   Software Quality Attributes

1. Adaptability: The website is adaptable to various devices. It can be viewed in a user-friendly manner on PCs, laptops, tablets and mobile.
2. Correctness: The data displayed in the application is correct to within a certain delay required to update the data when data is changed (delay would be the time between match being played and admin updating data).
3. Flexibility: The software has immense potential, and other features can be incorporated easily into the existing one.
4. Maintainability: The application is accurately documented, so maintaining it is not a problem.
5. Reliability: The data shown is accurate, so it is reliable to a great extent.
6. Testability: Unit testing is simple with this application.
7. Usability: The statistics of the cricketers are simple enough to interpret.

5.5   Business Rules

5.5.1   Administrator: The administrator has various elevated rights such as accessing the database with read as well as write access. The administrator can manually add the users who wish to become an admin.

5.5.2   User: The user can login into the system and view various statistics, provide feedback. The user need not login just for viewing statistics.

6.   Other Requirements

6.1   Server Requirements

A server and a domain will be required where I will host this website and a server is required to view statistics.