

## Functional Requirements:

### 1. User Registration and Authentication:

The system shall allow users with administrative privileges to register by providing essential details (username, password) and authenticate their identity before accessing BaskeStats control panels.

### 2. Team Creation and Management:

Users with administrative privileges shall be able to create new basketball teams by providing team names, cities, etc. They should also be able to update team details and delete existing teams.

### 3. Player Creation and Management:

The system shall allow administrators to add new players to teams, including player names, positions, etc. Updating and deleting player records should also be possible.

### 4. Championship Setup and Management:

Administrators shall have the ability to create new basketball championships, define participating teams, and championship structures, and schedule match fixtures.

### 5. Championship Drawing:

The system shall facilitate the automatic drawing of championship fixtures based on championship configurations, ensuring fair matchups among participating teams.

### 6. Search and Filtering Functionality:

Users should be able to search for specific teams, players, or championships within BaskeStats. Additionally, the system should offer filtering options for easy data retrieval.

### 7. Match Schedule and Calendar:

Users should have access to a comprehensive match schedule and calendar, allowing them to view upcoming fixtures, match timings, and locations.

### 8. Data Export and Reporting:

Administrators should have the capability to export match data, player statistics, and championship reports in various formats (e.g., CSV, PDF) for further analysis or sharing purposes.

## Non-Functional Requirements for BaskeStats:

### 1. Performance:

BaskeStats should maintain a response time of under 3 seconds for loading team or player information, ensuring a seamless user experience.

### 2. Usability:

The application's user interface should be intuitive, easy to navigate, and accessible across various devices (responsive).

### 3. Security:

BaskeStats must implement secure user authentication mechanisms, encrypt user data, and apply proper access controls to protect sensitive information.

### 4. Reliability:

The system should have a minimum uptime of 99%, ensuring it is available to users for most of the time without disruptions.

### 5. Scalability:

The application should be designed to accommodate an increasing number of users and basketball teams without a significant decrease in performance.

### 6. Cross-Browser Compatibility:

BaskeStats should be compatible with major web browsers such as Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge, ensuring consistent functionality and appearance across these platforms.

### 7. Documentation:

The system should have comprehensive and up-to-date documentation, including user manuals, technical guides, and system architecture documentation for easy reference and maintenance.

### 8. Testing and Quality Assurance:

Follow rigorous testing practices, including unit testing, integration testing, and regression testing, to ensure the quality and reliability of each software release.