

# SCOPE OF WORK

v1.0



## BEVA APPLICATION

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## Scope Version History

Document Version	Sent On	Notes
v1.0	23/01/2026	

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to present a detailed description of the features that will be added to the web application. It will explain the purpose and features, interfaces, business process workflow of the features added in the application, what the system will do, the constraints under which it must operate, and how the system will react to the data generated. This document is intended for both the stakeholders and the developers of the system and will be proposed to the client and development team for approval.

## 1.2. Scope

The scope of the project includes the design, development, and deployment of a role-based web platform that enables users to discover, join, manage, and administer sports competitions. The platform will support public access to competition information, secure player registration and authentication, competition discovery for cue-sports disciplines ( i.e., 8-Ball, 9-Ball, 10-Ball, and Blackball), participation, dynamic tournament visualization across multiple formats, match scoring and dispute management, global leaderboards, and venue browsing. It will also provide comprehensive administrative capabilities for Competition Admins, Venue Admins, Master Admins, and Super Admins, including competition creation and control, venue management, user and role management, content management, notifications, and system-level governance.

## 1.3. Glossary

Term	Definition
Scope of Work	A document that completely describes all of the functions of a proposed application and the constraints under which it must operate
Stakeholder	Any person with an interest in the project who is not a developer
Actor	Player, Competition Admin, Venue Admin, Master Admin, Super Admin

## 2. Business Process Requirements Specification

This section outlines the business process features for each of the users separately.

### Types of User Roles:

1st level users: Player

2nd level users: Competition Admin

3rd level users: Venue Admin

4th level users: Master Admin

5th level users: Super Admin User

### 2.1 User Classes and Characteristics

User Characteristics	User Classes
Web Page	Homepage / Landing Page
<b>Web Application</b> <ul style="list-style-type: none"><li>• Player Dashboard</li><li>• Discover</li><li>• My Competition</li><li>• Leaderboards</li><li>• Venues</li><li>• Profile</li><li>• Contact Us</li><li>• About Us</li><li>• FAQ</li><li>• TnC</li><li>• Privacy Policy</li></ul>	Player User
<b>Web Application</b> <ul style="list-style-type: none"><li>• Player Dashboard</li><li>• Discover</li><li>• My Competition</li><li>• Leaderboards</li><li>• Venues</li><li>• Create Offline Player</li><li>• Competition Management</li><li>• Competition Control</li><li>• Raised Dispute</li></ul>	Competition Admin User

<ul style="list-style-type: none"> <li>• Profile</li> <li>• Contact Us</li> <li>• About Us</li> <li>• FAQ</li> <li>• TnC</li> <li>• Privacy Policy</li> </ul>	
<p style="text-align: center;"><b>Web Application</b></p> <ul style="list-style-type: none"> <li>• Player Dashboard</li> <li>• Discover</li> <li>• My Competition</li> <li>• Leaderboards</li> <li>• Venues</li> <li>• Create Offline</li> <li>• Player</li> <li>• Competition</li> <li>• Management</li> <li>• Competition</li> <li>• Control</li> <li>• Raised Dispute</li> <li>• Venue</li> <li>• Management</li> <li>• Create</li> <li>• Competition</li> <li>• Profile</li> <li>• Contact Us</li> <li>• About Us</li> <li>• FAQ</li> <li>• TnC</li> <li>• Privacy Policy</li> </ul>	Venue Admin
<p style="text-align: center;"><b>Web Application</b></p> <ul style="list-style-type: none"> <li>• Player Dashboard</li> <li>• Discover</li> <li>• My Competition</li> <li>• Leaderboards</li> <li>• Venues</li> <li>• Create Offline Player</li> <li>• Competition Management</li> <li>• Competition Control</li> <li>• Raised Dispute</li> </ul>	Master Admin

<ul style="list-style-type: none"> <li>• Venue Management</li> <li>• Create Competition</li> <li>• Profile</li> <li>• Contact Us</li> <li>• About Us</li> <li>• FAQ</li> <li>• TnC</li> <li>• Privacy Policy</li> </ul>	
<p><b>Web Application</b></p> <ul style="list-style-type: none"> <li>• Admin Dashboard</li> <li>• User Management</li> <li>• CMS <ul style="list-style-type: none"> <li>◦ About Us</li> <li>◦ FAQ</li> <li>◦ TnC</li> <li>◦ Privacy Policy</li> </ul> </li> <li>• Contact Us Queries</li> <li>• Player Dashboard</li> <li>• Discover</li> <li>• My Competition</li> <li>• Leaderboards</li> <li>• Venues</li> <li>• Create Offline Player</li> <li>• Competition Management</li> <li>• Competition Control</li> <li>• Raised Dispute</li> <li>• Venue Management</li> <li>• Create Competition</li> <li>• Profile</li> </ul>	Super Admin

## 2.2 Technology Stack

Browser Compatibility for Web App	OS Compatibility for Web App
All latest versions of Firefox, Chrome & Safari are supported; Internet Explorer is not supported	MS Windows, Linux, Mac

Is the design to be provided by the Client	No
Is an Android native app required	Not Applicable
Is an iOS native app required	Not Applicable
Android OS versions supported	Not Applicable
iOS versions supported	Not Applicable
Mobile app orientation	Not Applicable
Is Cross platform app required (like Phonegap, Ionic, React Native etc.)	Not Applicable
Framework	<b>Frontend:</b> React, <b>Backend:</b> Node
Programming Language	<b>Frontend:</b> JavaScript (React) <b>Backend:</b> JavaScript (Node)



<b>Android app screen resolution supported</b>	Not Applicable
<b>iOS app screen resolution supported</b>	Not Applicable
<b>Mobile app: Is Web Service to be provided by Inheritx solution</b>	Not Applicable
<b>For the Android app – uploading on Google Play Store needs to be provided by Inheritx solution on the client's provided account.</b>	Not Applicable
<b>For the iOS app, uploading to Apple iTunes store needs to be provided by Inheritx solution on the client's provided account.</b>	Not Applicable
<b>Will the apps work offline?</b>	Not Applicable
<b>Will the apps have dark mode support?</b>	Not Applicable

## 3. Landing Page

### 3.1 Homepage

- The Home Page will be the landing screen of the platform. It displays introductory information about the Beva application.
- The following items will be shown on this screen:
  - **About Cue Sports Central:** Details about what the platform is offering to the user. (More details can be provided by the client.)
  - **Sign In:** This button would redirect the user to the sign-up page of the platform.
  - **Login:** This button would redirect the user to the login page of the platform.
  - **Ongoing Competitions (Read-Only)**
    - Non-registered users can access the competition's details directly via "View Details" on the signup screen.
    - No login or account creation required.
    - **List of Ongoing Competitions:** Competition Name, Status, Start Date, End Date, and Total Participants would be shown as a label.
    - **View Details:** Button, clicking upon this user would be redirected to the tournament page of the competition, where the following details would be displayed.
      - **Competition Name:** Label
      - **Status:** Label, (Ongoing, Completed)
      - **Start Date:** Label
      - **End Date:** Label
      - **Venue Name:** Label
      - **Participants:** Label
      - **Description:** Label
      - **Tournament View:** This will allow users to visualize the full structure and progress of a competition based on its format. The system dynamically renders the appropriate view depending on the competition format.
        - **Single Elimination:** A bracket-based view showing progression from early rounds to finals. Each match would consist of the following details.
          - Match Number: Label
          - Player / Team 1: Label
          - Player / Team 2: Label
          - Final Score (if completed): Label
          - Winner highlight (if completed): Label
        - **Double Elimination:** A dual-bracket view displaying both Winner and Loser brackets and a single elimination bracket (for final round) with the

following details. Each match would consist of the following details.

- Match Number: Label
- Player / Team 1: Label
- Player / Team 2: Label
- Final Score (if completed): Label
- Winner highlight (if completed): Label
- **Round Robin:** A table-based view showing player performance rankings with the following details.
  - Rank: Label
  - Player / Team name: Label
  - Match Won / Loss: Label
  - Match Win%: Label
  - Frame Won: Label
  - Frame Lost: Label
  - Frame Difference: Label
  - Frame Win%: Label
- **Multi Round Robin:** A multi-group-based table view with a final round table view, with each table displayed separately, with the following details.
  - Rank: Label
  - Player / Team: Label
  - Match Won / Loss: Label
  - Match Win%: Label
  - Frame Won: Label
  - Frame Lost: Label
  - Frame Difference: Label
  - Frame Win%: Label
- **2 Stage Elimination:** A hybrid visualization combining table and bracket views. We would be showcasing table view (for the first stage) and bracket/table view for the second stage, with the following details.
  - Table view (1st stage)
    - Rank: Label
    - Player / Team: Label
    - Match Won / Loss: Label
    - Match Win%: Label
    - Frame Won: Label
    - Frame Lost: Label
    - Frame Difference: Label
    - Frame Win%: Label

- Bracket View (if 2nd Stage is single elimination or double elimination). Each match would consist of the following details.
  - Player / Team 1: Label
  - Player / Team 2: Label
  - Final Score (if completed): Label
  - Winner highlight (if completed): Label
- Table View (if 2nd Stage is McIntyre System): Each match would consist of the following details.
  - Player / Team 1: Label
  - Player / Team 2: Label
  - Final Score (if completed): Label
  - Winner highlight (if completed): Label
- **3 Stage Elimination:** A hybrid visualization combining table and bracket views. We would be showcasing the table view (for the first stage) and bracket view for the second stage with the following details.
  - Table view (1st stage)
    - Rank: Label
    - Player / Team: Label
    - Match Won / Loss: Label
    - Match Win%: Label
    - Frame Won: Label
    - Frame Lost: Label
    - Frame Difference: Label
    - Frame Win%: Label
  - Table view (2nd stage)
    - Rank: Label
    - Player / Team: Label
    - Match Won / Loss: Label
    - Match Win%: Label
    - Frame Won: Label
    - Frame Lost: Label
    - Frame Difference: Label
    - Frame Win%: Label
  - Bracket View (if 3rd Stage is single elimination or double elimination), each match would consist of the following details.
    - Player / Team 1: Label
    - Player / Team 2: Label

- Final Score (if completed): Label
- Winner highlight (if completed): Label
- Table View (if 3rd Stage is McIntyre System): Each match would consist of the following details.
  - Player / Team 1: Label
  - Player / Team 2: Label
  - Final Score (if completed): Label
  - Winner highlight (if completed): Label

### 3.2 About Us

- The content added in the admin panel will be visible here as a webview

### 3.3 Contact Us

- The user's name & email address will be shown here as a label.
- The notes field will be shown here, where the user can add comments.
- Once added, an email will be sent to the super admin with the details that the user added.

## 4. Player User Functionality

### 4.1 Sign up using Email address & Password

- Users can sign up by providing the following info -
  - **First name:** This will be a mandatory textbox; the users can tap on this to add the first name in the textbox. Only alphabetic values are allowed.
  - **Last name:** This will be a mandatory textbox; the users can tap on this to add the last name in the textbox. Only alphabetic values are allowed.
  - **Email:** This will be a mandatory textbox; users can tap on this to add their email address, and email-related validations will be there.
  - **Password:** This will be a mandatory textbox. The user must include the following in the password -
    - At least 1 uppercase character.
    - At least 1 lowercase character.
    - At least 1 number.
    - At least 1 symbol.
    - Minimum 8 characters.

- **Confirm Password:** This will be a mandatory textbox. The user must include the following in the password -
  - At least 1 uppercase character.
  - At least 1 lowercase character.
  - At least 1 number.
  - At least 1 symbol.
  - Minimum 8 characters.
  - This password must match the password added in the field 'Password' field above.
- **Terms & Conditions:** This will be a checkbox. The user must check the box to provide an agreement to the terms & conditions. A link to the 'Terms & Conditions' will be shown here.
- **Submit:** This will be a button. If all the mandatory fields are filled, then the users can submit the details.

## 4.2 Account Verification

- Once the account is created, the user will have to verify the account. The verification can be done by -
  - **Email Verification Link:** Once the account is created, an email will be sent to the email address that the user provided while creating the account.
  - The email will have a verification link. The user can click on the link to verify the account.

## 4.3 Login using Email Address & Password

- Users can log in by providing the following info -
  - **Email Address:** This will be a mandatory textbox field, with email address-related validations.
  - **Password:** This will be a mandatory textbox field. The password added here will be shown as '\*\*\*\*'. An option to make the password visible will be shown here.
  - **Sign in:** This will be a button. Once the email address & password are added, the user can submit the details. If the correct credentials are entered, the user will be able to sign in. In case of incorrect credentials or any other issue, a message will be shown that notifies the user of the issue.
  - **Don't have an account? Sign up:** This will be a link, the user can tap on this & the user will be redirected to the signup screen.
  - **Note:** If a user tries to log in using an email linked to a social media sign-up, we show a message explaining that the account is connected to social login.

## 4.4 Forgot Password

- If the user has forgotten the password, then they can click on the 'Forgot Password' option from the Login screen.

- The user will then be asked to input their email ID to receive the link to reset the password. On clicking the link from the email, the user will be navigated to a web view where he/she will be able to set a new password.
- On clicking the link, a page will open in web view, which will have the following options :
  - **New Password** - This will be a mandatory textbox. The user must include the following in the password -
    - At least 1 uppercase character.
    - At least 1 lowercase character.
    - At least 1 number.
    - At least 1 symbol.
    - Minimum 8 characters.
  - **Confirm New Password:** This will be a mandatory textbox. The user must include the following in the password -
    - At least 1 uppercase character.
    - At least 1 lowercase character.
    - At least 1 number.
    - At least 1 symbol.
    - Minimum 8 characters.
    - This password must match the password added in the field 'Password' field above.
  - **Reset** - This will be a button, and clicking on it will save the new password.
  - The user can't use this feature if the account was created using the 'Social Signup' feature. A message will be shown if the user tries to use this feature.

## 4.5 Social Signup & Login

- Along with manual signup & login, the user can also use the social signup & login option to create an account. The following social signup & login options will be available to the user -
  - **Continue with Google:** The users can enter their Google credentials to create an account.
  - **Continue with Apple:** The users can enter their Apple credentials to create an account.
  - **Continue with Facebook:** The users can enter their Facebook credentials to create an account.

## 4.6 Navigation Panel

- **Player Dashboard:** The users will be taken to the 'Player Dashboard' screen
- **Discover:** This will take the user to the 'Discover' screen.
- **My Competition:** This will take the user to the 'My Competition' screen.
- **Leaderboard:** This will take the user to the 'Leaderboard' screen.

- **Venue Name:** This will take the user to the 'Venue' screen.
- **Profile:** This will take the user to the 'Profile' screen.
- **About us:** This will take the user to the 'About us' screen.
- **Terms & Conditions:** This will take the user to the 'Terms & Conditions' screen.
- **Privacy Policy:** This will take the user to the 'Privacy Policy' screen.
- **FAQ:** This will take the user to the 'FAQ' screen.
- **Contact Us:** This will take the user to the 'Contact us' screen.
- **Logout:** This will log the user out of the app.

## 4.7 Player Dashboard

- This will be the default landing page of the web application. The player dashboard provides a summary of the player's ratings and competition activity.
  - **Welcome Screen:** This would be a welcome page displaying static content along with player profile details. The following content would be displayed here.
    - **My Ratings:** The following information would be shown in this section.
      - **Player's current rating:** Label
      - **Rating change from the previous month:** Label
    - **Competition Summary:** The following information would be shown in this section.
      - **Total competitions participated:** Label.
      - **Total competition won:** Label, in which the user had won the tournament or came first.
      - **Total competition loss:** Label
      - **Win rate (in terms of competition):** Label
    - **Upcoming Competition:** The following information would be shown in this section.
      - **List of upcoming competitions:** Displays a maximum of four upcoming competitions the player is part of, with the following details.
        - **Competition Name:** Label (Name of the competition)
        - **Competition Type:** Label (Individual, Doubles, Team)
        - **Competition Discipline:** Label (e.g., 8-ball, 9-ball, etc.)
        - **Venue Name:** Label (Name of the venue in which the competition would be hosted).
        - **Competition Date (From - To):** Label (Start Date and End Date of the competition.)
        - **View Details:** Button, clicking upon this user would be redirected to the competition details page.
      - **View All:** Button, clicking upon this user would be redirected to the My Competition page.
      - **Note:** In case the user had not joined any competition, then we would be showing the user the discover button. Clicking upon it, the user would be redirected to the Discover page.



## 4.8 Discover

- Players can browse all competitions from this screen. The following details would be displayed on the screen.
  - **Search:** Textbox; allows searching for competitions by name or venue name.
  - **Filter:** Dropdown, allows filtering competitions list by competition discipline and competition type.
  - **Default Sorting:** The competition shown would first show the data based on the user's and venue's postcode.
  - **List of competitions:** A list of all the active competitions (whose joining date has not passed) would be displayed here. Each competition entry will display:
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Type:** Label
    - **Venue Name:** Label
    - **Competition Date (From - To):** Label
    - **Entry Fee:** Label
    - **Prize Pool:** Label
    - **Joined Players / Teams and Total Players / Teams:** Label, (Number of joined players/teams vs Total number of players/teams allowed for the competition.)
    - **View Details:** Button, clicking upon this user would be redirected to the competition detailed page.
  - **Competition Detailed Page:** The following information would be shown here.
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Type:** Label
    - **Competition Overview:** Label
    - **Venue Name:** Label
    - **Competition Date (From - To):** Label
    - **Entry Fee:** Label
    - **Prize Pool:** Label
    - **Competition Format:** Label (e.g., Single Elimination, Double Elimination, Round Robin, Multi-Round Robin, 2-Stage, and 3-Stage).
    - **Joined Players/ Teams vs Total Players/ Teams:** Label
    - **Last Joining Date:** Label
    - **Join Competition:** Button
      - **If the Competition Type is Individual:** Clicking on join competition, a modal would open with the following information.
        - **Competition name:** Label
        - **Entry fee:** Label
        - **Competition Discipline:** Label

- Upon confirmation, users can join the competition.
- **If the Competition Type is Doubles/ Teams:** Clicking upon the join competition, a modal would open where users would be shown the following details:
  - **Competition name:** Label
  - **Entry fee:** Label
  - **Competition Discipline:** Label
  - **Competition Type:** Label
  - **Team Name:** Textbox, mandatory, Name of the team that would be shown for matchups in the competition.
  - **Add team members:** Searchbox, to search for the players to add to the team, is a mandatory field.
    - **Note:** Users need to add members as per the competition type. (E.g., If the competition type is dual, then the user needs to add one member; if the competition type is a team (with 4 members), then the user needs to add three members.
    - Users would have the option to remove the added members in case a wrong member is added.
  - **Select captain (For Doubles / Team):** Dropdown, mandatory, user needs to select the captain of the team from the list of members in the team.
  - By providing all the field details, users can join the competition.
- **Share Competition:** Button, clicking upon this user would be to copy and share the competition link with other users/players.

## 4.9 My Competition

- Displays all competitions the player is part of. The following details would be displayed here.
  - **Search:** Textbox allows searching for competitions by name or venue.
  - **Filter:** Dropdown, allows filtering competitions list by competition status and competition type.
  - **Default Sorting:** The list of competitions would be sorted by default based on the competition date.
  - **List of competitions:** A list of all the competitions (the player is part of) would be displayed here. Each competition entry will display:
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Type:** Label
    - **Venue Name:** Label

- **Competition Date (From - To):** Label
- **Competition Status:** Label (Upcoming, Ongoing, Completed)
- **View Details:** Button, clicking upon this user would be redirected to the My Competition detailed page.
- **My Competition Detailed Page:** The following information would be shown here.
  - **Competition Name:** Label
  - **Competition Discipline:** Label
  - **Competition Type:** Label
  - **Competition Format:** Label
  - **Venue Name:** Label
  - **Competition Date (From - To):** Label
  - **Competition Status:** Label
  - **Tournament Winner:** Label (Player / Team who won the tournament or secured 1st rank, would only be shown in case the tournament is completed).
  - **View Tournament:** Button, clicking upon this user would be redirected to the tournament overview screen. The screen allows users to visualize the full structure and progress of a competition based on its format. The system dynamically renders the appropriate view depending on the competition format. Below are the various visualizations of the tournament based upon the competition format:
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Format:** Label
    - **Single Elimination:** A bracket-based view showing progression from early rounds to finals. Each match would consist of the following details.
      - **Match Number:** Label
      - **Player / Team 1:** Label
      - **Player / Team 2:** Label
      - **Final Score (if completed):** Label
      - **Winner highlight (if completed):** Label
    - **Double Elimination:** A dual-bracket view displaying both Winner and Loser brackets and a single elimination bracket (for final round) with the following details. Each match would consist of the following details.
      - **Match Number:** Label
      - **Player / Team 1:** Label
      - **Player / Team 2:** Label
      - **Final Score (if completed):** Label
      - **Winner highlight (if completed):** Label
    - **Round Robin:** A table-based view showing player performance rankings with the following details.
      - **Rank:** Label

- **Player / Team:** Label
  - **Match Won / Loss:** Label
  - **Match Win%:** Label
  - **Frame Won:** Label
  - **Frame Lost:** Label
  - **Frame Difference:** Label
  - **Frame Win%:** Label
- **Multi Round Robin:** A group-based table view in addition to the final round table, with each table displayed separately, with the following details.
  - **Rank:** Label
  - **Player / Team:** Label
  - **Match Won / Loss:** Label
  - **Match Win%:** Label
  - **Frame Won:** Label
  - **Frame Lost:** Label
  - **Frame Difference:** Label
  - **Frame Win%:** Label
- **2 Stage Elimination:** A hybrid visualization combining table and bracket views. We would be showcasing the table view (for the first stage) and bracket/table view for the second stage based upon the tournament configuration, with the following details.
  - **Table view (1st stage)**
    - **Rank:** Label
    - **Player / Team:** Label
    - **Match Won / Loss:** Label
    - **Match Win%:** Label
    - **Frame Won:** Label
    - **Frame Lost:** Label
    - **Frame Difference:** Label
    - **Frame Win%:** Label
  - **Bracket View (if 2nd Stage is single elimination or double elimination):** Each match would consist of the following details.
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
  - **Table View (if 2nd Stage is McIntyre System):** Each match would consist of the following details.
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label

- **3 Stage Elimination:** A hybrid visualization combining table and bracket views. We would be showcasing the table view (for the first and second stage) and bracket/table view for the third stage based upon the tournament configuration, with the following details.
  - **Table view (1st stage)**
    - **Rank:** Label
    - **Player / Team:** Label
    - **Match Won / Loss:** Label
    - **Match Win%:** Label
    - **Frame Won:** Label
    - **Frame Lost:** Label
    - **Frame Difference:** Label
    - **Frame Win%:** Label
  - **Table view (2nd stage)**
    - **Rank:** Label
    - **Player / Team:** Label
    - **Match Won / Loss:** Label
    - **Match Win%:** Label
    - **Frame Won:** Label
    - **Frame Lost:** Label
    - **Frame Difference:** Label
    - **Frame Win%:** Label
  - **Bracket View (if 3rd Stage is single elimination or double elimination):** Each match would consist of the following details.
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
  - **Table View (if 3rd Stage is McIntyre System):** Each match would consist of the following details.
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
- **My Matches:** The following section would display a list of all matches involving the player. Per match, the following details are shown.
  - **Match Number:** Label
  - **Player / Team Name:** Label
  - **Opponent Player / Team Name:** Label
  - **Table Number:** Label (Assigned by competition admin only in case it is assigned)

- **Final Result:** Label, player/team won the match (if match status is result confirmation pending/completed)
- **Final Scorecard:** Label (if match status is result confirmation pending/completed)
- **Match Status:** Label (Pending, Ongoing, Result confirmation pending, Completed)
- **Confirm Match Result:** Button, clicking upon this, a modal would open which allows the player/ Team captain to confirm the match result. The following information would be shown in the modal.
  - **Match Number:** Label
  - **Frames score:** Label, The modal would consist of a list of frames by frames score for both the player/team and the opponent player/team.
  - **Final Score:** Label, the final score for both players would be shown.
  - **Winning Player / Team:** Label, Player / Team who won the match would be shown.
  - **Confirm:** Button, clicking upon this user can confirm the match result.
- **Raise Dispute:** Button, clicking upon this, a modal would open which allows the player / Team captain to raise a dispute by adding a note. The following information would be shown in the modal.
  - **Match Number:** Label
  - **Final Score:** Label, the final score for both players would be shown.
  - **Frames score:** Label, The modal would consist of a list of frames by frames score for both the player/team and the opponent player/team.
  - **Dispute Note:** Textbox, Mandatory
  - **Submit:** Button, to submit the dispute to the admin.
- **Note:**
  - Confirm Match Result and Raise a Dispute would only be shown to the Team captain in case the Competition Type is (Doubles or Team), and to all players in case the Competition type is Individual.
  - The Confirm Match Result and Raise a Dispute button would only be visible in case the match status is Result confirmation pending.
  - Match status would be marked as completed if both the player/team confirms the result.
  - If the player is a part of a competition and has not checked in the competition, then we would show 'Player / Team is not a part of the competition.' The following message

would be shown when competition is in the ongoing stage, and the player/team has not checked in.

## 4.10 Leaderboard

- This screen would consist of a Global leaderboard displaying player rankings. The following information would be displayed here.
  - By default, the ranking would be shown for combined discipline rankings.
  - **Filter:** Allows filtering of leaderboard information by discipline
  - **Search:** Users can search the list by player names.
  - **Player Ranking information**
    - Player's current rank: Label
    - Player Name: Label
    - Discipline: Label
    - Win Rate Percentage (by matches): Label
    - Win Count (by matches): Label
    - Loss Count (by matches): Label
  - **Global Leaderboard**
    - Rank: Label
    - Player: Label
    - Rating: Label
    - Discipline: Label
    - Wins: Label
    - Losses: Label
    - Win Rate: Label
  - **Note:** The data will change as per the filter applied by the user.

## 4.11 Venues

- Displays all venues listed on the platform. The following information would be displayed here.
  - **Search:** Users can search the venue list by venue name and postcode.
  - **Venue List:** A list of all the active venues listed on the platform will be shown here. Each venue entry displays:
    - **Venue Name:** Label
    - **Venue Address with post code:** Label
    - **Total Tables:** Label
    - **Total Events Hosted:** Label
    - **Contact Information:** Label
    - **Email Address:** Label
    - **Upcoming Competitions:** A list of up to three upcoming competitions will be displayed, along with the following details.
      - **Competition Name:** Label
      - **Competition Date (From - To):** Label

- No upcoming competition label in case there is no upcoming competition for that venue.
- **View All:** Button; clicking upon this user would be redirected to a Discover page showing all competitions for the selected/clicked venue.

## 4.12 Profile

- **Profile Details:** The user can manage the following details in this section -
  - **Career Statistics**
    - **Joined Competitions Count:** Label
    - **Wins (in matches):** Label
    - **Losses (in matches):** Label
    - **Win Rate:** Label, (Percentage matches won)
  - **Profile Image:** The profile picture is initially not there; users can add the profile picture from local storage or capture it from their device.
    - If the user has not added a profile picture, then the first letter of the first name and last name will be shown here.
    - Users can upload from local storage.
    - Ex: if the person's name is John Doe, then the JD will be shown if the user has not added the profile picture.
  - **Email Address:** The email address that the user provided while signing up will be shown here as a label if the user has signed up using email and social signup.
  - **First Name:** The first name that the user provided while signing up will be shown here as a label. The user can change it.
  - **Last Name:** The last name that the user provided while signing up will be shown here as a label. The user can change it.
  - **Address:** Textbox, current address of the user.
  - **Postcode:** Textbox, current postcode of the user.
  - **Gender:** Dropdown (Male / Female / Prefer not to say)
  - **DOB:** Datepicker
  - **Player Rating (All Discipline):** Label, current rating of the player,
  - **Global Ranking (All Disciplines):** Label, current ranking of the player.
  - **Bio:** Textbox, users can enter their biography and save it.
  - **Show Player Card:** Button, clicking upon this, a modal would open where the user can see the following information.
    - **Player QR Code:** Label
    - **Download:** Button, clicking upon this user can download the QR code, which is linked to the player.
    - **Note:** Player cards can be used to check in the competition.
  - **Security:** Users can change their passwords in this section. The following information would be shown here.
    - **Password:** The user can reset the password by entering the following
      - **Current Password:** This will be a textbox. The user can enter the current password.



- **New Password:** This will be a mandatory textbox. The user must include the following in the new password -
  - At least 1 uppercase character.
  - At least 1 lowercase character.
  - At least 1 number.
  - At least 1 symbol.
  - Minimum 8 characters.
- **Confirm New Password:** This will be a mandatory textbox. The user must include the following in the new password -
  - At least 1 uppercase character.
  - At least 1 lowercase character.
  - At least 1 number.
  - At least 1 symbol.
  - Minimum 8 characters.
  - The password added here must match the new password added in the field above.
- **Note:** The user would not be shown the change password feature if the account was created using the 'Social Signup' feature.

### 4.13 About Us

- The content added in the admin panel will be visible here as a webview

### 4.14 Terms & Conditions

- The content added in the admin panel will be visible here as a webview

### 4.15 Privacy Policy

- The content added in the admin panel will be visible here as a webview

### 4.16 FAQ

- The content added in the admin panel will be visible here as a webview

## 4.17 Contact Us

- The user's name & email address will be shown here as a label.
- The notes field will be shown here, where the user can add comments.
- Once added, an email will be sent to the super admin with the details that the user added.

## 4.18 Notifications

- This user will get the following notifications:
  - **Email Notifications:** The following email notifications will be sent to this user:
    - Account created
    - Account verification
    - Forgot Password
    - Query raised via 'Contact Us' form
    - Table Assignment for the matches.
    - Dispute resolved by the competition admin
    - Dispute rejected by the competition admin.

# 5. Competition Admin Functionality

## 5.1 Player Features

- All the player features would be provided to the user.

## 5.2 Navigation Panel

- **Player Dashboard:** The users will be taken to the 'Player Dashboard' screen
- **Discover:** This will take the user to the 'Discover' screen.
- **My Competition:** This will take the user to the 'My Competition' screen.
- **Leaderboard:** This will take the user to the 'Leaderboard' screen.
- **Venue:** This will take the user to the 'Venue' screen.
- **Create Offline Player:** This will take the user to the 'Create Offline Player' screen.
- **Competition Management:** This will take the user to the 'Competition Management' screen.
- **Competition Control:** This will take the user to the 'Competition Control' screen.
- **Profile:** This will take the user to the 'Profile' screen.
- **About us:** This will take the user to the 'About us' screen.
- **Terms & Conditions:** This will take the user to the 'Terms & Conditions' screen.
- **Privacy Policy:** This will take the user to the 'Privacy Policy' screen.

- **FAQ:** This will take the user to the 'FAQ' screen.
- **Contact Us:** This will take the user to the 'Contact us' screen.
- **Logout:** This will log the user out of the app.

### 5.3 Create Offline Player

- Allows the Competition Admin to create an offline player who can be added to competitions. The following details would be displayed here:
  - To create and assign an offline player user must enter the following details:
    - First Name: Textbox, mandatory
    - Last Name: Textbox, mandatory
    - Email Address: Textbox, mandatory
    - Address: Textbox, optional, current address of the players.
    - Competition: Dropdown, mandatory
      - Dropdown values would be based on the competitions assigned to the user.
  - **Note:**
    - Upon creation of any offline player:
      - Rating will default to 1500
      - RD will default to 350
      - Volatility will default to 0.06
    - On successful account creation, an invite email will be sent to the offline players to create an account on the platform.
    - Offline players created cannot be added to Doubles / Team competition.
    - Offline players can create their account on the platform by using the email address (used at the time of creating the offline account). Once the account is created, the competition data the player was involved in will be synced into their account.

### 5.4 Competition Management

- This screen would allow the Competition Admin to manage all competitions assigned to them. The following details would be displayed here:
  - **Competition List:** A list of competitions (pending) will be displayed with the following details per competition:
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Type:** Label
    - **Competition Date (From - To):** Label
    - **Total Participants:** Label
    - **Last Joining Date:** Label
    - **Manage Competition:** Button, clicking upon this user would be redirected to the competition page.

- **Manage Competition Page:** The Competition Admin can manage the competition from this page. The following details would be displayed here:
  - **Competition Name:** Label
  - **Competition Discipline:** Label
  - **Competition Type:** Label
  - **Competition Format:** Label
  - **Competition Status:** Label (Pending)
  - **Competition Date (From - To):** Label
  - **Total Participants:** Label
  - **Checked-In Participants:** Label
  - **Scan Check-In:** Button; clicking upon this, a modal would open which will allow the user to scan a player/team captain (in case of Doubles / Team) QR code to check in the player/team into the competition.
  - **Participant List:** A list of all participants with the following details:
    - **Profile pic / Team Initials:** Label
    - **Player / Team Name:** Label
    - **Online / Offline:** Label, offline signifies the player had been created offline.
    - **Check-In Status:** Label (Check-In or Not Checked-In)
    - **Actions:**
      - **Check In:** Button; checks the player/team into the competition.
      - **Revert:** Button, reverts the check-in action.
  - **Generate Brackets / Matchups:** Button; clicking upon this, a modal would open consisting of the following information.
    - **Total Participants / Teams:** Label
    - **Checked-In Participants / Teams:** Label (Matchups would be generated only for checked-in participants/teams).
    - **Generate Bracket / Matchups (via system automatically):** Button; clicking upon this, the matchups for the tournament would be generated automatically through the backend system based upon the tournament configuration and bye rule sets.
    - **Manual Bracket / Matchups (Manually):** Button; clicking upon this, a modal would open to assign players to the bracket/matchups manually.
      - **List of checked-in players:** A list of players/teams would be shown with name and ratings details as a label. (In case of team average rating, the team would be shown).
      - **Bye:** Users can assign bye to players/teams.
      - **Matchups:** Users can assign players/teams to the initial matches.
      - **Note:**

- The admin sets up the first round of the tournament by assigning players/teams and any necessary byes.
- After the first round, the next rounds are created automatically based on the match results.
- The tournament page adjusts automatically depending on how many participants/teams there are. If the number of participants is a power of 2 (2, 4, 8, 16, etc.), no byes are needed. If the number of participants is not a power of 2 (for example, one more or one less), byes are added to complete the bracket structure.
- Manual Bracket can only be generated for two competition format types (i.e., single elimination / double elimination tournaments).
- Once the bracket is generated, the competition will be marked as ongoing and can be managed from Competition Control.

## 5.5 Competition Control

- Displays all ongoing competitions whose tournament bracket had been generated by the competition admin will be shown here. The following details would be displayed here.
  - **Search:** By competition name
  - **Filter:** By competition status (Ongoing, Completed)
  - **Competition List:** Each competition entry will display:
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Status:** Label
    - **Competition Type:** Label
    - **Competition Format:** Label
    - **Competition Date:** Label
    - **Total Participants/Teams:** Label (Total participants/teams checked in for the competition.)
    - **Manage Matches:** Button, clicking upon this user would be redirected to the Match Control page.
    - **View Tournament:** Button, clicking upon this user would be redirected to the generated competition brackets page.
  - **Match Control:** This page would allow the Competition Admin to manage matches within a competition. The following details would be displayed here.
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Type:** Label
    - **Competition Format:** Label
    - **Total Participants/Teams:** Label

- **Competition Status:** Label
- **List of Matches:** For each match, the following details will be shown:
  - **Match Number:** Label
  - **Player / Team 1 Name:** Label
  - **Player / Team 2 Name:** Label
  - **Stage:** Label; match belongs to which stage, such as final round, 1st stage, 2-Stage, 3-Stage.
  - **Match Status:** Label (Pending, Ongoing, Result Confirmation Pending, Completed)
    - **Pending:** When the match result has not been entered.
    - **Ongoing:** When the table is assigned to the match.
    - **Result Confirmation Pending:** When the match result has been entered by the admin, but result confirmation is awaited.
    - **Disputed:** In case the dispute has been raised by the player/captain of the team.
    - **Completed:** Once the result is confirmed by either the Player / Captain or Admin user (competition admin, venue admin, master admin, or venue admin).
  - **Result:** Label (if match status is Result confirmation pending or Completed)
  - **Final Scorecard:** Label (if match status is Result Confirmation Pending or Completed).
  - **Actions available per match:**
    - **Assign Table:** Button, clicking upon this user can assign a table for the matchups. A modal would open, consisting of the following details.
      - **Table Name:** Textbox, mandatory.
      - **Note:**
        - The button would be enabled only in case the match status is pending.
        - Upon confirmation, an email will be sent to all the members/participants of the matches. (Email would consist of competition details, matchup details, and assigned table details.
    - **Enter Results:** Button, clicking upon this, a modal would open which allows the user to enter the scores and select the winner. The following details would be displayed here.
      - **Match Number:** Label
      - **Player / Team 1 Name:** Label
      - **Player / Team 2 Name:** Label
      - **Frame by Frame Scores:** Label
      - **Add Frame:** Button, clicking upon this user can enter the frame result for both players.

- Users can enter multiple frame results.
  - Users would have the option to remove the added frame result.
  - Frame results need to be entered for both players/teams.
  - At least one frame score needs to be entered.
- **Final Score for player 1/ team 1:** Textbox, mandatory
- **Final Score for player 2/ team 2:** Textbox, mandatory
- **Choose winner:** Dropdown, mandatory, selects the final winner of the match between the participants.
- **Submit Result:** Button, to submit the result for the match.
- **Note:** The button would be enabled only in case the match status is pending.
- **Forfeit Match:** Button, clicking upon this, a modal would open where the user can declare the match as forfeited by declaring a winner.
  - **Match Number:** Label
  - **Player / Team 1 Name:** Label
  - **Player / Team 2 Name:** Label
  - **Choose winner:** Dropdown, selects the final winner of the match between the participants.
  - **Note:** The button would be enabled only in case the match status is pending.
- **Resolve Dispute:** Button, clicking upon this user would be redirected to the Raised Dispute page.
  - **Note:** The button would be shown only when the match status is 'Disputed'.
- **Confirm Result:** Button, clicking upon this, a modal would open where the user can confirm the match result and mark the match as completed. The following details would be displayed in the modal.
  - **Match Number:** Label
  - **Player / Team 1 Name:** Label
  - **Player / Team 2 Name:** Label
  - **Frame by Frame Scores:** Label
  - **Final Score for player 1/ team 1:** Textbox, mandatory
  - **Final Score for player 2/ team 2:** Textbox, mandatory
  - **Choose the winner:** Label

- **Confirm Result:** Button, to confirm the result for the match.
- **Note:**
  - The button would be enabled only in case the match status is 'Result Confirmation Pending'.
  - The match status would automatically change to completed in case no actions are taken for Result confirmation pending matches on the next day.
- **View Tournament:** The Bracket / Tournament screen allows users to visualize the full structure and progress of a competition based on its competition format. The system dynamically renders the appropriate view depending on the competition format of the tournament.
  - **Competition Name:** Label
  - **Competition Discipline:** Label
  - **Competition Format:** Label
  - **Single Elimination:** A bracket-based view showing progression from early rounds to finals. Each match would consist of the following details.
    - **Match Number:** Label
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
  - **Double Elimination:** A dual-bracket view displaying both Winner and Loser brackets and a single elimination bracket (for final round) with the following details. Each match would consist of the following details.
    - **Match Number:** Label
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
  - **Round Robin:** A table-based view showing player performance rankings with the following details.
    - **Rank:** Label
    - **Player / Team:** Label
    - **Match Won / Loss:** Label
    - **Match Win%:** Label
    - **Frame Won:** Label
    - **Frame Lost:** Label
    - **Frame Difference:** Label
    - **Frame Win%:** Label



- **Multi Round Robin:** A group-based table view in addition to the final round table, with each table displayed separately, with the following details.
  - **Rank:** Label
  - **Player / Team:** Label
  - **Match Won / Loss:** Label
  - **Match Win%:** Label
  - **Frame Won:** Label
  - **Frame Lost:** Label
  - **Frame Difference:** Label
  - **Frame Win%:** Label
- **2 Stage Elimination:** A hybrid visualization combining table and bracket views. We would be showcasing the table view (for the first stage) and bracket/table view for the second stage based upon the tournament configuration, with the following details.
  - **Table view (1st stage)**
    - **Rank:** Label
    - **Player / Team:** Label
    - **Match Won / Loss:** Label
    - **Match Win%:** Label
    - **Frame Won:** Label
    - **Frame Lost:** Label
    - **Frame Difference:** Label
    - **Frame Win%:** Label
  - **Bracket View (if 2nd Stage is single elimination or double elimination):** Each match would consist of the following details.
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
  - **Table View (if 2nd Stage is McIntyre System):** Each match would consist of the following details.
    - **Player / Team 1:** Label
    - **Player / Team 2:** Label
    - **Final Score (if completed):** Label
    - **Winner highlight (if completed):** Label
- **3 Stage Elimination:** A hybrid visualization combining table and bracket views. We would be showcasing the table view (for the first and second stage) and bracket/table view for the third stage based upon the tournament configuration, with the following details.
  - **Table view (1st stage)**
    - **Rank:** Label
    - **Player / Team:** Label
    - **Match Won / Loss:** Label

- **Match Win%:** Label
  - **Frame Won:** Label
  - **Frame Lost:** Label
  - **Frame Difference:** Label
  - **Frame Win%:** Label
- **Table view (2nd stage)**
  - **Rank:** Label
  - **Player / Team:** Label
  - **Match Won / Loss:** Label
  - **Match Win%:** Label
  - **Frame Won:** Label
  - **Frame Lost:** Label
  - **Frame Difference:** Label
  - **Frame Win%:** Label
- **Bracket View (if 3rd Stage is single elimination or double elimination):** Each match would consist of the following details.
  - **Player / Team 1:** Label
  - **Player / Team 2:** Label
  - **Final Score (if completed):** Label
  - **Winner highlight (if completed):** Label
- **Table View (if 3rd Stage is McIntyre System):** Each match would consist of the following details.
  - **Player / Team 1:** Label
  - **Player / Team 2:** Label
  - **Final Score (if completed):** Label
  - **Winner highlight (if completed):** Label

## 5.6 Raised Dispute

- Displays all the disputes raised by players. The following details would be displayed here.
  - **Filter:** Filter disputes based on dispute status.
  - **List of Raised Disputes:** Each dispute entry will display:
    - **Competition Name:** Label
    - **Competition Discipline:** Label
    - **Competition Status:** Label
    - **Match Number:** Label
    - **Player / Team 1 Name:** Label
    - **Player / Team 2 Name:** Label
    - **Dispute Status:** Label
    - **Reported By:** Label
    - **Reported Comments:** Label
    - **Rejection Comments (if the dispute is rejected):** Label
    - **Actions available per dispute:**

- **Resolve & Update Scores:** Button; clicking upon this, a modal would open which allows the admin to update the match score and select the winner. The following details would be displayed in the modal.
  - **Match Number:** Label
  - **Player / Team 1 Name:** Label
  - **Player / Team 2 Name:** Label
  - **Frame by Frame Scores:** Label
  - **Add Frame:** Button, clicking upon this user can enter the frame result for both players.
    - Users can enter multiple frame results.
    - Users would have the option to remove the added frame result.
    - Frame results need to be entered for both players/teams.
    - At least one frame score needs to be entered.
  - **Final Score for player 1/ team 1:** Textbox, mandatory
  - **Final Score for player 2/ team 2:** Textbox, mandatory
  - **Choose winner:** Dropdown, mandatory, selects the final winner of the match between the participants.
  - **Submit Result:** Button, to submit the revised result for the match.
- **Reject Dispute:** Button rejects the dispute by adding a note and marking it as closed.
- **Note:** Once the dispute is resolved or rejected, the match status gets changed to completed.

## 6. Venue Admin Functionality

### 6.1 Player Features

- All the player features would be provided to the user.

### 6.2 Competition Admin Features

- All the competition admin features would be provided to the user.
- **Note:** The competition that is created by the user would only be visible and can be managed by the user.

### 6.3 Navigation Panel

- **Player Dashboard:** The users will be taken to the 'Player Dashboard' screen
- **Discover:** This will take the user to the 'Discover' screen.

- **My Competition:** This will take the user to the 'My Competition' screen.
- **Leaderboard:** This will take the user to the 'Leaderboard' screen.
- **Venue:** This will take the user to the 'Venue' screen.
- **Create Offline Player:** This will take the user to the 'Create Offline Player' screen.
- **Competition Management:** This will take the user to the 'Competition Management' screen.
- **Competition Control:** This will take the user to the 'Competition Control' screen.
- **Venue Management:** This will take the user to the 'Venue Management' screen.
- **Create Competition:** This will take the user to the 'Create Competition' screen.
- **Profile:** This will take the user to the 'Profile' screen.
- **About us:** This will take the user to the 'About us' screen.
- **Terms & Conditions:** This will take the user to the 'Terms & Conditions' screen.
- **Privacy Policy:** This will take the user to the 'Privacy Policy' screen.
- **FAQ:** This will take the user to the 'FAQ' screen.
- **Contact Us:** This will take the user to the 'Contact us' screen.
- **Logout:** This will log the user out of the app.

## 6.4 Venue Management

- Users can create and manage their venues. The following details would be displayed here.
  - **Create Venue:** Button, clicking upon this, a modal would open where users need to provide the following details to create a venue.
    - **Name:** Textbox, mandatory, Name of the venue.
    - **Address:** Textbox, mandatory, Address of the venue.
    - **Postcode:** Textbox, mandatory, Postcode of the venue.
    - **Number of Tables:** Numeric textbox, mandatory, Tables available at the venue.
  - **List of Venues:** A list of all venues created by the Venue Admin will be displayed. Each venue entry will show:
    - **Name:** Label
    - **Address:** Label
    - **Postcode:** Label
    - **Number of Tables:** Label
    - **Actions available per venue:**
      - **Edit Venue:** The button allows users to edit the existing details of the venue.
      - **Delete Venue:** The button allows users to delete the venue listed.
    - **Note:** Editing and deleting a venue will not affect any existing competitions associated with that venue.

## 6.5 Create Competition

- Users can create and manage competitions hosted at venues they have created. The following details would be displayed here.
  - **Default Sorting:** Recent competition created would be shown first.
  - **Competition List:** A list of all competitions created by the Venue Admin will be displayed. Each competition entry will include:
    - **Name:** Label
    - **Start Date:** Label
    - **End Date:** Label
    - **Competition Type:** Label
    - **Venue Name:** Label
    - **Entry Fee:** Label
    - **Competition Discipline:** Label
    - **Competition Status:** Label (Pending, Ongoing, Completed)
    - **Actions available per competition:**
      - **Edit Competition:** The button allows users to edit the details only for competitions in Pending status and would be disabled for ongoing and completed competitions.
      - **Delete Competition:** The button allows users to delete the competitions that are in Pending status would be disabled for ongoing and completed competitions.
  - **Create Competition:** Button, clicking upon this user would be redirected to a new page where users need to provide the following details to create the competition.
    - The user would have two options to create a competition
      - **Clone Competition:** Dropdown; allows cloning an existing competition. Upon existing competition selection, create competition page that will have all competition fields filled with existing competition details, and users can edit the details and create a new competition out of it.
      - **New Competition:** Button allows users to create a new competition from scratch.
    - **Competition Details:** The following details are required to create a competition:
      - **Name:** Textbox, mandatory, Name of the competition.
      - **Start Date:** Datepicker, mandatory, Start date of the competition.
      - **End Date:** Datepicker, mandatory, End date of the competition.
      - **Venue:** Dropdown, mandatory, Venue associated with the competition.
        - Values include only venues created by the Venue Admin
      - **Entry Fee:** Textbox, mandatory, Entry fee associated with the competition.
      - **Prize Pool:** Textbox, mandatory, Prize pool of the competition.

- **Competition Discipline:** Dropdown, mandatory (values from static discipline list shared by client).
- **Last Joining Date:** Datepicker, mandatory, Last date to join the competition.
- **Competition Type:** Dropdown; (Values: Individual, Double, Teams)
- **Max Players per Team (for team events):** Textbox, mandatory, numeric input, is only enabled if the user selects competition type as Teams.
- **Competition Admin:** Textbox, the user can search and assign multiple players for the competition admin role.
- **Competition Format Selection:** User can select the competition formats and configure the settings as follows:
  - **Format Type:** Dropdown options:
    - Single Elimination
    - Double Elimination
    - Round Robin
    - Multi-group Round Robin
    - 2 Stage
    - 3 Stage
  - **Single Elimination Configuration:** Would not require any parameters.
    - Bracket Generation: Automatic (by default) / Manual
  - **Double Elimination Configuration:**
    - Players with two losses will be eliminated from the competition. (Non editable field).
    - **Number of players left after the winning and losing side players come together to play each other:** Numeric Text-box, mandatory.
    - Bracket Generation: Automatic (by default) / Manual
    - **Note:** Players left would play a single elimination round from the winner's bracket and the loser's bracket.
  - **Round Robin Configuration:**
    - **Round Robin Type:** Dropdown (Full (by default)/ Partial)
    - **If Partial:**
      - Matches per Opponent: Numeric textbox, mandatory
  - **Multi-Round Robin Configuration:**
    - Group Criteria: Dropdown
      - Number of Groups

- Players / Teams per Group
- **If Number of Groups selected:**
  - Numeric field textbox, mandatory (e.g., 4 groups)
- **If Players per Group selected:**
  - Numeric field textbox, mandatory (e.g., 8 players / Teams per group)
- **Note:** A final full round robin would be held between the group toppers to decide the tournament winner.
- **2-Stage Competition Configuration**
  - **Stage 1:** Round Robin
    - **Round Robin Type:** Dropdown (Full (by default)/ Partial)
    - **If Partial:**
      - Matches per Opponent: Numeric textbox, mandatory
    - **Number of players qualifying for next stage:** Numeric - Textbox, mandatory.
      - Note: Values should be greater than 1.
  - **Stage 2:** Can be either Single Elimination, Double Elimination, or the McIntyre System.
    - **If Single Elimination:** No parameters are required.
    - **If Double Elimination:**
      - Final Reset Match Required: Yes / No.
    - **If McIntyre System:** The following option can only be selected if the number of players advancing to stage 2 are 4,6,7 or 8. (Matches would be generated as per the standard McIntyre system.
- **3-Stage Competition Configuration**
  - **Stage 1:** Round Robin
    - **Round Robin Type:** Dropdown (Full / Partial)
    - **If Partial:**
      - Matches per Opponent: Numeric textbox, mandatory
    - **Number of players qualifying for next stage:** Numeric - Textbox, mandatory.
      - Note: Values should be greater than 3.

- **Stage 2: Round Robin**
  - **Round Robin Type:** Dropdown (Full / Partial)
  - **If Partial:**
    - Matches per Opponent: Numeric textbox, mandatory
  - **Number of players qualifying for next stage:** Numeric - Textbox, mandatory.
    - Note: Values should be greater than 1.
- **Stage 3:** Can be either Single Elimination, Double Elimination, or the McIntyre System.
  - **If Single Elimination:** No parameters are required.
  - **If Double Elimination:**
    - **Final Reset Match Required:** Yes / No.
  - **If McIntyre System:** The following option can only be selected if the number of players advancing to stage 3 are 4,6,7 or 8. (Matches would be generated as per the standard McIntyre system.

## 7. Master Admin Functionality

### 7.1 Player Features

- All the player features would be provided to the user.

### 7.2 Competition Admin Features

- All the competition admin features would be provided to the user.
- **Note:** All the competitions that are created on the platform can be managed by the user.

### 7.3 Venue Admin Features

- All the venue admin features would be provided to the user.
- **Note:** All the competitions that are created on the platform (by all the users) can be managed by the user.

### 7.4 Navigation Panel

- **Player Dashboard:** The users will be taken to the 'Player Dashboard' screen



- **Discover:** This will take the user to the 'Discover' screen.
- **My Competition:** This will take the user to the 'My Competition' screen.
- **Leaderboard:** This will take the user to the 'Leaderboard' screen.
- **Venue:** This will take the user to the 'Venue' screen.
- **Create Offline Player:** This will take the user to the 'Create Offline Player' screen.
- **Competition Management:** This will take the user to the 'Competition Management' screen.
- **Competition Control:** This will take the user to the 'Competition Control' screen.
- **Venue Management:** This will take the user to the 'Venue Management' screen.
- **Create Competition:** This will take the user to the 'Create Competition' screen.
- **Profile:** This will take the user to the 'Profile' screen.
- **About us:** This will take the user to the 'About us' screen.
- **Terms & Conditions:** This will take the user to the 'Terms & Conditions' screen.
- **Privacy Policy:** This will take the user to the 'Privacy Policy' screen.
- **FAQ:** This will take the user to the 'FAQ' screen.
- **Contact Us:** This will take the user to the 'Contact us' screen.
- **Logout:** This will log the user out of the app.

## 7.5 Venue Management

- Users can create and manage all the venues of the platform. The following details would be displayed here.
  - **Create Venue:** Button, clicking upon this, a modal would open where users need to provide the following details to create a venue.
    - **Name:** Textbox, mandatory, Name of the venue.
    - **Address:** Textbox, mandatory, Address of the venue.
    - **Postcode:** Textbox, mandatory, Postcode of the venue.
    - **Number of Tables:** Numeric textbox, mandatory, Tables available at the venue.
  - **List of Venues:** A list of all venues created by the Venue Admin will be displayed. Each venue entry will show:
    - **Name:** Label
    - **Address:** Label
    - **Postcode:** Label
    - **Number of Tables:** Label
    - **Actions available per venue:**
      - **Edit Venue:** Button; allows users to edit the existing details of the venue.
      - **Delete Venue:** Button; allows users to delete the venue listed.
      - **Activate / Deactivate Venue:** Button; allows users to activate/deactivate the venue from the platform. (Users cannot create new competitions on the deactivated venue.)
    - **Note:** Deactivating, Editing and deleting a venue will not affect any existing competitions associated with that venue.

## 7.6 Create Competition

- Users can create and manage competitions hosted at their venues. The following details would be displayed here.
  - **Competition List:** A list of all competitions created by the Venue Admin will be displayed. Each competition entry will include:
    - **Name:** Label
    - **Start Date:** Label
    - **End Date:** Label
    - **Competition Type:** Label
    - **Venue Name:** Label
    - **Entry Fee:** Label
    - **Competition Discipline:** Label
    - **Competition Status:** Label (Pending, Ongoing, Completed)
    - **Actions available per competition:**
      - **Edit Competition:** Button; allows users to edit the details only for competitions in Pending status.
      - **Delete Competition:** Button; allows users to delete the competitions that are in Pending status.
  - **Create Competition:** Button, clicking upon this user would be redirected to a new page where users need to provide the following details to create the competition.
    - The user would have two options to create a competition
      - **Clone Competition:** Dropdown; allows cloning an existing competition. Upon existing competition selection, create competition page that will have all competition fields filled with existing competition details, and users can edit the details and create a new competition out of it.
      - **New Competition:** Button allows users to create a new competition from scratch.
    - **Competition Details:** The following details are required to create a competition:
      - **Name:** Textbox, mandatory, Name of the competition.
      - **Start Date:** Datepicker, mandatory, Start date of the competition.
      - **End Date:** Datepicker, mandatory, End date of the competition.
      - **Venue:** Dropdown, mandatory
        - Values include all the venues created on the platform.
      - **Entry Fee:** Textbox, mandatory, Entry fee associated with the competition.
      - **Prize Pool:** Textbox, mandatory, Prize pool of the competition.
      - **Competition Discipline:** Dropdown, mandatory (values from static discipline list shared by client).
      - **Last Joining Date:** Datepicker, mandatory, Last date to join the competition.

- **Competition Type:** Dropdown, mandatory, (Values: Individual, Double, Teams)
- **Max Players per Team (for team events):** Textbox, mandatory, numeric input, is only enabled if the user selects competition type as Teams.
- **Competition Admin:** Textbox, the user can search and assign multiple players for the competition admin role.
- **Competition Format Selection:** User can select the competition formats and configure the settings as follows:
  - **Format Type:** Dropdown options:
    - Single Elimination
    - Double Elimination
    - Round Robin
    - Multi-group Round Robin
    - 2 Stage
    - 3 Stage
  - **Single Elimination Configuration:** Would not require any parameters.
    - **Bracket Generation:** Automatic (by default) / Manual
  - **Double Elimination Configuration:**
    - Players with two losses will be eliminated from the competition. (Non editable field).
    - **Number of players left after the winning and losing sides come together to play each other:** Numeric Text-box, mandatory.
    - **Bracket Generation:** Automatic (by default) / Manual
    - **Note:** Players left would play a single elimination round from the winner's bracket and the loser's bracket.
  - **Round Robin Configuration:**
    - **Round Robin Type:** Dropdown (Full (by default)/ Partial)
    - **If Partial:**
      - **Matches per Opponent:** Numeric textbox, mandatory
  - **Multi-Round Robin Configuration:**
    - **Group Criteria:** Dropdown
      - Number of Groups
      - Players / Teams per Group
    - **If Number of Groups selected:**
      - Numeric field textbox, mandatory (e.g., 4 groups)

- **If Players per Group selected:**
  - Numeric field textbox, mandatory (e.g., 8 players / Teams per group)
- **Note:** A final full round robin would be held between the group toppers to decide the tournament winner.
- **2-Stage Competition Configuration**
  - **Stage 1: Round Robin**
    - **Round Robin Type:** Dropdown (Full (by default)/ Partial)
    - **If Partial:**
      - **Matches per Opponent:** Numeric textbox, mandatory
    - **Number of players qualifying for next stage:** Numeric - Textbox, mandatory.
      - Note: Values should be greater than 1.
  - **Stage 2:** Can be either Single Elimination, Double Elimination, or the McIntyre System.
    - **If Single Elimination:** No parameters are required.
    - **If Double Elimination:**
      - Final Reset Match Required: Yes / No.
    - **If McIntyre System:** The following option can only be selected if the number of players advancing to stage 2 are 4,6,7 or 8. (Matches would be generated as per the standard McIntyre system.
- **3-Stage Competition Configuration**
  - **Stage 1: Round Robin**
    - **Round Robin Type:** Dropdown (Full / Partial)
    - **If Partial:**
      - Matches per Opponent: Numeric textbox, mandatory
    - **Number of players qualifying for next stage:** Numeric - Textbox, mandatory.
      - Note: Values should be greater than 3.
  - **Stage 2: Round Robin**
    - **Round Robin Type:** Dropdown (Full / Partial)
    - **If Partial:**

- Matches per Opponent: Numeric textbox, mandatory
- **Number of players qualifying for next stage:** Numeric - Textbox, mandatory.
  - Note: Values should be greater than 1.
- **Stage 3:** Can be either Single Elimination, Double Elimination, or the McIntyre System.
  - **If Single Elimination:** No parameters are required.
  - **If Double Elimination:**
    - Final Reset Match Required: Yes / No.
  - **If McIntyre System:** The following option can only be selected if the number of players advancing to stage 3 are 4,6,7 or 8. (Matches would be generated as per the standard McIntyre system.)

## 8. Super Admin Functionality

### 8.1 Login

- The admin can log in by -
  - **Email Address:** This will be a mandatory textbox, with email address-related validations.
  - **Password:** This will be a mandatory textbox field, with password-related validations.

### 8.2 Forgot Password

- If the admin has forgotten the password, then he/she can click on the 'Forgot Password' option from the Login screen.
- The admin will then be asked to input their email id to receive the link to reset the password. On clicking the link from the email, the user will be navigated to a webview where he/she will be able to set a new password.
- On clicking the link, a page will open in a webview, which will have the following options :
  - **New Password:** This will be a mandatory textbox. The admin must include the following in the new password -
    - At least 1 uppercase character.
    - At least 1 lowercase character.
    - At least 1 number.
    - At least 1 symbol.

- Minimum 8 characters.
- **Confirm New Password:** This will be a mandatory textbox. The admin must include the following in the new password -
  - At least 1 uppercase character.
  - At least 1 lowercase character.
  - At least 1 number.
  - At least 1 symbol.
  - Minimum 8 characters.
- **Reset:** This will be a button, and clicking on it will save the new password will be saved.

## 8.3 Player Features

- All the player features would be provided to the user.

## 8.4 Competition Admin Features

- All the competition admin features would be provided to the user.
- **Note:** All the competitions that are created on the platform can be managed by the user.

## 8.5 Venue Admin Features

- All the venue admin features would be provided to the user.
- **Note:** All the competitions that are created on the platform (by all the users) can be managed by the user.

## 8.6 Master Admin Features

- All the master admin features would be provided to the user.
- **Note:** All the competitions that are created on the platform (by all the users) can be managed by the user.

## 8.7 Navigation Panel

- The following options will be shown in the app Navigation Panel. Users can navigate to the various sections from here.
  - **Player Dashboard:** This will take the user to the 'Player Dashboard' screen
  - **Discover:** This will take the user to the 'Discover' screen.
  - **My Competition:** This will take the user to the 'My Competition' screen.
  - **Leaderboard:** This will take the user to the 'Leaderboard' screen.
  - **Venue:** This will take the user to the 'Venue' screen.
  - **Create Offline Player:** This will take the user to the 'Create Offline Player' screen.

- **Competition Management:** This will take the user to the 'Competition Management' screen.
- **Competition Control:** This will take the user to the 'Competition Control' screen.
- **Venue Management:** This will take the user to the 'Venue Management' screen.
- **Create Competition:** This will take the user to the 'Create Competition' screen.
- **Profile:** This will take the user to the 'Profile' screen.
- **Admin Dashboard:** This will take the user to the 'Admin Dashboard' screen.
- **User Management:** This will take the user to the 'Player Dashboard' screen.
- **CMS Management:** This will take the user to the 'CMS Management' screen.
- **Contact Us Queries:** This will take the user to the 'Contact Us Query' page.
- **Logout:** This will log the user out of the app.

## 8.8 Navigation Panel >> Admin Dashboard

- The following text stats will be shown on the dashboard -
  - **System Stats:** The following system stats would be displayed on the screen.
    - **Total Users in the system:** A label with a count will be shown here. When the admin clicks on this, the admin will be taken to the end user list.
    - **Total Competition Admin in the system:** A label with a count will be shown here. When the admin clicks on this, the admin will be taken to the end user list.
    - **Total Venue Admin in the system:** A label with a count will be shown here. When the admin clicks on this, the admin will be taken to the end user list.
    - **Total Master Admin in the system:** A label with a count will be shown here. When the admin clicks on this, the admin will be taken to the end user list.

## 8.9 Navigation Panel >> User Management

- **User Management:** This section allows the Admin to manage all users on the platform.
  - The screen consists of the following three tabs:
    - User (All the users who had signed up as players on the platform)
    - Venue Admin
    - Master Admin
  - **User Account:** Displays a list of all users who have signed up on the platform with pagination, searching, and sorting.
    - **List of Users:** Each user entry will display the following details:
      - **Name:** Label
      - **Email:** Label

- **Role:** Label (Player, Competition Admin, Venue Admin, Master Admin)
- **Signup Date:** Label
- **Rating:** Label
- **Status:** Label (Active, Inactive)
- **Actions available per user:**
  - **Activate / Deactivate User:** Admin can activate or deactivate any user account.
  - **Change Password:** Admin can reset the password for user accounts.
- **Export:** Admin can export the user list in Excel format
- **Venue Admin:** Displays a list of all Venue Admin users on the platform with pagination, searching, and sorting.
  - **List of Venue Admin Users:** Each venue admin entry displays:
    - **Name:** Label
    - **Email:** Label
    - **Signup Date:** Label
    - **Rating:** Label
    - **Status:** Label (Active, Inactive)
    - **Actions available per user:**
      - **Remove Access:** Admin can revoke Venue Admin privileges
  - **Make Venue Admin:**
    - Button opens a modal
    - Admin can assign the Venue Admin role to an existing player who has signed up on the platform.
  - **Export:** Admin can export the venue admin list in Excel format
- **Master Admin:** Displays a list of all Master Admin users on the platform with pagination, searching, and sorting.
  - **List of Master Admin Users:** Each master admin entry displays:
    - **Name:** Label
    - **Email:** Label
    - **Signup Date:** Label
    - **Rating:** Label
    - **Status:** Label (Active, Inactive)
    - **Actions available per user:**
      - **Remove Access:** Admin can revoke Master Admin privileges
  - **Make Master Admin:**
    - Button opens a modal
    - Admin can assign the master admin role to an existing player who has signed up on the platform.
  - **Export:** Admin can export the master admin list in Excel format.



## 8.10 Navigation Panel >> Content Page Manager

- Admin can add content for content pages in this section. The content added here will be shown in the app.
- Admin can add content for the following pages
  - About Us
  - Terms & Conditions
  - Privacy Policy
  - FAQ

## 8.11 Navigation Panel >> 'Contact Us' Queries

- The admin can manage queries that the users have sent in this section. All the queries that the users have sent will be shown here, with pagination, searching, and sorting.
- For each query in the list, user details, the query that the user sent & the date-time of the query will be shown.
- An option to close the query will be shown for each row. Once the super admin resolves the query outside the system, it can be closed from here.

## 8.12 Notifications

- The admin will get the following notifications:
  - **Email Notifications:** The following email notifications will be sent to the admin in addition to all the players' notifications.
    - Forgot Password.
    - Contact Us query raised

# 9. Tie Break and Bye Rules

- **Tie Break Rules (To determine which player/team goes to the next stage in case of a tie in rankings)**
  - **Frame Win Percentage (FWP):** Whoever won more frames overall (as a percentage) is through to the next stage.
  - **If that's tied:** If the tied players/team played each other, whoever won more frames in their match against each other is ranked higher and would be chosen to go to the next stage.
  - **If that's still tied (or they didn't play each other):** The higher-rated player/team would go to the next stage.
- **Bye Rules (for auto matchups generation):** Top seeds get byes automatically; if unseeded (same ratings player), byes are allocated randomly.

## 10. Player Rating Mechanism (Glicko-2 Algorithm)

- **Player Ratings Methodology:** The Glicko-2 Algorithm methodology would be used to update the rating of the player.
- **Initial Ratings:** Upon creation of any player (once they onboard onto the platform), the Ratings will default to 1500, the RD to 350, and the Volatility to 0.06.
- **Ratings Update:** After each match is completed, player rankings will be updated based on the Glicko Algorithm.
- **Rating update in dual/team matches:** In doubles and team matches, the match outcome is evaluated at the team level using average team ratings, while individual player ratings are updated independently using each player's own rating, rating deviation (RD), and volatility using glicko-2 algorithm.

## 11. Conclusion

- This Scope of Work outlines the complete functional and operational requirements for the Beva platform, covering the end-to-end user journey for Players, Competition Admins, Venue Admins, Master Admins, and Super Admins. The project delivers a comprehensive competition management ecosystem, including user onboarding, competition discovery and participation, tournament visualization across multiple formats, match management, dispute resolution, leaderboard rankings, venue and competition administration, and centralized system governance.
- **The scope ensures:**
  - A scalable and role-based architecture supporting multiple user types with clearly defined permissions.
  - Comprehensive competition lifecycle management, from creation and onboarding through execution, scoring, dispute handling, and completion.
  - Dynamic tournament visualization supporting Single Elimination, Double Elimination, Round Robin, Multi-Round Robin, 2-Stage, and 3-Stage competition formats.
  - Secure authentication, account verification, profile management, and email notification systems.
  - Robust administrative controls for users, venues, competitions, content, and system-level operations.

## 12. Notes

- If changes are made for any module or any feature, other than what is defined in this scope work, needs to be added, that will require additional development effort. These changes will be re-estimated at that time & will be shared with the client.
- Any required third-party tools/plugins / APIs will be purchased and provided by the client.

- The efforts for deployment are considered for a one-time deployment on the LIVE server only.
- Default email templates will be used; it will require additional effort to create custom email templates.