



**Volley Viction**

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1. **PROJECT DESCRIPTION**

The volleyball management mobile app will function in Android mobile phones. Volleyball management application will cover every aspects of this sport. This application will able to manage the league easily. The application will be used to manage the teams and players that participate in the league. This Application will be designed in a way, that can be easily understandable to not only guests but also to league managers and team managers.

Basically, this application provides three types of roles, who can use this application such as league managers, team managers and guests. Where, league managers will be able to create and delete teams, seasons and also, they can create match schedules and can modify or enter match results. Team managers also have preceding role where they can edit information of their team. Every team have single team manager who can manage that team. Team managers have authority to add or delete their players. This is very easy way to define that each role can manage their duties effortlessly. League manager have same rights as team manager. For confidential reasons only league managers and team managers can login to the application. And, Guests can use this application by keeping up with match schedules, winning teams, losing teams and other statistics. Guests have no authorities to make changes or make modifications to the application.

Here, we will be using Android studio to build our application. This application will be used by android phone users. The android app will be developed in Android Java. The REST API will be developed in .NET in conjunction with Microsoft SQL Server 2017 Database.

The purpose of this documentation is to describe the application requirements and to track the development of an application. So, this document will be in the interest of a stakeholders who are interested in an application development and the developers who will be developing an app.

1. **REQUIREMENTS**
   1. **Functional Requirements**

The functional requirement provides the behavior of the system as it relates to the system's functionality. In simple words, it should be the ways in which the application should work.

This Application is classified between 3 users and so the functional requirements for all the users may vary.

1. **League Manager**

* League Manager have to login to the Application. Non-registered user or without logging in, they cannot access the application.
* Cegep Volleyball League is managed by League manager. User can organize seasons User can create schedules for the seasons.
* The League Manager can manage all teams. User can add the new team to the season and/or can remove the team , and update team’s information like Name,Contact details.
* Add and/or Delete the player/s of any team, and can edit their information and also update information of the respective Team Manager.
* League manager is responsible to update the results of each match after every game.
* League Manager can manage their personal information like Contact Information.

1. **Team Manager**

* Team Manager have to be registered/login to the Application. Non-registered user or without logging in, they cannot access the application.
* Team Manager is bound to single team. User can manage only one team. One Team also has only one Team Manager.
* Team Manager can edit team’s information like Name, Color, Contact Information and ranking.
* Manager can update the Player’s information like Name, DOB, Contact Details and also can add/remove any player in the team.
* Team Manager can update his personal information, Contact information.

1. **Guest**

* Guest can view all the teams of the League. They can view the details of the teams.
* Guest can able to see the events of the day. They can also able to check out the upcoming events for the league.
* The Guest can view statistics of all the teams.
* Guest who uses the application has no right to make any modifications or change the information in the application.
  1. **Non-Functional Requirements**

The non-functional requirement shows the running characteristics of the system. The basic and foremost requirement is efficiency and effectiveness of the app. If the app does not run smoothly and fast then nobody would show interest in using the app. Apart from these other non-functional requirements are:

* + 1. Operation Requirement: Operation Requirement describes how well Volleyball Management Application performs the task.
* Access Security: Whenever a call is made to the system function: to prevent an unauthorized invocation.
* Usability: This application provides the user to operate and easily access the features and able to prepare the inputs and interpret the outputs.
* Confidentiality: Protects the sensitive data and allows only the authorized access to data. Say Team Managers can only access the data of their teams.
* Data Integrity: Resource Constraint: The application will respond in minimum of 0.5s. The responsiveness of the application will be in 0.5s.
  + 1. Transition: Managing the upkeep of the system that is user is concerned with aspects such as compatibility with the other system.
* Portability: Device Independent: The application can be portable to android phones.

1. **MOCKUPS**
2. **WELCOME**

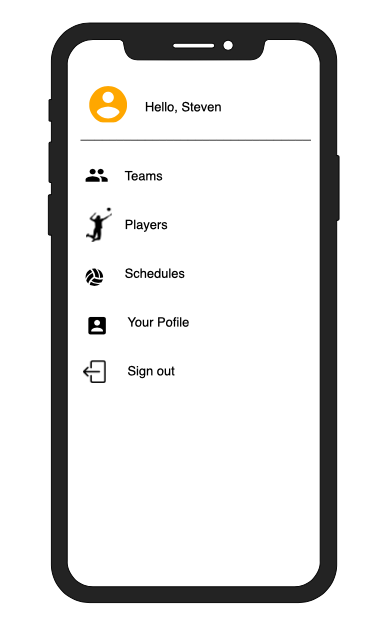
A screenshot of a cell phone

Description automatically generated

**FIG 1: WELCOME PAGE**

This screen displays the user’s credentials.

1. **YOUR PROFILE C. MENU**

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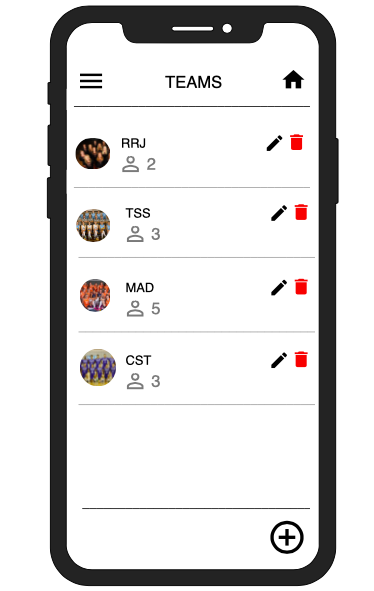
**FIG 1: SIDE MENU PAGE**

This screen represents different actions, such as, teams, players, sign out etc. that the league manager, team manager or user can take.

**FIG 1: YOUR PROFILE**

This screen displays the profile of a user..

**B. TEAM LIST C. ADD/EDIT TEAM**

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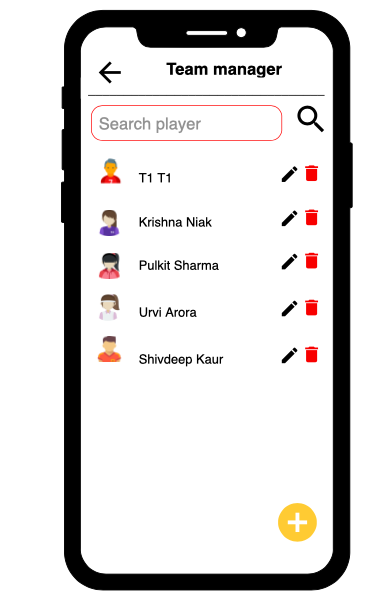
**FIG 3: ADD TEAM**

This screen adds a new team to the lists.

**FIG 2: TEAM LIST**

This screen displays different number of teams. League manager can also edit teams.

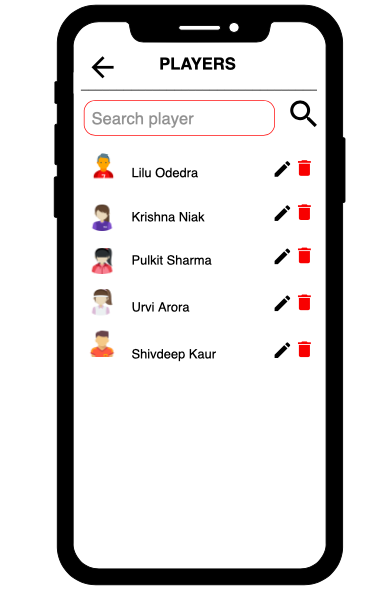
**D. TEAM MANAGER**

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**FIG 4: TEAM DESCRIPTION**

This screen displays the lists of team managers.

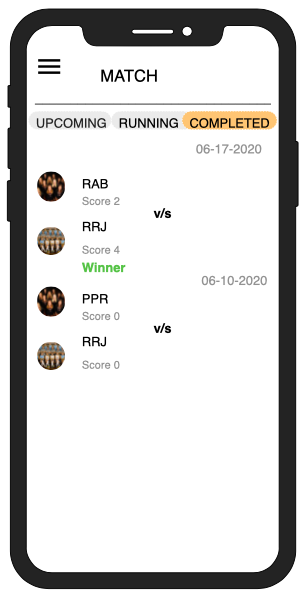
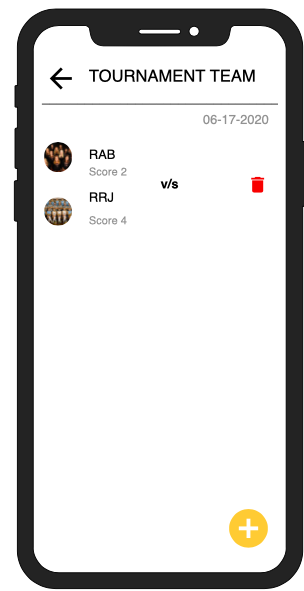
1. **PLAYER**

****

**FIG 6: PLAYER**

This screen display a list of players which a league manager can modify as well.

**H. MATCH I. TOURNAMENT TEAM**

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**FIG 9: TOURNAMENT TEAM**

This screen displays the entire information of a particular match.

**FIG 8: MATCH**

This screen displays different matches.

1. **SEASON. K. ADD/EDIT SEASON**

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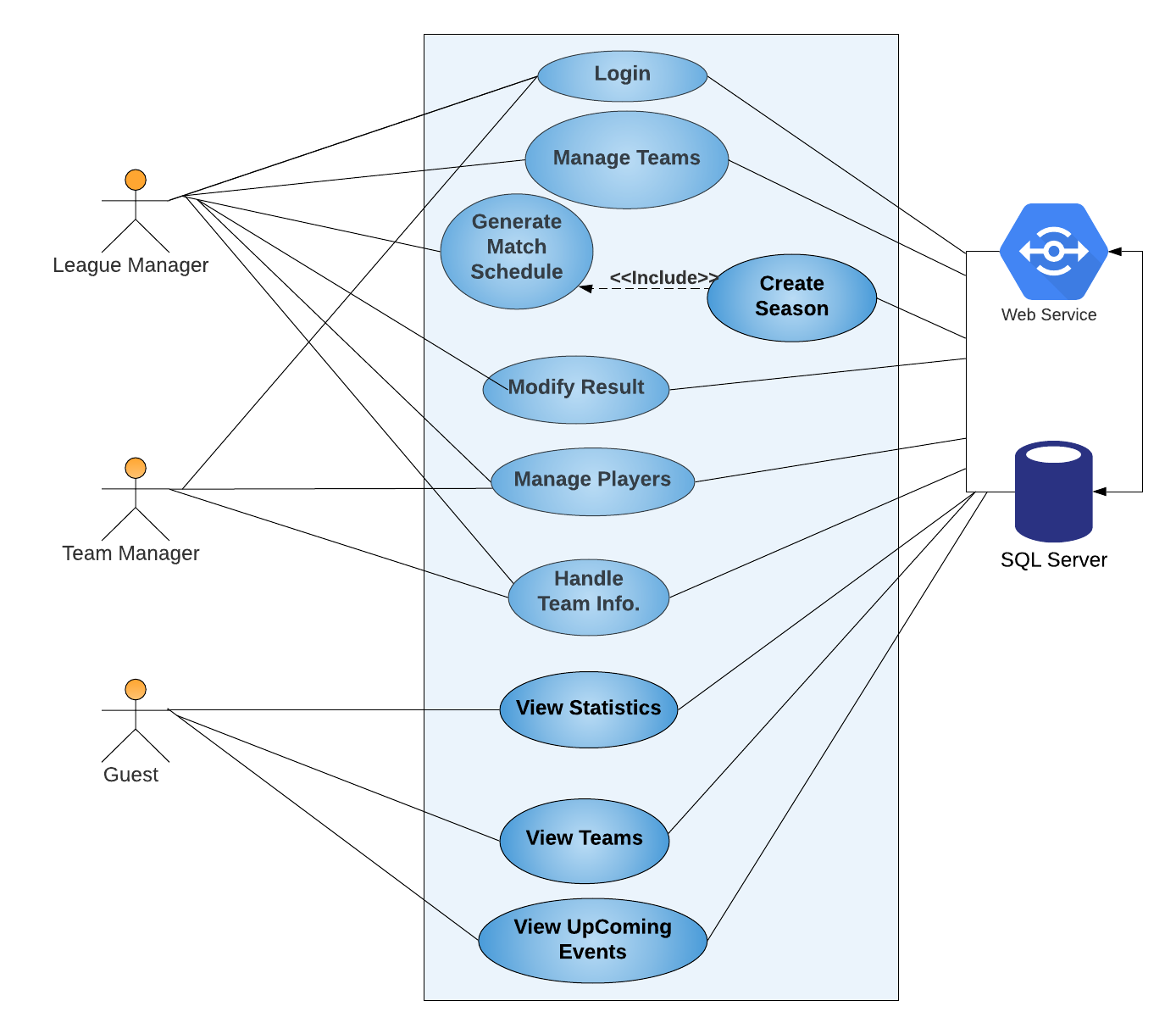
**FIG 11: Modify season**

This screen allows the league manager to modify seasons.

**FIG 10: SEASON**

This screen displays the total number of seasons going to occur in future.

1. **Use Case Diagram**



**4.1 Use Case Fully Dressed**

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Manage Teams |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager |
| **Stakeholders and Interests** | League manager: League manager must be able to Create team in order to make changes to that team. |
| **Preconditions** | League manager must be authenticated to an application and must have proper rights to access this application |
| **Success Guarantee (Post-Conditions)** | League manager must have created a page with all correct information. |
| **Main Success Scenario**  **(or Basic work-flow)** | League manager can add teams by adding information like team name, coach name, team logo etc. likewise league manager can delete team from the team list. |
| **Extensions (or Alternative work-flow)** | If League manager doesn’t know the flow of modifying then an application won’t move forward. |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Generate Match Schedule |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager |
| **Stakeholders and Interests** | League manager: League manager should able to create schedule for matches. |
| **Preconditions** | League manager must be able to create a season, only that way application can proceed. |
| **Success Guarantee (Post-Conditions)** | League manager should have generated a page correct information with time, date and place. |
| **Main Success Scenario**  **(or Basic work-flow)** | League manager can create new match schedule where user can add information such as match timing, date, location, teams name etc. |
| **Extensions (or Alternative work-flow)** | If League manager doesn’t know the flow of creating a schedule for matches then an application won’t move forward. |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Create Season |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager |
| **Stakeholders and Interests** | League manager: League manager should able to create season in order to create for matches. |
| **Preconditions** | League manager must be authenticated to an application. |
| **Success Guarantee (Post-Conditions)** | League manager should have generated a page with correct information about season and the name of that season. |
| **Main Success Scenario**  **(or Basic work-flow)** | League manager should have generated a page with correct information about season and the name of that season. |
| **Extensions (or Alternative work-flow)** | If League manager doesn’t know the flow of creating a season then an application won’t move forward and user won’t be able to create match schedule. |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Manage Players |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager and team manager |
| **Stakeholders and Interests** | User must be able to Create team in order to manage the players. |
| **Preconditions** | User must be authenticated to an application and must have proper rights to access this application |
| **Success Guarantee (Post-Conditions)** | League manager must have created players in order to edit them. |
| **Main Success Scenario**  **(or Basic work-flow)** | User can add players by adding information like player name, profile phots, contact number, DOB, experience etc. likewise user can delete player from the team list and also can edit player information. |
| **Extensions (or Alternative work-flow)** | If user doesn’t know the flow of modifying then an application won’t move forward |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Handle Team Information |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager and Team manager |
| **Stakeholders and Interests** | User should able to handle all team information time to time. |
| **Preconditions** | User must be able to create a Teams, only that way application can proceed. |
| **Success Guarantee (Post-Conditions)** | User should have generated a page correct information. |
| **Main Success Scenario**  **(or Basic work-flow)** | User can create new team where user can add information such as teams name, picture, team manager name etc. likewise user can edit team information from the team list. |
| **Extensions (or Alternative work-flow)** | If User doesn’t know the flow of creating a team for matches then an application won’t move forward. |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Modify Results |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager |
| **Stakeholders and Interests** | League manager: League manager should able to change results of matches. |
| **Preconditions** | League manager must be able to create a match, only that way application can proceed. |
| **Success Guarantee (Post-Conditions)** | League manager should have generated a page correct information of result. |
| **Main Success Scenario**  **(or Basic work-flow)** | League manager can make changes to the results if the team won or loose. |
| **Extensions (or Alternative work-flow)** | If League manager doesn’t make changes to result then user would may lose interest. |

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| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | View Statistics |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | Guest |
| **Stakeholders and Interests** | Guest should able to see all statistics of matches. |
| **Preconditions** | Guest have access to an internet service |
| **Success Guarantee (Post-Conditions)** | Guest should have generated a page correct information with time, date and place. |
| **Main Success Scenario**  **(or Basic work-flow)** | Guest would able to see all the statistics such as which team won the game, which team has what score etc.. |

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| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | View upcoming events |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | Guest |
| **Stakeholders and Interests** | Guest should able to see all notifications of matches. |
| **Preconditions** | Guest have access to an internet service. |
| **Success Guarantee (Post-Conditions)** | League manager should have generated a page correct information with time, date and place. |
| **Main Success Scenario**  **(or Basic work-flow)** | Guest would able to see all information about match timings, match location etc. |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | View Teams |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | Guest |
| **Stakeholders and Interests** | Guest should able to see all information of teams. |
| **Preconditions** | Guest have access to an internet service |
| **Success Guarantee (Post-Conditions)** | League manager should have generated a page correct information with time, date and place. |
| **Main Success Scenario**  **(or Basic work-flow)** | Guest would able to see all information of teams like team name. players, team manager name, team’s winning and losing games statistics. |

|  |  |
| --- | --- |
| **Use Case Section** | **Comment** |
| **Use Case Name** | Login |
| **Scope** | Volley Viction Application |
| **Level** | User-Level |
| **Primary Actor** | League manager and team manager |
| **Stakeholders and Interests** | User: User must be able to create an account to access the functionality of an application. Must be able to login to use an application. |
| **Preconditions** | User have access to an internet service |
| **Success Guarantee (Post-Conditions)** | User must have an account and must provide correct information |
| **Main Success Scenario**  **(or Basic work-flow)** | User open an application Provide information to login Information is valid User will be allowed to use an application |
| **Extensions (or Alternative work-flow)** | a) If the credentials (Username and/or Password) are wrong, Login will fail. b) If the member is not registered, the app will not allow the user to use the app |

1. **USER STORIES**

**4.1 User Story**

|  |  |
| --- | --- |
| User Story Id: | VLM-1 |
| Name: | As a League manager I should be able login into application so I can access an application feature |
| User Story Points: | 8 |
| Priority: | Highest |
| Description: | When user opens an application, they should be able to see splash screen. After splash screen, user will able to see login screen (If not logged in). Also, Login screen should provide a user an option to recover password.  User should provide Email Id and password to login into an application |

|  |  |
| --- | --- |
| User Story Id: | VLM-2 |
| Name: | As a League manager I should be able to recover account password so that I can regain access to an application |
| User Story Points: | 5 |
| Priority: | Highest |
| Description: | User should able to recover their password to regain an access to an application. Login Screen should have option to go to Forgot Password screen, if user wants to recover password.  User should provide an Email Id to get an application to recover their password. User need to create new password to recover an account and regain an access to an application. |

|  |  |
| --- | --- |
| User Story Id: | VLM-3 |
| Name: | As a League Manager I should be able to update my profile so I can keep update my latest information |
| User Story Points: | 5 |
| Priority: | Low |
| Description: | User should be able to update their profile details. |

|  |  |
| --- | --- |
| User Story Id: | VLM-4 |
| Name: | As a League Manager I should be able to create seasons so that I can create match for that season. |
| User Story Points: | 13 |
| Priority: | Highest |
| Description: | User will create new season for matches.. |

|  |  |
| --- | --- |
| User Story Id: | VLM-5 |
| Name: | As a League Manager I should be able to create matches so that I can organize matches for that season. |
| User Story Points: | 13 |
| Priority: | Highest |
| Description: | User will create matches. |

|  |  |
| --- | --- |
| User Story Id: | VLM-6 |
| Name: | As a League Manger I should be able to create team so that I can arrange match between teams. |
| User Story Points: | 8 |
| Priority: | Medium |
| Description: | User should be able to create team so that user can add their team mates. |

|  |  |
| --- | --- |
| User Story Id: | VLM-7 |
| Name: | As a League Manager I should be able to add team manager so that I can assign every team their team manager. |
| User Story Points: | 21 |
| Priority: | Highest |
| Description: | Each team will have only one team manage |

|  |  |
| --- | --- |
| User Story Id: | VLM-8 |
| Name: | As a League Manager I should be able to manage players so that I can add, delete and edit them. |
| User Story Points: | 21 |
| Priority: | Highest |
| Description: | User should be able to add any new player by adding their information such as player name , contact number , experience , Date of Birth , Joining Date etc. .  User should be able to delete any players from the player list and also user should be able to modify their information. |

|  |  |
| --- | --- |
| User Story Id: | VLM-9 |
| Name: | As a League Manager I should be able modify result so that every user can see statistics of that match. |
| User Story Points: | 21 |
| Priority: | Highest |
| Description: | User should able to change result and able to display that which team won and which team loose. |

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| --- | --- |
| User Story Id: | VLM-10 |
| Name: | As a League Manager I should be able to sign out so that I can able to leave this application whenever I want. |
| User Story Points: | 5 |
| Priority: | Low |
| Description: | User would log out from application.. |

|  |  |
| --- | --- |
| User Story Id: | VLM-11 |
| Name: | As a team manager I should be able login into application so I can access an application features. |
| User Story Points: | 8 |
| Priority: | Highest |
| Description: | When user opens an application, they should be able to see splash screen. After splash screen, user will able to see login screen (If not logged in). Also, Login screen should provide a user an option to recover password.  User should provide Email Id and password to login into an application |

|  |  |
| --- | --- |
| User Story Id: | VLM-12 |
| Name: | As a Team Manger I should be able to recover account password so that I can regain access to an application |
| User Story Points: | 8 |
| Priority: | medium |
| Description: | User should able to recover their password to regain an access to an application. Login Screen should have option to go to Forgot Password screen, if user wants to recover password.  User should provide an Email Id to get an application to recover their password. User need to create new password to recover an account and regain an access to an application. |

|  |  |
| --- | --- |
| User Story Id: | VLM-13 |
| Name: | As a Team manager I should be able to update my profile so I can keep update my latest information |
| User Story Points: | 5 |
| Priority: | Low |
| Description: | User should be able to update their profile details. |

|  |  |
| --- | --- |
| User Story Id: | VLM-15 |
| Name: | As a Team manager I should be able to change team information so that I can so keep update my latest information. |
| User Story Points: | 8 |
| Priority: | Medium |
| Description: | User should able to change information such as team name ,team logo etc. |

|  |  |
| --- | --- |
| User Story Id: | VLM-16 |
| Name: | As a Team manager I should be able to manage players so that I can add , delete and edit them. |
| User Story Points: | 21 |
| Priority: | Highest |
| Description: | User should be able to add any new player by adding their informations such as player name , contact number , experience , Date of Birth , Joining Date etc .  User should be able to delete any players from the player list and also user should be able to modify their information. |

|  |  |
| --- | --- |
| User Story Id: | VLM-17 |
| Name: | As a Team manager I should be able to see matches so that I can keep up with schedule. |
| User Story Points: | 8 |
| Priority: | Highest |
| Description: | User should able to see match dates, and statistics. |

|  |  |
| --- | --- |
| User Story Id: | VLM-18 |
| Name: | As a Team Manager I should be able to sign out so that I can able to leave this application whenever I want. |
| User Story Points: | 5 |
| Priority: | Highest |
| Description: | User should be able to add any new player by adding their informations such as player name , contact number , experience , Date of Birth , Joining Date etc .  User should be able to delete any players from the player list and also user should be able to modify their information. |

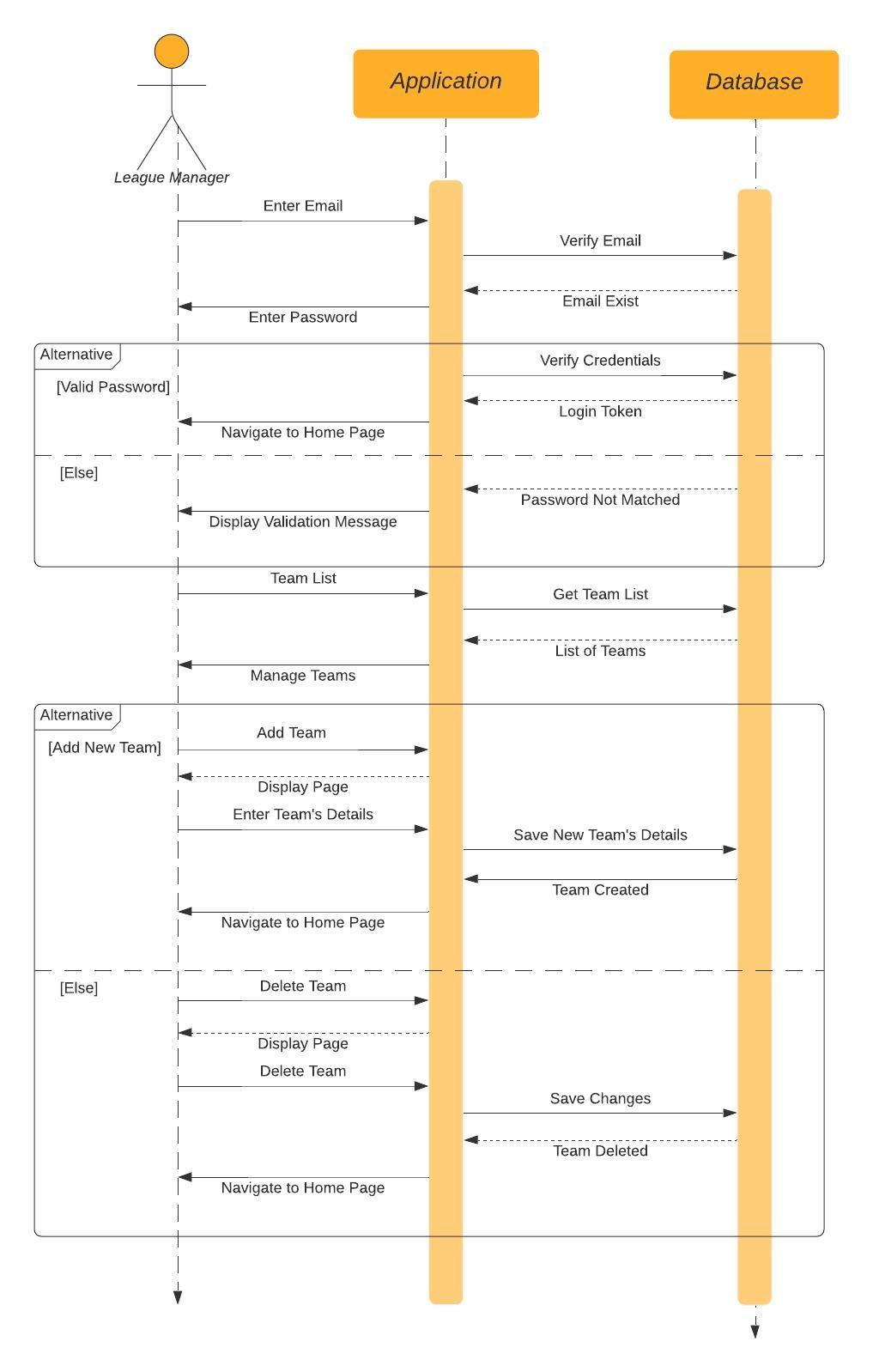
|  |  |
| --- | --- |
| User Story Id: | VLM-19 |
| Name: | As a Guest I should be able to see application so that I can access to league and their matches. |
| User Story Points: | 5 |
| Priority: | Highest |
| Description: | None. |

|  |  |
| --- | --- |
| User Story Id: | VLM-20 |
| Name: | As a Guest I should be able to see upcoming event so that I can keep up with matches. |
| User Story Points: | 5 |
| Priority: | Highest |
| Description: | None. |

|  |  |
| --- | --- |
| User Story Id: | VLM-21 |
| Name: | As a Guest I should be able to see statistics so that I can keep up with match score. |
| User Story Points: | 5 |
| Priority: | Highest |
| Description: | None |

1. **SEQUENCE DIAGRAM**

**League Manager**

****

**2. Manage Player**

**A screenshot of a cell phone

Description automatically generated**

**3.Create/Add Match**

**A screenshot of a cell phone

Description automatically generated**

1. **CLASS DIAGRAM**

