Game-On
Requirements and Specification Document
14th March 2023

1. **Project Abstract:** This application aims to improve the experience of students & faculty members of the campus by providing a platform that helps them reserve and utilize sports facilities on campus. The application provides users with a dashboard that allows users to browse and reserve available facilities at the campus. Users can manage their profile on this platform and leave feedback & reviews about the facility that they used so that the administration of the university can make the changes accordingly.

2. **Document revision history**:

Revision	Date	Description
1	06-03-2023	Initial draft of the SRS Document
2	08-03-2023	Updated the Functional requirements
3	10-03-2023	Updated the Non-Functional requirements
4	13-03-2023	Finalized the SRS Document

3. **Customer**: The customer for this sports facility app is the General Secretary of the Sports Council, and the end users for this application will be students and faculty of the campus. The General Secretary of the Sports Council identified the need for a streamlined and user-friendly platform for sports facility reservation and

utilization; they also asked for the collection of reviews and feedback which the students may express after utilizing the facilities, which will help the administration as well as the sports council to improve the facility management.

4. **Competitive Landscape:**

➔ **Product Features that can create competitive differentiators in a sports facility app can include:**
- Advanced search filter and sorting options to find the desired facility based on specific criteria quickly.
- Integration on other campuses.
- Limiting elements to incentivize facility utilization, such as students can only make a booking of two hours per week which helps to avoid addiction and better time management for the students as well as faculties and staff members.
- Advanced analytics and review capabilities to provide insights to the council or administration for improvements.

➔ **Competitive barriers in this market can include:**
- Existing projects with sports facilities or campus administration.
- Established Competitors: If there are already well-known and established sports facilities apps in the market, it can be challenging for a new app to break in and gain market share.
- If users have invested a lot of time into using another app, they may be reluctant to switch to a new app even if it offers better features.
- Development cost makes it difficult for new players to develop the application and enter the market.

Current patent status in this arena may be possible for certain unique features or functionalities of a sports facility app. However, obtaining a patent can be a lengthy and expensive process and may not always be feasible or necessary.
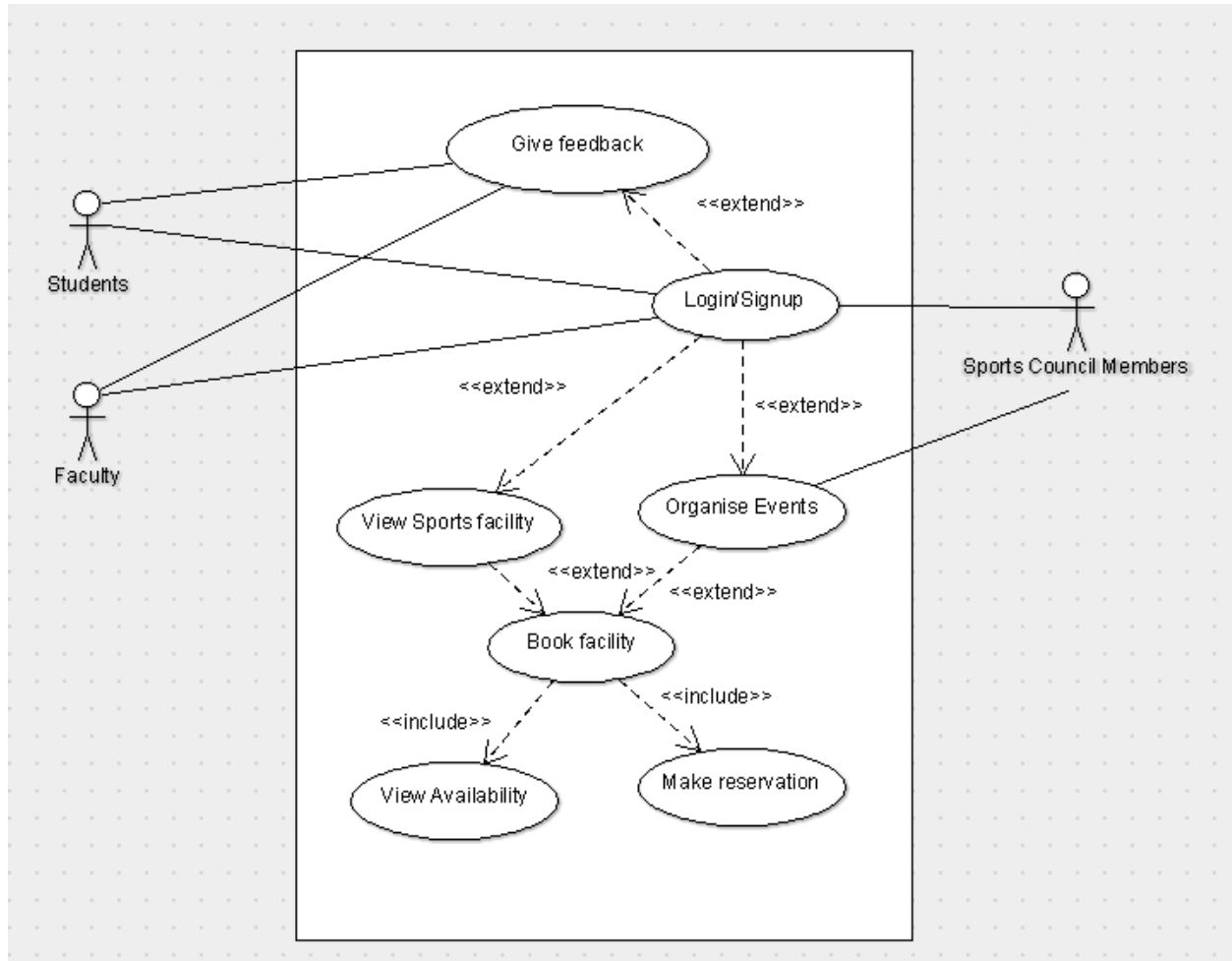
5. **System Requirements:**
   ➔ Non-functional requirements:
      ● Performance: The application should be able to handle a large volume of users and booking transactions without any performance issues such as lagging, crashes, etc.
      ● Security: The application should be secure and protect user data such as personal information, login credentials, etc.
      ● Scalability: The application should accommodate additional functionalities to scale up the application, such as accommodating the booking across multiple campus facilities.
      ● Reliability: The application should be reliable and stable, with minimal errors and bugs.
      ● Memory requirements: The user data, such as login id, password, previous bookings made, etc., would be stored in a common database for all users.
      ● Maintainability: The application should be easy to maintain and update, with modular design and well-organized code.
      ● Data capacity requirements: The essential data stored would be booking reviews, passwords, feedback, and user details such as enrollment numbers for the students, etc. The data capacity would depend on the number of users registered, which could be expanded by possibly purchasing additional storage.
      ● Customer UI Requirements: Simple and intuitive navigation: the users should be able to find the various sections and pages of the application with ease and quickly. A modular design of the various functionalities would be essential to carry this out.
      ● Multilingual support: The application should support multiple languages to cater to users from various linguistic backgrounds.
      ● Interactive features: The application offers interactive features, such as polls, to engage users and accumulate better feedback to improve the quality of the facilities.

Some external entities on which the application would depend are a database to store user and application data, the internet, etc.

➔ Functional requirements:
- Facility Booking - The user should be able to book facilities, such as fields, courts, or pools, for a specified time period.
- Schedule Management - The application should provide users with a schedule of upcoming events, activities, and facility bookings.
- User Profile - The application should provide users with a personal profile that includes their Enrollment Number, Name.
- Activity Registration - Sports council members can organize sporting events and activities by choosing " Organize Event," which will only be allowed to the sports council members.
- Feedback & Review - The application should allow users to provide feedback and reviews of their experiences at the sports facility.

USE-CASE DIAGRAM

Important Use Case Descriptions:

Case 1: Book Sports Facility

Mainline sequence-

      1- User: Selects View Sports facility option.

      2- System: Displays various facilities available in the campus.

      3- User: Selects the desired facility.

      4- System: Displays the availability status of that facility on different time slots.

      5- User: Books the facility.

      6- System: Updates the database.

Alternate sequence-

    After step 3 of mainline sequence:

      4- System: Displays that no slots for that facility are available.

Case 2: Give Feedback
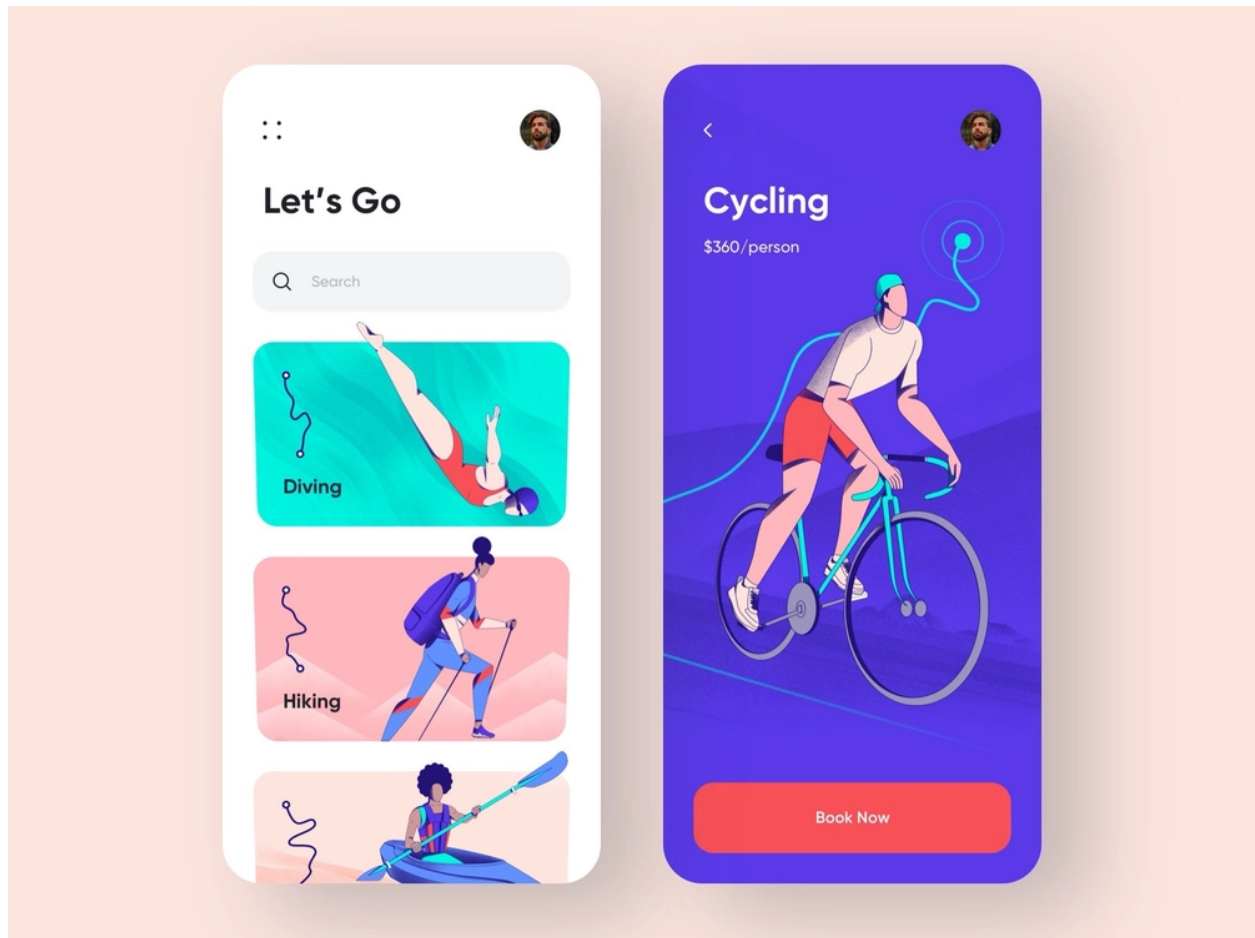
Mainline sequence-

      1- User: Selects give Feedback option.

      2- System: Displays various facilities available in the campus.

      3- User: Selects the desired facility.

      4- System: Opens the write feedback page.

      5- User: Writes feedback and gives rating.

Alternate sequence-

    After step 3 of the mainline sequence.

      4- System: Displays ineligibility of the user to give feedback due to no prior booking of that facility.

Proposed Prototype Design

★ **Reference** - https://dribbble.com/shots/9913251-Sports-App-Mobile-App

Checklist:
Have all the viewpoints of all the stakeholders been taken into account? **Yes**

Do the requirements completely specify what the function of the program should be? **Yes**

Are all non-functional requirements (e.g. speed, memory, capacity) specified? **No**, they would be updated in further versions, if any.

If there are requirements imposed by the environment in which the program will be used, are those requirements specified? **N/A**

Do the requirements avoid specifying a solution or a design? **Yes**

Are separate requirements listed separately and not lumped together? **Yes**

Are the requirements clear and precise, not ambiguous? **Yes**

Are the requirements consistent, no contradiction? **Yes**

Are the requirements accompanied by a rationale or justification? **Yes**

Are the requirements properly prioritized? **Yes**

How is the notation in the document? Are graphical and mathematical notation used appropriately? Is the technical jargon kept to a minimum?
No notations are used in the requirements. **Yes**, the technical jargon is kept to a minimum.

Does the requirements document make good use of scenarios and use cases? **Yes**

Are the requirements realistic? **Yes**

Are the requirements verifiable? **Yes**