INTERNATIONAL BURCH UNIVERSITY

FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES

DEPARTMENT OF INFORMATION TECHNOLOGIES



Software Requirements Specification (SRS) Project

**SPORTS CLUB**

Sarajevo, 2023. Berina Crnčalo

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1. Project proposal

|  |  |
| --- | --- |
| **Project Title:** Sport club | |
| **Start Date:** 07.11.2022. | **End Date:** 31.12.2022. |
| **Project Manager:** Berina Crnčalo | |
| **Project Sponsor: CEO of the company** | |
| **Purpose and business need:** This project makes it a lot easier for athletes to track their activities and points for those activities, calories, it also has diet plan, personal coaches, nutritionists and you will be able to communicate through the system. We hope to encourage people to be more active, or even compete with friends and family with point activities, and also track their health through smartwatches and their phones | |
| **Customers/Users:** This project is aimed towards everyone, mostly athetes and people who wish to track and be more active in their lives. We suspect that most users will be 16-50 year olds. | |
| **Goals and objectives**: We plan is to encourage people to be more active and track their health better. We hope that it's going to bring a lot of value since it can be accesed on the phone and also on the smartwatch, which become more popular by the day. | |
| **Project priorities:** (what features/aspects should be the main focus of the project) The main features are finding clubs, tracking activities and calories. | |
| **Constraints and special issues**: The only issue is to encourage people to be more active in the days of mobile phones and TV since not many people feel like doing anything active after school/work. | |
| **Risks and obstacles to success**: Will we be able to succed and have as much as users as possible | |
| **Technical Leads:**  **Berina Crnčalo** | |

1. Project Requirements
   1. Functional Requirements
2. **Feature name:** Register

**Role(s):** every person with a mobile phone and but not necessary smartwatch

**Feature description/steps:** In this step a person registers for the app, by entering data into the system database you can use this app and track every feature without losing any data. In the beginning there are types of users displayed and you will be asked to pick a type of user you want to be. Then you will be asked for user details, more specifically your name, date of birth mail and password. After details are verified, you will be welcomed into the app.

**Dependencies/constraints:** If any of the fields is not filled in or in right form, registration won’t be possible. Password must match in both fields. Name and Surname must be only letters.

1. **Feature name:** Lists

**Role(s):** Every user that registered

**Feature description/steps:** This feature is simple; users will be provided with the list of possible functions in the app to be informed about the usage of the app.

**Dependencies/constraints:** No dependencies

1. **Feature name:** Login

**Role(s):** Every user who is registered to the app

**Feature description/steps:** This feature appears every time the registered user wants to access the system if he/she didn’t stay logged in from before. Choosing this option will show the user the fields in which he/she needs to enter username and password and click Login button. If the username or password are incorrect, a message “Username or password is incorrect” will appear.

**Dependencies/constraints:** The user must be registered, and his username must match the ones that were used in registration, else a message “Username or password are incorrect” will appear.

1. **Feature name:** Log out

**Role(s):** every user that logged in

**Feature description/steps:** This feature is another simple one, by just clicking a button the user will be logged out of the system.

**Dependencies/constraints:** accessible only for logged in users

1. **Feature name:** Finding a club

**Role(s):** every user that registered

**Feature description/steps:** In this feature a user is assigned to a club, he/she can search it manually or the app will show nearby clubs if location is enabled and will be able to choose a club by his/her liking and will be welcomed into the club.

**Dependencies/constraints:** This feature will be displayed only for registered users

1. **Feature name:** Location tracking

**Role(s):** every registered user

**Feature description/steps:** This is a simple feature, you will be asked by the app if it can track your location to keep track of your activities, show nearby clubs and so on.

**Dependencies/constraints:** the user must approve location tracking

1. **Feature name:** Communication

**Role(s):** allregistered users

**Feature description/steps:** With this feature users can communicate with each other through the app, show how close they are to one another, write, send, and receive messages from users

**Dependencies/constraints:** One user must approve the message from the other to communicate for safety reasons

1. **Feature name:** Rewards

**Role(s):** active registered users

**Feature description/steps:** In this feature users can compete to get rewards from the app. When you login or registration the app displays competitors, after choosing your competitor the app assigns you to him/her and randomly chooses the winner based on activity log. Then the user is asked for the details to collect the reward, after the details are confirmed, the reward is given to the user.

**Dependencies/constraints:** Both users must agree to compete for the reward

1. **Feature name:** Calories tracking

**Role(s):** all active registered users with a smartwatch

**Feature description/steps:** To have this feature you must connect your mobile device with the smartwatch, after it’s connected the app measures vitals, and calories burned by being active, the information is displayed to the user and sent to the database.

**Dependencies/constraints:** User must have a smartwatch

1. **Feature name:** Healthy diet assistance

**Role(s):** every registered user that requested

**Feature description/steps:** This feature is kind of simple, you request a healthy diet plan which is sent to the experts who create a unique healthy diet plan for you and send it to you through the app.

**Dependencies/constraints:** The user must request a healthy diet plan in order to get it

1. **Feature name:** account deletion

**Role(s):** every registered user

**Feature description/steps:** With this feature the user can delete his/hers account at any point of time he/she wishes to. The account is deleted by clicking the delete account option after which the user is asked if he/she is sure he wants to delete the account, if yes it will be deleted.

**Dependencies/constraints:** The user must approve deletion

* 1. Nonfunctional Requirements
* The system must have a database that can accept and store more than a billion users
* The app must support both Android and iOS operating system
* The system should update data every 15 minutes and keep backups in case of failure
* The location and communications must be updated for all users within 0.1 second, given that all users are online and have LTE connection or better.
* The system must be strong enough to support 1,000,000 visits at the same time while maintaining optimal performance.
* Everything must be processed within 10 seconds from the request

1. Use case diagram

Diagram

Description automatically generated

1. Activity diagram
   1. Main

Chart, box and whisker chart

Description automatically generated

* 1. Activities

Diagram

Description automatically generated

* 1. Communications

Diagram

Description automatically generated

* 1. Finding a club

Diagram

Description automatically generated

* 1. Healthy diet

Diagram

Description automatically generated

* 1. Login

Diagram

Description automatically generated

* 1. Registration

Diagram

Description automatically generated

* 1. Rewards

Diagram

Description automatically generated

* 1. Calories

Diagram

Description automatically generated

1. Class diagrams
   1. Main

Diagram, schematic

Description automatically generated

* 1. Activity

Diagram

Description automatically generated

* 1. Calories

Diagram

Description automatically generated

* 1. Communication

Graphical user interface, application

Description automatically generated

* 1. Finding a club

Diagram

Description automatically generated

* 1. Healthy diet

Diagram

Description automatically generated

* 1. Login

Chart

Description automatically generated with low confidence

* 1. Registration

Graphical user interface

Description automatically generated with low confidence

1. Object diagram

Diagram

Description automatically generated

1. Sequence diagrams
   1. Calories

Diagram

Description automatically generated

* 1. Communication

A picture containing application

Description automatically generated

* 1. Finding a club

Chart, box and whisker chart

Description automatically generated

* 1. Healthy diet

Diagram, box and whisker chart

Description automatically generated

* 1. Login

Diagram, box and whisker chart

Description automatically generated

* 1. Registration

Diagram

Description automatically generated

1. Communication diagrams
   1. Calories

Diagram

Description automatically generated

* 1. Communication

Graphical user interface, text, application

Description automatically generated with medium confidence

* 1. Finding a club

Diagram

Description automatically generated

* 1. Healthy diet

Diagram

Description automatically generated

* 1. Login

Diagram

Description automatically generated

* 1. Registration

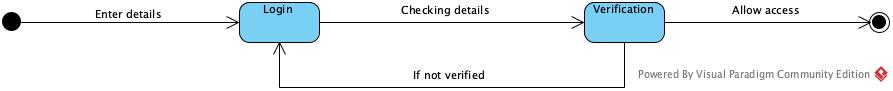
Diagram

Description automatically generated

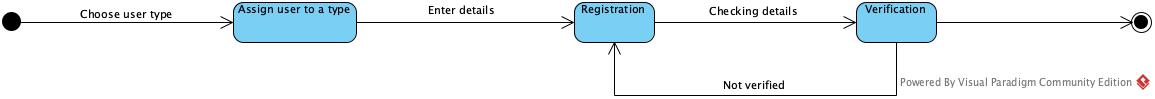
1. Behavior state diagrams
   1. Healthy diet



* 1. Login



* 1. Registration



* 1. Calories

