
IT314 Software Engineering
Lab 2
Project Name: AthleteTalk
Group 18

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Need for the AthleteTalk web application

In this era of people living a sedentary lifestyle, people do not take care of their health (physical as well as mental), which leads to severe health conditions.

1. **Track Health:** Our software can track and monitor numerous health metrics, which can be valuable for athletes suffering from illnesses.
2. **Reduce stress and anxiety:** Nowadays, more and more people are suffering from stress, depression and anxiety due to cutthroat competition and pressure to perform in their careers. We can provide relaxing activities for their managing their emotions and expectations, like breathing exercises, yoga, and meditation.
3. **Performance improvement:** Based on the user's prior experiences, physical, mental and emotional well being, we can propose adequate plans for their fitness and increase their vitals like stamina, strength, and agility. Multi-day plans are offered by AthleteTalk and are created to fulfill their goals.
4. **Routines of the best athletes:** Every athlete has an idol they follow and look up to. There aren't many easily accessible resources available for athletes who want to enhance their mental and emotional health. Athletes have access to the knowledge they need to make positive changes thanks to AthleteTalk, which offers videos and articles from some of the top experts in sports mental & physical health.
5. **Discuss with other users:** Many people find it helpful to communicate with a trusted individual to lessen their worries or get an opinion on their thoughts or plans. AthleteTalk is a mentoring atmosphere where athletes may share knowledge and support one another.
6. **Training Plans:** Many athletes need more awareness and resources to create/form an adequate training plan. We can provide the same for the user through our application.
7. **Consistency:** Consistency is the key to success. Every athlete needs to have the motivation to train every day and be at their best in the game.

Features of AthleteTalk

The web application will have the following features:

1. **User Login/SignUp:** Athletes can create their profiles to access the health content uploaded by other users and manage their plans and track progress. The web application asks for a username and password for logging in.
2. **User Choice:** While signing up, the app asks the users to complete their profile by adding an athlete icon and their sports field. It also asks the users to select their topics of interest to display on the dashboard.
3. **Personalized Content Recommendations:** According to the queries of the user and their response to topics of interest, it provides filtered content to the user's relevance and removes irrelevant content.
4. **Exercise tracking:** The athlete can also track their progress in physical well-being by the exercise tracking feature. The feature can monitor and document separate exercise routines, sets, reps, and weights.
5. **Health reports:** The app should provide users with detailed health reports, including graphs and charts that display their progress over time.
6. **Health reminders:** The app should be able to send reminders such as a reminder for taking medications, drinking water, or a sedentary reminder so that the user stands up and walks around a bit.
7. **Social support:** The app can offer features like being active in the community and interacting with fellow athletes, friends, and family for motivation and support.
8. **Health education:** The app can provide educational resources and information by health experts on various health topics to aid users in improving their overall health and well-being.
9. **Goal setting:** The user can move forward by constantly creating and fulfilling their goals. The AthleteTalk application provides a feature that allows users to develop and continuously track health-related goals, such as weight loss or increased physical activity.
10. **Mental health support:** The app can provide resources and support for mental health, such as mindfulness exercises, stress management techniques, and access to mental health resources.

- 11. Nutrition Tracking:** Along with good mental health, the athlete needs to be physically fit as well, and nutrients in the athlete's food intake are essential to fulfill this need. This feature helps users track their food intake, including calories and nutrients.

Functional Requirements for AthleteTalk

The web application shall fulfill the following functional requirements:

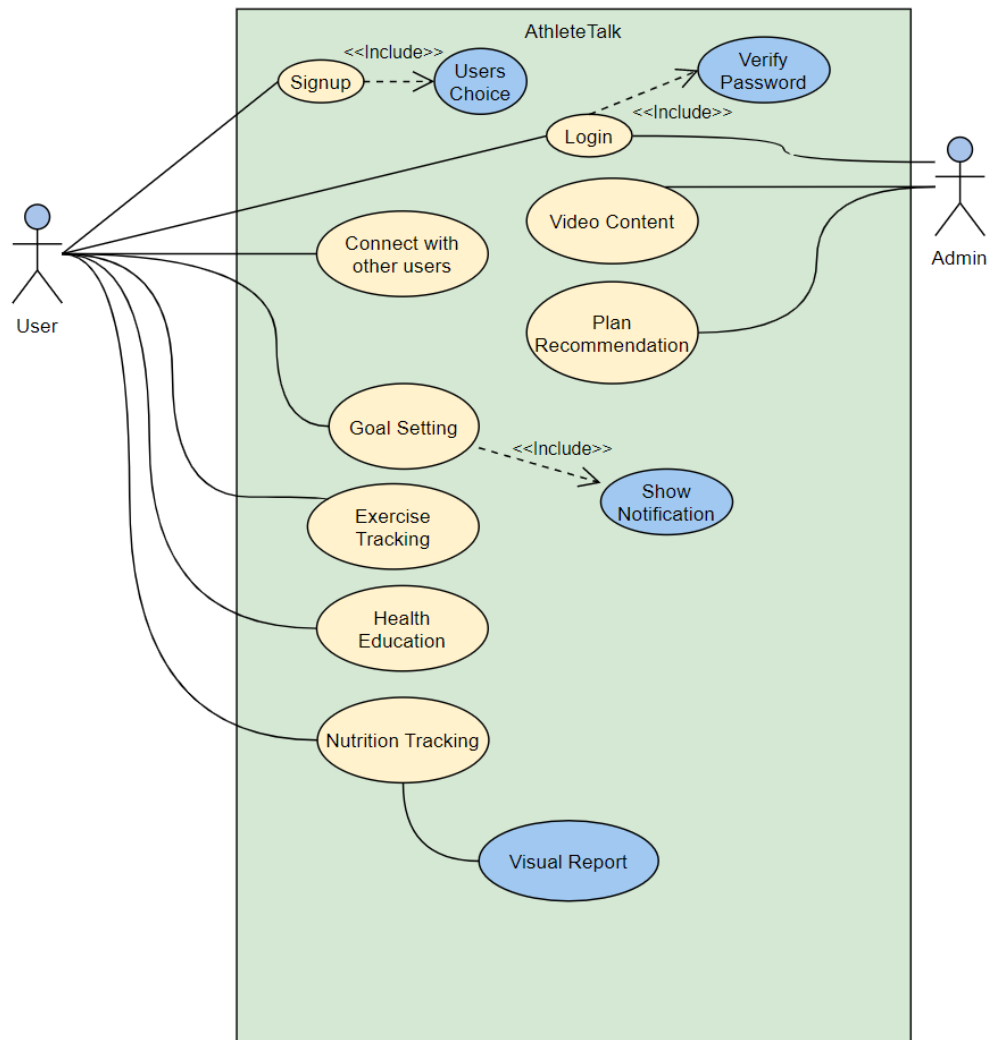
1. **User Authentication:** Login/Signup is required for users to create an account, set up their profiles and manage their plans.
2. **Video Content:** This feature provides diverse content for users to explore and learn. The videos from sports behavioral health specialists in areas like trauma, mindfulness, and diaphragmatic breathing can help athletes understand and manage their sport's mental and emotional demands and improve their overall well-being.
3. **Customizable dashboard:** The app should allow users to view and track their most important health metrics through a customizable dashboard.
4. **User-friendly interface:** The app should have a user-friendly interface that is easy to navigate through and comprehend, allowing users to quickly and effortlessly access their health data.
5. **Data sharing:** A feature allowing users to share their health data with trusted partners, such as healthcare providers, friends and family.
6. **Data export:** The app should allow users to export their health data in a standardized format, such as CSV or PDF, for use in other applications.
7. **Reminders and notifications:** The app can remind users to log their health data or notify them about important health events or milestones.
8. **Real-time updates:** The app should provide real-time updates on the user's health data, allowing them to see changes and respond accordingly quickly.
9. **Reporting and visualization:** This feature provides users with precise and illustrated reports of their health data, such as charts and graphs, to assist them better in understanding their health.

Non-Functional Requirements for AthleteTalk

The web application shall fulfill the following non-functional requirements:

1. **Performance:** Performance is a crucial criterion that guarantees the app will be quick to respond, manage a lot of data, and handle a lot of user traffic.
2. **Scalability:** The capacity of an application to grow to handle a growing volume of users and data without compromising performance.
3. **Security:** A requirement that makes sure the app is safe and secures users' health information from theft and unauthorized access.
4. **Privacy:** A requirement that ensures the app complies with privacy regulations and standards, and protects users' health data from unauthorized access and disclosure.
5. **Usability:** A requirement that ensures the app is user-friendly and intuitive, allowing users to easily navigate and access its features.
6. **Accessibility:** A requirement that ensures the app is accessible to users with disabilities and meets accessibility standards.
7. **Feedback and support:** A requirement that provides users with easy and accessible feedback and support options, such as a help center, live chat, or email support.

Use Case Diagram



Identify Process Model

Process Model : Incremental Model

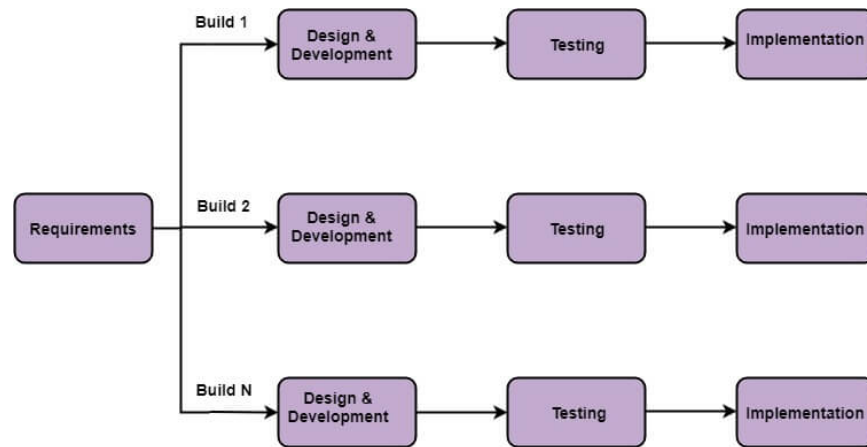


Fig: Incremental Model

Each iteration of the Incremental model builds on the preceding one, offering more functionality and features.

Reason :

This method is ideal for AthleteTalk because it allows for a phased development strategy in which new features and functionalities may be added incrementally based on user feedback and changing requirements. This is great for AthleteTalk since it enables for faster validation of the app's utility, which can then be used to guide future development.

The incremental model is a proper match for AthleteTalk as it allows for a structured yet flexible approach to development, with delivery confirmation of a working product, which is crucial to the success of a health advice app for athletes.