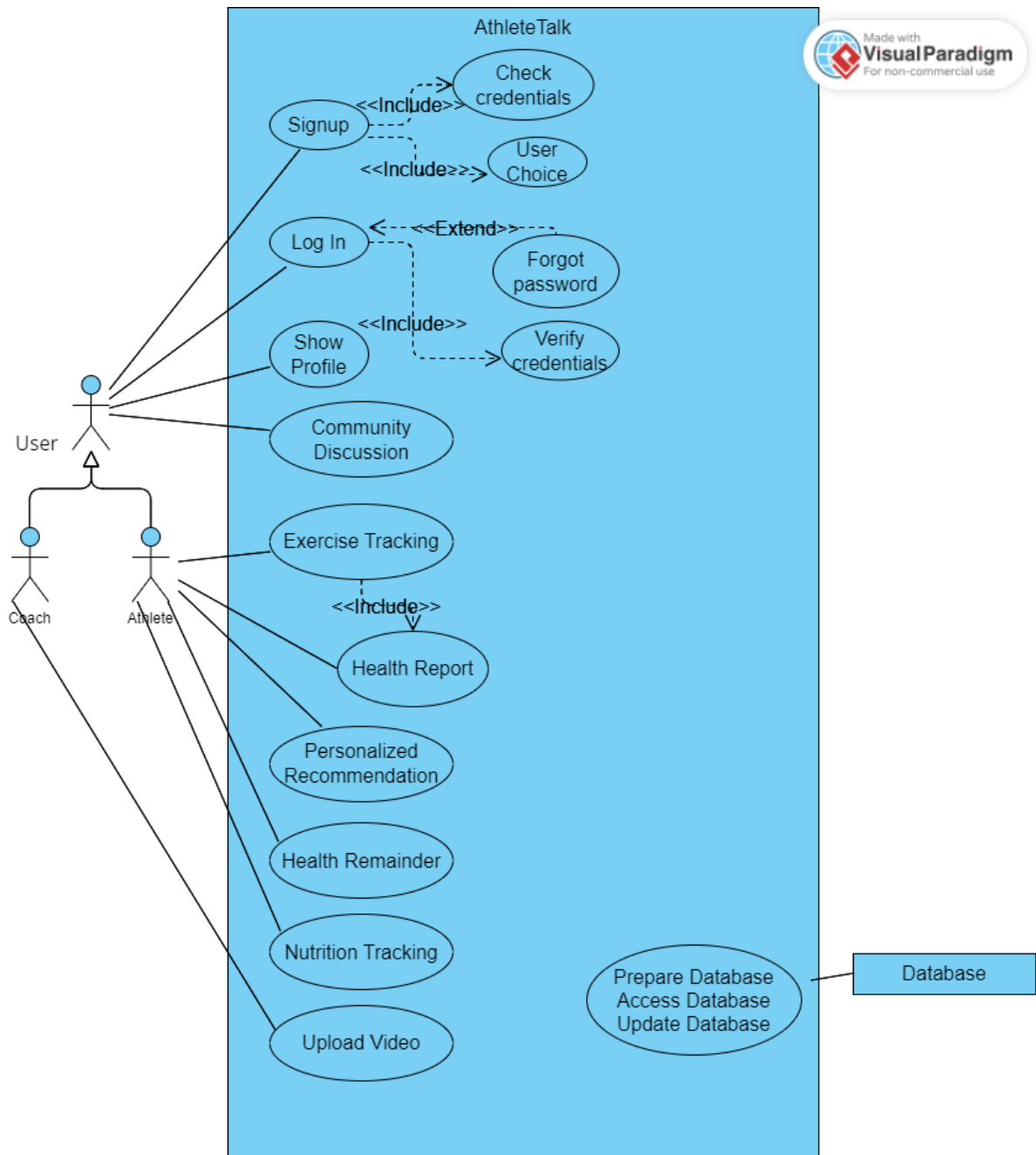

IT314 Software Engineering
Lab 3
Project Name: AthleteTalk
Group 18

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We have used the **incremental model** for our project.

Use Case Diagram



Use Case Descriptions

Note: The terms 'Athlete' and 'User' are alternatively used throughout the use case descriptions.

1. UC1: User Signup

Actor : Athlete

Goal: Register a new user, user should be able to register himself with the application.

Trigger: The user accesses the "Sign Up" tab on the navigation bar.

Description:

Basic flow:

- User accesses "Sign Up" .
- User enters all details required for signup.
- Details are verified by system.
- Users are asked for their choices.
- User can now use this platform's services.

Alternate flow:

- The user will be verified against all other usernames so that we have a unique username for each user and check other credentials as well.

Postcondition: The user is successfully registered and user's details are stored in the database.

2. UC2: User Login

Actor : Athlete

Goal: Authentication of user

Trigger: User accesses the “Log in” tab on the navigation bar.

Precondition: User must be registered.

Description:

Basic flow:

- User logs into the system and then enters username and password.
- Username and password will be verified.
- User can now use this platform’s service.

Alternate flow:

- If a user is not registered , he/she will be asked to first register him/herself on the app.
- If a user forgets his/her password, he/she can get the password on their registered email-id by clicking on the “forgot password” option given to them .

Postcondition: The user is successfully logged in.

3. UC3: Personalized Content Recommendation

Actor: Athlete

Goal:

- Based on the user choice selected by the athlete, the system will recommend videos, images and blogs from mental health professionals/organizations.
- To improve user experience by suggesting content based on their recommendations helps users to achieve their goals faster, and motivates the user to visit our website again.
- Personalized content recommendation systems can improve user privacy and allay worries about data gathering and tracking by recommending content based on user preferences rather than personal information.

Trigger:

- Once the user/athlete logs into the system, we will show the recommendations.

Precondition:

- It requires the user/athlete to be logged in.
- User/Athlete must have selected the choice presented to them while performing sign up.

Description:

Basic flow:

- Once the user is logged, check if the user has chosen some preferred choices.
- Analyze the user's choice to provide them the best experience possible.
- Based on the choice provided by the user, the system will show various videos related to their choice.
- The recommendation system will keep track of the new exercise available and show the user the latest and effective exercises.
- These recommendations will be displayed in the form of plans which will consist of different sets of exercises to perform.

Alternate Flow:

- If the user has not provided the choice during the signup process, the system will ask the user to choose their preferred choice.

Postcondition:

- Once the user has selected a recommendation, the user will be redirected to that exercise and then perform it.
- The user can then generate a report of the exercise once completed.

4. UC4: Nutrition Tracking:

Actor : Athlete

Goal: To track user's food intake - calories and nutritions

Trigger: When athlete provide essential details of his/her daily food intake

Precondition: User must be logged in. User must provide detail of food intake and other information

Description

Basic flow::

- The Athlete is directed to the page, where details are asked to fill in for the user. These details are about food intake.
- The system processes the requested functionality and returns the corresponding track report in the form of a document.
- The Athlete is then allowed to download the file.

Postcondition:

- The athlete has successfully downloaded the report or just seen the live report.
- The athlete has watched the report and may have gained new insights and apply to their food intake and improve their health.

5. UC5: User Profile

Actor: Athlete

Goal: Display user's profile.

Trigger: When the user logs into the system and visits his/her profile page.

Precondition: The user must be logged into the system.

Description:

Basic flow:

- User accesses the profile using the web interface.
- User will be redirected to his/her profile page.

Postcondition: User will be taken to the profile page.

6. UC6: Community discussion

Actor: Athlete, Coach

Goal : To be socially active among all user

Trigger : By accessing community section

Precondition: User has to be registered and login.

Description:

Basic flow:

- Asked users to broadcast the doubts they have.
- A panel will be available for users where they have to type their doubt. and post it.
- Let users reply to doubts of other users.
- Users/coaches can see other users' doubts in the community section.
- Users/coaches can give suggestions on their doubts.
- Users can contact other users personally by clicking on their username.

Postcondition :

- Users will be notified for whatever reply they get on their doubts.
- Users' doubts/replies will be displayed in the community section.

7. UC7: Upload a video

Actor : Athlete, Coaches

Goal: To share information with athletes about their questions.

Trigger : By accessing the upload section.

Precondition: The athlete and coaches have an account on the platform and have given the coach to share videos with them.

Description:

Basic flow:

- The coach logs in to the platform.
- The coach selects the option to upload a new video.
- Coach the video file to upload from their device.
- Coach inputs the video's title and description, as well as any relevant tags or keywords.
- The coach uploads the video and distributes it to all athletes on the platform.
- The athlete logs in to the platform.
- The athlete visits their dashboard to watch the most recent video.
- After seeing the video, the athlete can ask the coach any questions or write comments.

Postcondition:

- The video was successfully uploaded by the coach, who then uploaded it to their chosen athletes.
- After seeing the film, the athlete could have developed new thoughts or abilities that they can use to improve their skills and performance.

8. UC8: Health reminders:

Actor : Athlete

Goal: To remind user to perform exercises.

Trigger: When an athlete provides essential details of his/her day plan of exercise.

Precondition: User must be logged in. User must provide a day plan of exercise..

Description:

- As per provided details by the athlete, the system will notify the athlete that to do exercise.
- The athlete notices the notification.
- The athlete performs exercise.
- The athlete marked as done.

Alternate flow:

- If an athlete had noticed notification and performed exercise then , athlete marked as done to the corresponding notification.

Postcondition:

- The athlete has successfully noted the notification.

9. UC9: Exercise tracking and Health report

Actor : Athlete

Goal: To track the exercise as per the plan and provide a health report after completion of the plan.

Trigger: User accesses the exercise tracking feature.

Precondition: User must be using a plan.

Description:

Basic flow:

- User performs exercise (yoga, breathing exercise etc) as per the plan he is currently using.
- User record exercise activities in the app by selecting appropriate activity type, time duration.
- System stores the exercise data in the user's account.
- System analyzes the exercise data.
- System generates a health report which includes information based on the performance during the exercise.

Alternate flow:

- If the user is not using a plan he is directed to the personalized health recommendation section.
- User can also access this report in future.

Postcondition:

- A detailed report is presented to the user providing information about this exercise.
- System updates the users data in the database.

10. UC10 : Share your achievements with others

Actor: Athlete

Goal: The Athlete should be able to share their current progress and achievements with other well-wishers.

Trigger: The Athlete selects the “Share” option.

Precondition:

- The Athlete must have an account created and is currently logged in.
- The Athlete has performed any activities that can be shared.

Description:

- The Athlete is directed to the format options available (document file, image file) for sharing their progress.
- The Athlete selects an appropriate option for sharing.
- The System processes the requested functionality and returns the file created.
- The Athlete is then allowed to download the file.

Postcondition:

- The Athlete is able to share his/her current progress and achievements to the community.

Exception flow:

- The Athlete has not performed any activities or exercises that can be shared.
- The System returns a prompt mentioning how the Athlete has not performed any activities or exercises that can be shared.

Non-Functional Requirements with their justification for AthleteTalk

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

1. **Performance:** AthleteTalk should be made to load swiftly, run smoothly, and work without any lag or delays for the user. Users may lose interest or engagement if they have to wait for pages to load or functionalities to work, therefore this requirement guarantees that the application is responsive and offers a favorable experience.
2. **Reliability :** Athletes should be able to access the information whenever they need to, without experiencing any downtime or issues. This criteria guarantees that the application is dependable and can be relied upon to constantly offer the required support and resources.
3. **Scalability:** This requirement ensures that the system can handle a large number of simultaneous users without experiencing significant performance issues. The System will need to be designed to handle a high volume of traffic and processing power.
4. **Security:** This requirement ensures that only authorized users can access the system, by requiring a strong password. This helps prevent unauthorized access to user data, protecting both the users and the system from potential security breaches.
5. **Privacy:** It encompasses measures such as confidentiality, data minimization, consent, accuracy, transparency, and accountability. It is critical to ensure that users' personal information is protected, and their privacy rights are respected. Implementing robust privacy measures builds user trust, protects the reputation of the organization, and complies with privacy laws and regulations.
6. **Usability:** The interface of AthleteTalk needs to be simple to use, with quick navigation and clear directions. This criteria guarantees that the software is simple to use and understandable to athletes of all levels of technological proficiency.
7. **Accessibility:** In order to ensure that everyone can utilize and benefit from the application's resources, AthleteTalk should be made to accommodate users with disabilities, such as those who suffer from hearing or vision problems. This stipulation makes sure that the application is open to all applicants and encourages equitable access for all athletes.
8. **Feedback and support:** This requirement ensures that users can provide feedback on the system, including suggestions for improvement or reporting issues. This can be

done through a feedback form, email and should be actively monitored and addressed by the development team.