

CS 476: Project Proposal

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Proposed Web-based Software: **FitGram**

1. Project Definition

Overview

FitGram is a **Health-Focused** social networking platform that helps connect users with certified dietitians and nutritionists, allowing them to seek personalized advice via Chat, engage in discussions, and share thoughts and progress with the community. The platform aims to bridge the gap between people seeking personalized dietary advice and certified professionals by integrating social media features with health and nutrition tracking functionalities.

Purpose & Significance

In today's fast paced world with demanding work schedules and constant digital distractions, many people find themselves prioritizing professional responsibilities over personal well-being, resulting in less focus on fitness and overall health. Fitness is one of the many things an individual should focus on. Good fitness requires a better diet and nutrition. Many fitness freaks struggle to find reliable and great nutritionists and personalized advice that fits their lifestyle. People living in a small town, who cannot travel or with disabilities might lack options. While most social media platforms focus on broad, generalized health information, making it difficult for users to get expert advice. **FitGram is all you need, it is an allrounder platform that addresses this need by providing a user-friendly Interactive platform where users can connect directly with dietitians and nutritionists.**

Project Description

FitGram will be built on the **MERN** (MongoDB, Express js. Node js.) stack and will allow users to create profiles, post content, follow nutricare experts and health professionals and receive personalized solutions to all your health problems. That's not just it, you can make friends and build your community, share your progress and suggestions in just one place. FitGram will help you keep track of your daily progress so that you don't have to remember it all. Take pictures of your meals, workout progress, and other health-related activities, while your nutricare expert can provide you feedback and recommendations.

Problem Statement

Personal health is a growing issue among today's Gen. While our day to day life is getting work focused, people are less focused on health. There is a growing demand for personalized nutrition and dietary advice, while most social media platforms are multi focused which keeps users distracted and are not purely health focused. Most social media platforms are adult based networking sites that hold harmful contents that can negatively influence young users. FitGram is highly professional and avoids the distractions and pitfalls. Unlike other platforms, FitGram is specifically designed to focus on health, fitness and nutrition, offering a unique space for youth and adults to share and celebrate their wellness journey. FitGram is a safe , engaging, and productive environment – **A healthy connection starts with FitGram.**

Objectives and Goals

- Create a platform where users can follow and interact with nutricare expertise and health professionals.
- Enable real-time communication through chat between users and experts.
- Encourages safe content sharing and public interaction, share post health-related content, track their progress, and receive experts feedback.
- Ensure Secure Data protection and Privacy.
- Track Personal Health Progress
- Offer a Friendly, Intuitive UX/UI.

Target Audience

- Youth, Adult and Seniors.
- Health- Conscious individuals seeking professional diet and nutrition advice.
- Certified dietitians and nutritionists looking to expand their client base and provide consultations.
- Fitness enthusiasts, Gym trainers and professionals.

Deliverables

- A responsive MERN -based web application.
- User and expert profile creation and management.
- Real-time chat system.
- Social media like features focusing on health and fitness.
- Self Progress tracker.
- Engaging UX/UI.

2. Requirements Elicitation

Two types of user roles:

- Health Professionals (Physical Trainer and Dietitian/Nutritionist)
- Membered Users

General functionalities and features for both user roles:

- Account Login - Both users will be required to enter their credentials in order to access their account, all features and functionality of the web-based software.
- Account Registration - Any type of users whether they are health professionals or health enthusiasts will be required to sign up for an account and create a profile in order to gain access to the interface.
- Account Log out Button - This function will allow users to log out from their profile and take them back to the main sign in page seamlessly.
- Chatbox - Both users will have this function to be able to communicate with one another. A notification feature will be included when either one of the users sends a message.
- ‘Follow’ Button System - This function will allow both users to add each other as contact, communicate using the Chat Box, and see each other’s profiles.
- Profile Page - Both users will be able to see each other’s profile information such as full name and biography description.
- Left Menu Options - This function includes the buttons for Profile, Chatbox, Contacts, Health Professional Suggestions, Settings and Logout.
- Search - This function will be available for both users on the top of the page where they can search other membered users, and health professionals.
- Settings - Once both types of users are logged in, they will be able to access the Settings option to edit and change their profile biography, username, and password.

Functionalities and features for health professionals (Physical Trainer and Dietitian/Nutritionist):

- Blog post Feed - This function will allow the health professional users to post an image, or a simple description post of different types of health recommendation such as types of routine and exercises an individual can do daily. This function will have a like and comment feature which will be made visible to members who add the health professional as their contact.
- Recommendation Files - This function will allow the health professionals to upload recommendation documents, or photos, and add membered users to access the file depending upon what they prescribed to a specific individual.
- Profile Page - This function will include ratings, reviews and certifications description of the health professional that will be visible only to members who add them as contact.

Functionalities and features for membered users:

- Progress Tracker - This function will include a progress chart or diagram and other data that shows the user's logged progress such as weight changes.
- Health Goals - This function will allow users to create their personalized list of goals that will be visible to their profile page.
- Recommendation from Health Professionals - This function will be visible only to them in their profile page, or left menu options for easy access. It will include the recommendations documents or images that are given by the health professionals.

Qualities Requirements:

- Robustness - The web-based interface should tolerate wrong action such as if the user enters an incorrect username or password, it will ask again.
- Friendliness - The web-based interface will be easily navigated by users and displays all necessary information according to its functionalities and features.
- Reusability - The components such as code and platform can be reused and modified to specific needs as well as make improvements.

Technologies and platforms to be used:

- MERNStack for the code language.
- MongoDB as a database for storing user data information.
- Visual Studio for coding platform.
- Github for updates and uploading repositories.

Boundaries and Limitation:

- User data and information will be secure and encryption once an account is created.
- Accessibility feature for disabled individuals such as sending audio messages.
- The platform will focus only on web-based interfaces, excluding mobile and desktop versions.
- Recommendations will only be limited to health professionals such as physical trainers and dietician/nutritionist, not other healthcare professionals for serious conditions.

3. Project Timeline

Phase	Task	Duration
Planning	Requirements gathering, initial designs, and wireframes	1 week
UI/UX design	Prototype creation, feedback, and user testing	1 week
Development	Frontend and backend integration, database setup	2 weeks
Chat implementation	WebSocket integration for real-time messaging	1 week

Testing	User testing, bug fixing, and performance optimization	1 week
Deployment	Final deployment and user onboarding	1 week
Maintenance	Ongoing bug fixes and feature updates	1 week

4. Project Methodology

For this web development project we are going to proceed with Agile development to ensure iterative development and ability to make adjustments by getting user feedback.

Agile approach breakdown :

1. Sprint Duration : 1 week
2. Weekly 2 standups : every week two meetings will be conducted where members will discuss what is completed, checking the progress and obstacles.
3. Sprint review and retrospective : at the end of each sprint the team will:

Review: Demonstrate the completed work

Retrospective: Discuss what went well and what didn't and areas of improvement

4. Continuous Feedback : After each sprint and its review and team members will provide feedback that can be integrated into the next sprint.

5. Conclusion

The Fitgram offers integrating Social media functionality with professional dietary and nutritional advice. It provides users with an interesting, interactive area to discuss their progress and engage directly with professionals. The initiative is both practical and necessary in today's health conscious world, where tailored nutrition recommendations are highly sought after. The project will be developed iteratively using the MERN stack and agile approach, resulting in a strong and scalable solution for both users and experts.