

CEN 4090L: Software Engineering Lab, Spring 2021

Florida State University - Group Project Proposal –

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Project title:

- FitNest

Brief overview of what you are proposing

- FitNest is designed to help people of all levels to achieve their workout and health goals. It allows users to build individualized workout routines and increase workout intensity over time. Easy to use health features(water intake, caloric intake,etc). Simple app interface that is free to all users.

Motivation

- Our group members are motivated to help others put their health as a priority in a simple and efficient manner.

Features to be implemented and types of users

- Everyone has access to each of the features, however we plan to add a “Coach” role that will have access to a screen that lets he/she send out prepared workout plans to a student (Potential long term feature)
- Build your own workout - Handpick your workout individually to better fit your needs. You will also have access to linked videos to each workout
- Pre-built work out plans - Users can access preset workouts if they are unsure on what exercises to do.
- Exercise video how-to - Linked youtube videos using YT api to help beginners do new exercises correctly.
- Water intake tracker - Tracks the user’s water intake throughout the day. Sends out notifications if the user is behind to remind them.
- Caloric intake - Allows users to track their caloric intake throughout the day and determine if they have reached their goals or if they have gone past their goal.
- Goal Tracker - Allows users to create big goals and break it down into smaller portions. Use the SMART goal setting method. Users will do a goal check in occasionally.
- Weekly Calendar - Have your workouts in a weekly calendar to better understand what you will be doing everyday. Also makes it easier to edit it if needed.
- Weight tracking - Lets users record their weight (might implement a graph of their weight trends).
- Health tracker - Sub application that would keep track of your health habits (Water intake, caloric intake and etc)
- Healthy Recipes(Protein, Carbs, fats, etc) - Have links to health related recipes. Recipes that are centered around gaining weight and losing weight. Recipes for low - carb diets, keto diets, and plant based.

- Rewards - Used to motivate the users to stick to their goals. As a long term goal, when a user reaches a certain level over time, the theme of the individuals' app would change depending upon their level.

Risk / Challenges

- Making the app original
- Using APIs and databases
- Learning curve for everyone in the group
- Delegating tasks
- Using Git and Github to collaborate

Existing related projects

- PEAR personal Fitness coach (Android) - <https://www.pearsports.com>
 - Similarities:
 - Keeps track of user workouts
 - Prebuilt workouts for you
 - Built for beginners and experienced users
 - Differences:
 - Subscription free
 - Our app will track health habits
 - Handpick exercises that better fit you
- Our app would be different/better than this one because it tries to be more than just a workout app, and it focuses a bit on the health side.
- MyFitnessPal - <https://www.myfitnesspal.com>
 - Similarities:
 - Healthy recipes
 - Prebuilt workouts for you
 - Built for beginners and experienced users
 - Differences:
 - Subscription free
 - We focus on both sides instead of primarily one
 - Handpick exercises that better fit you
- This one focuses more on the food aspect and has workouts on the side. While we plan to give our application equal time to help people improve their health.

Intended platform / programming language

- Android Studio/ Android
- Java

Third-party libraries / APIs to be used

- YouTubePlayerView API
- Back4App Backend Database

Team members, expertise, project responsibilities, and team organization

Communication: iMessage, Slack, Zoom, github

Meetings: Friday 4pm through zoom

No project manager, we will meet every week and discuss what needs to be done. Every person has equal say in what's happening.

Cathy Yue

- FSUID: cy18
- Expertise: C++ (proficient), Java(proficient), Python(proficient), Perl(familiar), Swift(familiar), xCode(familiar), Android Studio(Intermediate), MySQL(familiar), HTML(familiar), JavaScript(familiar), CSS(familiar), PHP(familiar), and familiar with API's and databases
- Work times: Saturdays 2-4PM, and Mondays 9-11AM
- Responsibilities: Front-end development, Databases, Back-end Development

Andrew Perez-Napan

- FSUID: ap16at
- Expertise: C++(proficient), Java(proficient), Python(proficient), MySQL(proficient), HTML(familiar), CSS(familiar), JavaScript(familiar), PHP(familiar)
- Work Times: Tuesdays/Thursdays 9pm-12am
- Responsibilities: Front-end development, Databases, Back-end Development, Repository Manager

Joao Valente

- FSUID: jvv18
- Expertise: C++(proficient), java(proficient), python(familiar), Swift/Xcode(Intermediate), Android Studio(Intermediate), MySQL(familiar)
- Work times: Friday 1pm - 3pm, Saturday 2-4 pm
- Responsibilities:API, Back-end development

Damon Akins

- FSUID: dda16
- Expertise: C++(proficient),Java(proficient),Xcode(familiar)
- Work Times: Friday 7pm - 10pm, Saturday 8 am -12 pm
- Responsibilities: Back-end development, App Layout

Nikolas Hernandez

- FSUID: Nh19c
- Expertise: C++ (proficient), python (familiar)
- Work times: Friday 9 - 12 pm, Saturday 12-3 pm
- Responsibilities: back-end development