Term Project Report

ITWS-1100

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UniFit: Uniting with the Best Fit!

**Overview:**

For the ITWS-1100 term project, we decided to create a website application that serves as a fitness website with an environment that allows users to have easy access to resources when exercising can be difficult. The application generates a weekly plan for the user based on their fitness goals from gaining weight to lowering body fat percentage and getting flexible.

UniFit is different from many other health tracking applications as UniFit is user friendly and customizable. Popular health and sports companies like Under Armor and Peloton have already created workout website applications that could take in the same user info just like us but the amount of money that one must pay to retain their health and medical information is uncanny. UniFit wishes to eliminate the financial threshold and allow anyone who is willing to take care of their health for free. It is also user-friendly and interactive and provides a platform where all sources are together.

**Application Link:**

<http://pateln14rpi.eastus.cloudapp.azure.com/team/homepage.html>

**Introduction:**

When we were in our initial planning stages of the website, we all tried to figure out a similar interest that all of us have. Not only would this allow us to get to know each other better, it would allow us to be more interested in working on our project. After a series of brainstorming and talking about our personal interests, we all found out that we all had an interest in sports and health related topics. Something that interested us was trying to recreate and improve on already working health applications, so we did research on how other competitive companies created and used their websites. Every time we found a site that fit into our criteria, we ran into a similar problem, membership fees. After entering all of one’s personal information, the user would not be able to access the best workouts unless they paid a membership fee or do a free trial that lasts for a week but would then charge monthly. We believed that information about one’s health and the variety of exercises that they can do should always be available and not behind a paywall. Adding on, an individual should not be intimidated when starting their fitness journey whether their goal is gaining weight or losing weight.

**Focus Areas:**

Our application has multiple focus areas that we worked on. Firstly, we implemented a system to collect real user data and store it in a MySQL database. Using this data, we calculated various body details and displayed relevant information to the users. Additionally, we also worked on pulling data from the database and generated a personalized weekly plan for our users. Lastly, we put effort into the visual appeal of our application by collaboration on HTML, CSS and HTML into PHP.

**Design and Information Architecture:**

After finalizing our research, we had to create a starting visual plan so everyone in the group would have a template or plan of what the whole website would look like while working on the code. We used Figma which allowed everyone in the team to work simultaneously making collaboration seamless. Everyone was able to see changes and comments on the website as we were working which made the whole designing process more efficient.

We started with the homepage that would lead to either a login or create account page. This page would essentially be our “index.html”. We agreed that to increase usability for the first-time user, the homepage would have to extremely simple and easy to read. We chose a dark gray background with a simple white box around all of the information to allow users to hone in on to main part of the webpage. Not only will this attract more users, but it would be simpler to implement on web creation later.

When the user clicks onto the login button, they would be redirected to a webpage that allowed them to insert their own personal username and password that they used to create an account in the past. After entering their information, they would be redirected to another page which displays all the information about their account and the header tabs. When the user clicks on a create account button, they would be redirected to a similar log in page but instead of “Your username” and “Your password”, it would be “Enter username” and “Enter Password”. Both log in and create and account pages would both have options to redirect to a different page if the user changes their decision.

Once the user creates an account, they would then enter their information about themselves such as information about their age, weight, height, and gender. The user is then redirected once again to another page which asks the user what they want to improve on and has three buttons each with a goal written on them. The buttons would lead to different webpages that display the focus, the set of exercises that the user should do, a page with links to workouts which can be filtered based on goal as well.

Home Page

A picture containing text, screenshot, businesscard

Description automatically generated

Graphical user interface

Description automatically generated Login Page Create Account Page

Graphical user interface

Description automatically generated

Graphical user interface

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, text

Description automatically generated

Graphical user interface, text

Description automatically generated

Custom Weekly Plan

Graphical user interface, text

Description automatically generated

A picture containing text

Description automatically generated

Information Architecture:

Graphical user interface

Description automatically generated with medium confidence

**User Cases/Personas:**

Person A: Jake

Jake is a college student who is new to working out. He never took any weight training as a course in high school, so he does not know where to start and he wants to gain weight. UniFit can help Jake get started with a set of exercises to do.

Person B: Billy

Billy is an adult in their 30’s who started gaining unhealthy weight after working double shifts and having fast food for dinner every day. Billy wants to start losing weight and lower their body fat percentage, but he does not know where to start. Billy can always use UniFit as way to start his fitness journey and follow the weekly plan and video exercises as shown in the pictures.

**Nielsen’s Ten Usability Heuristics**

Visibility of System Status

Users will be able to see what is happening through alerts and the tab they are currently on. While there is no specific feature that gives real time status, through the alerts and webpage they can see the status.

Match between System and the Real World

The header includes keywords attaining their meaning in the real world. There are no “trick” situations where an icon means something else on the application and means something else in the real world.

User Control and Freedom

The user can go back and forward through the tabs located in the header. This allows the user to not put much effort into back tracking their last page.

Consistency and Standards

The header is a common and standard tool used on many platforms that allow the user to use it freely. The user will be able to navigate through the site with familiarity as it is not only standard but consistent throughout the web application.

Error Prevention

While there are not too many drastic actions on the web application prototype, we have our JavaScript validation where alerts pop up if the username and password do not match or if there is an error logging in and creating an account.

Recognition Rather than Recall

All links on the web application are clear and easy to navigate through. The header is consistent and helps the user click based on their needs and not have to backtrack to a specific page.

Flexibility and Efficiency of Use

The header makes the web application very efficient and flexible to use. It allows the user to go through the website faster and get desired results from the application in a clear way. Every tab in the header is specific and clear so the user does not have to spend so much time debating if a certain tab has what they want to see.

Aesthetic and Minimalistic Design

The entire website consists of few colors that all compliment each other on a color palette. They also allow for the design of the website to highlight the important details and there is never too much happening on one page.

Help Users Recognize, Diagnose, and Recover from Errors

There are alerts that show the user what issues they are coming up against, most of them would be when logging in and entering the wrong username or password.

Help and Documentation

Mostly every page in the application has a description that shows what is displayed and what will be on the page. There are pages that describe the application and the creators as well.

**Database Architecture:**

Our database has 5 tables included:

* fitness\_plan\_workouts
* user
* user\_details
* user\_golals
* weekly\_plan.

Fitness\_plan\_workouts: In this table we have a list of created workouts that have duration or reps, the day they should be done and what goal they are related to.

Table

Description automatically generated

User: in this table we have the username and password of the user when they create an account. The data is saved in this table.

Table

Description automatically generated

User\_details: in this table we store the details the user enters such as their height, weight, age, and gender. This is used to calculate their BMI and many other.

Table

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User\_goals: in this table we store the username of the user with the respective goal to use in the future while creating the custom weekly plan.

Graphical user interface, application

Description automatically generated

Weekly\_plan: in this table we store the user’s username along respective exercises that are taken from the first table when the user hits generate plan when they first create their account.

Table

Description automatically generated

**Conclusion:**

Overall, UniFit has great potential to launch in the industry, and developing a fitness app like UniFit can be a rewarding experience. By offering customized workout plans and addition features such as exercise videos you can create a personalized and effective fitness app that caters to a wide range of users. It is very important to continuously improve the app based on user feedback and usage data to ensure its long-term success in the industry. In addition to the features described above, we are planning to add more features where users can benefit from additional videos and pictures that show proper exercise and technique. These can be helpful for beginners who may not be familiar with certain exercise and movements. Furthermore, we would also like more variety in the exercises that the users get in the weekly plan and more custom features while generating the weekly plan. For example, users could have ability to choose between such beginner, intermediate or advanced exercises. Another important feature that UniFit can incorporate is a system for tracking user progress. By allowing users to input the weights they use for each exercise, they can track their progress over time and see how their strength and fitness levels are improving. This can be very useful for users who like to track and see the results of their hard work. By providing this type of features and personalization, UniFit can become a good, trusted resource for users looking to achieve their fitness goals.