Principle of Software Engineering

[CEN 4010]

**GymBro**

**Group: Team 9**

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**Team Members:**

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Milestone 1

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**Product Summary**

Welcome to GymBro, a workout companion for those who are currently exercising or seek to do so without the need for subscription fees.

In this application, you will find a Gym Locator. Just enter your location, and the map will show you nearby gyms. Our goal in adding this feature is to make it easier for customers to search for gyms in the same app that allows them to plan their fitness.

Our application also provides a BMI calculator. This allows customers to insert their weight and height in order to calculate their BMI score. This is helpful for figuring out if the customer is overweight, underweight, or has a normal weight. With that knowledge, the customer is able to adjust what diet they eat, and the intensity of their daily exercising.

In the center of the application, we have created a workout planner and workout goals. Customers will be able to create two lists: one for their workout goals, and the other for planning out what they are going to do, whether workout plans or diet plans. This allows the user to motivate themselves by creating goals and planning out how they are going to do it.

Our site also provides links to recipes that the customer can make themselves in order to eat healthier. The goal in adding this feature is to encourage the customer to avoid junk food and put a links right in front of them in order to incentivize clicking them and making a healthier meal.

Below the recipes, we have provided three example diet plans for each type of weight category. For those who are underweight, there is a link that provides a more calory heavy diet. For those who are normal weight, there is a link for a balanced diet in order to maintain that weight. And finally, for those who are overweight, there is a link that provides a diet plan that is low on calories. Although, just like with everything, the diet plan won’t be enough without exercising along with it.

Our main goal was and still is, the creation of a workout companion that is accessible to those who may not be able to afford a monthly/yearly subscription fee. We have included all the basics that a fitness app needs.

**Usability test**

**Test objectives:** The usability test is going to be focusing on using the BMI calculator to find their current BMI. The BMI calculator takes the users height and weight to calculate their BMI. This task should take less than a minute if the users already have this information on hand. The user needs to have a very basic understanding of computers to use the calculator. All they need to know is how to operate a mouse. Users include people at any point in their fitness journey. This includes people just getting into fitness and people who are well into their fitness journey. The steps to operate the calculator include moving two sliders to reflect your current height and weight. The only difficulty with this current system is that if the user has an unsteady hand or if they have difficulties operating a mouse then they won’t be able to move the slider to their correct measurements.

**Test Plan:** In order to start the test, the user must navigate to the demo page where they can find the BMI calculator. The BMI calculator sliders start in their default position. The user is now tasked with moving the sliders to their correct measurements. After this is done the calculator will generate their BMI and tell the user their current fitness level. After this the task is complete. The user can revisit the calculator at a later date to see if any changes have been made to their BMI.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| Were you able to accurately calculate your BMI and get an idea of your current fitness level? |  |  |  |  |  |
| Was it easy for you to calculate your BMI? |  |  |  |  |  |
| Would you recommend the BMI calculator to friends or family? |  |  |  |  |  |

**QA test plan**

**Test objectives:** The goal of this test is to determine whether or not the BMI calculator functions as intended on different browsers. Meaning the user must be able to navigate to the demo page and be able to accurately manipulate the sliders to get their correct BMI utilizing browsers. This test is to be conducted on two browsers, google chrome and Microsoft edge. The test will be considered a success if the BMI calculator works on both browsers and the users calculate their BMI. It will be considered a failure otherwise.

**Hardware and software:** The hardware setup for this test will be my PC. The software setup for the test will include the use of brackets, google chrome, and Microsoft edge.

**Feature to be tested:** The BMI calculator will be tested on functionality and usability.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | BMI calculator functions on google chrome | BMI calculator functions on Microsoft edge | BMI calculator slider’s function | BMI calculator calculates BMI and gives fitness level |
| Test #1 | PASS | PASS | PASS | PASS |
| Test #2 | PASS | PASS | PASS | FAIL |
| Test #3 | PASS | PASS | PASS | PASS |

**Test summary:** Overall the test was largely successful. The webpage was able to be loaded up into both google chrome and Microsoft edge without issue. The sliders used to calculate the BMI functioned as intended for each test. 2 participants were able to calculate their BMI correctly without issue in a timely manner. 1 participant struggled to move the sliders to their correct positions because they are not too familiar with operating a touchpad.

**Self-check on best practices for security**

Some of the major assets we are protecting in this project are predominantly user related. We are protecting user info including their email, password, personal information, and location. Not to mention we are protecting our webpage’s design and everyone on the development team’s information as well. As of right now, we do not have an encrypted password in our database.

We plan on accomplishing this within the next Milestone. In regard to the beta launch, we tested input data for “Workout Goals”, “Planner”, “BMI” calculation, and “Sign Up/Log In” data. Everything works as expected. We could place restrictions in the near future if a user accidentally places incorrect data. For example, if the user inputs a number, and only a number, in the “Workout Goals” section and tries to submit. Here we can raise an error prompting the user to input correctly.

**List of Non-Functional Requirements**

1. **Performance**: ON TRACK  
   GymBro’s landing page will have 5 seconds or less response time under a max load of 5,000 users. Throughout the entire site, users will not have to worry about poor loading times. As the platform grows, we plan on expanding the max load while maintaining immediate response times.
2. **Usability**: ISSUE- As of right now, a personalized page for each user is not our main priority.  
   As a group we are focusing more on our page to be user friendly and not confusing.  
   Creating an account and receiving a personalized plan takes less than 5 minutes. After this is completed, users will find videos, diet plans, and information all immediately in their personalized page. Anytime a user has made progress in their health goal, the app will check off the workout/meal for users to keep note of what they have and haven’t done. The site will be gentle to the users’ eyes and not filled with unnecessary information.
3. **Accessibility**: DONE  
   Users from all around the world will be able to access their personalized page and track their progress through their account which can be logged in if they have an internet connection.
4. **Security requirements**: DONE  
   Our app will ask users to create an account with their own private email and a personalized password. Due to the app being completely free, there will be no additional security required such as payment processing gateways.
5. **Storage**: ISSUE - We have not tackled this objective and are putting all our focus on usability instead.  
   Any storage will be done through the users account and will not require users to create more space on their devices.