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Vladyslav Cherevkov

Teona Ristova

Mikolaj Debicki

**System Request**

**Project Name:** Gym Buddy

**Business Need:**

Gym Buddy is an application that will help its users realize their fitness goals with two main focuses:

1. Overall health through sleep, water intake, and daily caloric intake

2. Weightlifting though providing the user with a list of best-suited exercises for their fitness goals and body parts they would love to focus on.

This an application that the user will interact with using the terminal.

**Functionality:**

The user will start their journey by registering/logging in. In the case of registration, the application will prompt the user to enter their information:

1. Login and Password
2. Weight
3. Height
4. Lifestyle
5. Age
6. Gender

After the registration or login is complete, the user will be provided some useful information regarding their health, such as what is their ideal daily caloric intake, how many calories they should consume to lose weight / gain muscle in a healthy and sustainable way, as well as what their daily water intake should be and hours of sleep

Then, they will be able to choose which workout plan they would like to follow: beginner, intermediate, advanced. They will also be able to choose which body part they want to focus on today and record the weights that they used and number of sets/repetitions that they performed.

Functional requirements:

* Registration
* Login
* Calculate and display Basal Metabolic Index
* Calculate and display ideal caloric intake
* Calculate and display daily caloric intake for weight loss / muscle gain
* Calculate and display ideal daily water intake
* Calculate and display ideal sleep length
* Provide user with workout weight-lifting exercises
* Track user’s previous workout by recording the weights and repetitions/sets

Non-functional requirements:

* Data should be safely stored and access limited
* Each user should have a unique Login ID
* Each user should have a powerful password to not compromise security
* Performance must be ensured so that the application is responsive to ensure user satisfaction and good experience
* Validity of the workouts must be in accordance to the user’s physique and physical ability

How the requirements were gathered:

We performed 12 interviews with students on campus as well as 2 members of the gym staff in order to gather some qualitative feedback on what features they would find the most useful in a gym app. This helped us personally tailor our app to the needs of our potential users.

**Expected Value:**

Tangible:

* Revenue for the business can come from deploying this application later on as a mobile or web app within advertisements embedded throughout. Advertisers will pay us per view/click when their content is displayed on our app.

Intangible:

* Provide value to the users who will be able to reach their health and fitness goals
* Increase user satisfaction
* Users will be able to register/login at any time

**Special Issues or Constraints:**

Technical constraints:

* The user has to be logged in. Otherwise, the app cannot provide the proper experience. Therefore, implementation will need to have a database
* An SQL relational database will be used to store user data
* Implementation in Python
* System should be available 24 hours, 7 days a week
* Any maintenance work must be done between 02:00am and 04:00 to minimize the effect on users

Time constraints:

* The project has to be fully working and checked for bugs on the December 12th 2019