

Section 015 Group 7  
Team007

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**Application Name**

OptimizedHealth

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**Application Description**

Our OptimizedHealth application is an all-in-one stop for users to check up on their mental and physical health. Users will be able to record their bodily health by logging into a designated portal with a username and password. Once inside our application, in the 'record general health' section the user will be able to record their caloric intake and expenditure per day, as well as their exercise and sleep minutes. In the 'record mental health' section, the user will be able to record their daily mood and compare this to their general health habits to see if they are correlated. In the 'BMI calculator' section, the user can input their weight and height to calculate their corresponding BMI. Based on all of these factors, there will be an option for the user to get feedback on their exercise and sleep minutes, and caloric intake. This feedback includes suggesting an increase or decrease in performance in any of these categories, as well as meals that correspond to BMI and caloric intake. On the front end, the OptimizedHealth application will show a user their health habits using HTML or CSS. The UI will be streamlined for both efficiency and simplicity. On the back end, ranges of appropriate sleep and exercise minutes, BMI, caloric intake per weight and height, and meals will be stored using SQL.

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**Vision Statement**

OptimizedHealth strives to promote the health and well-being of individuals by allowing them to take care of themselves simply and effectively.

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**Version Control**

[https://github.com/CSCI-3308-CU-Boulder/3308SP21\\_015\\_7](https://github.com/CSCI-3308-CU-Boulder/3308SP21_015_7)

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### **Development method**

We will be using agile development with Jira. We will work in 1-2 week sprints, starting with each of us identifying tasks to complete by the end of the sprint to ensure consistent progress is being made. If any of us run into trouble, we will communicate with our teammates about what we are struggling with and the team will help out as best they can. At the end of each sprint, we will discuss what went well, how we can improve for the next sprint and what user stories and epics we should add to the backlog. If there are any incomplete tasks from the sprint, we will discuss why they were not completed and what steps should be taken to ensure they are completed in the next sprint.

<https://csci-3308-spring21-015-7.atlassian.net/jira/software/projects/T07/boards/1>

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### **Communication Plan**

Our group plans to communicate via iMessage and email, meeting bi-weekly on Zoom. We plan to use Google Docs/Google Drive to create shared documents that we can all collaborate on simultaneously instead of separate Word or Pages documents. We have all shared our GitHub usernames and joined the shared repository. Additionally, we have created our JIRA accounts and created a shared dashboard where we will organize our sprints. Our group has decided that it will be in touch with urgent information via iMessage, and that we will notify each other if we are sending out emails or other important documents.

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### **Meeting Plan**

Team meeting time: Tuesdays and Thursdays from 5:30-6:30 @

<https://cuboulder.zoom.us/j/3371175415>

Team meeting with TA: Fridays 1:35-1:55 @

<https://cuboulder.zoom.us/j/2226678799>

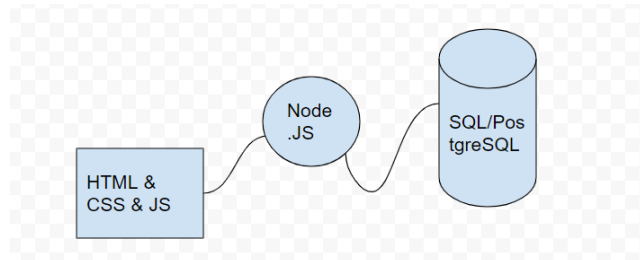
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### **Proposed Architecture Plan**

We will use HTML and CSS for displaying and styling our website, as well as include Bootstrap4(JQuery) links to aid in our styling. We will write the front-end files in VS Code or another programming IDE. The client/user will be able to interact with the front end of our website by scrolling through it or clicking on different tabs.

We will use Node.js in order to connect the client side of the website to the server side and allow JavaScript to make the website functional and interactive via API calls.

For the backend of our business we will use either MongoDB or postgres for our server side and database management system. We will decide later on in the course based on what we prefer. Information from the database will be pushed to the front end when the user requests the appropriate data.




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## Use Case Diagram

### Actors

Any customer who wishes to benefit from our services, such as fitness centers/gyms and medical facilities. **Note: all actors mentioned will be referred to as ‘users’ in use case diagram**

### User View

1. Users will be able to create an account with a username, password, and email address
2. User can log into their account with just their username and password
3. User can enter health data such as height, weight, exercise frequency in general health section
4. User can request user statistics and will be visible on the home screen after each individual logs into their account
5. User can enter BMI components and receive BMI number
6. User can navigate website via navigation bar
7. Navigation bar will display sections of the web application, such as ‘about’, ‘general health’, ‘trending’, ‘nutrition’, ‘fitness’, ‘profile’
8. Under ‘nutrition’, specific meals will be recommended to the user based on their BMI and suggested caloric intake
9. In addition to recommended meals, all meals can be pulled from the database and be viewed
10. The user’s account information is secure and their data will only be visible to them at the time of log in
11. User can view profile history and review progress
12. User can understand purpose of site by reading the “About” section located in the navigation bar

### Developer View

1. Developer should be able to see all files used to display the website in GitHub, such as HTML and CSS files
2. Database should be able to support up to 100,000 users at a time
3. Front-end of the site should be able to retrieve data from the database no longer than 2 seconds span.
4. All developers should have access to updated files and pull requests on GitHub
5. Make sure the user password contains at least 7 characters.

