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Snack Track Report

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The purpose of this report is to summarize the design thinking process employed in the development of the "Snack Track" web application. The report aims to provide an overview of the web application, including its purpose, functionality, and potential constraints. Furthermore, it will examine the development process and the challenges faced by the team during the creation of the functional prototype, as well as personal learning curves. Finally, it will outline the team's plan for continuous development and improvements.

1. Overview of the Snack Track web application:

The web application we have made is a comprehensive platform that enables users to search for specific food items and obtain their nutritional values. Built using React, this web app features a home page with five buttons representing different food categories: fruits, vegetables, grains, dairy, and meat/alternatives. Additionally, there is a search panel where users can search for specific foods. The search results display the food's nutritional values in terms of calories, carbohydrates, fats, proteins and fibre composition. The categorized version of these food items provides users with a more organized and convenient way to explore food options within specific food groups. All of this is achieved by utilizing the Food Database from the public API Edamam, to which our application makes Fetch API calls.

A dynamic feature that we incorporated into our website is the ability to adjust the serving size and obtain updated nutritional values. This feature allows the users to get the nutritional information for a food item based on their desired portion sizes, enabling them to accurately track their nutrient intake, aligning it with their specific dietary goals or requirements. In addition to the aid in personalized nutrition tracking, Snack Track is also beneficial in helping to promote nutritional awareness, help individuals with their dietary planning, and also to assist users make more health-conscious decisions in terms of the food that they are putting into their body. Overall, Snack Track is a fantastic educational resource that provides a user-friendly interface with great information to empower individuals to make informed choices about their diets, and support their journey towards a healthier lifestyle.

The constraints in our web application were due to its reliance on a public API. It had limited requests and since it was a public API, it prevented us from performing the complete CRUD (create, read, update, delete) operations. Additionally, this reliance also affects the accuracy of the nutritional information displayed. Ensuring accurate and up-to-date nutrient information may pose a challenge, as the food composition database may require periodic updates. Moreover, another possible constraint could be found with ensuring the web application is accessible to users with disabilities and adheres to relevant accessibility guidelines, as that was not a factor in our initial design.

2. Development Process and Challenges Faced:
During the development of the web application, the major challenge faced by our team was to schedule time for team meetings. Between the five of us, we live in three different time-zones and all have conflicting work schedules, which makes it very difficult to work synchronously on developing a web application. That being said, our group managed to work around these issues and accommodate each team member's schedule, while setting team meetings for group collaboration. From there we were able to split up the tasks and each work on individual functions of the web application. This was made possible through the use of GitHub, to effectively work together on completing this project.

Additionally, making a user-friendly interface whilst integrating an API and calculating different serving sizes was a new learning experience for all of the team members. With varying skill sets and experiences, the team was able to use this project as a learning experience, but it was definitely a challenge. Utilizing the tools that are available to us online, as well as help from one another, we were able to learn many new things while giving our website the functionality that we planned on.

3. Plan for Continuous Development or Improvements:
Since not every application built is completely perfect in the first try, regular updates are a must. To further improve upon our existing model, we can add a user account functionality that allows users to create personal accounts and save their favourite food items. We can also incorporate search filters like allergy restrictions, dietary requirements etc. Moreover, we can make it into a responsive web application that is optimized to give a user-friendly interface on any device. In doing so, we will also ensure compliance with accessibility guidelines, and we will seek feedback from others to address any accessibility issues with the web page.

Additionally, as a plan to improve Snack Track, the team thought that we could send the application to our family and friends to seek feedback and varying opinions on the website's functionality and design. By hearing directly from the users, we will be able to make Snack Track better in any way possible. On top of that, it will be essential to continuously be optimizing the application's performance to handle increased data and user load. Further data that could be added is a database for recipe integration. By adding recipes to Snack Track, users will be able to learn new ways to cook great meals, while analyzing the nutrients that they can get from different recipes. Overall, there will forever be different ways to improve a web application, and we will continuously work to make Snack Track greater than it already is.