Mobile App Development 2

Design Document

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# Overview

A fitness companion application that tracks user’s height, weight and nutrition intakes, also with a BMI calculator.

# Table Of Content

Contents

[Overview 1](#_Toc6395995)

[Table Of Content 1](#_Toc6395996)

[Context 2](#_Toc6395997)

[Goals 2](#_Toc6395998)

[Existing Solution 2](#_Toc6395999)

[Proposed Solution 3](#_Toc6396000)

[Alternative Solution 3](#_Toc6396001)

[Design Draft 4](#_Toc6396002)

# Context

The purpose of this application is to help users keep track of their body fitness. Users can set goal on how much intake needed in a day and record daily intake.

# Goals

* Standard login function (username/password) (JSON)
* Save/Update/Delete food intakes (JSON)
* Split intakes into 4 categories (breakfast, lunch, dinner, snacks)
* Display each category nutrition totals
* Display whole total nutrition value
* Compare user’s nutrition goal and current intakes

# Existing Solution

* User log in the app using account or register an account.
* User then see the tables of intakes with their nutrition values, the total nutrition values, user’s daily nutrition goals and remaining nutrition to hit the goal.
* User can add/delete intakes easily.
* Another page is BMI calculator where user can input height and weight to calculate BMI.
* 3rd page is where user manage their account and last page is the About page of the app.

# Proposed Solution

* Accounts are stored in JSON format, unable to register same username.
* Intakes are stored in another JSON file and split up to 4 categories (breakfast, lunch, dinner, snacks) and mapped to the user’s account.
* Totals, user goals, remaining should changes when user made changes to any of the parameters.
* Default values for BMI calculator weight and height can be user’s own parameters.
* Use INotifyPropertyChanged on User account parameters.

# Alternative Solution

* Mapping Intakes to user’s account is optional as no reason to share this app with different users. This app is suitable for a single individual.
* Use MongoDB instead of JSON.

# Design Draft

