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Instructor Name

WEB 289

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Technical Feasibility: Deficit Defender

Technical Feasibility

Deficit Defender is an IOS mobile application aimed at helping people achieve and calculate the caloric deficit required on a daily basis to achieve the user’s desired weight loss goals. The application is completely self-contained and performs simple mathematic calculations to produce the required daily calorie deficit based on the user’s inputs. The user will be presented with basic text input boxes where the user will enter their current weight, their goal weight and the date they wish to achieve their desired goal weight. Once the user has entered this information they will press a “Calculate” button and the application will display the daily calorie deficit required to reach their goal weight by their target date. The application will not collect or store any location, search, or private data. The only data stored will be the user’s login information.

Application Maintenance

Deficit Defender should not require maintenance as it is designed to perform simple mathematical calculations. However, when Apple releases software updates and new OS versions, the application may need to be updated to retain its intended UX display. Often applications that go years without updates become inoperable on newer versions of OS rollouts and the user interface becomes distorted. The application maintenance plan will be to check the application every 6 months to ensure proper display and function. However, should major bugs be reported by users, these issues would be addressed immediately.

Features

This application will have a basic user interface consisting of three tabs.

* User Profile Tab: will consist of user login and profile data.
* Calculation Tab: where the user will enter calculation metrics
* Goals Tab: will display previous goals and calculations

The user will interact with text input boxes and a calculate or send button. Navigation will be achieved using a bottom screen tab style menu utilizing recognizable icons.

This mobile application is designed to work completely independent of any integrations with outside APIs. This decision was made carefully to avoid working outside of the scope of my programming skills.

Developmental Challenges

This application will be more complex than anything I have ever developed before. I am particularly interested in how I will be able to integrate a basic calendar widget with performing a mathematical equation based on the user’s selection. I plan to research this topic to find a solution. Perhaps I will even consult with a tutor on how to be approach this. Furthermore, I am not entirely confident on how to create a user profile and generate a confirmation email link. I will approach this challenge the same way.

Operational Assessment

Security and Database

Protecting user data is one of the main responsibilities of a mobile application developer. With this principle in mind, Deficit Defender will not collect or store much user data. To ensure the user is authentic, the user will be emailed an authentication link to ensure the are indeed the owner of the provided email used to create a profile. After an account is created, the user will not be asked to provide their name or anything personal. The only data stored will be the email address and password provided for login.

To protect user’s email data, information will be stored using the MySQL database. MySQL offers robust data security. I will rely on MySQL’s services to protect my user’s data. The connection to MySQL will be established via PHP connection using JSON to pull the required information.

User privacy concerns are very low with Deficit Defender considering the limited data stored. I would venture to say the risk is very low that a data breach would ever be trouble. For this same reason, the application is very unlikely to be targeted by any cyber criminals or attacks.

Legal and Copywrite

Deficit Defender will not be using and proprietary information nor will it be using any data, images, or media that belongs to anyone else. The calculations will be based on widely known scientific findings published as public knowledge.

There will be a legal disclaimer displayed at the bottom of the screen explaining calculations are based on a 3,500 calorie per lb. ratio and all persons should consult a medical professional prior to participating in any caloric deficit practice. The message will elaborate to disclose Deficit Defender does not recommend anyone maintain a daily deficit over 500 calories per day.

Deficit Defender is a simple calculation tool and does not provide medical advice or information. Therefore, this application has no regulation bodies to answer to.

Schedule Feasibility

Deficit Defender has a very feasible development timeline. Due to its uncomplex nature, there should be no issue to launch this application to the Apple App Store by May 6th. The application’s intended completion date is 4/25. This gives me 11 days buffer time to submit the application in consideration of the 4-day approval window and a full week for me to handle any unexpected issues.

Development Timeline

* Design
* User interface: 14 days
* Development
* Interface: 5 days
* User login/ Register: 5 days
* Database: 4 days
* Testing
* Bugs/ Fixes: 7 days
* Beta: 7 days
* Revisions
* Tutor Input: 7 days
* Professor Suggestions: 7days

Feasibility Assessment Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Feasibility Criteria | Wt. | Candidate 1 | Candidate 2 | Candidate 3 |
| **Operational Feasibility**  **Functionality**. A description of to what degree the candidate would benefit and how well the application would work.  **Political**. A description of how well received the solution would be from the user. | 30% | Personal Trainer  Supports only basic deficit calculation function. A fitness professional may require much more in-depth metrics.  This solution is raw numbers and would be well received.  Score: 25 | Adult Woman  Fully supports users required functionality on the basis they only want to calculate daily deficit required.  Score: 100 | Adult Man  Same as candidate 2.  Score: 100 |
| **Technical Feasibility**  **Technology**. An assessment of the maturity, availability (or ability to acquire), and desirability of the application.  **Expertise.** An assessment of the technical expertise needed to develop, operate and maintain the candidate’s needs. | 30% | This application provides access to basic publicly known information. There is nothing proprietary. However, it performs a simple function many people would use their calculator for so it is still very useful to professionals and the general public.  Required to be proficient in basics of Swift programming language and MySQL database basics. A beginner developer could manage this application easily.  Score: 100 | Same as candidate 1.  Score: 100 | Same as candidate 1  Score: 100. |
| **Economic Feasibility**  Cost to Develop:  Monthly Monetization Potential: | 30% | $0  $500 in ads should a gym use this application in their personal training plan rollout.  Score: 100 | $0  $300 in ads should 500 users download and use this application 1 time per month.  Score: 100 | Same as candidate 2.  Score: 100 |
| **Schedule Feasibility**  An assessment of how long the application will take to design, develop and launch. | 10% | Less than 2 months  Score: 100 | Same as candidate 1.  Score: 100 | Same as candidate 1.  Score: 100 |