Pedi QuikCalc

Overview

It is crucial for young children to be given correct and precise doses of medicine because their bodies are not yet fully developed. Calculating these dosages for child patients can be inconvenient, especially if doctors must make house calls and be away from the tools in their offices. Pedi QuikCalc is an existing medical iOS application developed by Dr. Kent Bonney to be a useful and convenient calculator for pediatrics. As an application for mobile devices, Pedi QuikCalc provides a hassle-free way for doctors to quickly calculate dosages for a variety of medicines based on children’s weight and age, regardless of their location.

### Target Users

The original intended target users of the application were pediatricians, but since the release of the application, pharmacists and other medical professionals have also been known to make use of the application when dealing with dosages for child patients.

### Value

The desired improvements for this project is to (1) refactor the current code so that future additions will be easier to make and (2) to improve the UI design, particularly for the page where drug information is presented. The intent is to make the application seem more modern to users as well as to make the information presented to users easier to process.

Functionality

The primary goal of the project is to redesign the interface for calculating and presenting medicine dosages. This includes two parts: 1) Receive patient weight as input (and convert numbers from imperial to metric units) 2) Display a list of medicines and recommended dosages based on previous input. While there are some functionalities in the existing app, the client requested us to finish modernizing this particular feature before moving on to others if time permits. Examples of some other features are BMI calculator, Growth Charts, BP Screening, etc.

Technical Recommendation

The client’s existing application is an iOS application written in Objective C. To modernize the application and make it easier for future desired functionalities to be added, we will be attempting to migrate parts of the application to Swift. We chose Swift because it is something most of our team has some experience working with. In addition, it is the recommended language for the latest iOS. Because we will only have a limited amount of time to work on the project, we have discussed with the client the possibility that we may not be able to recreate all of the current application’s functionality in Swift. The client has accepted this condition as long as the core functionality is maintained and desired cosmetic changes to how drug information is presented is delivered. Since Dr. Bonney’s app is one he already pays for and has listed on the app store, it is unlikely that
we need to worry about any additional costs.