

Insulin Tracking

Description

Insulin-dependent diabetics need to adjust their insulin amounts based on food consumption. This application simulates that action of an insulin pump which delivers a continuous base level of insulin and then additional amounts based on food intake.

The user can log on and input their blood sugar reading and number of carbs for their meal. The pump app then records the reading and carb amount and suggests insulin dosage based on those readings. An insulin basal (base) rate needs to be set that doses insulin whether the user is eating or not. The meal bolus (dose) has to account for the basal rate and adjust accordingly. The app should alert a user if their blood sugar is high or dangerously high, low or dangerously low. All data should print to a log that categorizes by date, rate, and dose. There should be a separate log that prints errors. The users average readings and dosages should be compared to a database which stores their history and lets them know if they're staying on track

Project details

- Category: General
- Difficulty:
- Suggested stack: Not specified
- Approval status: Approved

Target users

Anonymous user

Logged-in user

Administrator

Tags

MVP, Notes, Optional

User Stories

Admin Errors

As an administrator, I need to be able to see all the errors for all users

Splash Screen

As an anonymous user, I need to be able to see a screen that describes the capabilities of the website.

Register

As an anonymous user, I need to be able to register with the system and get an email confirmation

Login

As an anonymous user, I need to be able to log in to access the system

Strength

As a logged-in user, I need to be able to specify the strength and type of insulin that I am using.

Target

As a logged-in user, I need to be able to edit my profile to set a range of target blood sugar levels

Base Level

As a logged-in user, I need to be able to set my base insulin level

Readings

As a logged-in user, I need to be able to input my blood sugar reading and number of carbohydrates for a meal. As a result, I should see a suggested meal insulin dose.

Alerts

As a logged-in user, I need to be able to see alerts if my blood sugar level is outside of the target range

Warnings

As a logged-in user, I need to be able to see alarms if my blood sugar level is dangerously high or low.

Averages

As a logged-in user, I need to be able to view daily, 3-day, weekly, two-week and monthly averages of blood sugar and insulin dosages compared to target ranges.

Login

As a logged-in user, I need to be able to examine a log of all my activity, alerts and alarms on the system.

Admin Summary

As an administrator, I need to be able to see all the activity, alerts and alarms for all users

Errors

As a logged-in user, I need to be able to see any errors that occurred.

Admin Errors

As an administrator, I need to be able to see all the errors for all users