

DIABETES DATA MANAGEMENT APPLICATION FOR ANDROID PLATFORMS

Client Profile:

A medical device company focused in diabetes who markets personal healthcare devices to measure glucose levels. The company was seeking to develop a mobile phone application that can interface to the device and track/trend glucose data.

Technologies Used:

Use Case Analysis, Wireframes, Human Factors Engineering, Requirements Engineering, Android Studio, Bluetooth interface technology (BLE), knowledge of Medical Device functionality and interfaces, FDA Application Development / V & V Guidelines and HP Mercury Quality Center for requirements, test protocols, bug tracking.

Project Summary:

The project consisted of the development of a Health Management Application that runs on Android mobile phone platforms and interfaces wirelessly (Bluetooth) to glucose devices. The Health Management Application allows users to download real-time glucose data from the device to their phone, view logs, charts and trends (with graphical display) on a number of reports. Created in close collaboration with the medical device client, the result is a user-friendly, interface that allows interaction with the system through data synchronization and free text entry. The system includes automatic upload of glucose data from the glucose device and ad hoc upload of the data when desired. Users are able to set glucose target ranges for medical parameters, share reports with their Healthcare Providers, combine data from multiple glucose devices and view data in reports collectively or filtered by device. The application is available in English and Spanish.