Written documentation for Block Diagram

The diagram is broken up into two main parts:

1. The services deployed to Azure (annotations on diagram below)
2. The client facing applications (website and universal app)

*Azure*

The Web Api was chosen in order to gain more flexibility on the client applications that could access it. In this case we are using a Mobile app (Universal app) and a website. However, in theory IoT devices should also be able to access this api. Another ideal example would be medical devices that could measure biometric data and update the Azure SQL Database

Web Jobs are employed to update existing patients’ biometrics and then send a call to notification hub to send a message to the user indicating how patients’ statuses changed. Web Jobs were used because the activity that needed to be completed was fairly light weight. In addition, the Web Job is coded to be on-demand so that a scheduler can be used to access it as how many times per minute it is called will change based on TA requirements.

Notification Hub was utilized in order to let the user know of the patients that are changing as their biometrics get updated. There is no easy way to tell in the app which patients have changes in medical statuses. The notification is a good indication for the user that they should go to their patient list and look for new critical patients.

Azure search is used in order for users to be able to locate a single patient by name. While unnecessary given the current size of the patient database, the idea would be that if the database got much larger, it would be possible to scale the search utility with the database. This function would be accessed through the Web Api.

Finally, certain activities that involve imputing Biometric data and creating new fake patients are separated out from the API and put in its own “EHR" class. This class is unit tested.