Initial Project Proposal

Team No. 24

Members

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Project Name

SmartPharma

Project Synopsis

Web interface to service better and more direct communication between Hospitals and pharmaceutical distributors/representatives

Project Description

The underlying goal of this project is to better connect pharmaceutical distributors to the Hospitals they service. Currently, pharmaceutical representatives make direct calls/visits to Hospitals in their district, which is time consuming, difficult to manage, and all around impractical. At this time, there is little on the market to service this need. In addition to performing this basic function, the system will also double as prediction software with the ability to predict when outbreaks will occur, what kind of outbreaks they will be, and what kind of medicine will most likely be in high demand when the outbreak occurs. This prediction will be based on geo-locaion, and will notify Hospitals in the area accordingly. The prediction will allow Hospitals to reach out to representatives well in advance of the potential outbreak, and order the recommended drugs as they see fit. The system will also serve as a trending service, keeping track of what time of the year specific drugs are prescribed and the volume of those drugs prescribed at that time. This data will be compiled into an easy to read graph for each drug in inventory, and can be viewed by both the pharmaceutical representative and the Hospital.

Project Milestones

First Semester
- Identify data sets to use for training of prediction models
- Identify a registry of medications on hand at Hospitals
- Design document for database
- Design document for website hosting framework (front-end)
- Design document for website hosting framework (back-end)
- Design document for prediction model

Second Semester
- Gather data sets for use in training prediction models
- Create a database, and fill it with different medications used at Hospitals
- Build prediction model and train with collected data sets
- Set up back-end (basic API)
- Set up front-end (cosmetics)
- Connect front-end and back-end

Project Budget

AWS - Pay as you go system, not sure how much we will need.

Data for training of prediction models - Hopefully free, will try to contact some local pharma or find online somewhere.