**Anthem Dashboard Development**

**CMSC 451 Senior Project CM327**

**Problem Statement:**

Real-time application for analyzing incoming claims data for Anthem.

**Objective:**

Anthem as a health insurance company, dealt with a large amount of insurance claims from Doctors whom patients finished visiting. They currently had a system that sorted these claims in an autonomous manor such that claims could be processed by their claim specialist much faster. Their claim processing system had 22 different procedures to handle the claims. Yet all the procedures needed a constant monitor in case of unexpected delays or false termination. Anthem wanted a software solution to monitor all the claim procedures, alert them and most ideally predict when those procedure were more likely to have error occur.

**Value proposition:**

The Anthem claims technology operations teams don’t have a comprehensive view of all incoming data & trends associated with the data sources over time. In order to improve the operating model, alerts viewable on a mobile phone, tablet or a computer would improve support response. Functional proof of concept application that has met the definition of done & all features should be demonstrated to business stakeholders. This solution should be integrated with non-production systems.

**Technical volume:**

We develop our working environment on Amazon Web Service (AWS). A prototype web-based API that can receive procedure duration time data and flag unexpected long or short run time. This API should be able to apply to all 22 procedures. We are formatting and analyzing data by using T-SQL, Java, Excel. We use AngularJS to create a UI and feeding the Job average value using the sample data by extracting the job start time and end time of the given data and extracting those times to making the average and making the stranded derivation to find the ellipse time. Develop prediction algorithm on that API so that it will give the system administrator a heads up when there’s a high possibility of more error may occur. We using the average time to determine the process is successful or hanging or some kind of filer happens. After that we made projection to show the average time for the future data by daily, weekly monthly, quarterly or yearly. We also making the alert system to notify the job status.

**Management Volume:**

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**Cost volume:**

We are using AWS Marketplace free software products that run on the AWS Free Tier. We use these products on an Amazon EC2 t2. micro instance where we can use for up to 750 hours per month and pay no additional charges for the Amazon EC2 instance during the 12 months.

**Resource volume :**

We need skills with AngularJS, Data base, T-SQL, python, R, java, excel basic knowledge with AWS. Dr. Dahlberg is our management support leader and we meet with him every two weeks and discuss the problems and issues that we face. The project still has one more semester to finish it up. After complete the project we will handed to the anthem team and Dr. Dahlberg.