Crystal Advanced Analytics
(Future-Oriented Benchmarking through Social Media Analysis)

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Client: Dr. Richard Griffith, griffith@fit.edu - *Department of Psychology*

Sponsor meetings: January 17th, 2018
January 29th, 2018

Client meetings: January 19th, 2018
January 24th, 2018
February 7th, 2018

Progress of current Milestone (M4):

Task	Completion	Harshil	To do
Improve System accuracy (Classifier)	100%	100%	Classifier's accuracy improved by 15%. Currently at 72.37% with NB, and 71.37% with decision tree classifier
Implement Benchmarking Tool	40%	40%	Complete implementation of benchmarking tool
Implement Dashboard on Website	70%	70%	Improve dashboard and implement graphs
Improve Website	50%	50%	Connect data to graphs, improve GUI

Discussion of each accomplished task for current milestone:

Task 1: The accuracy of the classifier was successfully improved. Initially the classifier had an accuracy of 20%. By using proper tokenization and filtering the training data set and test data set, the system is currently reporting an accuracy of 72.37% with Naïve Bayes Classifier, 71.37% with Decision Tree classifier, 69.31% with K-Neighbors classifier and 64.37% with Linear SVC Classifier. I will attempt to improve the accuracy even more by changing the training model.

Task 2: I made more research on how to implement an accurate benchmarking tool. I have retrieved data from JFK Intl' Airport(NY) and Hong Kong Intl' Airport. The data from Hong Kong Intl' airport is in English and Chinese and using the py-translate python library, I am translating non-English medium data to English.

Task 3: I implemented the dashboard, which will be the primary/most important landing component of the website. The dashboard is almost complete, and I am currently investigating most appropriate graphs to represent the data on the dashboard.

Task 4: I improved the general interface of the website, such as fonts and colors. I also improved the home page, drop-down menus and different landing components, such as home page, dash-board, sign-in and sign-up page.

Plan for the Next Milestone (Milestone 5):

Task	Harshil
Complete Implementation of Benchmarking Tool	100%
Implement, Test and Demo Root-Cause Analysis	100%
Implement graphs on Dashboard	100%
Improve website	100%
Showcase Poster	100%

Discussion of each planned task for the next Milestone

Task 1: I plan on implementing a benchmarking tool which will allow the user to compare its service to that of its competitors.

Task 2: I plan on implementing the Root-Cause analysis feature which will be used to identify the root cause of underperformance and high performance in services.

Task 3: I will investigate the most appropriate graphs that will be used to represent different kinds of data, such as sentiment score, Overall service performance, benchmarking and root-cause analysis. The appropriate graphs will then be implemented on the website and it will be linked with live data.

Task 4: I plan on improving the general web interface, and the general flow of one component to another, such as navigating from the homepage to the Dashboard to sentiment score etc.

Task 5: I also plan on designing and completing the poster.

Sponsor feedback on each task for current Milestone (M4):

Task 1:

Task 2:

Task 3:

Task 4:

Sponsor Evaluation

- Sponsor: detach and return this page to Dr. Chan (HC 322)
- Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

Harshil	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

Sponsor Signature: _____ Date: _____