Team Formation Report

CS 321-005 Team 3 Project Deliverable 0

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Team

Team 3 consists of the following members:

- Connor Baker (cbaker25@masonlive.gmu.edu)
- Ziyan Guo (zguo3@masonlive.gmu.edu)
- ShinHyoung Oh
- Ghousia Syed (gsyed2@masonlive.gmu.edu)

As with most small teams, each member must perform multiple roles. The following roles have been assigned according to each member's familiarity with a topic.

Member	Roles
Connor	Scrum Master, System Architect, Product Owner, Developer
Ziyan	Elasticsearch Researcher, Kibana Researcher, NiFi Researcher
ShinHyoung	Elasticsearch Researcher, Kibana Researcher, NiFi Researcher
Ghousia	Elasticsearch Researcher, Kibana Researcher, NiFi Researcher

Concerning the position of Scrum Master, Connor was selected as a result of his prior experience working with Scrum and agile teams.

Project

Executive Summary

Team Big Data (TBD) seeks to fill a perceived gap in the market. Most companies lack a platform which passively aggregates information about their target market (à la Google and Facebook). These companies stand to benefit from analytics about the audiences they hope to reach with their advertisements.

TBD proposes an analytics package which performs sentiment analysis of some number of users' tweets. The sentiment analysis of a user's tweet is a group of numbers which can be thought of as representing the user's net emotional state (negative/neutral/positive). This Information can be used to more effectively target a user with advertisements.

Proposed Analytics Package

TBD's proposed analytics package consists of three components:

1. A NiFi pipeline which fetches tweets from potential customers and performs sentiment analysis
2. An Elasticsearch backend which ingests data from NiFi
3. A Kibana frontend which provides visualizations, metrics, and analysis

Elasticsearch, Kibana, and NiFi are Commercial, Off-The-Shelf (COTS) tools which have been vetted by industry. They are tools which have been shown to excel within their respective problem domains and are the natural choice for a modern-day Big Data solution.

Collaborative Process

TBD uses Scrum as the guiding collaborative process.

Each Monday and Wednesday TBD's development team meet for a time-boxed five-minute standup.