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TEAM 3

**Analysis: Blueprint & Bricksquad**

***Software Used for Project Implementation***

Blueprint

* IntelliJ IDEA is used to create the twitter analyzer platform. It provides a comprehensive feature set of tools and integrations with the most important modern technologies and frameworks for enterprise and web dev with Java, Scala, Groovy, etc.
* Apache Cassandra database is used for when scalability and high availability are needed without compromising performance. The benefits it offers were considered better compared to traditional SQL implementations due to the amount of information that will be digested from Twitter.

Bricksquad

* MySQL will be used in order to store the tweets being streamed real-time from Twitter
* After each tweet is arranged accordingly, the tweet will then be stored in MySQL
* Flask, a free, microframework written in Python, will be used to display said Tweets.

***API***

Blueprint

* Searching the stream of information going through the Twitter API is done to search for and choose the appropriate tweets

Bricksquad

* Google Maps provides a JavaScript API for Bricksquad to use. It gives the team the ability to design and implement a custom map that displays weather conditions on the US map for specified regions/cities/states. It already provides a weather layer with weather updates, but it can be customized.
* The JavaScript API allows the team to implement an algorithm that fetches JSON text for different weather conditions in the Continental US.
* Tweepy is a Twitter API, which provides access to the entire Twitter RESTful API methods, as well as grants the HTTP request after proper authorization
* This API will use the Twitter API, which uses the REST format, to provide relevant tweets in order to search the past for info such as terrorism attacks
* Use Streaming API that produces real time tweets in order to provide current info

Similarities (Blueprint & Bricksquad)

* Use Twitter API to collect tweets

***Project Components – Interfaces, data, etc.***

Blueprint

* BirdWatch application will consist of several different layers of software and interfaces to the environment
* The top layer is the GUI, which is followed by UI Controllers, Data Handlers, Communicators, and the Server/Database.
* Storing Data
* Consumes the JSON schema, inserts info from the relevant fields into a .CSV file and inserting each of those into a database

Bricksquad

* Bricksquad will create web application to
* Retrieve tweets from Twitter API to perform a regular expression search
* Retrieve tweets from Twitter API to create a weather map based on tweets about weather
* Store received date in MySQL database
* User enter expressions for searching twitter to get results
* Environment (System) Analysis
* Tweet Analyzer application will be created for the Windows Operating System and development is being handled on the Windows 7 platform
* Component Analysis
* Streaming Tweets
* The endpoints for the HTTP method, known as POST statuses/filters, returns public statuses in JSON format
* Parse Tweets
* When the main class receives Tweet from Twitter using API commands, the tweet is returned in a JSON format, which is interchangeable between languages.
* To parse through JSON format in python, Bricksquad used the SimpleJSON implementation.
* Tweet info is stored in JSON format for the Google Maps API to fetch. Once it fetches the info, it will iterate through the info and populate the different weather conditions on its own weather layer that Google allows to be customized.
* Filter Twitter
* Filter the stream of tweets to provide only those including a regular expression
* The POST request is used because the GET request are often rejected due to excessive URL length
* One of the predicate parameters in the POST request is the Track – keywords/phrases (regular expressions) that are specified by a comma separated list

Similarities (Blueprint & Bricksquad)

* Both use JSON format

***User Interaction***

Bricksquad

* User Analysis
* Tweet analyzer application will support users who are familiar with Twitter and those who have never registered an account. This is why it does not require users to register for a Twitter account
* Application will have clearly marked interface to allow users to navigate from a list of streaming tweets depending on the users’ regular expression entered and weather map

***Additional Information***