



## Trending News from Twitter – TREND

### **Minor Project**

*Disclaimer*

*This Software Requirements Specification document is a guideline. The document details all the high level requirements. The document also describes the broad scope of the project. While developing the solution if the developer has a valid point to add more details being within the scope specified then it can be accommodated after consultation with IBM designated Mentor.*

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## INTRODUCTION

The purpose of this document is to define scope and requirements of a widget that displays location wise Trending News from Twitter – TREND for an Employee Intranet of a large business house. Currently the news section displays articles that the content administrators upload periodically. TREND will display the trending topics for a location, selected by the user.

This document is the primary input to the development team to architect a solution for this project.

### System Users

All the employees of the business house will primarily use the Trending News from Twitter, TREND.

### Assumptions

1. The link to the widget will be displayed on the news section of the employee intranet.
2. The list of locations in terms of country, and city will be uploaded from a CSV file. For this project, it can be limited to Delhi, Mumbai, Chennai, and Bangalore in India; New York, San Francisco, Las Vegas and Washington in United States.

## REQUIREMENTS

TREND allows employees to catch up with location specific trending topics from Twitter.

### Basic System Operation

The following steps outline the basic system operation in context of the end-user:

1. User selects the country of his/her choice. TREND now gives an option to select City.
2. On the basis of selected City/Country combination, TREND obtains the “woeid” required to fetch Twitter Trends. This “woeid” is pre-populated or updated in the database during CSV upload (explained later).
3. TREND now obtains the list of trending topics in JSON format from twitter using Twitter’s REST API. This list of trending topic is displayed to the user.
4. Once the user selects the topic of his/her choice, TREND obtains the “top” 10 or 20 tweets for the selected topic & location using Twitter’s REST API and displays the same to the user.

A user-friendly interface needs to be developed to ensure smooth usage of the system.

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### **CSV Upload**

The system administrator will upload the Country and City pair data using a CSV file. This CSV file will have 2-columns, viz. country and city. For every row of uploaded data, system will obtain the “woeid” using Yahoo! GeoPlanet™ REST APIs.

### **About woeid**

In simple terms, it is a unique identifier - called the Where on Earth ID, or WOEID. A WOEID exists for almost any named place on planet earth. It can be obtained using a simple API provided by Yahoo, which can be accessed using HTTP GET. More details about WOEID can be found at <http://developer.yahoo.com/geo/geoplanet/> URL.

### **About REST API**

REST stands for “representational state transfer” and it is a style of software architecture for distributed systems like World Wide Web. REST facilitates the transaction between web servers by allowing loose coupling between different services. Learn more about REST at [http://en.wikipedia.org/wiki/Representational\\_state\\_transfer](http://en.wikipedia.org/wiki/Representational_state_transfer) URL.

Twitter’s REST API is explained at <https://dev.twitter.com/docs/api> URL.

## **DEVELOPMENT ENVIRONMENT**

TREND will be developed as a web application using Java/JSP and DB2 database. Eclipse will be used as the IDE for the same. You may consider using a JavaScript framework like Prototype/Scriptaculous/jQuery. JSON specifications can be found at <http://www.json.org/> URL.