# K.T.O KARATAY UNIVERSITY

**Project Name:** Visualization of Twitter Trends using World Wind on Android

**Contents**



# 1. Research

## a) Introduction

Early few years ago media means TV , Newspaper etc. , these were comes from to mind first.Thus days defination of media have been changed.People can reach easly whats happening in world becouse of internet.Even people expression their toughts their life shared on the social media.

Social media is the best way we can get any information easy and faster. Social networking websites e.g. MySpace, has been the champion of this social phenomenon, but a new player has come up, it was the first sign for rise social networking there for it provide a new view of social media.

Twitter was created in March 2006 by Jack Dorsey as a small project. Twitter is a real-time information network that connects you to the latest stories, ideas, opinions and news about what you find interesting. Simply find the accounts you find most compelling and follow the conversations.

At the heart of Twitter are small bursts of information called Tweets. Each Tweet is 140 characters long, but don't let the small size fool you—you can discover a lot in a little space. You can see photos, videos and conversations directly in Tweets to get the whole story at a glance, and all in one place.[1]

## b) Background

The aim of this project is to develop an interactive system for visualizing Twitter trends by geo-graphical reference on a virtual globe in real time on Android platform. World Wind [2] is an open source virtual globe developed by NASA. It provides a rich set of features for displaying and interacting with geographic data and representing a wide range of geometric objects. It can display high-resolution imagery, terrain and geographic information from any source.

In this project, non-spatial textual Twitter data combined with GIS (geographic information sys-tem) data will be integrated into World Wind. To extract Twitter trends, Twitter API [3] will be used. GIS data will be used for geographic information. Trends extracted from Twitter data with their geographic information extracted from GIS data will be displayed on World Wind.

## c) Requirements

### i. User Requirements

- Users can see all Twitter trends with location on World Wind map.
- Users can see their local Twitter trends with GPRS.
- Users can refresh the map for see new trends .
- Users can exit the program.
- Users will install the software by using the setup file that will be provided.

### ii. Reporting Requirements

Any error that is caught will be shown or reported.

# 2. Related Work

There is a one project which is related ours.The project name is Trendsmap.As like our project; the words on the map are taken from recent tweets (from twitter). They track the words, or topics, as it becomes more or less popular in overall tweets, and only show the important ones.

The development of Trendsmap commenced in June 2009 and the site was launched in September 2009. It continues to evolve as more cities and languages are added.[4]

Trendsmap worked on web base but we are going to do this on Android platform.This is the one of big differences from us.Also they used Ruby and Javascript programing languages , we will use Java language and Android SDK.They use google to help them get trends location (geoip). This doesn't always work correctly.We will use yahoo to help us get treds location (woeid) but we must convert this into latitude and longitude becouse of trends location showen always correctly on World Wind.

# 3. Methodology

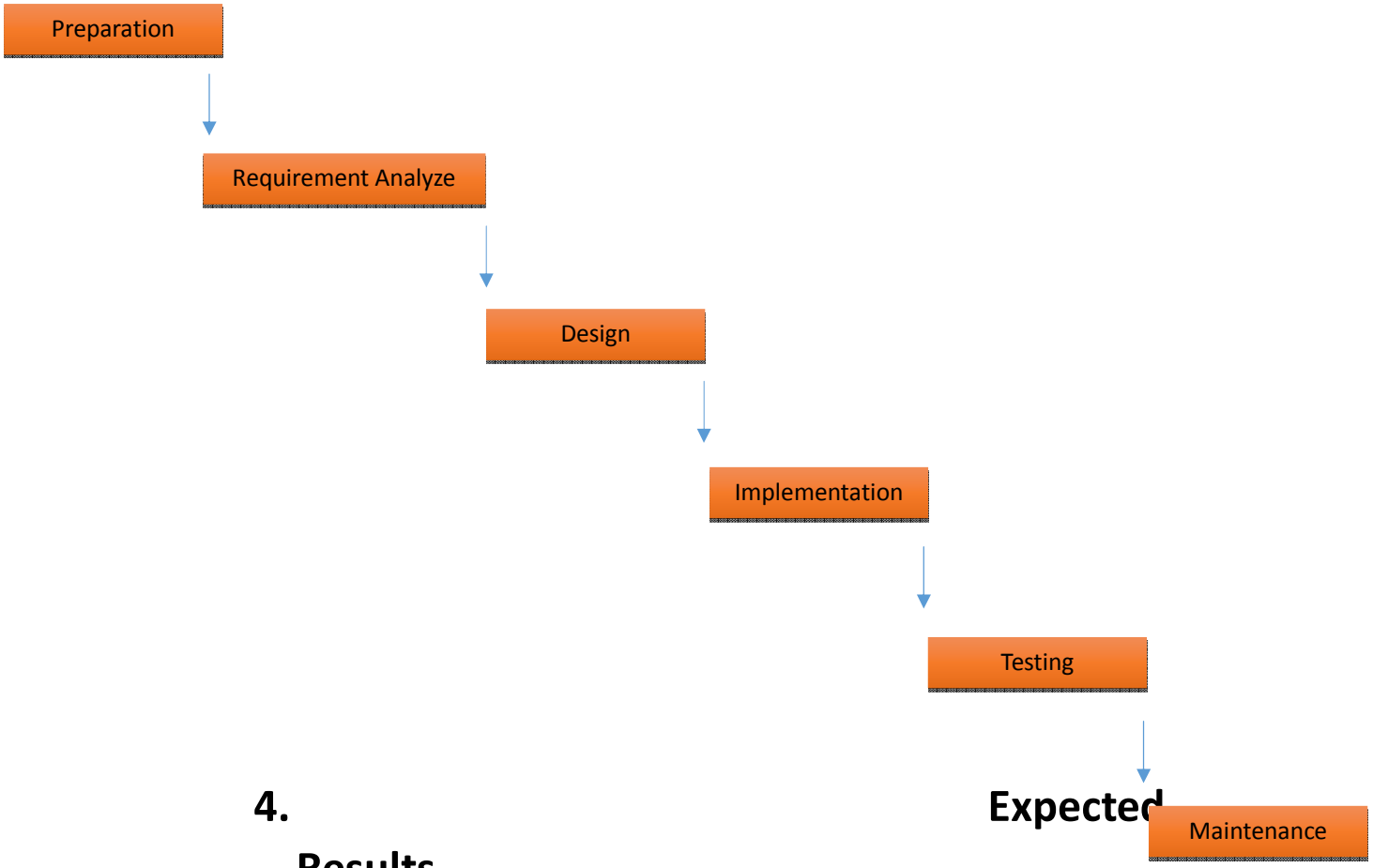
First of all we need to get Twitter trends from Twitter API. Android applications are written in the Java programming language. The Android SDK tools compile the code—along with any data and resource files—into an Android package, an archive file[5] even though we cant use Twitter API in Java without Library.Only one Java library is avaible name is Twitter4J.

Twitter4J is an unofficial Java library for the Twitter API.With Twitter4J, you can easily integrate your Java application with the Twitter service. Twitter4J is an unofficial library[6].Twitter4J supply to get Twitter trends and writing java codes with Twitter API.

Next step is create a layer for show Twitter trends on World Wind map. We should to integrate location of twitter`s trends layer on World Wind.We need to use World Wind Android SDK for execute in Android O.S. For instructions on developing World Wind Android applications using an IDE, refer to Managing Projects from Eclipse with ADT[7].

Last step is create a Android application then we must create a GUI in it. After all of these we will integrate all of created things into which we created application above.

Software will be developed on desktop computer in Microsoft Windows 8 64-bit OS using Eclipse Indigo (v3.7.1) with Android SDK 3.2.




## 4. Expected Results

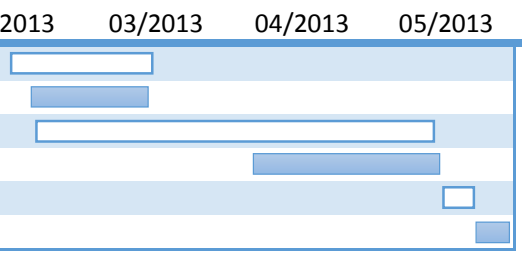
If we can execute this project when we start that application it will be able to show trends where we touch on the screen with fingers.If it will be succesful this project will be fist Android application in this class.

Our propose is get true information on the right area in the WW map.It will be provide us follow breaking  trend news whole around world.

Similar project are using Twitter API but its not able to use in Android O.S.Also they doesnt work right always.We are going to do the best in this case.

# 5. Timetable

| Task | Start | End |
|---|---|---|
| Preparation | 13.02.2013 | 15.03.2013 |
| Requirement Analyze | 20.02.2013 | 15.03.2013 |
| Design | 20.02.2013 | 15.05.2013 |
| Implementation | 01.04.2013 | 15.05.2013 |
| Testing | 15.05.2013 | 22.05.2013 |
| Maintenance | 22.05.2013 | ---------- |




# 6. References

[1] “About Us” Twitter, http://twitter.com/about#us .

[2] Nasa World Wind, http://worldwind.arc.nasa.gov/java/ .

[3] Twitter API, https://dev.twitter.com/.

[4] Trendmap, http://trendsmap.com/about-faq .

[5] Application Fundamentals, http://developer.android.com/guide/components/fundamentals.html .

[6] Twitter4J, http://twitter4j.org/ .

[7] Get Started with World Wind Android, http://goworldwind.org/android/get-started-with-worldwindandroid/