



DESIGN MANUAL

TweetMine – Twitter Sentiment Analysis Tool



KRZYSZTOF OBLAK

C00161361

Table of Contents

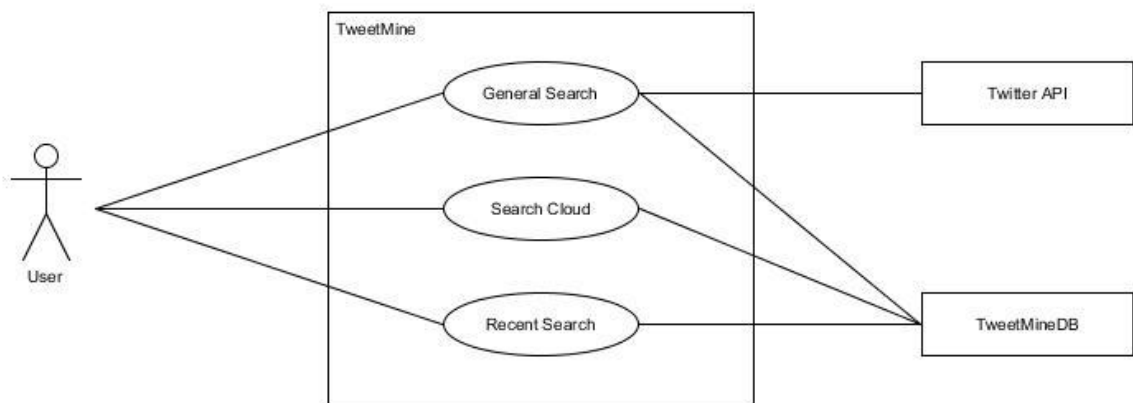
1. Introduction	1
1.1. Purpose	1
1.2. Use Case Diagrams	1
2. Tools	1
2.1. Notepad++	1
2.2. IDLE	1
2.3. DB Browser for SQLite	2
3. Database	2
3.1. Details	2
3.2. Design	2
4. System Sequence Diagrams	3
4.1. General Search	3
4.2. Search Cloud	3
4.3. Recent Search	4
5. GUI	4
5.1. Home Screen	4
5.2. About Screen	5
5.3. Search Cloud Screen	5
5.4. Result Screen	6
6. References	6

1. Introduction

1.1. Purpose

The purpose of this design document is to provide details for how the TweetMine system should be built. Included in this document are use case diagram, system sequence diagrams for use cases outlined in the functional specification of the system, descriptions of the design and samples of the GUI as well as the database design. The details included in this document should provide a description of the system that is complete enough to allow any developers to be able to understand how this system is to be built.

1.2. Use Case Diagrams



2. Tools

2.1. Notepad++

Notepad++ ^[1] is a free source code editor and Microsoft Windows Notepad replacement that supports a wide range of programming and scripting languages. Running in the MS Windows environment, its use is governed by GPL License. Based on the powerful editing component Scintilla, Notepad++ is written in C++ and uses pure Win32 API and STL which ensures a higher execution speed and smaller program size and also optimizing as many routines as possible without losing user friendliness.

2.2. IDLE

IDLE ^[2] (Integrated Development Environment ^[2]) is an integrated development environment for Python, which has been bundled with the default implementation of the language since 1.5.2b1. It is packaged as an optional part of the Python packaging with many Linux distributions. It is completely written in Python and the Tkinter GUI. IDLE is

intended to be a simple IDE and suitable for beginners, especially in an educational environment. To that end, it is cross-platform, and avoids feature clutter.

2.3. DB Browser for SQLite

DB Browser for SQLite ^[3] is a high quality, visual, open source tool to create, design, and edit database files compatible with SQLite. It is for users and developers wanting to create databases, search, and edit data. It uses a familiar spreadsheet-like interface, and you don't need to learn complicated SQL commands.

3. Database

3.1. Details

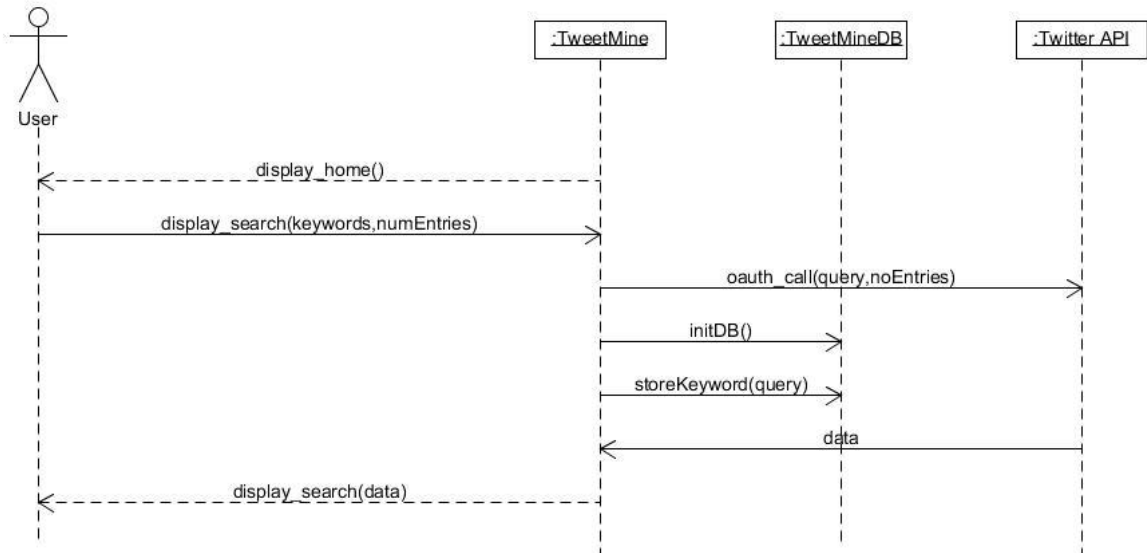
This project uses SQLite3 database system which is connected to and manipulated by Python 3.4.2 code. SQLite3 was chosen for this project because it is the most used database system running on every Android and iPhone device along with the Chrome and Firefox browsers ^[4]. It is capable of handling small applications quickly and reliably. It is also free to download and use. The database will be composed of a single table to hold the data required by the TweetMine tool.

3.2. Design

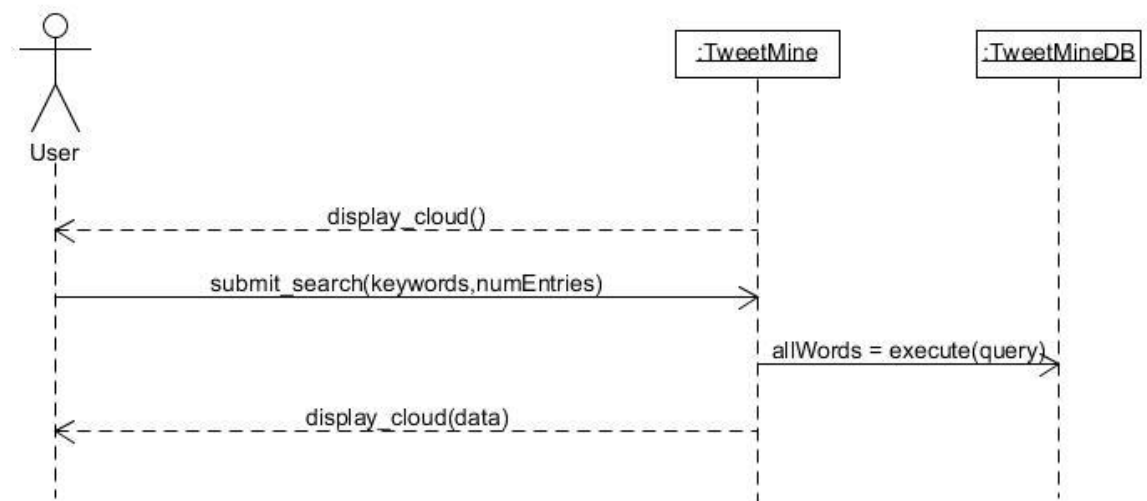
Keywords			
This table holds all the details required by the TweetMine tool to operate.			
PRIMARY KEY [ID]			
Name	Type	Schema	Sample Data
ID	Integer	`ID` INTEGER NOT NULL	2 6 54
Word	Text	`Word` TEXT NOT NULL	Apple Google IBM
Count	Integer	`Count` INTEGER NOT NULL	12 54 27
Date	Text	`Date` TEXT NOT NULL	2015-03-23 12:00:00 2015-04-14 15:37:58 2015-03-22 12:30:00

4. System Sequence Diagrams

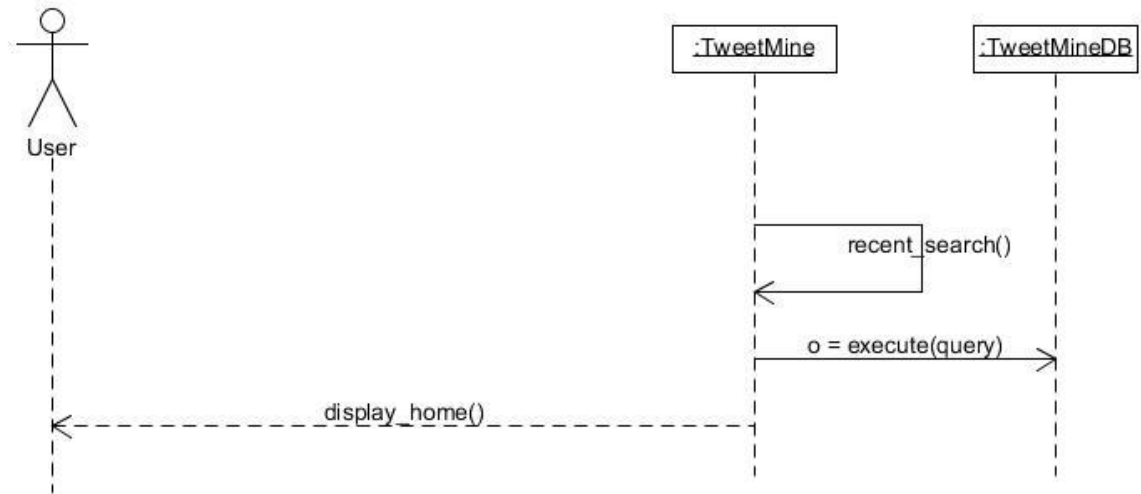
4.1. General Search



4.2. Search Cloud

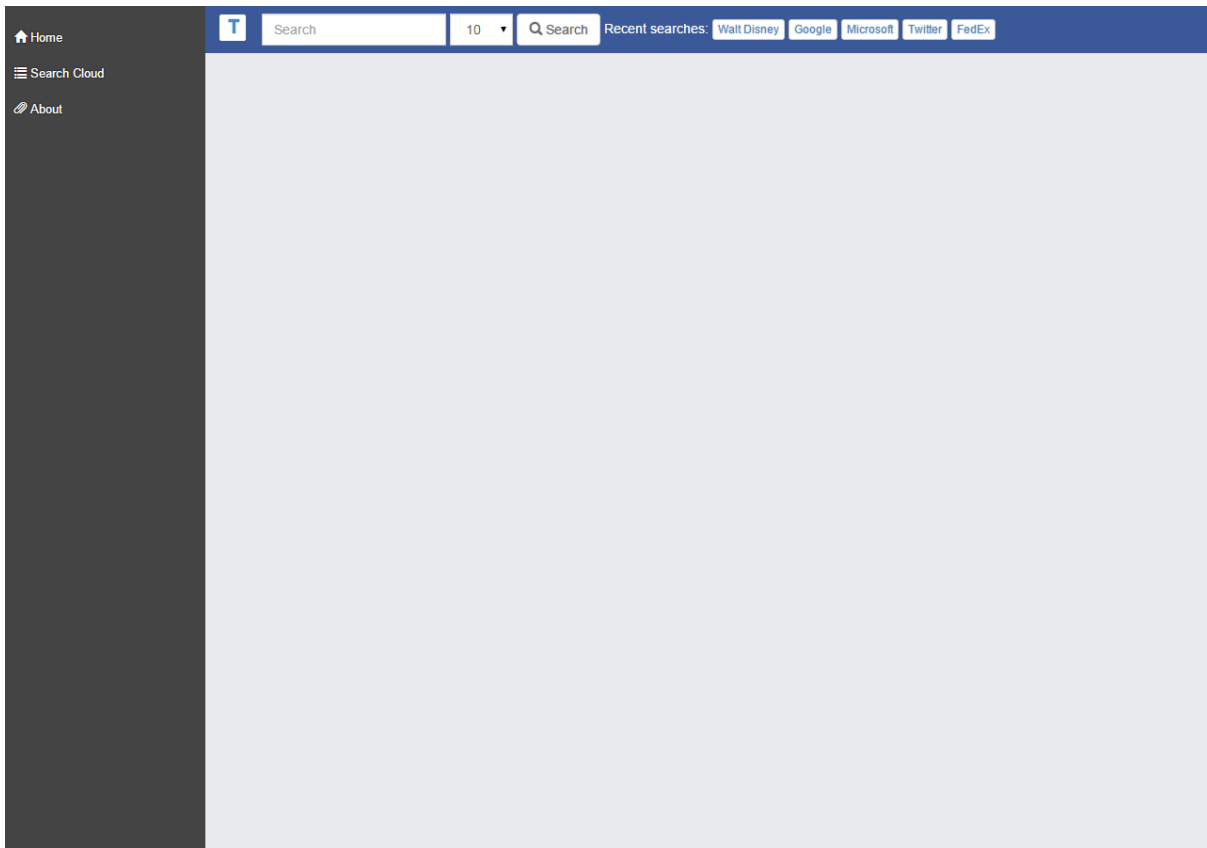


4.3. Recent Search

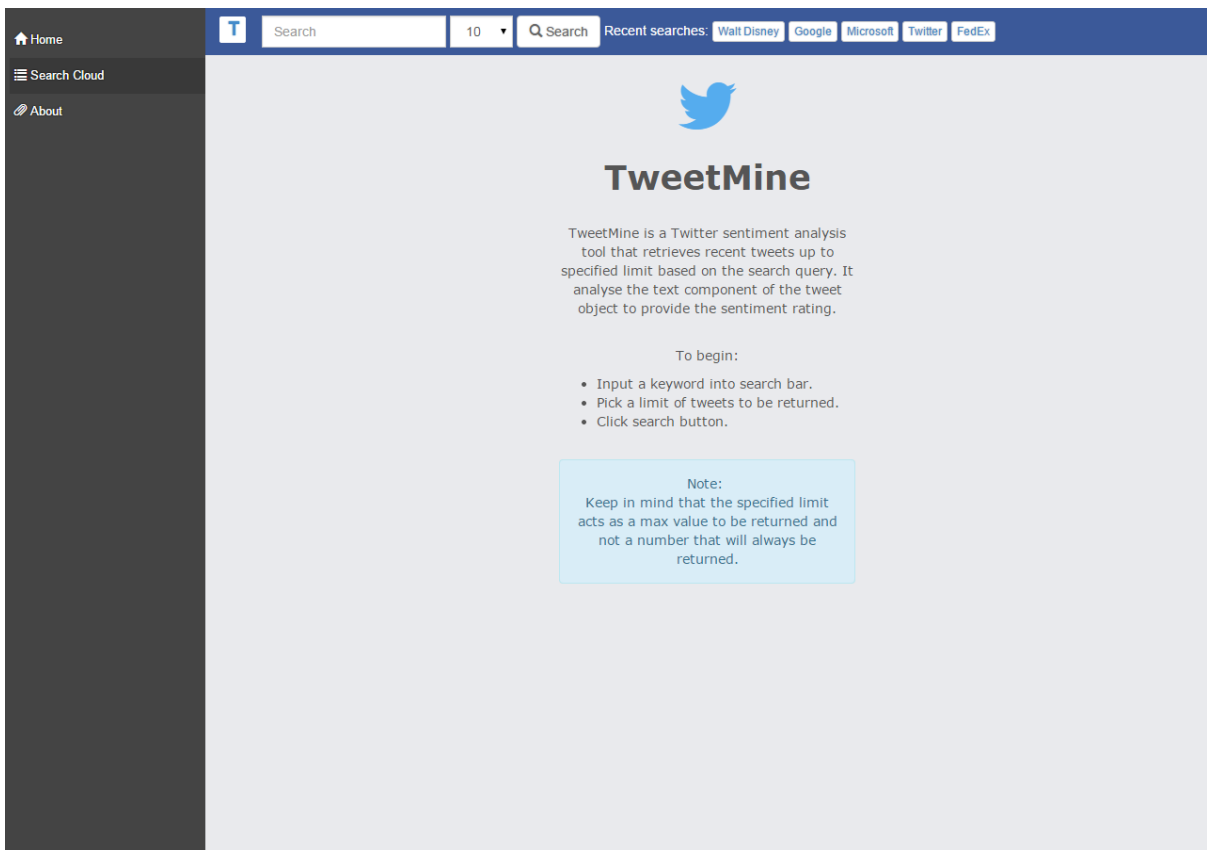


5. GUI

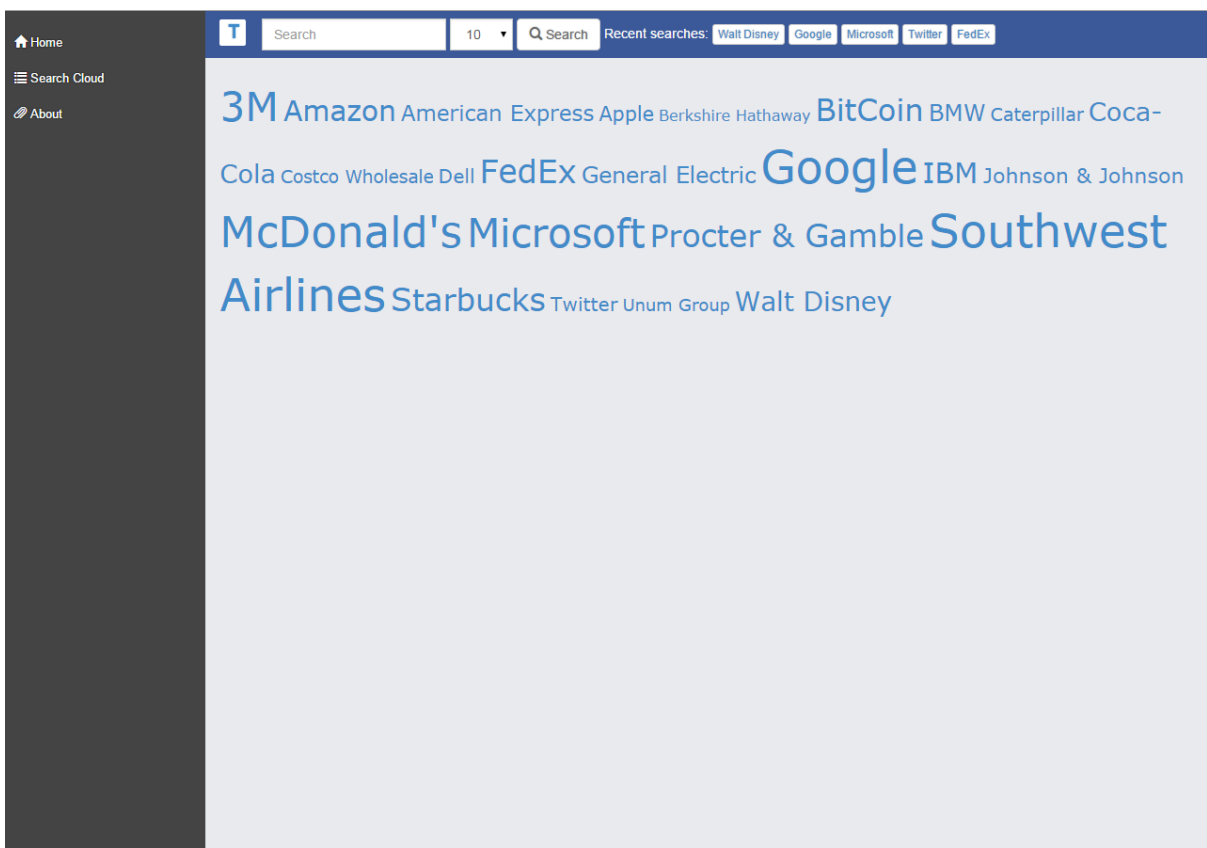
5.1. Home Screen



5.2. About Screen



5.3. Search Cloud Screen



5.4. Result Screen

The screenshot shows a search results interface with a dark sidebar on the left containing 'Home', 'Search Cloud', and 'About'. The main content area has a search bar with 'Search' and '10' results, and a list of tweets. The tweets are color-coded: white for general results, green for IBM-related content, and red for a tweet from @StephenLynx. The tweets include links to various articles and resources.

Recent searches: IBM Walt Disney Google Microsoft Twitter

- ComputingClouds || 0.3
IBM's Latest Cloud Win Could Be a Game Changer <http://t.co/y27ILN3nBM>
- IBMRearch || 0.5
@jaspermid Hi Jasper, here's more about this polymer work & the team: <http://t.co/n0uBoRd5GT>
- mark3431 || 0.0
Email that works for you -- now there's a concept! #NewWayToWork #IBMVerse <http://t.co/ne7UNJmZ3J> <http://t.co/8duuE2ekFG>
- Just_Clarity || 0.5
IBM Smarter PlanetVoice: 6 Ways To Use Analytics To Better Manage A Workforce" <http://t.co/pW14XFxPUu> by @forbes
- markobonaci || -0.18749999999999994
@StephenLynx Actually I'm not so sure that it's going to be bad, IBM won't make technical decisions. But why change it if it's not broken?
- KennedyDonna1 || 0.0
Ibm websphere lombardi set v7.2, seasoning (dev) written examination as representing bearing out in what way on...
- LabVIEWOpenJS || 0.0
Javascript library that runs any .vi on browser without LabVIEW installed. WebGL/WebCL FPGA Deepmind SAP Forex IBM Nasdaq 1429101601
- RachelEdwardsUK || 0.0
Read how IBM CMOD optimizes your customer service and reduces your storage <http://t.co/2mrPyG7JR7> #ibmecom #Content2015

6. References

- [1] Notepad++
<http://notepad-plus-plus.org/>
- [2] IDLE
<https://docs.python.org/2/library/idle.html>
- [3] DB Browser for SQLite
<http://sqlitebrowser.org/>
- [4] Well-Known Users of SQLite
<https://www.sqlite.org/famous.html>