

## HW #4 Group Assignment: Twitter Client Assignment

**Team Name: Fantastic four**

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### **Abstract:**

The Twitter REST APIs provide developers with programmatic access to read and write Twitter data. With their REST APIs you can post tweet, retrieve followers, access followers' profile and more. The Twitter APIs are so complete and well-documented.

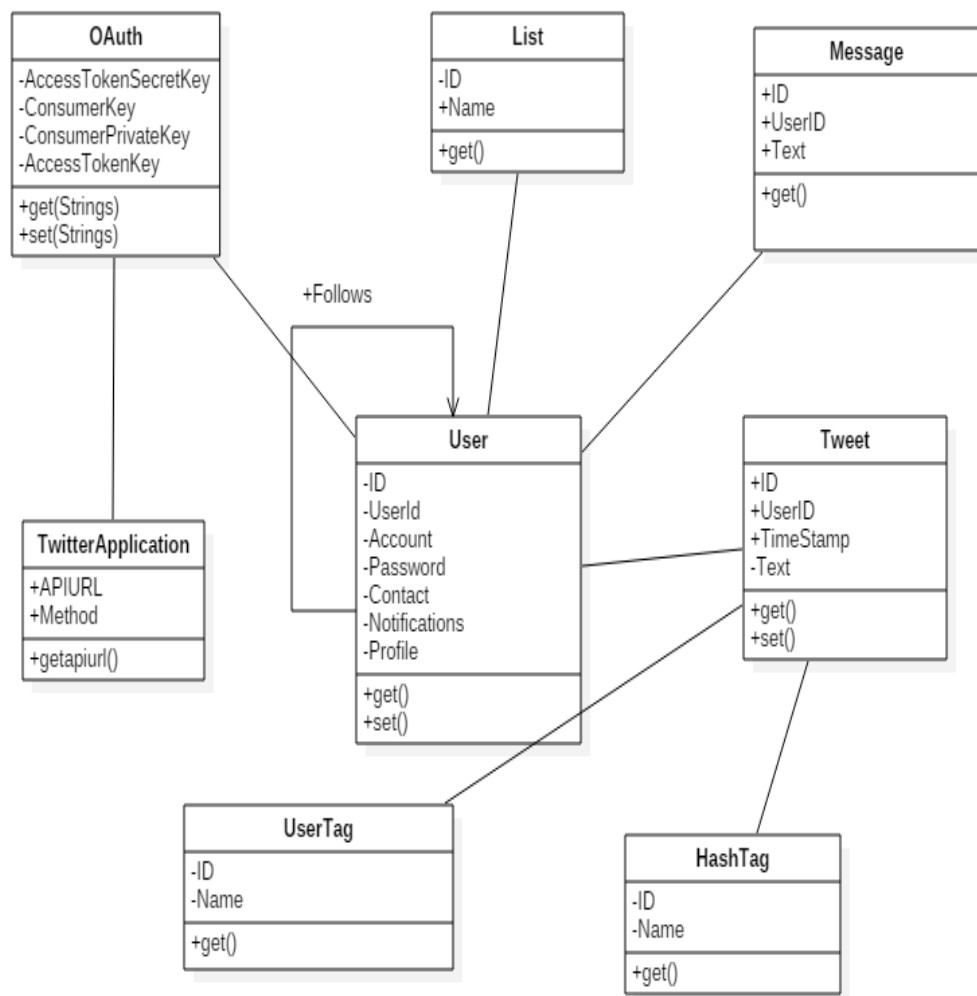
In Twitter, by using hash-tags in Tweets people can give a subject to a particular message and via this subjects tweets can be and more information comes available to users of Twitter but also anyone else on the web.

REST - (**RE**presentational **State Transfer**), an architectural style for web services, is getting more and more popular in recent years. Many leading vendors have opened the doors of their services to developers, providing them with restful accesses to different web services. Twitter is one of the most well-known vendors that uses REST API.

Our Web Application demonstrates Twitter API along with proper implementations and the results. The important functionalities include that of posting status from application, search users and their profile pictures, get user time information and others. This enables a user to get easily information about friends, family and other interesting people through this application.

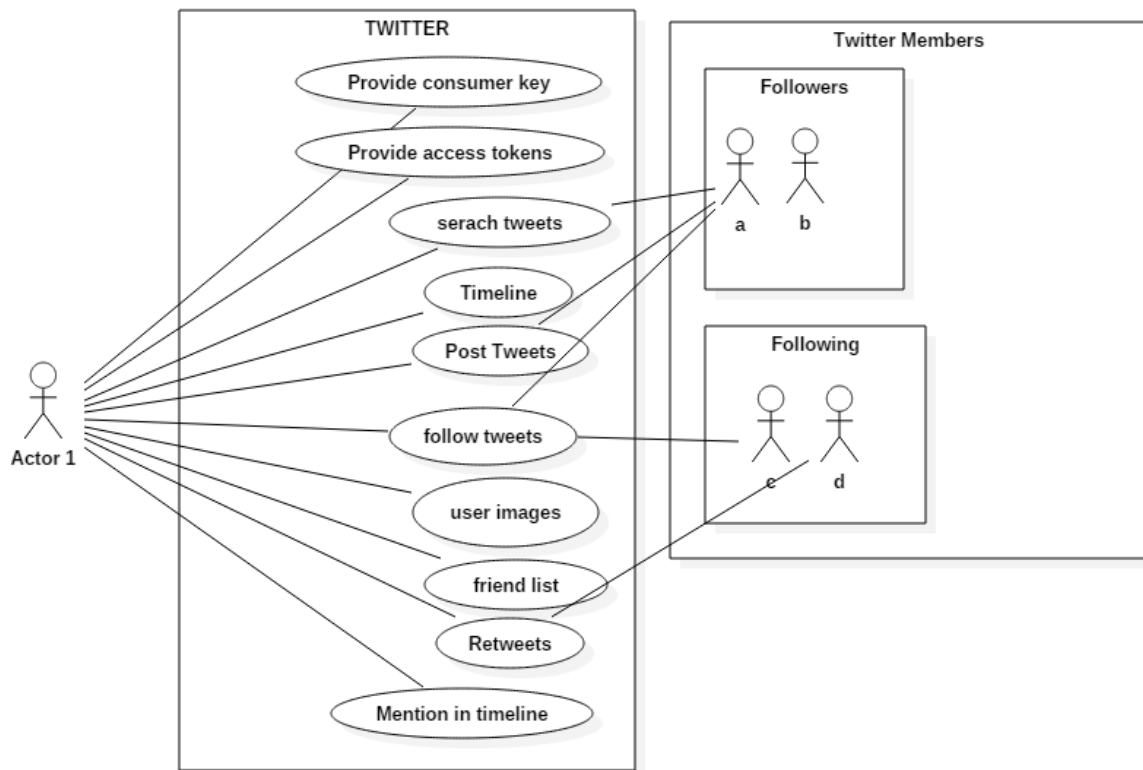
## UML Diagrams:

### Class Diagram:



Tweets are connected to exactly one User. An interesting aspect of Twitter is the followers/following structure, basically Users which are connected to other Users.

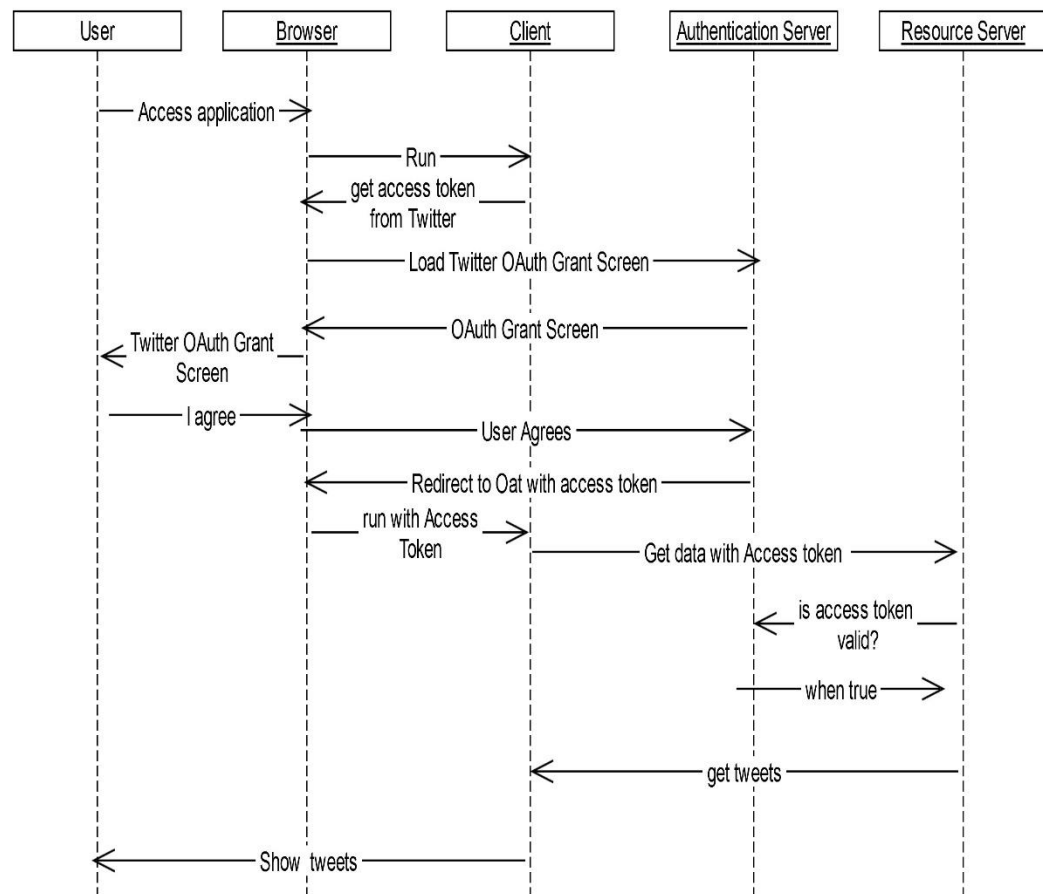
## Use Case Diagram:



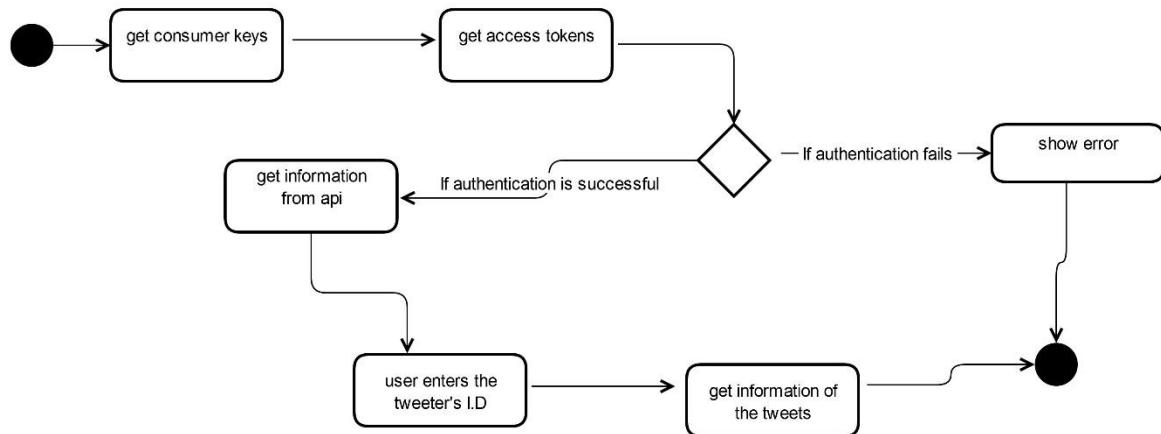
Use case	Post Tweets
Description	Posting a tweet on the account that is own by the person who is posting the tweet.
Actors	User, Followers, the system (Twitter.com)
Pre-conditions	1. User is logged in.
Post-conditions	Tweets must be shown on the profile of the user and all his followers. The tweets must contain exactly the same text as entered by the user.
Steps	1. Go to Twitter.com 2. Enter text in to the 'what's happening?' textbox 3. Press the tweet button.

Variations	A picture is shown of the so called Following and followers
Non-functional requirements	Availability, performance, quality

### Sequence Diagram:



## Activity Diagram:



## Screenshots:

Figure 1: Search Tweets By Tags

The screenshot shows a web application interface for the Twitter API. On the left is a dark sidebar with a list of menu items: 'Search Tweets By Tags', 'Fetch TimeLine', 'Fetch Followers Tweets', 'Post Tweet', 'Get Twitter User Image', 'Get Friends List', 'Get Retweets', and 'Mentions In Timeline'. The main content area is titled 'Enter Twitter ID:' and contains a text input field with 'SrBachchan' and a 'Submit' button. Below the input is a table of search results.

Index	Followers Tweets
MissMalini:	In case you missed it! Watch the full episode of #MMWorld2 online now! <a href="https://t.co/Go6WJQ9ISc">https://t.co/Go6WJQ9ISc</a> with @ajaydevgn @ITIGERSHROFF @SrBachchan!
ZoomTV:	.@SrBachchan remembers Yash Chopra on his 83rd birth anniversary <a href="http://t.co/MHBaeYyAJJ">http://t.co/MHBaeYyAJJ</a>
ZoomTV:	.@SrBachchan says adults need to learn to be free spirited from children, who are the future of the country <a href="http://t.co/HYGByrG6Rc">http://t.co/HYGByrG6Rc</a>
jiteshpillai:	The most historic one. With dilip saab @SrBachchan and @iamsrk unforgettable <a href="http://t.co/JLR1JaACCh">http://t.co/JLR1JaACCh</a> #fridayflashbackwithfilmfare
dpradhanbjp:	Legendary Megastar of India Shri @SrBachchan ji has joined the #GiveItUp Movement. Sincere thanks to our Hero. <a href="http://t.co/Bj8f03USya">http://t.co/Bj8f03USya</a>
arjunk26:	A handwritten letter from @SrBachchan a month after ishaqzaade released...made all the hardworkworth it... <a href="https://t.co/hvtazevwJy">https://t.co/hvtazevwJy</a>
TimesNow:	.@SrBachchan joins PM @narendramodi's #GiveItUpMovement, gives up LPG subsidy & will buy cooking gas at market price <a href="http://t.co/IC1ZjeHC1O">http://t.co/IC1ZjeHC1O</a>
YuvaITV:	Inspiring by PM @narendramodi's appeal Shri @SrBachchan has also joined the silent revolution of #GiveItUpMovement. <a href="http://t.co/lc5xB0dy5F">http://t.co/lc5xB0dy5F</a>
timesofindia:	.@SrBachchan gives up LPG subsidy <a href="http://t.co/lqZ7XOIJ6">http://t.co/lqZ7XOIJ6</a> via @TOIEntertain

Figure 2: Fetch TimeLine

Twitter API		
Search Tweets By Tags		
Fetch TimeLine		
Fetch Followers Tweets		
Post Tweet		
Get Twitter User Image		
Get Friends List		
Get Retweets		
Mentions In Timeline		
Index	Tweets	
0	Don't panic over the rise in personal data theft <a href="http://t.co/UWIRzo2vH8">http://t.co/UWIRzo2vH8</a>	
1	The death toll of Indians killed in Haj stampede is now 45. We have 50 Indian pilgrims in various hospitals in Saudi Arabia.	
2	Kreditech Nabs \$92M To Build Financial Services For The 'Underbanked' <a href="http://t.co/MjM9zYAKEH">http://t.co/MjM9zYAKEH</a> by @ingridlunden	
3	Google announces plan to put Wi-Fi in 400 train stations across India <a href="http://t.co/lDzrbogzKN">http://t.co/lDzrbogzKN</a>	
4	Use Tinder or Grindr? This billboard suggests getting tested for an STD <a href="http://t.co/hPV3Mdp73v">http://t.co/hPV3Mdp73v</a> <a href="http://t.co/utuxcqHqgX">http://t.co/utuxcqHqgX</a>	
5	Google turns 17, celebrates its 'least random birthday' <a href="http://t.co/xqSG345swx">http://t.co/xqSG345swx</a> <a href="http://t.co/hPV3Mdp73v">http://t.co/hPV3Mdp73v</a>	
6	As Brazilian economy descends into crisis, tech is growing double digits <a href="http://t.co/uy5rT5blO">http://t.co/uy5rT5blO</a>	
7	sumtimend06	
8	Coding in the cloud era demands a structural rethink to bake in security and privacy <a href="http://t.co/1mltMJoziK">http://t.co/1mltMJoziK</a>	
9	Google Targets Intent With Email, YouTube And Search Matching And Universal App Campaigns <a href="http://t.co/zybPAUpoUJ">http://t.co/zybPAUpoUJ</a> by @ingridlunden	
10	If Apple made a cat toy, it would be this one <a href="http://t.co/VYUdGEWLoE">http://t.co/VYUdGEWLoE</a> <a href="http://t.co/Df15isaC8y">http://t.co/Df15isaC8y</a>	
11	Indian Prime Minister tells Zuckerberg social media creates a new form of diplomacy <a href="http://t.co/pGdwFFvic6">http://t.co/pGdwFFvic6</a> <a href="http://t.co/IT9bT6Nf9p">http://t.co/IT9bT6Nf9p</a>	
12	A memorable programme in San Jose. Gratitude to all those who joined. <a href="http://t.co/u16CceUUUn">http://t.co/u16CceUUUn</a>	
13	Testing Twitter...!!	
14	China's Didi Kuaidi Confirms It's Invested In India's Ola As Uber Car Rivalry Heats Up <a href="http://t.co/tm7bRCwF54">http://t.co/tm7bRCwF54</a> by	

Figure 3: Fetch Follower Tweets

Twitter API		
Search Tweets By Tags		
Fetch TimeLine		
Fetch Followers Tweets		
Post Tweet		
Get Twitter User Image		
Get Friends List		
Get Retweets		
Mentions In Timeline		
Index	Tweets	
0	RT @slickdeals: Win a \$200 Visa Gift Card @slickdeals #giveaway <a href="http://t.co/1u1hrCLFVw">http://t.co/1u1hrCLFVw</a>	
1	Join Free & Win Prizes every Month! Visit Now @ <a href="http://t.co/Kn7ZXDJM">http://t.co/Kn7ZXDJM</a> <a href="http://t.co/eaB4Y6Ob">http://t.co/eaB4Y6Ob</a>	
2	I completed the 'Pass a Micro through a junction' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
3	I completed the 'Crash a Courier bike' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
4	I completed the 'Pass a taxi through a junction' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
5	I completed the 'Crash a 3-wheeler' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
6	I completed the 'Pass 100 cars through junctions' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
7	I completed the 'Crash 10 Coaches' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
8	I completed the 'Earn 10000 credits' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
9	I scored 2,952 in #TrafficPanicLondon! Play now on Android - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
10	I caused 1,631,920GBP worth of damage in #TrafficPanicLondon! Play on Android - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
11	I scored 2,792 in #TrafficPanicLondon! Play now on Android - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	
12	I completed the 'Hit 4 traffic lights' mission in #TrafficPanicLondon. Play now on Android for free - <a href="http://t.co/gh2aTggD">http://t.co/gh2aTggD</a>	

Figure 4: Post Tweet

Twitter API

Search Tweets By Tags

Fetch TimeLine

Fetch Followers Tweets

Post Tweet

Get Twitter User Image

Get Friends List

Get Retweets

Mentions In Timeline

Write Tweet to POST:

Hello twitter

Submit

Figure 5: Get Twitter User Image

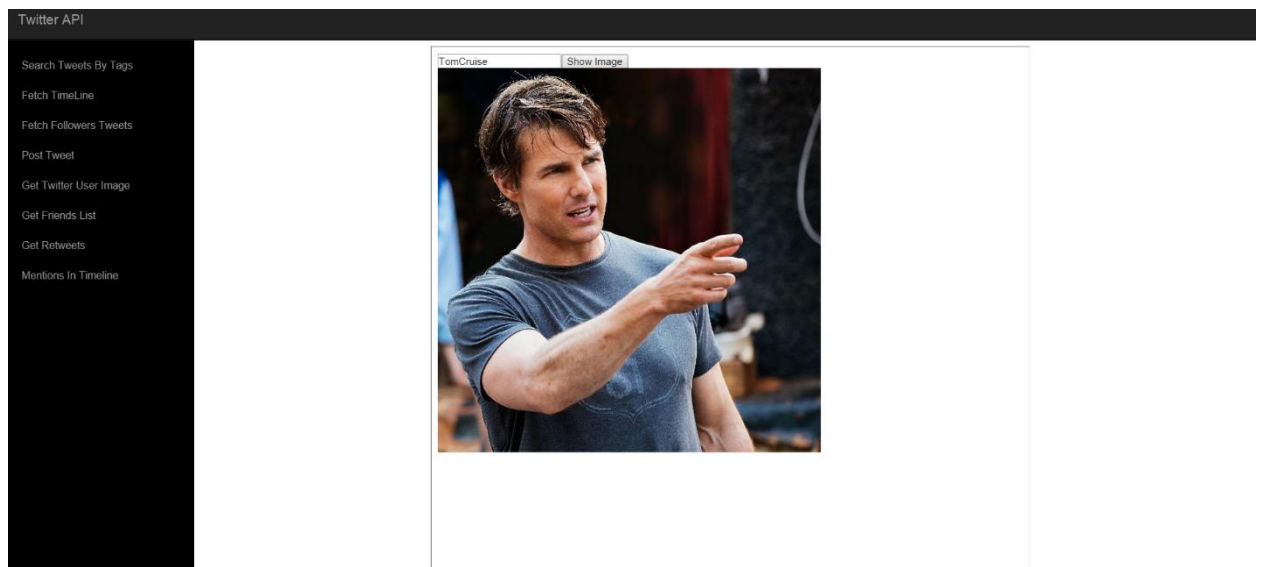


Figure 6: Get Friends List

Twitter API	
Search Tweets By Tags	
Fetch TimeLine	
Fetch Followers Tweets	
Post Tweet	
Get Twitter User Image	
Get Friends List	
Get Retweets	
Mentions In Timeline	

Index	Friends List
0	Samarth Gowda
1	chintu sux
2	ronny
3	Harshit Dhupar
4	DJ ANGELO
5	Harshit Jain
6	TwitterDev
7	Twitter Flight
8	Nishant Mendiratta
9	Ritu
10	TechCrunch
11	Amit Mendiratta
12	Nishant Mendiratta
13	Narendra Modi
14	Sushma Swaraj
15	arya
16	Praveen Mishra

Figure 7: Get Retweets

Twitter API	
Search Tweets By Tags	
Fetch TimeLine	
Fetch Followers Tweets	
Post Tweet	
Get Twitter User Image	
Get Friends List	
Get Retweets	
Mentions In Timeline	

Index	Re-Tweets
0	Sumit's Lab completion certificate for "Create your first Amazon S3 bucket" #AWS <a href="https://t.co/DfHXnICl">@CloudRank</a>
1	Sumit's Lab completion certificate for "Create your first Amazon EC2 Instance (Linux)" #AWS <a href="https://t.co/bOEUYyjpF">@CloudRank</a>



Figure 8: Mention in Timeline

Twitter API	
Search Tweets By Tags	
Fetch TimeLine	
Fetch Followers Tweets	
Post Tweet	
Get Twitter User Image	
Get Friends List	
Get Retweets	
Mentions In Timeline	

Index	Text Mention in TimeLine
0	@SumitMendi : Hey .!!