CMPE-272 -Enterprise Software Platforms
Karaf

Aim: **To build a web application and use twitter API to access values using karaf web container**

Team Name: DEXTERS
1. **Abhishek Prabhudesai**
2. **Saurabh Aggarwal**
3. **Sowndhariya Nandarajkumar**
4. **Yee Zhian Liew**

Abstract:

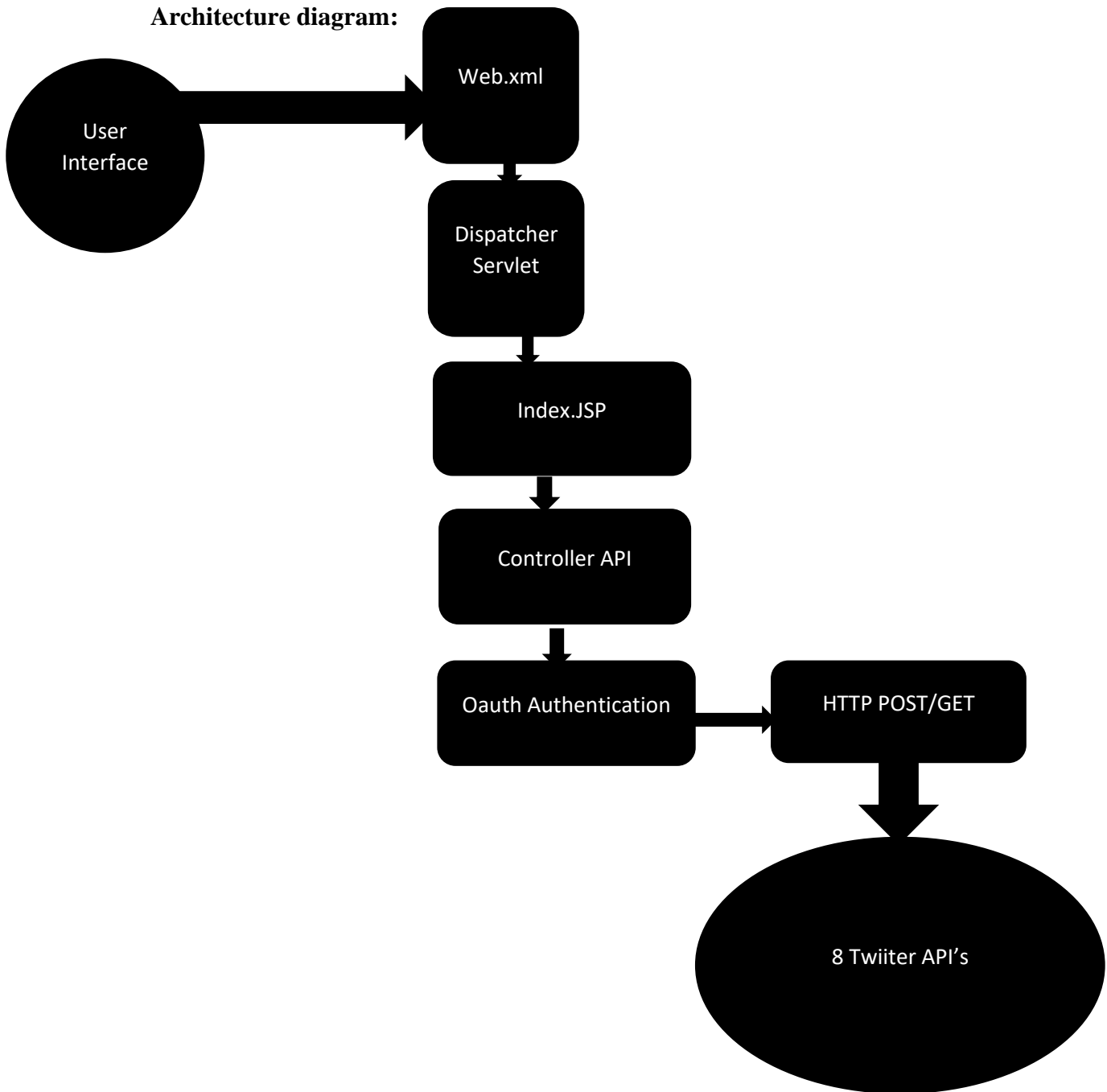**We need to implement 8 Twitter API and deploy it in Karaf web container**

Technologies used:

1. **Java 9**
2. **HTML ,Bootstrap**
3. **Ajax**
4. **JQuery**
5. **Web Services-REST**
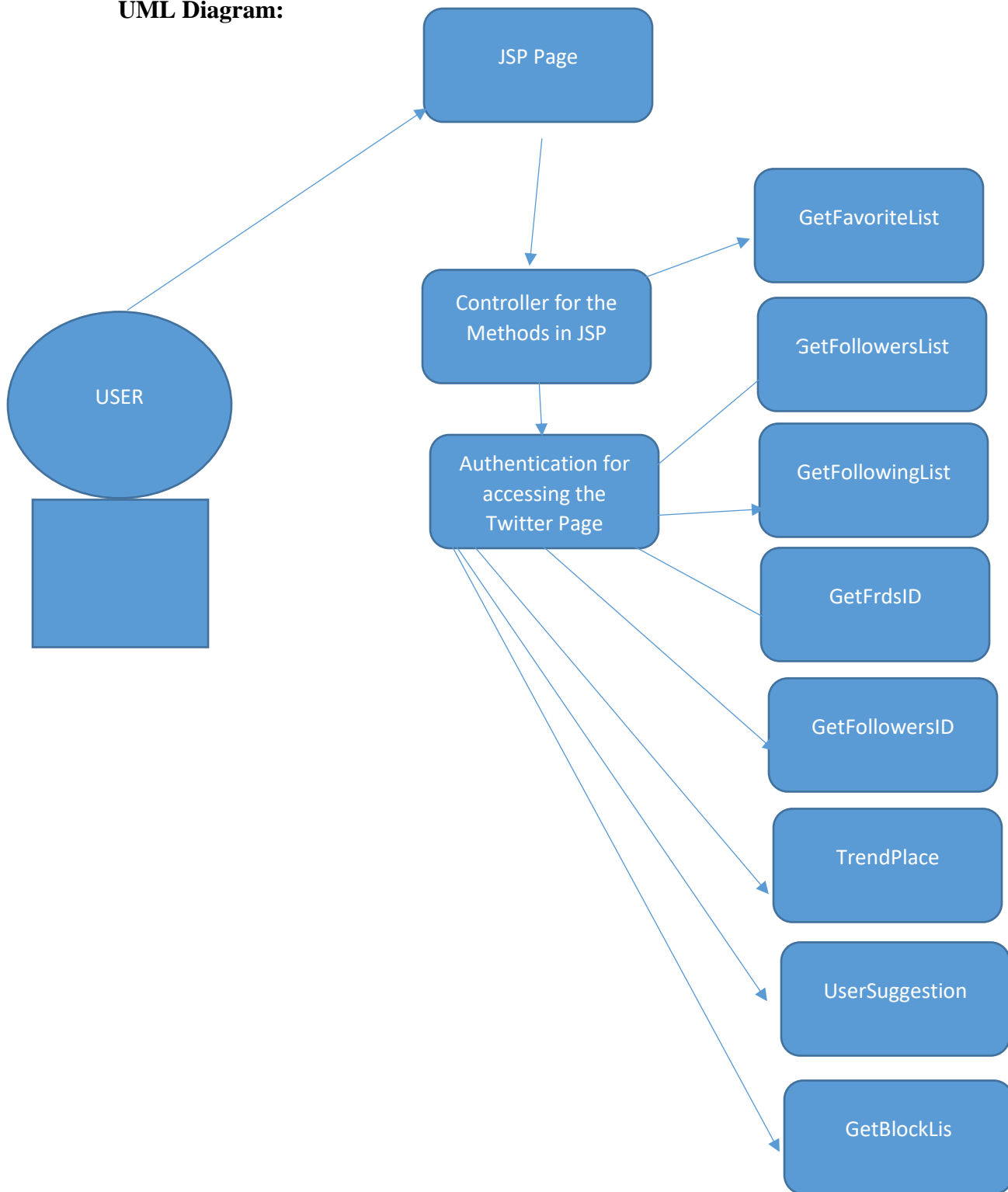6. **OAuth**
7. **Karaf Web Container**

Steps followed:

1. **Downloaded Karaf and unzip it.**
2. **Created a Maven Spring Web application using java in eclipse.**
3. **Imported all the needed maven dependencies in pom.xml.**
4. **Create an app in twitter and get the access details.**
5. **Write JSP file to get the input values from the user.**
6. **Build the war file.**
7. **Open the Karaf bin folder and go to command prompt run karaf.bat**
8. **Deploy the generated war file in deploy folder in karaf web container.**
9. **Give the command LIST it will list the war deployed in the web container.**
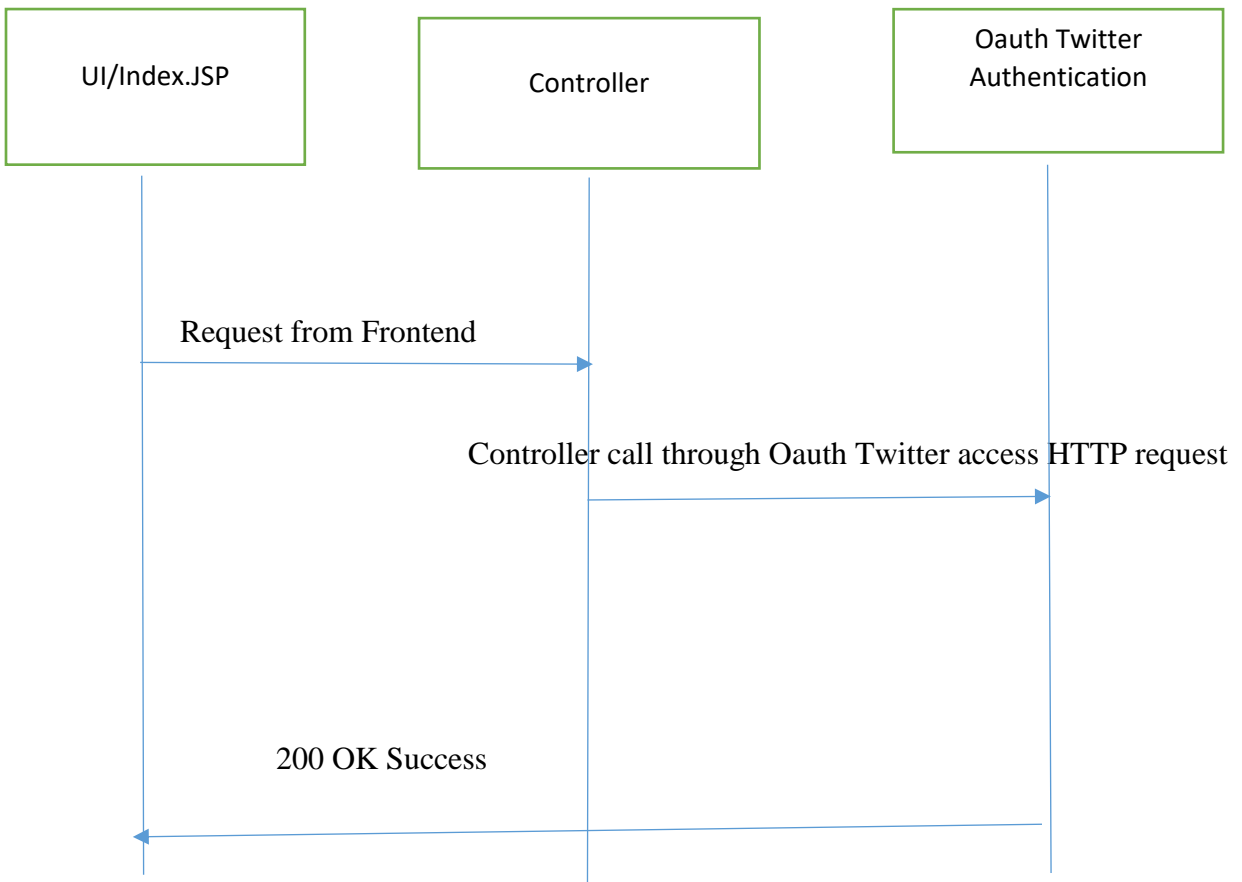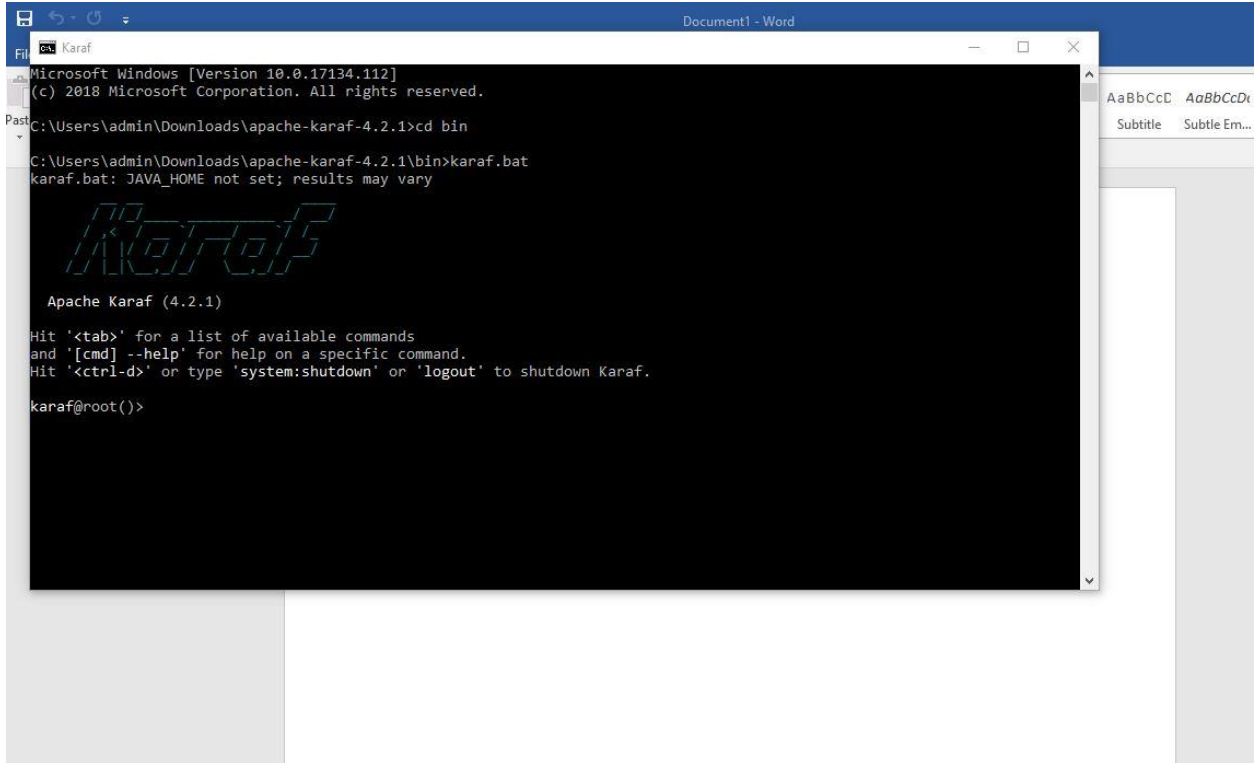10. **Go to console give localhost:8181/war name.**

Architecture diagram:

User Interface → Web.xml → Dispatcher Servlet → Index.JSP → Controller API → Oauth Authentication → HTTP POST/GET → 8 Twiiter API's

UML Diagram:

JSP Page

USER

Controller for the Methods in JSP

Authentication for accessing the Twitter Page

GetFavoriteList

GetFollowersList

GetFollowingList

GetFrdsID

GetFollowersID

TrendPlace

UserSuggestion

GetBlockLis

Sequence Diagram:

```
  ┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
  │                 │      │                 │      │  Oauth Twitter  │
  │   UI/Index.JSP  │      │    Controller   │      │  Authentication │
  │                 │      │                 │      │                 │
  └────────┬────────┘      └────────┬────────┘      └────────┬────────┘
           │                        │                        │
           │  Request from Frontend │                        │
           │───────────────────────▶│                        │
           │                        │                        │
           │        Controller call through Oauth Twitter access HTTP request
           │                        │───────────────────────▶│
           │                        │                        │
           │      200 OK Success    │                        │
           │◀────────────────────────────────────────────────│
           │                        │                        │
```

1. Install Karaf
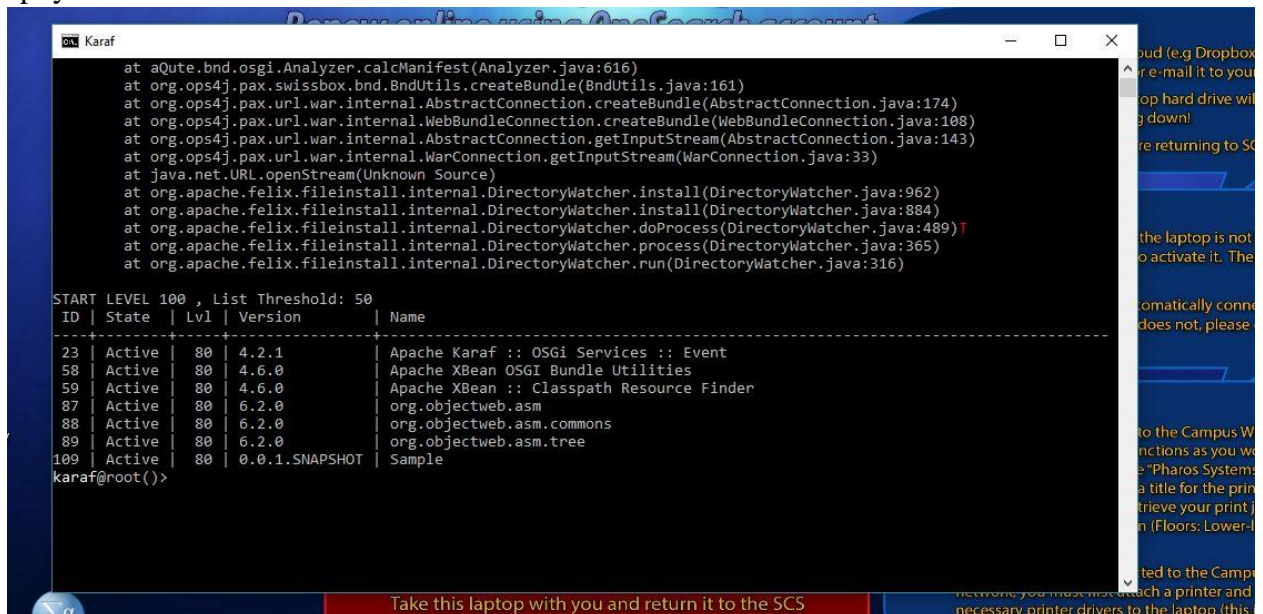
2. Depoyed the war in web container

3. Run the webconsole localhost:8181/Sample

4. 200 Ok for Favorite List

5.200 ok for Friends List

6. 200 Ok for Followers List

7. 200 Ok for friends Ids

8. 200 for followers Id

8.200 ok for trends Available

9   200 ok for Block List

10   200 ok for Users Suggestion

JUnit Test Cases:


```java
package com.dexters.Testing;

import java.util.HashMap;

public class TestTweetAPI {
    TwitterServiceAPI twitterserviceAPI =new TwitterServiceAPI();

    @Test
    public void testGetfollowersList() {
        HashMap<String, Object> _testvalue = twitterserviceAPI.GetfollowersList("Test");
        Assert.assertNotNull(_testvalue);
    }
    @Test
    public void testGetfollowingList() {
        List<String> _testvalue = twitterserviceAPI.GetfollowingList("Test");
        Assert.assertNotNull(_testvalue);
    }
    @Test
    public void testGetfriendsIds() {
        List<Integer> _testvalue = twitterserviceAPI.GetfriendsIds("Test");
        Assert.assertNotNull(_testvalue);
    }
    @Test
    public void testGetffollowerssIds() {
        List<Integer> _testvalue = twitterserviceAPI.GetffollowerssIds("Test");
        Assert.assertNotNull(_testvalue);
    }
    @Test
    public void testGetTrendPlace() {
        List<String> _testvalue = twitterserviceAPI.GetTrendPlace();
        Assert.assertNotNull(_testvalue);
    }
    @Test
    public void testGetBlockList() {
```

JUnit results:

Finished after 3.703 seconds

Runs: 8/8   Errors: 0   Failures: 0

com.dexters.Testing.TestTweetAPI [Runner: JUnit 4]   Failure Trace
- testGetfollowingList (1.712 s)
- testGetfollowersList (0.202 s)
- testGetUserSuggestion (0.218 s)
- testGetffollowerssIds (0.178 s)
- testGetfavoriteList (0.182 s)
- testGetBlockList (0.742 s)
- testGetTrendPlace (0.243 s)
- testGetfriendsIds (0.189 s)