

# Twitter Clone Project 4.2

## Team Members

- Vishisht Khilariwal
- Siddhant Jain

## What's Working

- Register/Login
- Tweet
- Retweet
- Follow
- Query Hashtags
- Query Mentions
- Online/Offline Support
- Bonus -> Not Done

## About the Project

The server is run using Suave and is hosted on localhost:8080. The clients use websockets to connect to the server's socket and receive the live feed from the server

When the user Registers , after a successful registration the websocket is opened and a connection is established between the client and the server.

The user can follow, tweet, retweet, and query tweets from the server. The commands to do this are given in the next section. The communication between the server and the client is done with JSON shown below.

When the user is offline and can't receive tweets, the tweets are stored by the server in the feed and sent over the socket once the user logs back in.

## JSON used

```
type Message = {  
    Action: String;  
    User: String;  
    Tweet: String;  
    TweetId: String;  
    ReTweetId: String;  
    Mentions: String;  
    HashTags: String;  
    ToSubscribe: String  
    Online: Boolean  
}
```

```
type Response = {  
    Action: String;  
    Message : String;  
    Success : String  
}
```

## How to run

Running the server

```
dotnet fsi <path>/Server.fsx
```

Running the client

```
dotnet fsi <path>/Client.fsx
```

For multiple clients run multiple clients in different terminal tabs

After running the client either Register a new user or login to an existing client. Post successful Registration/Login you can use the following commands

Tweet,{text}

Retweet,{existing tweet id}

Follow,{UserID}

SearchTag

SearchHashTag,{HashTag}

In the text of the tweet #{text} is considered as hashtag and @{userId} is used to mention other users on the system