

Distributed Systems Project 4- Part 1

Twitter Simulator using Elixir

1. Group Details:

Members

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Steps to run the application:

1. In shell, navigate to the directory where mix.exs exists

2. Run command

>mix escript.build

[Ignore any the warnings that you notice]

3. First, the server program has to be started.

>/project4 server

4. After step3, the server will start running.

5. Now, the clients have to be created.

Open another terminal and run:

>/project4 client

You will be able to see the clients getting created and the tweeting will begin.

6. To query the tweets, open another terminal and run:

>/project4 query

Follow the instructions on the screen to proceed further.

7. To check live querying, open another terminal and run:

>/project4 live

Enter the client id: (1-1000)

You will be able to see tweets of that user as well as the tweets from users he/she has subscribed to.

Assumptions:

1. Server process will keep on running. We have provided a long wait to implement this. This is based on the assumption that twitter server never goes down.

2. The number of users has been fixed to 1000 when the client process starts. This can be changed, if required.

3. Tweets are getting generated at the frequency of 100ms.

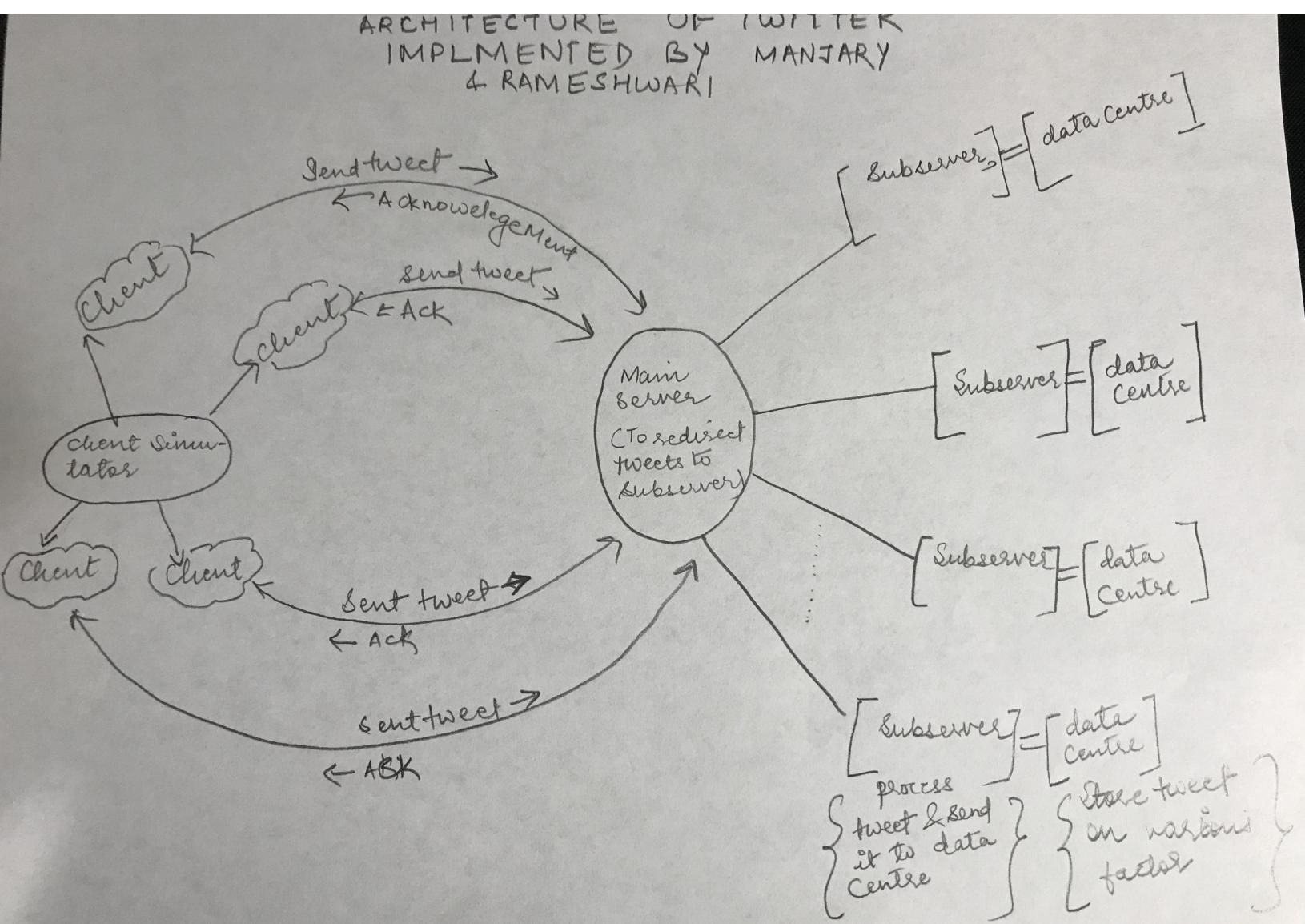
4. Tweets from different clients happen in a parallel manner.

5. Zipf has been implemented by using the fact that the user with higher number of subscribers will tweet with higher frequency

6. The client simulator displays registration and tweets of all the clients at single terminal. To implement proper simulation, we have created a live client which can show the individual client processes.

7. The client ids are assumed to be numbers from 1-total number of clients. Wherever a prompt to enter client details occur, please enter a number from 1-1000

Flow Diagram:



More detailed explanation with screenshots and results in Report.pdf