

# **COP5615 Distributed Operating Systems**

## **Project 4.1 Twitter Engine**

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This submission contains two .zip files, AroraNaman.zip and AroraNaman-bonus.zip as a submission to project 4.1 of the Distributed Operating Systems, Fall 2019 course (COP5615). The former zip contains the base project which satisfies the base requirements of the project while the latter builds on it to satisfy the bonus requirements.

### Dependencies:

- elixir~>1.9.2
- mix~>1.9.2

### Preferred Operating System:

- GNU/Linux

### Steps to run:

- Base part (AroraNaman.zip)
  - unzip using:
    - \$> unzip AroraNaman.zip
  - change to the twitter directory containing mix.exs
    - \$> cd twitter-engine/
  - run tests
    - \$> mix test -trace
  - run standalone project to display tweet metrics (vary users in twitter.exs)
    - \$> mix run twitter.exs
- Bonus part (AroraNaman-bonus.zip)
  - unzip using:
    - \$> unzip AroraNaman-bonus.zip
  - change to directory containing mix.exs:
    - \$> cd twitter-engine-Bonus/
  - run tests:
    - \$> mix test test/twitter\_test.exs

### Steps to generate bar charts depicting Zipf distribution:

- Set the parameters Max Subscribers and Total users in the ExUnit test for Zipf distribution.
- Run the ExUnit test. This will generate a csv file named zipf.csv with users and their follower count in ascending order.
- Open the csv in Excel and sort the data generated in the csv file.
- Select the column/data and click on Insert.
- Click on 2-D Column from the column charts option