

CPSC 449 WEB BACK-END ENGINEERING PROJECT 2- FALL 2020

Project by:

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Project Description:

This is a web back-end project in which two microservices are created:

1. Users
2. Timeline

These microservices are created for a microblogging service. This project has used Python Flask, SQLite3 Database. The User microservice includes creating user, authenticating user, add followers, remove followers. Timeline microservice posts a post on timeline, Displays post of the user, Displays post of all the followers user follows, Displays post of the all the users.

Steps to run the project:

To run this project on Tuffix OS-

1. Install python 3
\$ sudo apt-get install python3.8
2. Install pip
\$ sudo apt install python3-pip
3. Install Flask API and pugsq
\$ sudo apt update
\$ python3 -m pip install Flask-API pugsq
4. Install Foreman and HTTPie
\$ sudo apt install -yes ruby-foreman httpie
5. Clone the GitHub repository
<https://github.com/ankitakulkarnigit/MicrobloggingService>
6. cd to MicrobloggingService dir and run following commands:
\$ flask init
\$ foreman start

After this we can see the two applications running on different ports.

APIs can now be tested using the curl commands mentioned below or in app.py.

1) User

- i) Create a new user:
\$ curl -i -X POST -H 'Content-Type:application/json' -d '{"usernameAPI":"newuser", "emailAPI":"newuser@gmail.com", "passwordAPI":"newuser@123"}' <http://localhost:5000/createUser>;
- ii) Authenticate an existing post:

```
$ curl -i -X GET -H 'Content-Type:application/json' -  
d '{"usernameAPI":"ankita", "passwordAPI":"ankita@123"}' http://localhost:5000/authenticateUser;
```

iii) Follow an existing user:

```
$ curl -i -X POST -H 'Content-Type:application/json' -  
d '{"usernameAPI":"om", "usernameFollowingAPI":"ankita"}' http://localhost:5000/addFollower;
```

iv) Remove an existing follower:

```
$ curl -i -X DELETE -H 'Content-Type:application/json' -  
d '{"usernameAPI":"om", "usernameFollowingAPI":"ankita"}' http://localhost:5000/removeFollower;
```

2) Timeline

v) Get user timeline:

```
$ curl -i -X GET -H 'Content-Type:application/json' -  
d '{"usernameAPI":"ankita"}' http://localhost:5100/getUserTimeline;
```

vi) Get public timeline:

```
$ curl -i -X GET http://localhost:5100/getPublicTimeline;
```

vii) Get a home timeline:

```
$ curl -i -X GET -H 'Content-Type:application/json' -  
d '{"usernameAPI":"ankita"}' http://localhost:5100/getHomeTimeline;
```

viii) Post a tweet:

```
$ curl -i -X POST -H 'Content-Type:application/json' -  
d '{"usernameAPI":"ankita", "tweetAPI":"This is an example post"}' http://localhost:5100/postTweet;
```