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Twitter API Documentation:

Distributed System and Cloud Computing

**Purpose:** a cloud API (Application Programming Interface) to provide services to users. Services like to create a tweet, read a tweet, update a tweet, a delete tweet, comment on a tweet, like and dislike a tweet. In addition, “sign in” and “sign up” services to create and log-in to authentication services.

Programming Language: I used “python3.7.3” with “flask1.1.1” and “PyJWT1.7.1” to generate endpoints endpoints.

**Data base**: I used NoSQL database, “Mongodb” to store user account and tweets. Database name is TWITTER. TWITTER database has two collection.

1. Users Collection: to store all user account with username and password.

A close up of a logo

Description automatically generated

1. Tweet Collection: to store all tweet with the actual tweet and its owner, likes with liker name and actual like sign and comments with commenter name and actual comment.

A screenshot of a social media post

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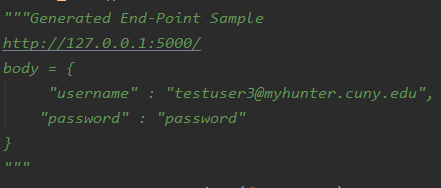
I have two types to services:

1. Public endpoints: where users do not need any authentication.
2. Private endpoints: where users need to authenticate himself through “create\_user” or “log\_in” endpoints. Note: I am using “json web token” as session cookie to provide authentication to authenticate a user.

Public Endpoints: Endpoints which do not need authentication. In this API services, I have few endpoints do not need to authentication. For example:

1. “create\_user” endpoint to create a new user with a HTTP POST request to server where user need to send a JSON body with request. This request will return, success message with a JWT session token or failure message with error message.

Note: user need to send this JWT session token to authenticate himself to use authenticated services.

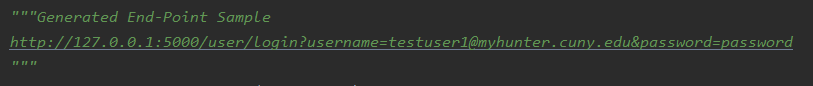


A screenshot of a cell phone

Description automatically generated

1. “log-in” endpoint to login to an account with a HTTP GET request to server. User should have a valid account with a valid username and a valid password to “log in.” This request will return, success message with a JWT session token or failure message with error message.

Note: user need to send this JWT session token to authenticate himself to use authenticated services.



A screenshot of a cell phone

Description automatically generated

1. “All\_tweet” endpoint to view all tweets with a HHTP GET request to server. This will return all active tweets.

A screenshot of a computer

Description automatically generated

Private Endpoints: To use these services user needs to add “session token” was return from “log in” or “sign up” to authenticate all these services. For example: