Data Science Project Two Guide

My Project Contains 4 Main Coding Articles:

- **DS2.py**
  - **Contains the flask app code and the methods I used to create a chatbot usign Spotify's API Developer Dashboard**
- **etl.py**
  - **This is my ETL pipeline. I used Spotify's api developer dashboard to collect Spotify popularity ratings and put them in a CSV that will be used by my chatbot to answer questions regarding popularity scores**
- **Artist_popularity_scores.csv**
  - **This is the csv file generated from my etl.py code. It contains two entries with 553 data points. This contains the most famous artists and their spotify popularity scores**
- **bot.py**
  - **This contains the code for my Discord bot I made for extra credit. Integrated with my code from DS2.py but must be in the same folder in order to work**

How to run my code:

1) Create Virtual Enviroment-python3 -m venv venv
1) Add a SSH line using Google Cloud username and VM external IP- ssh <username>@<external-IP>
2) Mine is jacksonshaiz@34.86.241.15- the one I will be using for the project
3) Activate it- source venv/bin/activate
4) Upload etl.py and DS2.py
5) Run etl.py by typing "python etl.py" into the VM script
6) This will generate my artist_popularity_score.csv into the gm instance, no need to upload it yourself!
7) Run DS2.py by typing "pyhton DS2.PY into the VM script"
8) Visit: http://34.86.241.15:5000/ which will welcome you to my spotify chatbot assistant!

9) To begin chatting (I used postman for this step), type http://34.86.241.15:5000/chat into the postman link

10) My code has 5 main questions that can be answered about spotify artists!

   a) Track Info

   b) Popularity Score

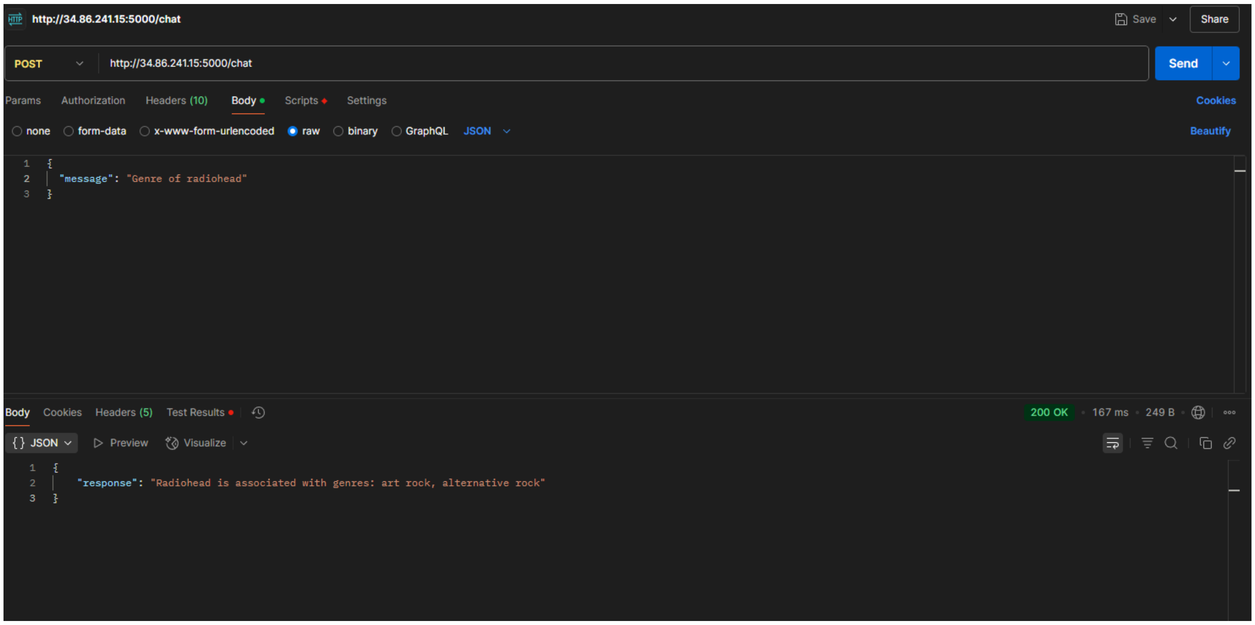
   c) Top songs by an artist

   d) Albums by an artist

   e) Genre of an artist!

Here are pictures of messages you can send!

Genre



http://34.86.241.15:5000/chat

POST http://34.86.241.15:5000/chat

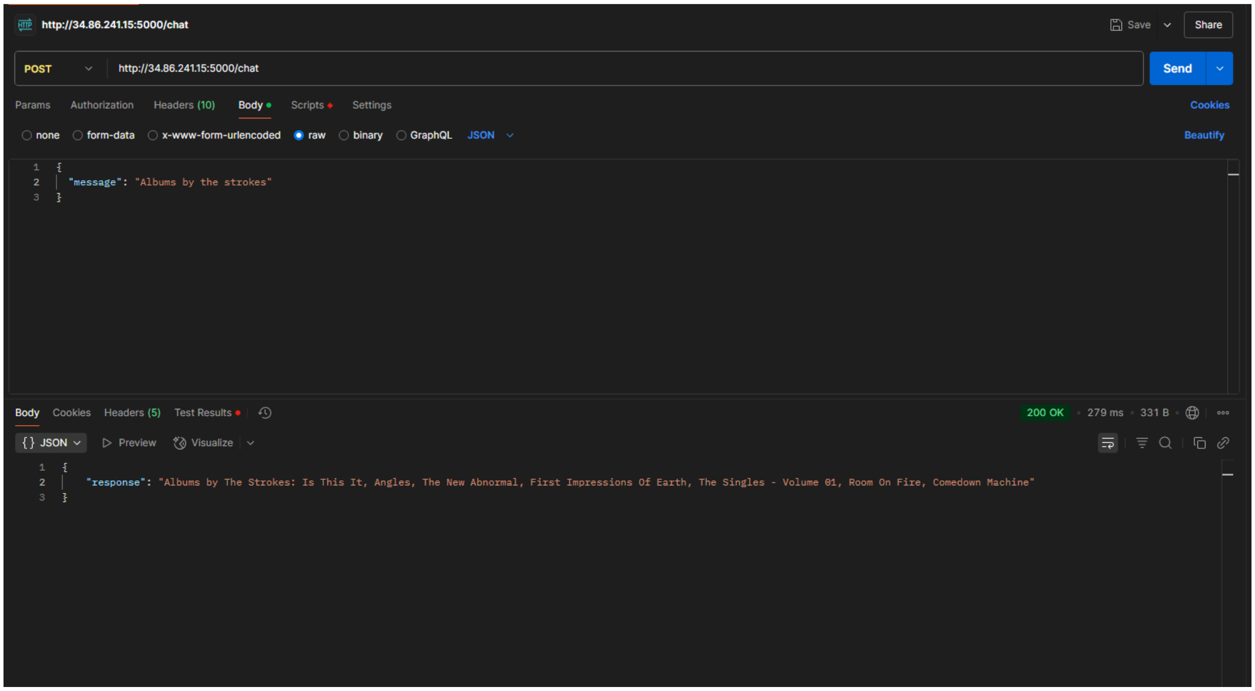
Body: ● raw JSON

```
{
  "message": "Genre of radiohead"
}
```

200 OK · 167 ms · 249 B

```
{
  "response": "Radiohead is associated with genres: art rock, alternative rock"
}
```

Album



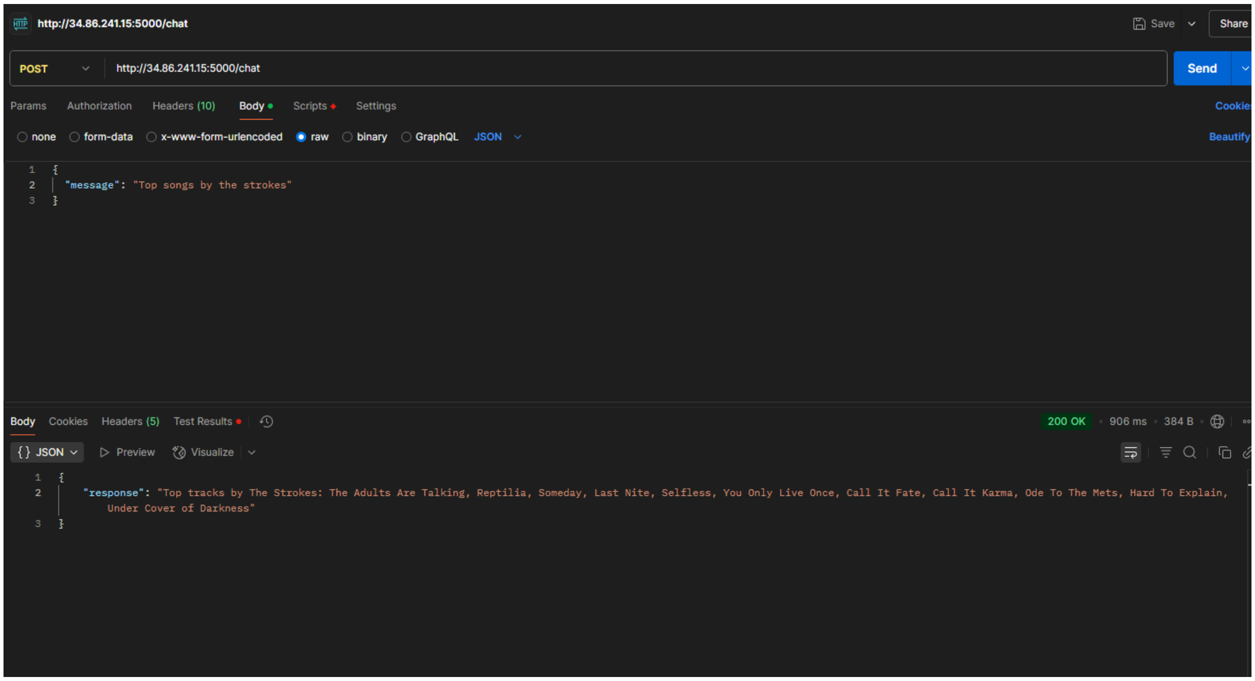
POST http://34.86.241.15:5000/chat

```
{
  "message": "Albums by the strokes"
}
```

200 OK · 279 ms · 331 B

```
{
    "response": "Albums by The Strokes: Is This It, Angles, The New Abnormal, First Impressions Of Earth, The Singles - Volume 01, Room On Fire, Comedown Machine"
}
```

Top songs:



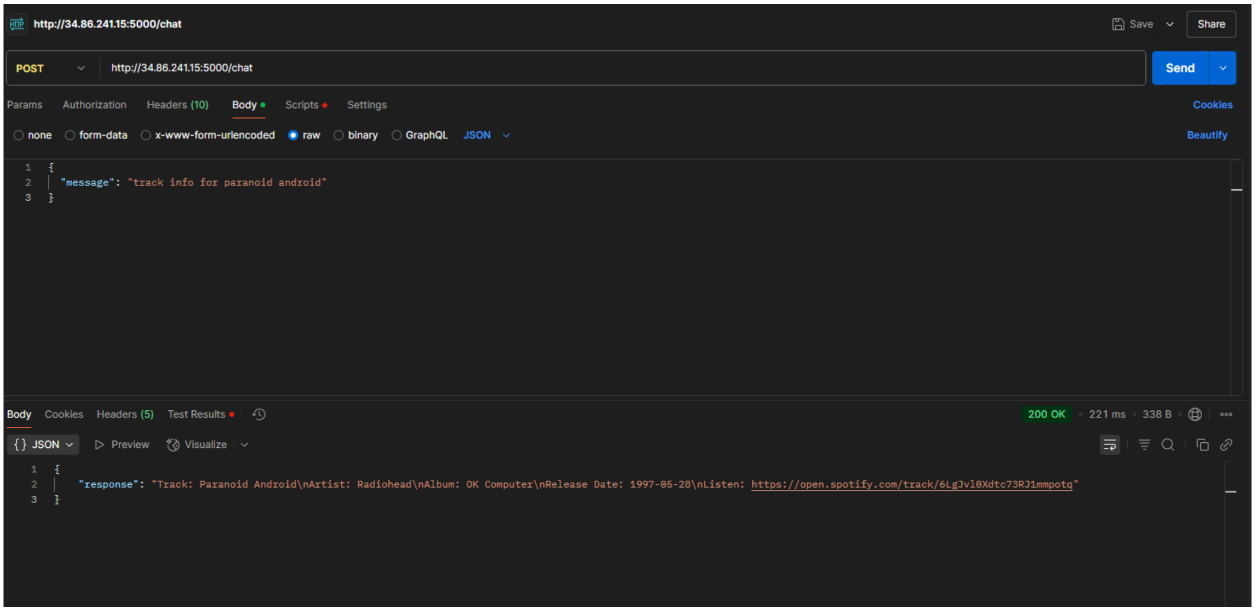
POST http://34.86.241.15:5000/chat

```
{
  "message": "Top songs by the strokes"
}
```

200 OK · 906 ms · 384 B

```
{
    "response": "Top tracks by The Strokes: The Adults Are Talking, Reptilia, Someday, Last Nite, Selfless, You Only Live Once, Call It Fate, Call It Karma, Ode To The Mets, Hard To Explain,
        Under Cover of Darkness"
}
```

Track Info



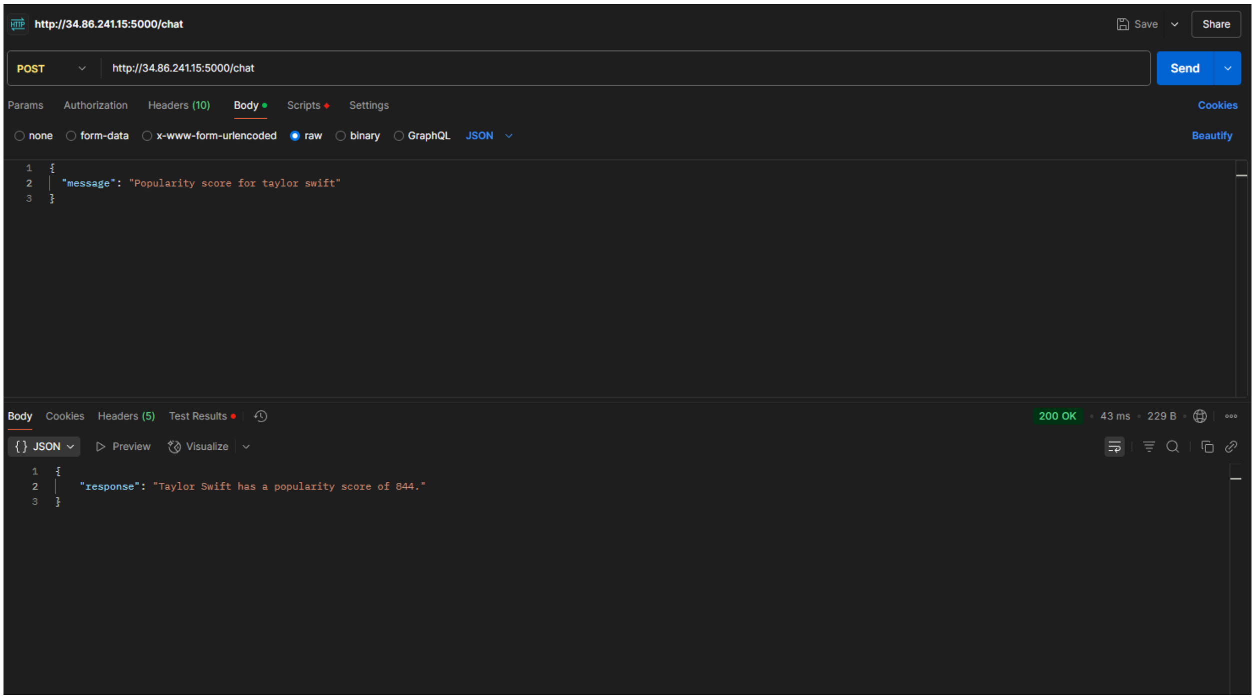
URL: http://34.86.241.15:5000/chat

```
{
  "message": "track info for paranoid android"
}
```

200 OK • 221 ms • 338 B

```
{
    "response": "Track: Paranoid Android\nArtist: Radiohead\nAlbum: OK Computer\nRelease Date: 1997-05-28\nListen: https://open.spotify.com/track/6LgJvl0Xdtc73RJ1mmpotq"
}
```

Popularity Score



URL: http://34.86.241.15:5000/chat

```
{
  "message": "Popularity score for taylor swift"
}
```

200 OK • 43 ms • 229 B

```
{
    "response": "Taylor Swift has a popularity score of 844."
}
```