Rishabh Jain
2019CSB1286

README- Assignment 2

1. What does this program do?

The program is an image search API implemented using flask and face_recognition API. Users can upload ZIP files or images into the database, and later give a sample image and find its matches in the database.

2. How does this program work?

First, using the face_recognition API, an image encoding is saved into the database to optimize storage space and search. The user can then query an image. An encoding for this image will be generated, which will then be compared with the database encodings with a given confidence value. The top-K matches will be returned to the user.

3. How to run the program.

Program was developed using python 3.9.1

- First, install requirements-> pip install -r requirements.txt
- Create a database called ‘face_api’ in your postgresql database.
- In main.py, set postgresql URI(change password and username to your configuration in the provided URI)
- Run the server by ‘flask run’. Server will be hosted at http://localhost:5000.

Interactively testing the program:

- To try out the program, html templates have been given in /templates for easy hands-on usage of the program.
- Go to http://localhost:5000
- The page will show links to the various endpoints.
- Click the links and interact with the application.

Running unit tests:

- Ensure that the LFW dataset is loaded into the database.
- Run ‘coverage run --source=./ -m pytest -s’ in the program directory.
- To get a coverage report, run ‘coverage report’.