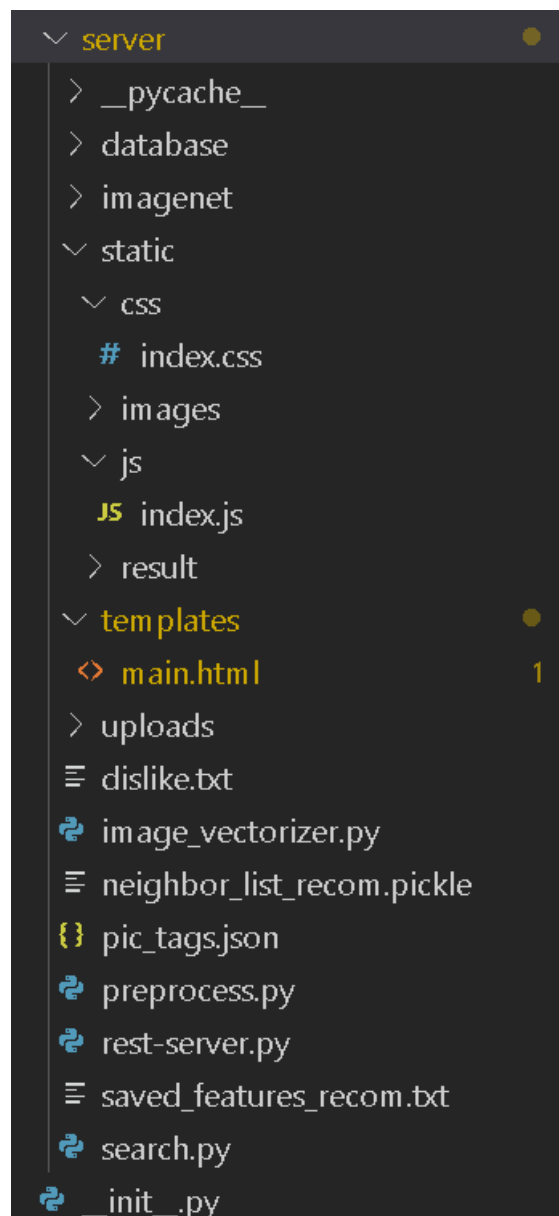# Lab 2 Information Retrieval

read me markdown

Develop Environment

- Python 3.9.16

- Flask 2.3.2

- Flask-HTTPAuth 4.8.0
- Tensorflow 2.11.1

- html5/css/Javascript

- ......

Project Structure

The frontend consists of **template/main.html, static/css/index.css, and static/js/index.js**

Based on the prototype project, create an empty text file **dislike.txt** to store the image numbers that the user doesn't like. Add **preprocess.py** to count the tags of images and store the statistical results in **pic_tags.json**, search.py will directly read pic_tags.json to find all the image serial numbers under the tag.

How to run

1. Copy the contents of the **code** folder into the **lab2-image retrieval/server/** directory and replace the directory or file with the same name if there is one.

2. **Run image_vectorizer.py** to extract image features.

   I changed this line from the prototype project:

   ```
   # import tensorflow.compat.v1 as tf
   import tensorflow._api.v2.compat.v1 as tf
   ```

   When I tried to run the line with the comment above, I got an error, presumably tensorflow version issue.

3. **Run preprocess.py** to generate a json file with the tag information

   Since I've attached the generated pic_tags.json file, it's OK to not run preprocess.py.

4. **Run rest-server.py** to start the project

   Open 127.0.0.1:5000 in Chrome to see the project's home page. After that, user actions can be performed according to the specific functions described in the report.