Architecture of the face similarity score web application

# Input: (Client -> server)

1. 2 sets of images (containing the faces)
2. The 2 clusters to find a similarity score between

# Output: (Server -> client)

1. List of clusters from the 2 sets of images
2. Face similarity score after clustering done.

# Things to store for each request:

1. Image sets(Cacheable)(only need the encodings to cluster)
2. Face encodings (pickle file)
3. Clusters
4. Montages of clusters
5. Cluster choice
6. Distance matrix between the two chosen clusters
7. Face similarity score

Initial Housekeeping stuff:

1. Create Repo on github.com
2. Clone repo to local
3. Create virtual environment in repo using:

python -mvenv Face\_Simenv

1. Activate environment using:

.\Face\_Simenv\Scripts\activate

1. Install necessary packages using:

pip install opencv-python matplotlib numpy scipy scikit-learn imutils face\_recognition django djangorestframework markdown django-filter tensorflow keras

1. If face\_recognition isn’t intalled, download python executable and C++ executable using Visual studio
2. Start a new project using the following command:

Django-admin startproject face\_similarity

1. Start a new app using the command:

Django-admin startapp Janus

1. Add new app to settings.py file and add urls and basic django stuff