API Document

Name： Movies Recommendation System

Resources: TMDB 5000 Movie Dataset, MovieLens 1M Dataset

API:

1: Recommend Movies by Features given by user.
Detail: Get a list of similar movies based on dataset of other users' ratings. This is same as the "Recommendation" rely on Collaborative Filtering.
Method: *GET /movielist*
REQUEST URL : *http://127.0.0.1:5000/movielist?rating=6&year=2015&genre=Crime*

Request Parameters Form

Input Parameters Name	Type
Rating	Int (0,10)
Year (released date)	Int
Genre	String

Response Form

Output	type
id	int
title	String
tagline	String
overview	String
Release_date	Date
popularity	Int
genres	String
keywords	String
Spoken languages	String
Production companies	String
Production countries	String
Vote average	float
Vote count	Int
Home page	String
index	Int

Response code: 200 – Successful
404 -Movie was not found

2: Recommend Movies by movie given by user.

Detail: Get a list of Movies based on Features given by user.

Method: *GET /movies/{name}*

REQUEST URL : *http://127.0.0.1:5000/movies/{name}*

Request Parameters Form

Input Parameters Name	Type
Movie name	String

Response Form

Same as Response Form in 1.

Response code: 200 – Successful
404 -Movie was not found

3: Authorization

Detail: Implement Authorization based on JWT token.

Method: *GET /token*

REQUEST URL : *http://127.0.0.1:5000/token?username=admin&password=admin*

Request Parameters Form

Input Parameters Name	Type
username	String
password	String

Response Form

Output	Type
token	String

Response code: 200 – Successful

401 - authorization has been refused for those credentials.

4: View API Usage Information

Detail: Store information before each request.

Method: *GET /visit_report*

REQUEST URL : *http://127.0.0.1:5000/visit_report*

Request Parameters Form

Input Parameters Name	Type
Log.csv	file

Ps. Log.csv stores IP, URL, Timestamp of each request.

Response Form

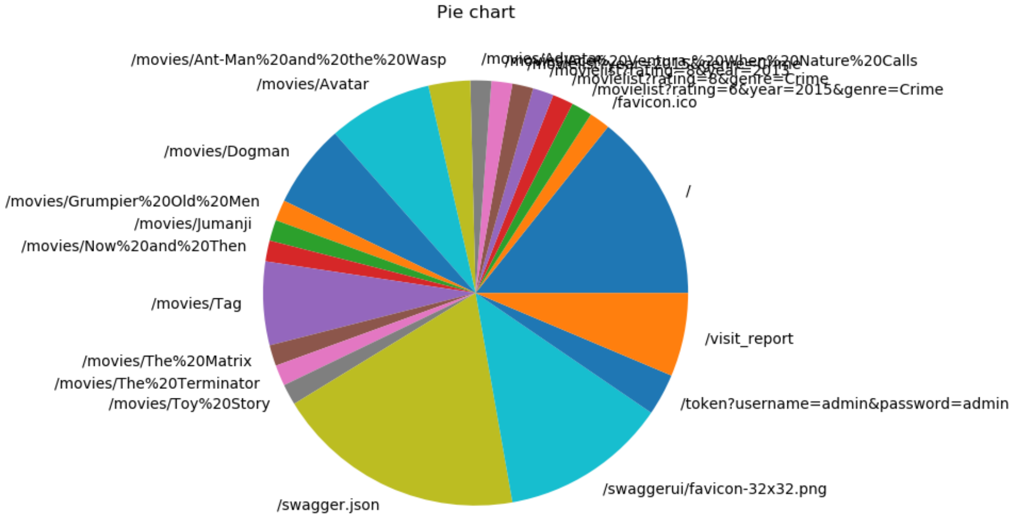
Output	Type
IP	String
Request_url	String
Timestamp	String
index	int

Response code: 200 – Successful

404 -- File do not exists.

5. Graph:

Contain a graph shows the interaction between the number of request and request URL by running graph.py, graph like below:


Pie chart
/movies/Ant-Man%20and%20the%20Wasp
/movies/Avatar
/movies/Dogman
/movies/Grumpier%20Old%20Men
/movies/Jumanji
/movies/Now%20and%20Then
/movies/Tag
/movies/The%20Matrix
/movies/The%20Terminator
/movies/Toy%20Story
/swagger.json
/swaggerui/favicon-32x32.png
/token?username=admin&password=admin
/visit_report
/
/favicon.ico
/movielist?rating=6&year=2015&genre=Crime
/movielist?rating=8&genre=Crime
/movielist?rating=8&year=2015
%20Ventura%20When%20Nature%20Calls