IR ASSIGNMENT

Personal Repository of Web Content

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I. Data Preparation Step:

The keywords used in this project are related to my research paper on “Facial Mask Detection and Identification of Individual during the Covid-19 Pandemic”.

5 keywords were selected:

1) Computer Vision

2) Deep Learning

3) Face Mask Detection

4) Haar Cascade Algorithm

5) K nearest neighbor

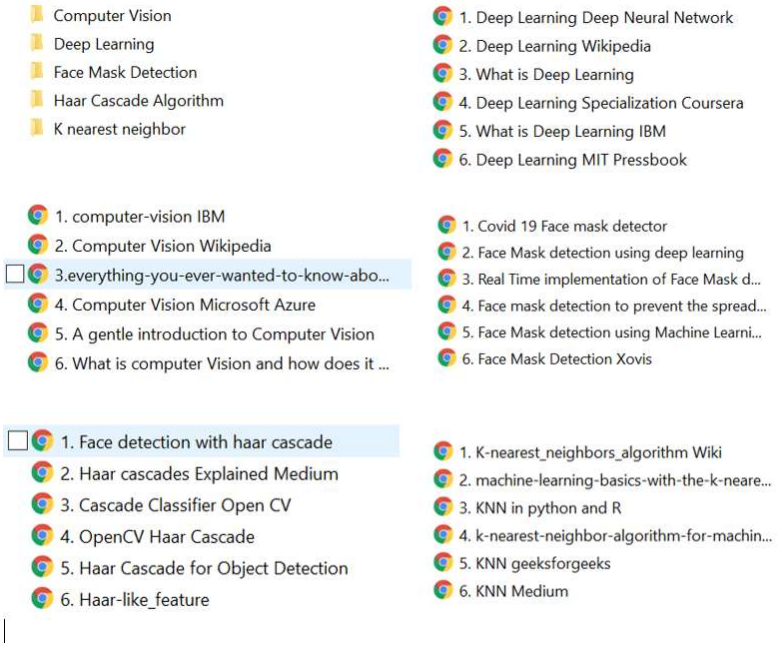

Figure 1- Five Different folders for keywords and the 6 files in each of the folders

After selection of the 5 keywords, the top 6 files were found using the Google Search Engine and saved on **MongoDB database manually with the keyword, file name and path.**

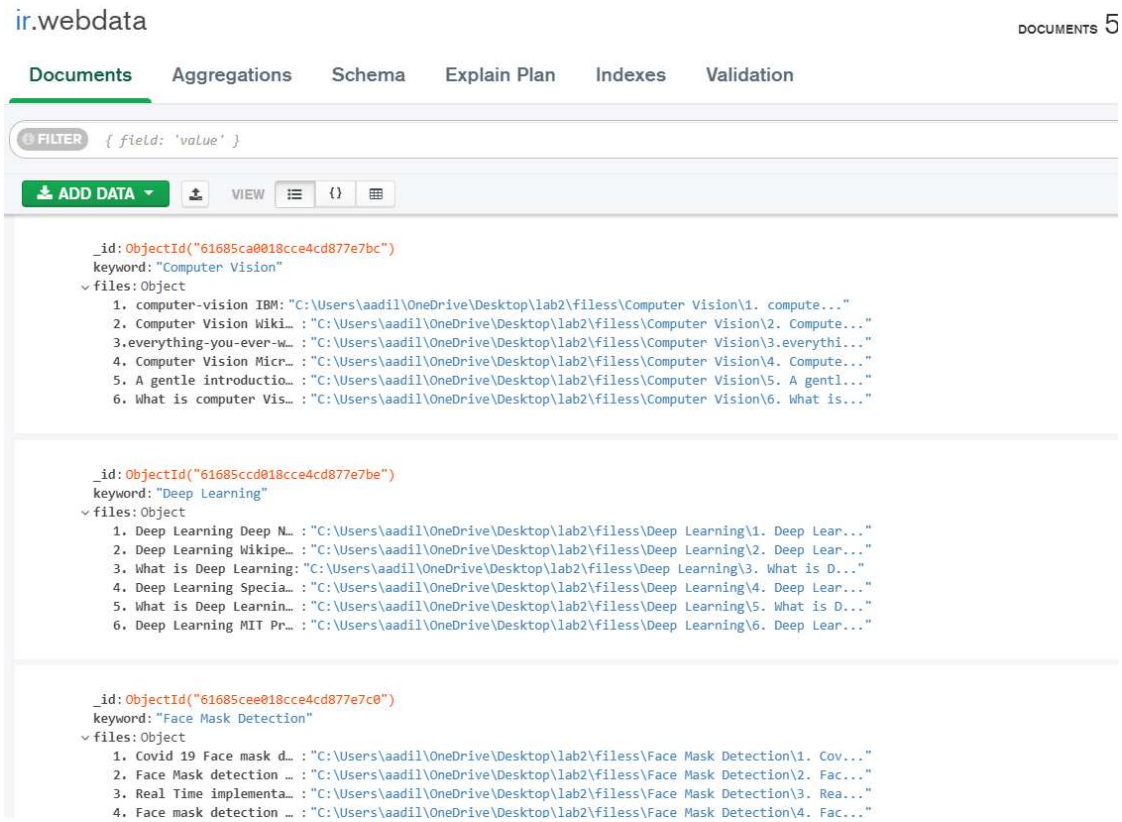

Figure 2- Storing the file with the keyword, filename and path in MongoDB

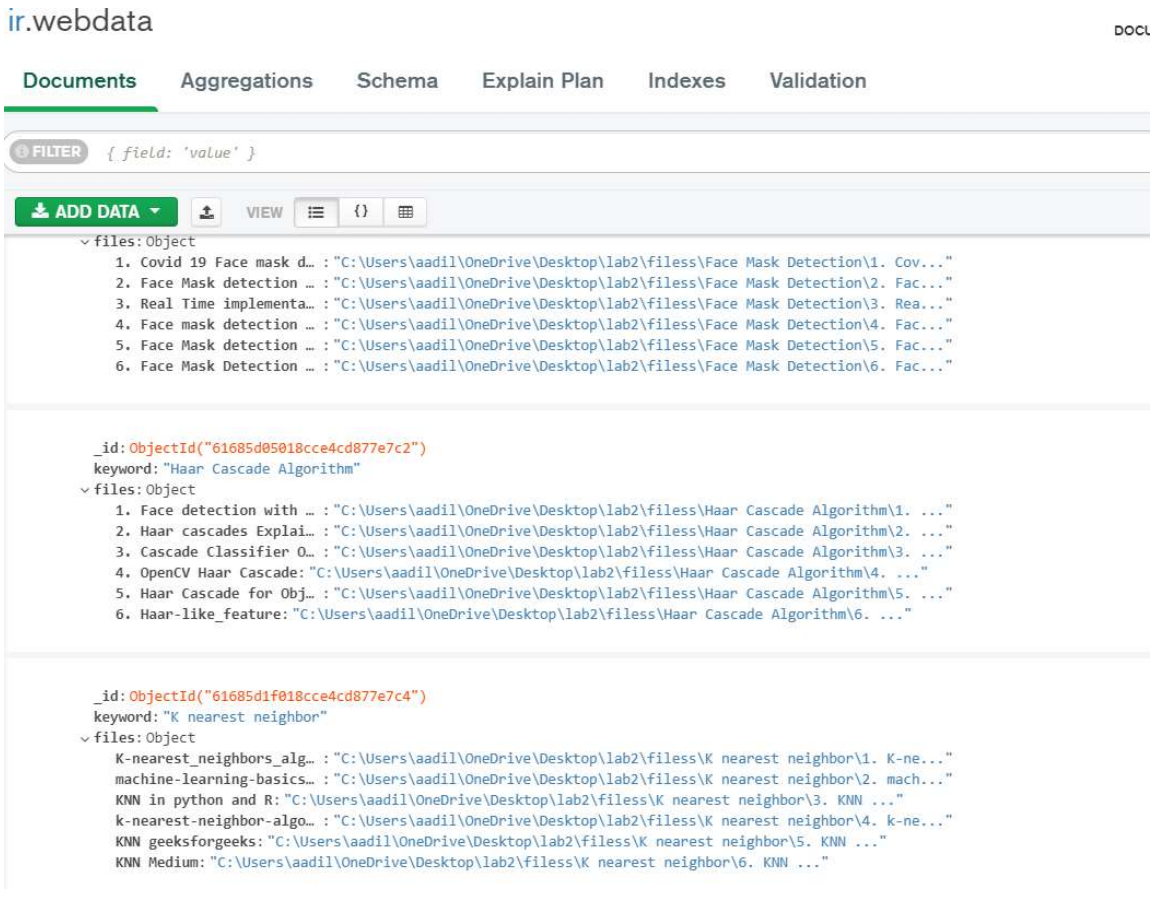

Figure 3- Storing the file with the keyword, filename and path in MongoDB

II. Repository Maintenance

Then **Python was used for the Repository Maintenance** step. Packages like os, sys and pymongo were installed. The connection was set up with the database. The keywords were listed and the desired search keyword was retrieved from the user. Based on the keyword, the database was searched and the corresponding list of files are returned. After the user types the desired file name, the file is opened.

C: > Users > aadil > OneDrive > Desktop > lab2 > lab3.py

```python
import os
import sys

import pymongo

client = pymongo.MongoClient("mongodb://localhost:27017/")
database = client["ir"]
collection = database["webdata"]

print("Select one of the keywords:")
print(['Computer Vision', 'Deep Learning',
       'Face Mask Detection', 'Haar Cascade Algorithm', 'K nearest neighbor'])
keyword = input("Enter Keyword: ")

query = {"keyword": keyword}
try:
    document = list(collection.find(query))[0]
except IndexError:
    print("Keyword not found")
    sys.exit()

print("Files Found: ")
print(list(document['files'].keys()))

filename = input('Enter Filename: ')
try:
    os.startfile(document['files'][filename])
except KeyError:
    print("File not found")
    sys.exit()

```

Figure 4 - Python Program for Repository Maintenance

Select C:\WINDOWS\py.exe

```
Select one of the keywords:
['Computer Vision', 'Deep Learning', 'Face Mask Detection', 'Haar Cascade Algorithm', 'K nearest neighbor']
Enter Keyword: Deep Learning
Files Found:
['1. Deep Learning Deep Neural Network', '2. Deep Learning Wikipedia', '3. What is Deep Learning', '4. Deep Learning Spe
cialization Coursera', '5. What is Deep Learning IBM', '6. Deep Learning MIT Pressbook']
Enter Filename: 3. What is Deep Learning
```

Figure 5- Interactive Python Terminal

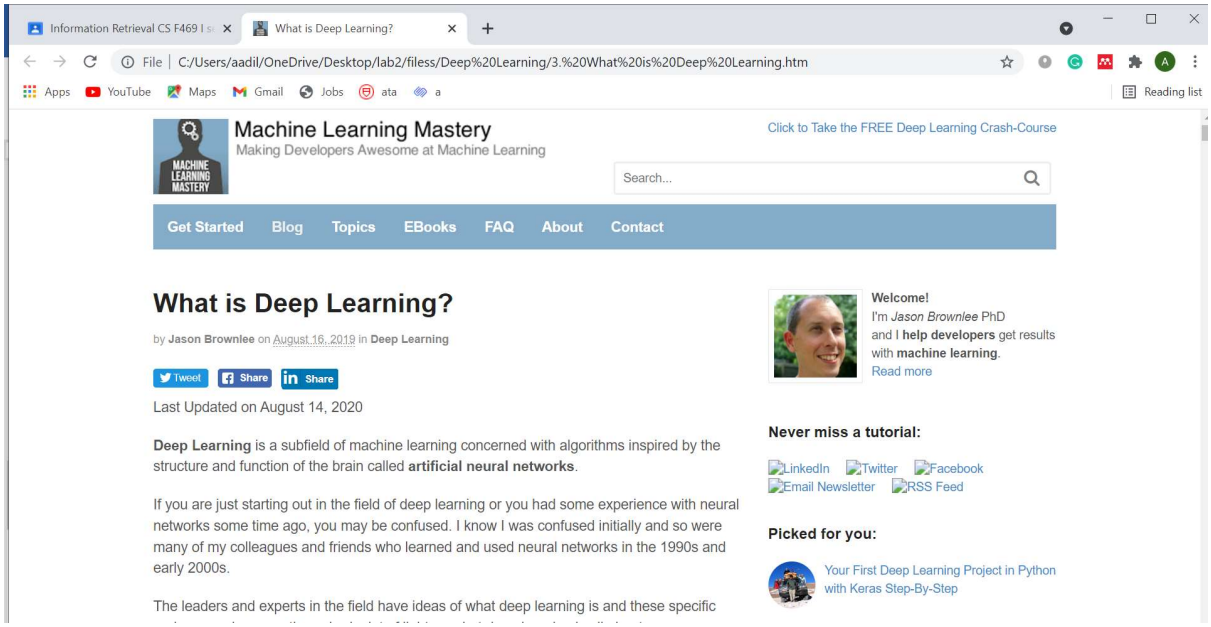

Figure 6 - Displays the desired webpage

Based on the selection from the user, the website is opened.