**Image Scrapper**

**Assignment**

Go to this given URL and solve the following questions URL: <https://www.youtube.com/@PW-Foundation/videos>

# Q1. Write a python program to extract the video URL of the first five videos.

import requests

from bs4 import BeautifulSoup

url = "https://www.youtube.com/@PW-Foundation/videos"

response = requests.get(url)

soup = BeautifulSoup(response.content, 'html.parser')

video\_links = []

for link in soup.find\_all('a'):

if '/watch?v=' in link.get('href'):

video\_links.append('https://www.youtube.com'+link.get('href'))

for link in video\_links[:5]:

print(link)

# Q2. Write a python program to extract the URL of the video thumbnails of the first five videos.

import requests

from bs4 import BeautifulSoup

url = "https://www.youtube.com/@PW-Foundation/videos"

response = requests.get(url)

soup = BeautifulSoup(response.text, "html.parser")

thumbnails = soup.select("a#thumbnail")

for i in range(5):

thumbnail = thumbnails[i]

print(thumbnail['href'])

This code uses the requests library to get the HTML content of the webpage, and the BeautifulSoup library to parse the HTML and extract the URLs of the video thumbnails. The select method is used to find all the thumbnail links on the page, and then the first five are printed out by looping through them and extracting the href attribute.

# Q3. Write a python program to extract the title of the first five videos.

To extract the title of the first five videos from the given YouTube channel, we can use the BeautifulSoup library in Python. Here's the code:

import requests

from bs4 import BeautifulSoup

url = "https://www.youtube.com/@PW-Foundation/videos"

response = requests.get(url)

soup = BeautifulSoup(response.text, "html.parser")

videos = soup.select("a#video-title")

titles = [video['title'] for video in videos[:5]]

print(titles)

In this code, we first import the requests and BeautifulSoup libraries. Then, we send an HTTP GET request to the URL using the requests.get() method and pass the response to the BeautifulSoup constructor.

We then use the soup.select() method to select all the video titles on the page, which are stored in the a element with an id of video-title. We then extract the titles of the first five videos using a list comprehension and store them in the titles variable.

Finally, we print out the list of titles using the print() function.

# Q4. Write a python program to extract the number of views of the first five videos.

import requests

from bs4 import BeautifulSoup

url = "https://www.youtube.com/@PW-Foundation/videos"

response = requests.get(url)

soup = BeautifulSoup(response.text, 'html.parser')

views = []

for vid in soup.select('#dismissible > ytd-thumbnail > #thumbnail > #overlays > #overlay > #metadata > #metadata-line > span:nth-child(1)'):

views.append(vid.text.strip())

print(views[:5])

# Q5. Write a python program to extract the time of posting of video for the first five videos.

import requests

# Set up the API endpoint and parameters

url = "https://www.googleapis.com/youtube/v3/search"

params = {

"part": "snippet",

"channelId": "UCWu6ZAkACmzLjzK9\_ViKnfw", # Replace with your channel ID

"maxResults": 5,

"key": "YOUR\_API\_KEY" # Replace with your API key

}

# Send a GET request to the API endpoint with the specified parameters

response = requests.get(url, params=params)

# Extract the video IDs from the API response

video\_ids = [item["id"]["videoId"] for item in response.json()["items"]]

# Set up the API endpoint and parameters to retrieve video details

url = "https://www.googleapis.com/youtube/v3/videos"

params = {

"part": "snippet",

"id": ",".join(video\_ids),

"key": "YOUR\_API\_KEY" # Replace with your API key

}

# Send a GET request to the API endpoint with the specified parameters

response = requests.get(url, params=params)

# Extract the time of posting of each video from the API response

for item in response.json()["items"]:

title = item["snippet"]["title"]

time = item["snippet"]["publishedAt"]

print(f"{title}: {time}")