YouTube Content Using Python

### Required Module:

#### **PyTube Module:**

Python pytube module consists of various methods and classes by using which we can download YouTube videos or fetch the Video metadata.

The Pytube module is not a Built-in module, so we need to install it separately, using the python-pip command.

pip install pytube

#### Get Video Meta Data:

Before downloading the YouTube Video, let's first fetch the Video meta data like, video title, video length, total views on videos etc.

```
from pytube import YouTube

# Function Takes YouTube Object as Argument.
def video_Info(yt):
    print("Title : ",yt.title)
    print("Total Length : ",yt.length," Seconds")
    print("Total Views : ",yt.views)
    print("Is Age Restricted : ",yt.age_restricted)
    print("Video Rating ",round(yt.rating))
    print("Thumbnail Url : ",yt.thumbnail_url)

link = "YouTube Video URL "
    yt = YouTube(link) # Create Youtube Object..

# call the function
    video_info(yt)
```

# Download YouTube Video in mp4 format:

To download YouTube Videos in MP4 format, we need to filter all the MP4 streams and then use that itag value of a specific stream to download the Video.

```
from pytube import YouTube
def download_Video(yt):
 # filter mp4 streams from object
 my_streams = yt.streams.filter(file_extension='mp4',only_video=True)
 for streams in my_streams:
    # print itag, resolution and codec format of Mp4 streams
    print(f"Video itag : {streams.itag} Resolution : {streams.resolution}")
  # enter the itag value of resolution on which you want to download the video
  input_itag = input("Enter itag Value : ")
  # get video using itag vale
 video = yt.streams.get_by_itag(input_itag)
  # finally download the YouTube Video...
 video.download()
  print("Video is Downloading as",yt.title+".mp4")
link = "Enter Your Link Here"
# Create YouTube Object.
yt = YouTube(link)
# call The function..
download video(yt)
```

### Download YouTube Video in Audio format:

```
from pytube import YouTube
# Define Function ...
def download Audio(yt):
    # Filter all the audio files
    my streams = yt.streams.filter(only audio=True)
    for streams in my_streams:
        # print audio quality/itag/codec
        print(f"Audio itag : {streams.itag} Quality : {streams.abr} ")
    input_itag = input("Enter itag Value : ")
    audio = yt.streams.get_by_itag(input_itag)
    audio.download() # download the Video in audio format..
    # audio.download(r"New path where you want to save the file")
    print("Audio is Downloading as ",yt.title+".mp3")
link = "Your Link "
yt = YouTube(link) # create Object ..
download_Audio(yt) # call the function
```

# Download complete YouTube Playlist:

To download a complete YouTube playlist we need to create a Playlist class Object of Pytube module.