

REPORT FOR YOUTUBE VIDEO DONLOADER

As a project work for Course

PYTHON PROGRAMMING (INT213)

GitHub- <https://github.com/Sriram31032002/youtubr-vedio-downloader.git>

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ABSTRACT:-

Python YouTube Video Downloader is an application to download videos from YouTube. This provides users to download videos they need in their devices and watch them offline.

The Youtube downloader project is a python project. The object of this project is to download any type of video in a fast and easy way from youtube in your device.

In this python project, user has to copy the youtube video URL that they want to download and simply paste that URL in the 'paste link here' section and click on the download button, it will start downloading the video. When video downloading finishes, it shows a message 'downloaded' popup on the window below the download button.

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STEPS TO DEVELOP PYTHON YOUTUBE DOWNLOADER:-

Project Prerequisites

To implement this project we use basic concept of python, tkinter, pytube library.

- **Tkinter** is a standard GUI library and it is one of the easiest ways to build a GUI application.
- **pytube** used for downloading videos from youtube

To install the required modules run pip installer command on the command line:

1. pip install tkinter
2. Pip install pytube

Download Youtube Downloader Python Code

Please download the source code of YouTube video downloader: **Python YouTube Downloader**

These are the following steps to build youtube video downloader project in python :

- Import libraries
- Create display window
- Create field to enter link
- Create function to start downloading

1. Import Libraries

Start the project by importing the required modules.

1. from tkinter import *
2. from pytube import YouTube

In this python project, we import Tkinter and pytube modules.

2. Create Display Window

1. root = Tk()
2. root.geometry('500x300')
3. root.resizable(0,0)

root.title("DataFlair-youtube video downloader")

- **Tk()** used to initialize tkinter to create display window

- **geometry()** used to set the window's width and height
- **resizable(0,0)** set the fix size of window
- **title()** used to give the title of window

```
1. Label(root,text = 'Youtube Video Downloader', font ='arial 20 bold').pack()
```

- **Label()** widget use to display text that users can't able to modify.
- **root** is the name of the window
- **text** which we display the title of the label
- **font** in which our text is written
- **pack** organized widget in block

3. Create Field to Enter Link

```
link = StringVar()
```

```
Label(root, text = 'Paste Link Here:', font = 'arial 15 bold').place(x= 160 , y = 60)
```

```
link_enter = Entry(root, width = 70,textvariable = link).place(x = 32, y = 90)
```

- **link** is a string type variable that stores the youtube video link that the user enters.
- **Entry()** widget is used when we want to create an input text field.
- **width** sets the width of entry widget
- **textvariable** used to retrieve the value of current text variable to the entry widget
- **place()** use to place the widget at a specific position

4. Create Function to Start Downloading

```
def Downloader():
```

```
url =YouTube(str(link.get()))
```

```
video = url.streams.first()
```

```
video.download()
```

```
Label(root, text = 'DOWNLOADED', font = 'arial 15').place(x= 180 , y = 210)
```

```
Button(root,text = 'DOWNLOAD', font = 'arial 15 bold' ,bg = 'pale violet red', padx = 2, command =  
Downloader).place(x=180 ,y = 150)
```

```
root.mainloop()
```

Url variable gets the youtube link from the link variable by **get()** function and then **str()** will convert the link in string datatype.

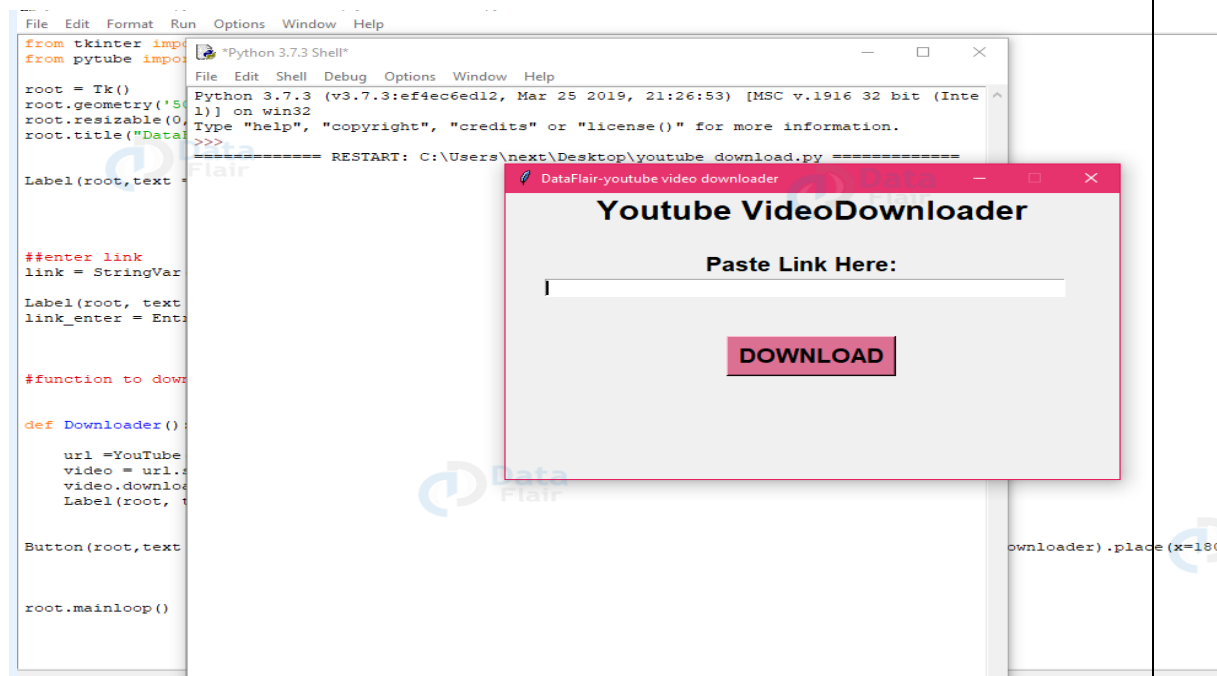
The video is download in the first present stream of that video by **stream.first()** method.

Button() widget used to display button on the window.

- **text** which we display on the label
- **font** in which the text is written
- **bg** sets the background color
- **command** is used to call the function

root.mainloop() is a method that executes when we want to run the program.

Python YouTube Downloader Output



The final total code :-

```
import tkinter as tk
```

```
from tkinter import *
```

```
from tkinter import messagebox, filedialog
```

```
def Widgets():
```

```
head_label = Label(root, text="YouTube Video Downloader Using Tkinter",  
                    padx=15,  
                    pady=15,  
                    font="SegoeUI 14",  
                    bg="palegreen1",  
                    fg="red")
```

```
head_label.grid(row=1,  
                column=1,  
                pady=10,  
                padx=5,  
                columnspan=3)
```

```
link_label = Label(root,  
                    text="YouTube link :",  
                    bg="salmon",  
                    pady=5,  
                    padx=5)
```

```
link_label.grid(row=2,  
                column=0,  
                pady=5,  
                padx=5)
```

```
root.linkText = Entry(root,  
                       width=35,  
                       textvariable=video_Link,  
                       font="Arial 14")
```

```
root.linkText.grid(row=2,  
  
                    column=1,  
  
                    pady=5,  
  
                    padx=5,  
  
                    columnspan=2)
```

```
destination_label = Label(root,  
  
  
                           text="Destination :",  
  
                           bg="salmon",  
  
                           pady=5,  
  
                           padx=9)
```

```
destination_label.grid(row=3,  
  
  
                        column=0,  
  
                        pady=5,  
  
                        padx=5)
```

```
root.destinationText = Entry(root,  
  
  
                              width=27,  
  
                              textvariable=download_Path,  
  
                              font="Arial 14")
```

```
root.destinationText.grid(row=3,  
  
  
                           column=1,  
  
                           pady=5,  
  
                           padx=5)
```

```
browse_B = Button(root,  
  
                    text="Browse",  
  
                    command=Browse,  
  
                    width=10,  
  
                    bg="bisque",  
  
                    relief=GROOVE)
```

```
browse_B.grid(row=3,  
  
               column=2,  
  
               pady=1,  
  
               padx=1)
```

```
Download_B = Button(root,  
  
                     text="Download Video",  
  
                     command=Download,  
  
                     width=20,  
  
                     bg="thistle1",  
  
                     pady=10,  
  
                     padx=15,  
  
                     relief=GROOVE,  
  
                     font="Georgia, 13")
```

```
Download_B.grid(row=4,  
  
                 column=1,  
  
                 pady=20,  
  
                 padx=20)
```



```
def Browse():
```

```
    download_Directory = filedialog.askdirectory(  
        initialdir="YOUR DIRECTORY PATH", title="Save Video")
```

```
    download_Path.set(download_Directory)
```

```
def Download():
```

```
    Youtube_link = video_Link.get()
```

```
    download_Folder = download_Path.get()
```

```
    getVideo = YouTube(Youtube_link)
```

```
    videoStream = getVideo.streams.first()
```

```
    videoStream.download(download_Folder)
```

```
        messagebox.showinfo("SUCCESSFULLY",  
                             "DOWNLOADED AND SAVED IN\n"  
                             + download_Folder)  
  
root = tk.Tk()  
  
root.geometry("520x280")  
root.resizable(False, False)  
root.title("YouTube Video Downloader")  
root.config(background="PaleGreen1")  
  
video_Link = StringVar()  
download_Path = StringVar()  
  
Widgets()  
  
root.mainloop()
```

Summary

With this project in python, we have successfully developed the youtube video downloader project using python. We used the popular Tkinter library that used for rendering graphics. We use the pytube library to download videos from youtube.

CONCLUSIONS:-

It is our team's hope that this document will be of huge help with understanding of our little project as we have used a different approach which

has provided beneficial for us and Easy for us to understand the vast ocean of python programming.

REFRENCES:-

1. **COURSERA**
2. **UDEMY**
3. **YOUTUBE**
4. **KAGGLE**