

# Batch video2youtube Tool Tutorial

TA at

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**Tokyo Institute of Technology, Japan**

# Contents

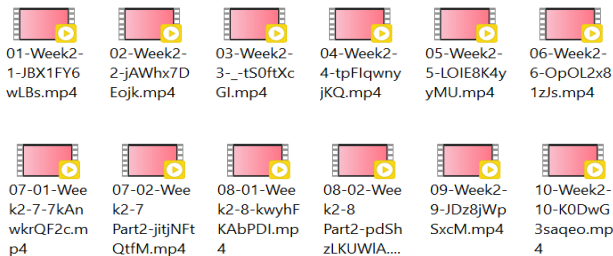
- Tool summary
- Register OAUTH 2.0 of YouTube API
- Files preparation
- Upload videos
- Upload transcript (subtitle)
- Upload thumbnail

# Tool Summary

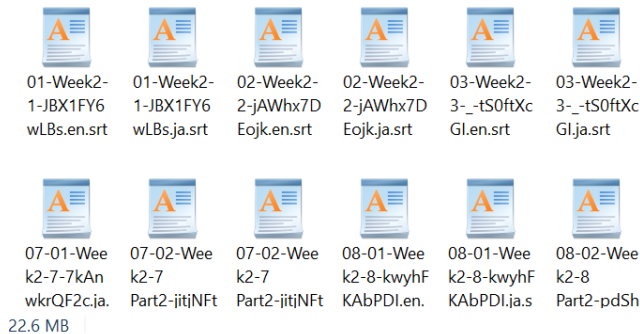
# Overview of this tool

Output: return set of video URLs

## edX lecture videos



## transcripts



## Thumbnail



**Batch upload to YouTube**  
- name, description, etc. will be added automatically

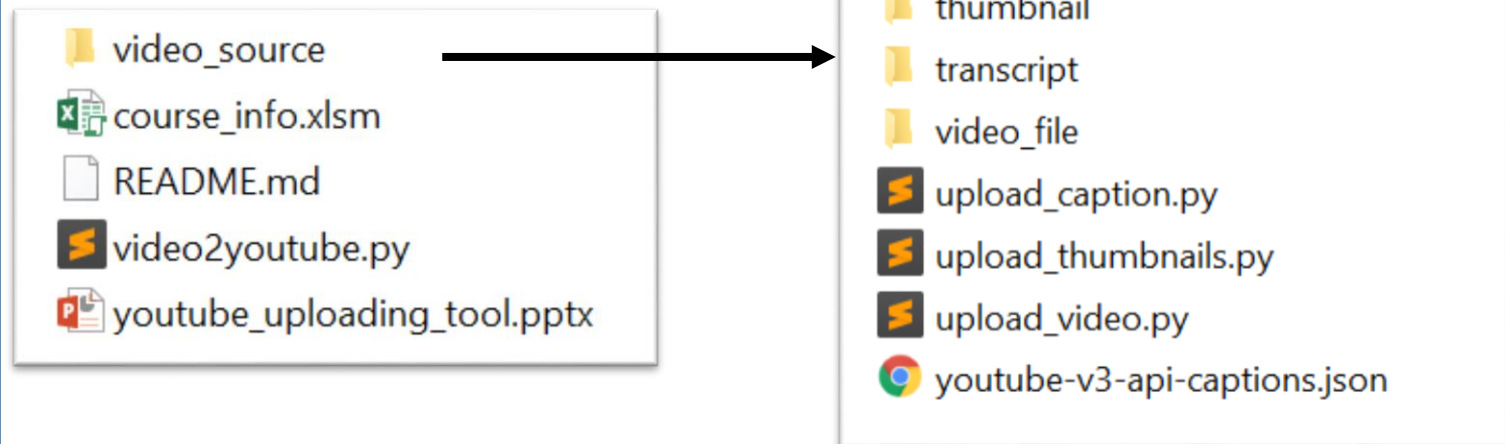
```
https://youtu.be/JBX1FY6wLBs
https://youtu.be/jAWhx7DEojk
https://youtu.be/tS0ftXcGI
https://youtu.be/tpFIqwnyjKQ
https://youtu.be/LOIE8K4yyMU
https://youtu.be/OpOL2x81zJs
https://youtu.be/7kAnwkrQF2c
https://youtu.be/jitjNftQtFM
https://youtu.be/kwyhFKAbPDI
https://youtu.be/pdShzLKUW1A
https://youtu.be/JDz8jWpSxcM
https://youtu.be/K0DwG3saqeo
```

Tool's output will be used to create video contents in edx.studio

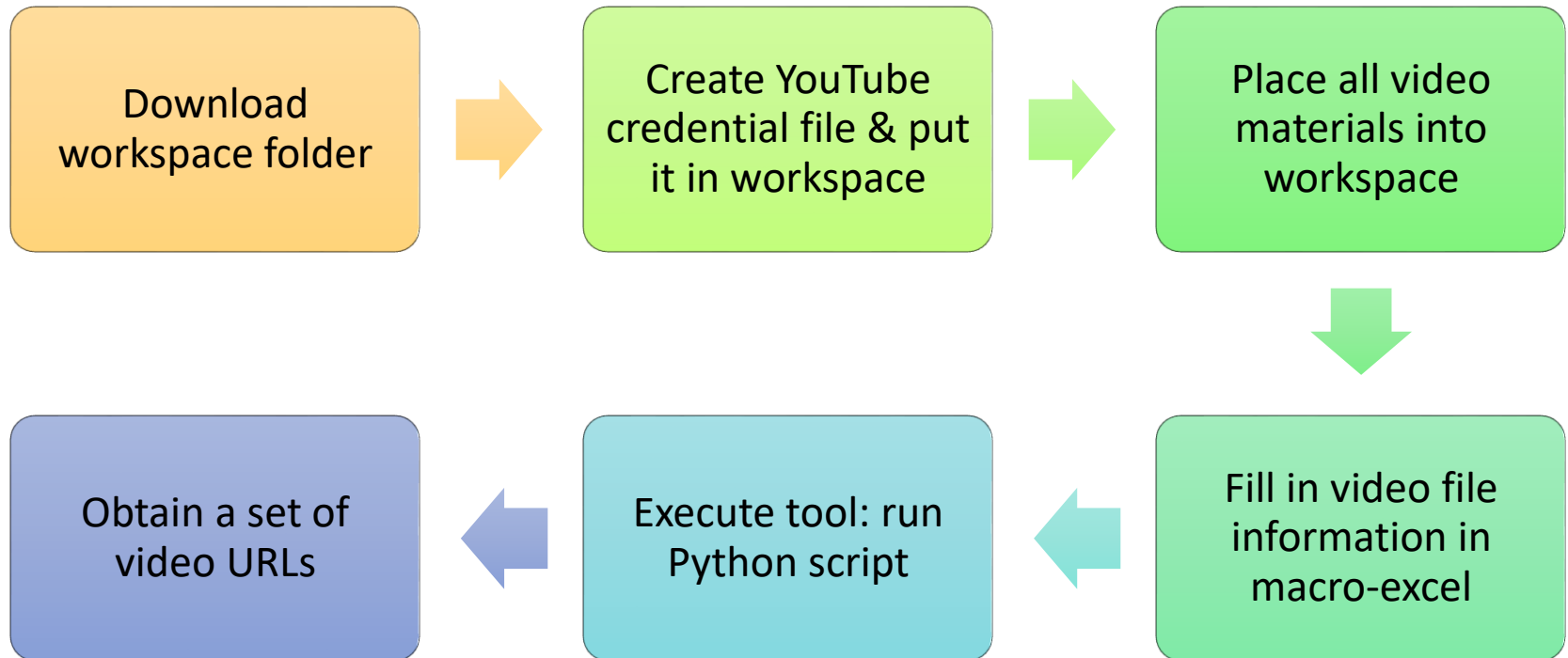


- The tool's workspace is available on Github
- <https://github.com/KeNopphon/edx-YouTube-video-uploading-tool>

## Workspace



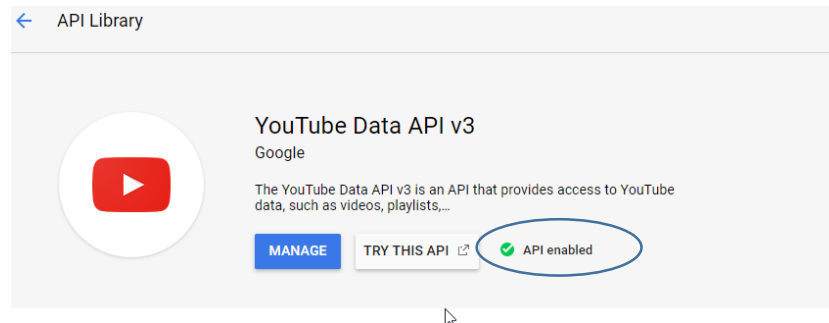
# Flowchart



# Register OAUTH 2.0 of YouTube API

# YouTube API OAUTH 2.0

- Follow the link below for obtaining authorization credential
  - [https://developers.google.com/youtube/registering\\_an\\_application](https://developers.google.com/youtube/registering_an_application)
- After create your credential (OAUTH 2.0 client IDs)
  - Enable Youtube Data API v3



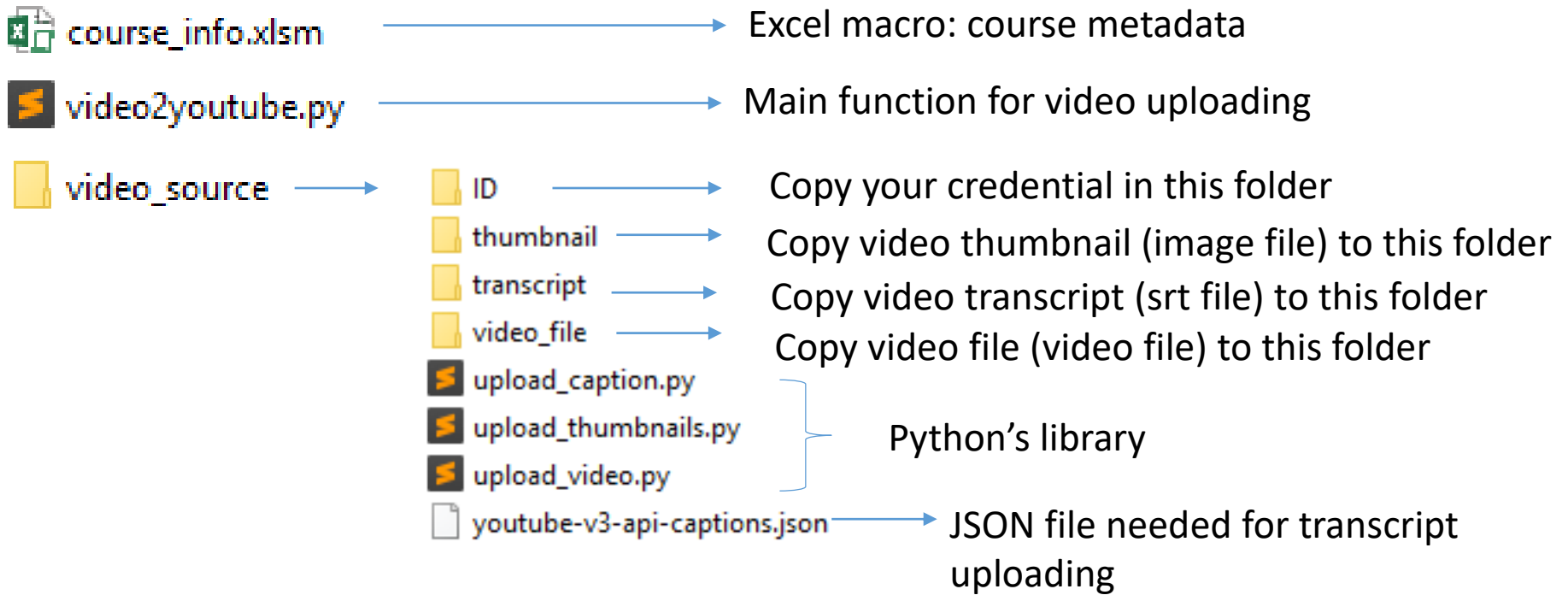


# YouTube API OAUTH 2.0

- Download credential file
  - json file
  - Filename:  
client\_secret\_<code>.apps.googleusercontent.com.json  
  
<code> = sequence of alphabet and number represents YouTube account
- Needed for batch uploading

Files preparation

# Workspace



- For those who are using 'course builder' tool, you can use option 3 for video uploading

# Course\_info.xlsm

- Sheets

- coursestructure
- text
- video
- problem

- upload\_list
- caption\_list
- thumbnail\_list

- metada

Course builder

Batch video2Youtube upload

leave it there, no need to consider

# Upload\_list sheet

before

id	file_dir	filename	title	description	keyword	privacy_status
Index (unique)		video filename	Name of video	Video description (Optional)	Keyword (Optional)	For remark (Optional)
	Directory of video file					


after

id	file_dir	filename	title	description	keyword	privacy_status
1	video_file	Week6_Sub_01.mp4	ETHICSJ1_2017_UNIT6_1			unlisted
2	video_file	Week6_Sub_02.mp4	ETHICSJ1_2017_UNIT6_2			unlisted
3	video_file	Week6_Sub_03.mp4	ETHICSJ1_2017_UNIT6_3			unlisted

Directory inside  
transcript folder


# Caption\_list sheet

before

id	file_dir	filename	lang	name	video_id	remark
Index (unique)		 srt filename		Name of transcript	YouTube link	For remark (Optional)
	Directory of srt file		Language code			

  
[https://www.loc.gov/standards/iso639-2/php/code\\_list.php](https://www.loc.gov/standards/iso639-2/php/code_list.php)

after

id	file_dir	filename	lang	name	video_id	remark
 1	transcript		en	ENG		
2	transcript	No_01_Week6-01.srt	ja	JP	<a href="https://youtu.be/InEcGMsyRa4">https://youtu.be/InEcGMsyRa4</a>	ETHICSJ1_2017_UNIT6_1
3	transcript		en	ENG		
4	transcript	No_02_Week6-02.srt	ja	JP	<a href="https://youtu.be/0SuQhiN_kwk">https://youtu.be/0SuQhiN_kwk</a>	ETHICSJ1_2017_UNIT6_2
5	transcript		en	ENG		
6	transcript	No_03_Week6-03.srt	ja	JP	<a href="https://youtu.be/OvxPH7slkW8">https://youtu.be/OvxPH7slkW8</a>	ETHICSJ1_2017_UNIT6_3

# thumbnail\_list sheet

before

id	file_dir	filename	video_id	remark
Index (unique)	Directory of srt file	image filename	YouTube link	For remark (Optional)

after

id	file_dir	filename	video_id	remark
1	thumbnail	6-1.png	<a href="https://youtu.be/InEcGMsyRa4">https://youtu.be/InEcGMsyRa4</a>	ETHICSJ1_2017_UNIT6_1
2	thumbnail	6-2.png	<a href="https://youtu.be/0SuQhiN_kwk">https://youtu.be/0SuQhiN_kwk</a>	ETHICSJ1_2017_UNIT6_2
3	thumbnail	6-3.png	<a href="https://youtu.be/OvxPH7slkW8">https://youtu.be/OvxPH7slkW8</a>	ETHICSJ1_2017_UNIT6_3

Upload video



# video2youtub.py (video part)

- Python 3
- Test environment: Windows 10
- Library
  - Google API Client Libraries
  - <https://developers.google.com/api-client-library/python/start/installation>
- Dependencies
  - xlrd, xlwt, http.client, httplib2

# video2youtube.py (video part)

- Run in terminal

```
python video2youtube.py
```

- Select tasks

```
enter [1-3]  
1. Upload video  
2. Upload Caption  
3. Upload thumbnail
```

- Type 1 and hit enter

# video2youtube.py (video)

- Pop-up browser
  - Ask for sign-in to YouTube account



Choose an account

to continue to

Name of your credential



Youtube account



Youtube account



Use another account

# video2youtube.py (video)

- Pop-up browser
  - Then, choosing your Channel



Choose your account or a brand account

to continue

Name of your credential



Youtube channel



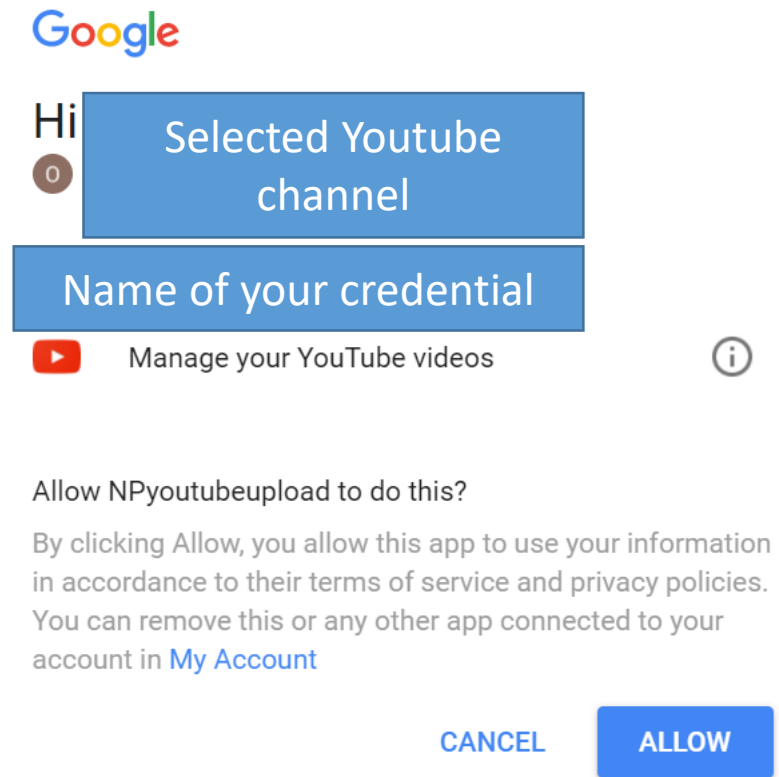
Youtube channel



Youtube channel

# video2youtube.py (video)

- Pop-up browser
  - Then, ask permission to use API



## JSON file for authentication is generated

- Youtube will not ask your permission again as long as this file exists in workspace
- If you want to access other Youtube account or channel, remove this file and run main script again



upload\_video.py-oauth2.json


# video2youtube.py (video)

- Videos are being uploaded

```
-----start uploading Week6_Sub_02.mp4-----
cd video_source & python upload_video.py --file=video_file\Week6_Sub_02.mp4 --title=ETHICSJ1_2017_UNIT6_2 --privacyStatus=unlisted
client_secret_id : ID%client_secret_467836083994-la6a1ker3ae3vkc1i4ikrab9mvckntq1.apps.googleusercontent.com.json
Uploading file...
Video id 'vQ0heM2xeeE' was successfully uploaded.
-----

-----start uploading Week6_Sub_03.mp4-----
cd video_source & python upload_video.py --file=video_file\Week6_Sub_03.mp4 --title=ETHICSJ1_2017_UNIT6_3 --privacyStatus=unlisted
client_secret_id : ID%client_secret_467836083994-la6a1ker3ae3vkc1i4ikrab9mvckntq1.apps.googleusercontent.com.json
Uploading file...
Video id 'Qk3AWR8-yXU' was successfully uploaded.
-----
```

- List of YouTube video are in  uploaded\_video\_link.txt


 uploaded\_video\_link.txt - Notepad

File Edit Format View Help

```
2017-10-27 16:47:49 , ETHICSJ1_2017_UNIT6_1 , https://youtu.be/X9L3GdReECo
2017-10-27 16:50:51 , ETHICSJ1_2017_UNIT6_2 , https://youtu.be/vQ0heM2xeeE
2017-10-27 16:53:31 , ETHICSJ1_2017_UNIT6_3 , https://youtu.be/Qk3AWR8-yXU
```


# video2youtube.py (video)

- Videos in Youtube video dashboard




Youtube channel  
[VIEW CHANNEL](#)


VIDEOS



ETHICSJ1\_2017\_UNIT6\_3  
0 0 0 0  
[Edit](#) ▼



ETHICSJ1\_2017\_UNIT6\_2  
0 0 0 0  
[Edit](#) ▼



ETHICSJ1\_2017\_UNIT6\_1  
0 0 0 0  
[Edit](#) ▼

[View all \(3\)](#)

Upload transcript (subtitle)



# video2youtube.py (transcript part)

- Run in terminal

```
python video2youtube.py
```

- Select tasks

```
enter [1-3]  
1. Upload video  
2. Upload Caption  
3. Upload thumbnail
```

- Type 3 and hit enter

# video2youtub.py (transcript part)

- Pop-up browser
  - Ask for sign-in to YouTube account



Choose an account

to continue to

Name of your credential



Youtube account



Youtube account



Use another account

# video2youtub.py (transcript part)

- Pop-up browser
  - Then, choosing your Channel



Choose your account or a brand account

to continue

Name of your credential



Youtube channel



Youtube channel



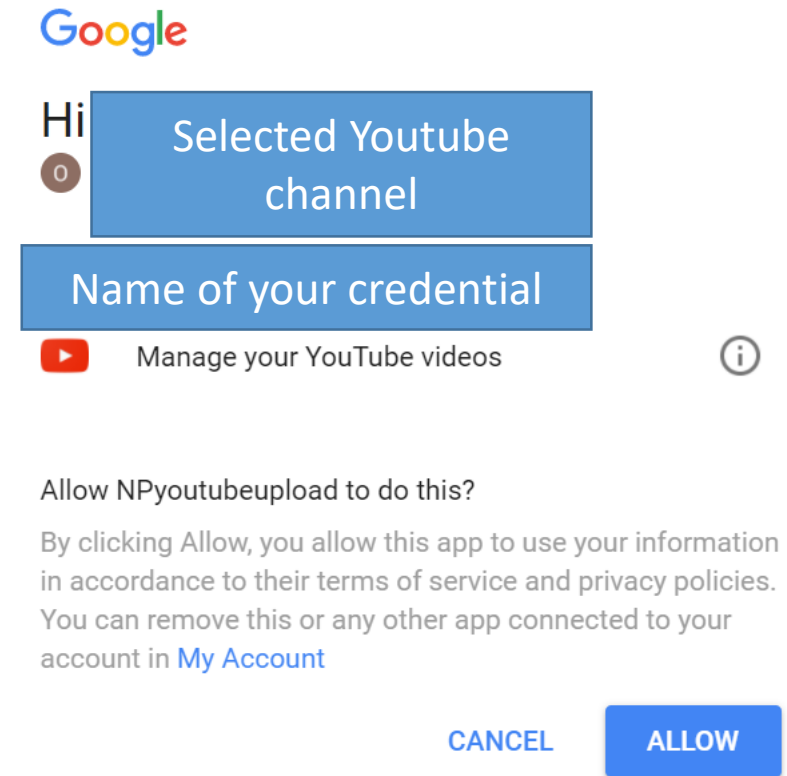
Youtube channel

# video2youtub.py (transcript part)

- Pop-up browser
  - Then, ask permission to use API

## JSON file for authentication is generated

- Youtube will not ask your permission again as long as this file exists in workspace
- If you want to access other Youtube account or channel, remove this file and run main script again



# video2youtub.py (transcript part)

- transcripts are being uploaded

```
no filename specified for transcript at excel id: 3.0
-----start uploading No_02_Week6-02.srt-----
cd video_source & python upload_caption.py --videoid=vQ0heM2xeeE --file=transcript¥No_02_Week6-02.bin --name=JP --language=ja --action=upload
client_secret_id : ID¥client_secret_467836083994-la6a1ker3ae3vkc1i4ikrab9mvckntq1.apps.googleusercontent.com.json
Uploaded caption track 'JP(JdCtoDSJ7DkJvZaHVuym4Q605ekXfgTAU3mITQr0yns=) in 'ja' language, 'serving' status.
Created and managed caption tracks.
```

```
no filename specified for transcript at excel id: 5.0
-----start uploading No_03_Week6-03.srt-----
cd video_source & python upload_caption.py --videoid=Qk3AWR8-yXU --file=transcript¥No_03_Week6-03.bin --name=JP --language=ja --action=upload
client_secret_id : ID¥client_secret_467836083994-la6a1ker3ae3vkc1i4ikrab9mvckntq1.apps.googleusercontent.com.json
Uploaded caption track 'JP(CbtYnVcXzseY2S2WenFntPb1WSyxG-LQpEawoxXTX2Q=) in 'ja' language, 'serving' status.
Created and managed caption tracks.
```


# video2youtub.py (transcript part)

- Transcripts are placed in selected Youtube video (see CC icon)


Videos **3**

☐ Actions ▾ Add to


---

☐  ETHICSJ1\_2017\_UNIT6\_3  
HD CC  
Oct 27, 2017 4:50 PM  
Edit ▾

---

☐  ETHICSJ1\_2017\_UNIT6\_2  
HD CC  
Oct 27, 2017 4:47 PM  
Edit ▾

---

☐  ETHICSJ1\_2017\_UNIT6\_1  
HD CC  
Oct 27, 2017 4:47 PM  
Edit ▾

Upload thumbnail

# video2youtube.py (thumbnail part)

- Run in terminal

```
python video2youtube.py
```

- Select tasks

```
enter [1-3]  
1. Upload video  
2. Upload Caption  
3. Upload thumbnail
```

- Type 3 and hit enter



# video2youtub.py (thumbnail part)

- Pop-up browser
  - Ask for sign-in to YouTube account



Choose an account

to continue to

Name of your credential



Youtube account



Youtube account



Use another account

# video2youtub.py (thumbnail part)

- Pop-up browser
  - Then, choosing your Channel



Choose your account or a brand  
account  
to continue

Name of your credential



Youtube channel



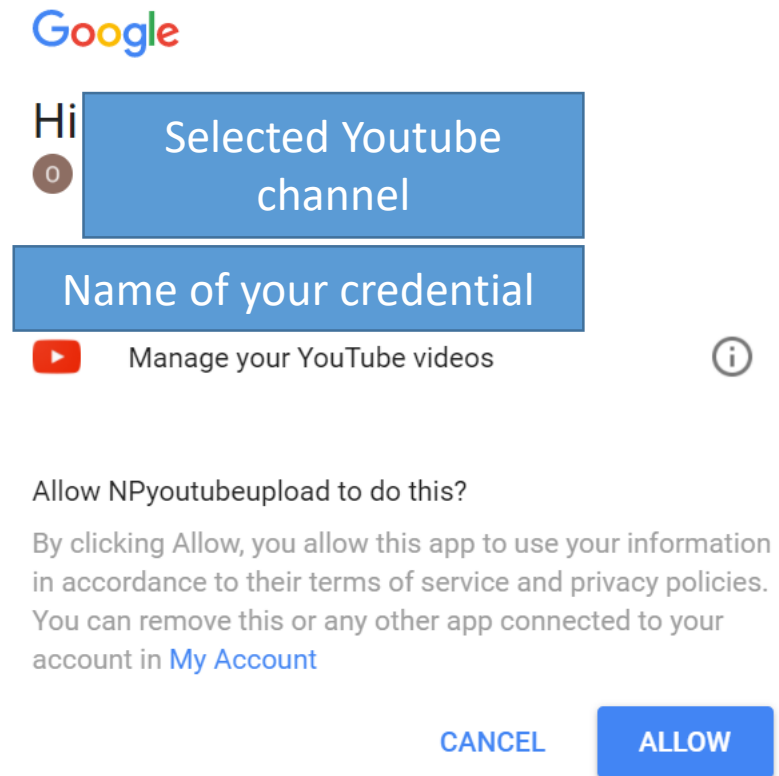
Youtube channel



Youtube channel

# video2youtub.py (thumbnail part)

- Pop-up browser
  - Then, ask permission to use API



## JSON file for authentication is generated

- Youtube will not ask your permission again as long as this file exists in workspace
- If you want to access other Youtube account or channel, remove this file and run main script again



`upload_thumbnails.py-oauth2.json`

# video2youtub.py (thumbnail part)

- Videos are being uploaded

vQ0heM2xeeE

```
-----start uploading thumbnail: 6-2.png-----  
cd video_source & python upload_thumbnails.py --file thumbnail6-2.png --video-id=vQ0heM2xeeE  
client_secret_id : ID%client_secret_467836083994-la6a1ker3ae3vkc1i4ikrab9mvckntq1.apps.googleusercontent.com.json  
The custom thumbnail was successfully set.
```

Qk3AWR8-yXU

```
-----start uploading thumbnail: 6-3.png-----  
cd video_source & python upload_thumbnails.py --file thumbnail6-3.png --video-id=Qk3AWR8-yXU  
client_secret_id : ID%client_secret_467836083994-la6a1ker3ae3vkc1i4ikrab9mvckntq1.apps.googleusercontent.com.json  
The custom thumbnail was successfully set.
```

# video2youtub.py (thumbnail part)

- Thumbnails are placed in selected Youtube video

