

Module `copytube`

CopyTube's main module.

This module contains all the functionality of CopyTube allowing a user to copy a public playlist of up to 195 videos (due to API quota restrictions) to a private playlist on their own channel after configuring their own API key and `client_secret` file through YouTube's Data V3 API.

Global variables

```
var scopes : List[str]
```

`List[str]`: Scope of requests to be made by CopyTube.

The scope for requests was determined from this source, <https://developers.google.com/youtube/v3/docs/playlistItems/insert>, (<https://developers.google.com/youtube/v3/docs/playlistItems/insert>), under the section, Authorization.

Functions

```
def add_videos_to_playlist(client: Any, playlist_id: str, songs: List[str])
```

Inserts videos from list to new playlist.

Loops through the list of song IDs obtained and uses the YouTube API client to insert the songs into the newly created playlist.

Parameters

`client` : Any

YouTube API client to make requests through

`playlist` : str

String of the new playlist ID

`songs` : List[str]

List of song IDs to be added to the new playlist

```
def create_new_playlist(client: Any, title: str) -> str
```

Creates a new playlist on the user's YouTube account.

Inserts a playlist into the user's YouTube account with the name following the format: -Copy

Parameters

`client : Any`

Instance of YouTube API client to make requests through

`title : str`

Title of the playlist to be copied

Returns

`str`

String of the new playlist's ID

```
def get_credentials(secret: str) -> Any
```

Obtains credentials necessary to interact with YouTube's API

Parameters

`secret : str`

String containing the file name of the client secret JSON file

Returns

Instance

Credentials instance for use with the YouTube API client

```
def get_playlist_id(playlist_url: str) -> str
```

Retrieves ID of playlist from URL provided using a URL parser.

Parameters

`playlist_url : str`

String of URL that points to a YouTube playlist

Returns

`str`

String of the playlist ID

```
def get_song_ids(client: Any, playlist_id: str) -> Dict[str, Any]
```

Retrieves a list of the song IDs in a YouTube playlist

Parameters

`client : Any`

YouTube API client to make requests through

`playlist_id : str`

Playlist ID of the YouTube playlist to retrieve song IDs from

Returns

`Dict[str: Any]`

Returns a dictionary containing the following information:

```
{
    'songs': List of song IDs,
    'title': Title of playlist to be copied
}
```

```
def main()
```

```
def printProgressBar(iteration, total, prefix='', suffix='', decimals=1, length=100,
                     fill='█', printEnd='\r')
```

Progress bar that prints progress of songs added to new playlist.

Source of progress bar can be found here: <https://stackoverflow.com/questions/3173320/text-progress-bar-in-the-console> (<https://stackoverflow.com/questions/3173320/text-progress-bar-in-the-console>)

Parameters

`iteration : int`

current iteration

`total : int`

total iterations

`prefix : str, optional`
prefix string

`suffix : str, optional`
suffix string

`decimals : int, optional`
positive number of decimals in percent complete

`length : int, optional`
character length of bar

`fill : str, optional`
bar fill character

`printEnd : str, optional`
end character (e.g. "\r", "\r\n")

```
def valid_input(url_to_check: str) -> bool
```

Checks for valid URL input from user.

Checks for a quit signal or a YouTube URL with a 'list' query parameter.

Parameters

`url_to_check : str`
String containing the URL input by the user.

Returns

`bool`
True, if the URL is YouTube URL with a 'list' parameter. False, otherwise. If the user inputs the quit signal 'q', the program exits.

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