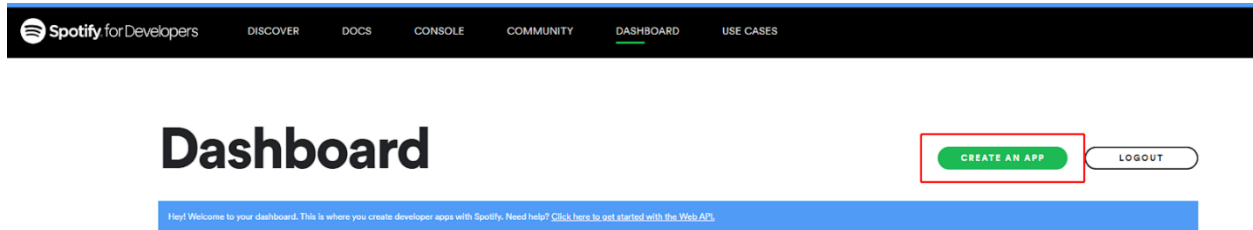# Instruction: Connect to public APIs

1. For this guideline, we use Spotify API as an example.

2. Register our application. For Spotify it's here: https://developer.spotify.com/dashboard/

   - Login and accept the terms and conditions, click **CREATE AN APP** in the dashboard.

   - Give our app a name and a description, check the agreement box and hit **CREATE**. It will take a few seconds to create.

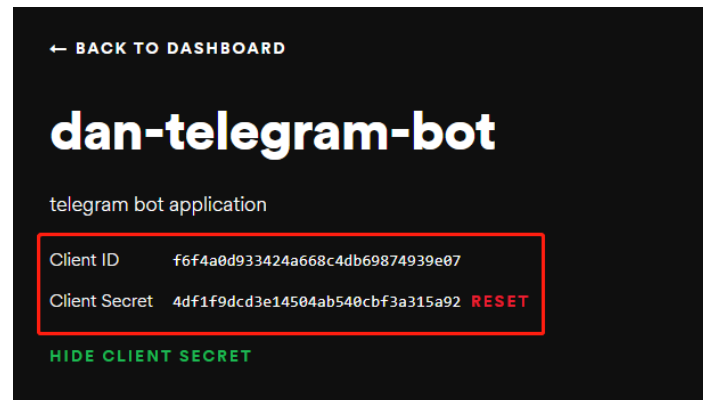   - After our bot application is successfully created, we will be directed to the main application page. Take note of our <u>Client ID</u> and <u>Client Secret</u> on the left-hand side of the panel, this is what we will use to authorize our bot.

3. Get access token using our <u>Client ID</u> and <u>Client Secret</u> by replacing client_id and client_secret with actual values and executing below code, reference here:

https://developer.spotify.com/documentation/general/guides/authorization-guide/#client-credentials-flow

The below code will make a POST request to the specified URL with our client_id and client_secret:

```
1  import requests
2  import base64
3  import json
4
5
6  response=requests.post('https://accounts.spotify.com/api/token', data={'grant_type' : 'client_credentials'}, auth = ('Your Client ID', 'Your Client Secret'))
7  access_token = json.loads(response.content.decode('utf8'))['access_token']
```

3. We can then use this access token to connect to non user-based APIs provided by Spotify.

Browse the set of available endpoints here: https://developer.spotify.com/documentation/web-api/reference/

- Let's say we want to get the name of all the featured playlists today:

We can find detailed API information here:

https://developer.spotify.com/documentation/web-api/reference/browse/get-list-featured-playlists/

This API is our target endpoint:

GET https://api.spotify.com/v1/browse/featured-playlists

Below shows how to call this endpoint in Python code:

```
11  response=requests.get("https://api.spotify.com/v1/browse/featured-playlists", headers={"Authorization": "Bearer " + access_token})
```

Some post-processing is required here after we get the *response* from the API: decode the response and extract the information we want.

- The code below will do the decoding and give us a list of the items stored in *playlists* variable:

```
14  playlists = json.loads(response.content.decode('utf8'))['playlists']['items']
```

- Finally, we will only need to loop through the *playlists* and print out the names:

```
17    for playlist in playlists:
18        print(playlist['name'])
```