Angular Core 06 – RESTful API

Exercises

In this exercise we will practice using RESTful API. There are many services that expose RESTful API for us to use such as Google Youtube API, Instagram API, GitHub API, Weather API …

Spotify is one of them. Spotify allow us to search for tracks, artists, albums and much more.

We gonna use Spotify to create a SPA called **FA MusicStore** which allow use to search for an artist and his/her tracks then render it into HTML.

# Prerequisites

You must first register for a Spotify account by following the below steps:

1. Navigate to <https://developer.spotify.com/dashboard/>
2. Click on [Sign up for a free Spotify account here.](https://developer.spotify.com/dashboard/)
3. Then sign-up for a new account and login using your credentials
4. You will be forward to <https://developer.spotify.com/dashboard/applications>
5. Click on **Create a client ID**
6. Then fill-in like figure below

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1. Next step answer NO
2. Last step check all boxes and click SUBMIT
3. Verified that your Client Id is created successfully like figure below

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# Try out Spotify API

Spotify offers many API but we only focus on Tracks and Artists API.

To try them out, do the following

1. Navigate to <https://developer.spotify.com/console/search/>
2. Click on ENDPOINT [/v1/search](https://developer.spotify.com/console/get-search-item/)
3. You MUST first click on Get Token then REQUEST TOKEN in order to use Spotify
4. If it is success, you will see the field OAuth Token is filled like figure below

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1. On field q type your favorite artist’s name (E.g Muse)
2. On field type fill in “**artist”** then click on TRY IT
3. If you do it correctly, the response will be shown on the right side and the list of artists is in “**artists”** => “**items”**
4. Investigate the “**items”** array to see the structure of an artist returned by Spotify. E.g in field “**images”** we will have a list of images/avatar of that artists try to open it in browser: https://i.scdn.co/image/33bc9128ad82f7d39847b6db6a49d5416502e7e7
5. Save the **“id”** of an artists (E.g 0VvkZg2J6PJrpR34JVWYoZ)
6. Navigate to <https://developer.spotify.com/console/artists/>
7. Click on ENDPOINT [/v1/artists/{id}/top-tracks](https://developer.spotify.com/console/get-artist-top-tracks/)
8. Fill the field id with the id from **Step 9** and country with value **US**
9. Click on TRY IT and inspect the response

# Requirements

Using the above information, you have to create an web app called **FA MusicStore**

The layout of the app is like figure below

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# Functionalities

1. When user type in the input field, you have to use that value to search for every artists on Spotify using this API <https://developer.spotify.com/console/get-search-item/>
2. The result of Step 1 will be show in Artist Search result
3. Artist Search result contains a list of Artist Detail (which describe an artists)
4. Artist Detail must have: image of the artists, name, popularity, genres
5. When the user click on any Artist Detail, you have to search for his/her top tracks on Spotify using this API <https://developer.spotify.com/console/get-artist-top-tracks/>
6. The result of step 5 will be show in Artist Top Track as list of Track Detail
7. Each Track Detail must have: track’s name, type, release date, image. If the field **“preview\_url”** is not null, use HTML5 audio tag to render it. Else, if the **“preview\_url”** is null then display No Preview URL.

# Technical Requirements

1. You must use **Angular** to implement this app
2. You must use **Bootstrap 4** as CSS framework
3. You must set HTTP Header key: **Authorization,** value: Bearer **{{ YOUR OAUTH TOKEN }}** Example: "Authorization: Bearer BQCa7bgPtm4bSB-0PHbT1QkSZdH-RTOoRtsD7n4qPKT8VIlZH465RsQpNBiS8LcJzhuzlyQU7QaCuHRbEkN-UBXPKRYMyVEDl\_YWKJZUrjW1O4DMW4JPZeUoe1z8ZvJ-t89uyFn3zwotl01xlJZMyvYIJLtEDQ75LIsG8g"
4. You must use **HttpClient** to interact with Spotify