

API Coding Challenge

Summary

A REST-API for storing metadata of music tracks to a Relational Database, fetching the metadata from the external Spotify REST API.

Framework Requirements:

- Implement in JS or TS using a lightweight node framework such (express, koa, fastify etc.)
- Ideally we would like to see an ORM in place too (sequelize, mikroorm, typeorm etc.).
- To document the API you are creating, feel free to use swagger.io

Code Challenge API Details:

- Write access: There should be a single endpoint to trigger for the creation of a track, which takes a single value "ISRC"
 - Input is just the ISRC
 - An ISRC is more or less an identifier of a music track, see "Spotify API" section below
 - As soon as the call comes in, use the Spotify API to fetch the following metadata:
 - Spotify Image URI
 - Title
 - Artist Name List
 - In case the SpotifyAPI returns multiple tracks take the track with highest popularity (an attribute in the Json)
 - Store the ISRC and the additional metadata into the DB
 - No need to care about updating an already existing ISRC, skipping or give back an error is enough.
- Read access: There should be 2 endpoints to retrieve metadata
 - By "ISRC": single result
 - By "artist": multiple results
 - "like" search in the DB
 - Multiple results (list/array)

Spotify API Details:

- You should use this API to retrieve the metadata of a music track which is identified by an ISRC
- Create a developer account at Spotify: <https://developer.spotify.com/>
- As the challenge is about creating an API which uses the Spotify API, OAuth "Client Credentials Flow" should be used as authorization:

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

- No need to cache the token for the code challenge, it's ok to grab it on each API Call
- Spotify API Endpoints you might use
 - <https://api.spotify.com/v1/search?q=thetitle&type=track>
 - Search for track using the title
 - You can use that call to find out ISRCs of music tracks
 - Some sample ISRC you can use: USVT10300001, USEE10001992, GBAYE0601498, USWB11403680, GBAYE0601477
 - Feel free to search for some by yourself, the get by artists endpoint might need more tracks for the same artist
 - <https://api.spotify.com/v1/search?q=isrc:USEE10001992&type=track>
 - Get track data by ISRC

Details, Suggestions etc.:

- Choose a Database you are most productive with, MSSQL, MySQL, PostgreSQL whatever.
- You can choose the way you store the metadata. Normalized table(s), semistructured tables by storing JSON/Arrays into the DB, etc.
 - For the track->artist relation, it is not necessary to create a many-to-many relationship. A simple parent (track) -> child (artists) relation is enough
- The design of the REST API is up to you (GET/POST/PUT, query parameters, naming, hierarchy etc.)
- Of course, we want to see the API in action ;)
 - Use the client of your choice (Postman, Curl, Httpie etc.) to demo it
- How would you secure your API endpoints? (in detail)