

## GRUPO 3

- ANGELICA FAJARDO
  - ARIANA OCHOA
  - LIAN ONTANO
  - DARIO REALPE
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**musiKdi**

# Proyecto IIP

Manejador de una Base de Dato No Relacional usando REST API

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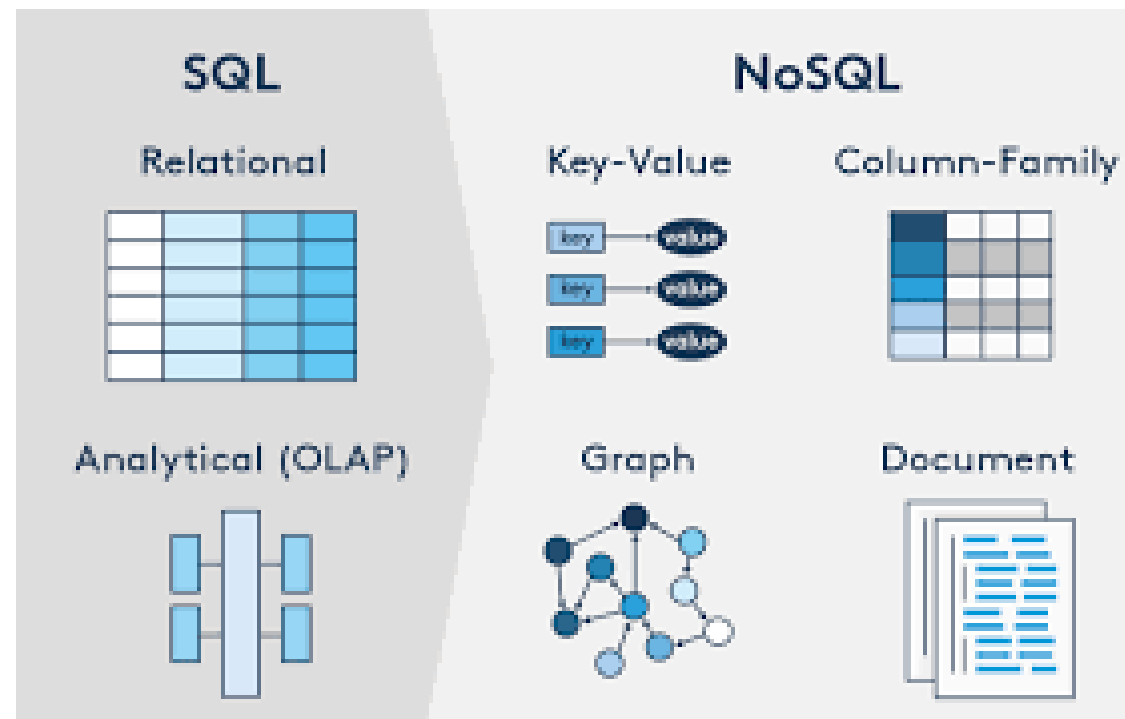


**Materia:** Administración de Servicios de Red bajo Linux

**Profesora:** Msig. Adriana Collaguazo Jaramillo

# Base de datos NoSQL

Las bases de Datos NoSQL están diseñadas específicamente para modelo de datos específicos y esquemas flexibles ya que son fáciles de desarrollar, su funcionalidad y rendimiento a gran escala.



# SQL vs NoSQL

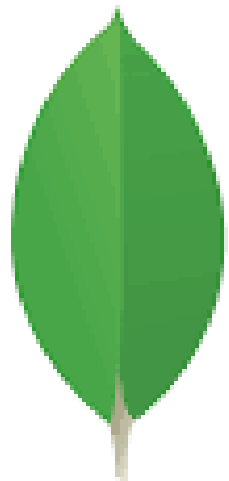
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Feature	NoSQL Databases	Relational Databases
Performance	High	Low
Reliability	Poor	Good
Availability	Good	Good
Consistency	Poor	Good
Data Storage	Optimized for huge data	Medium sized to large
Scalability	High	High (but more expensive)

# ¿Qué es MongoDB?

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MongoDB es un sistema de base de datos NoSQL orientado a documentos de código abierto. Robo 3T se utiliza como interfaz gráfica para implementaciones de alojamiento en MongoDB.

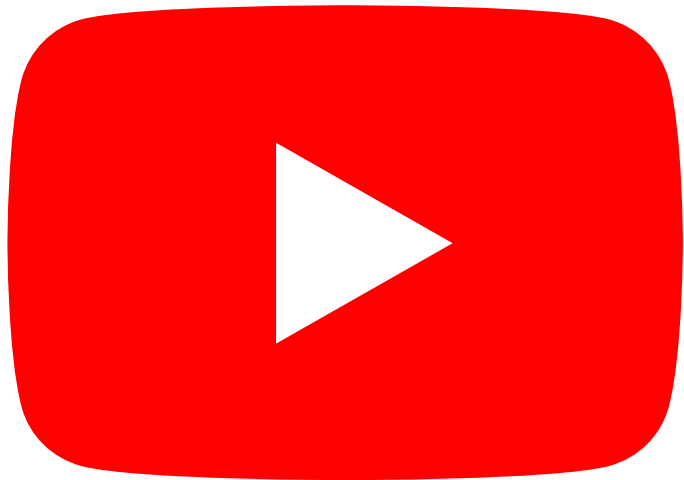


mongoDB®

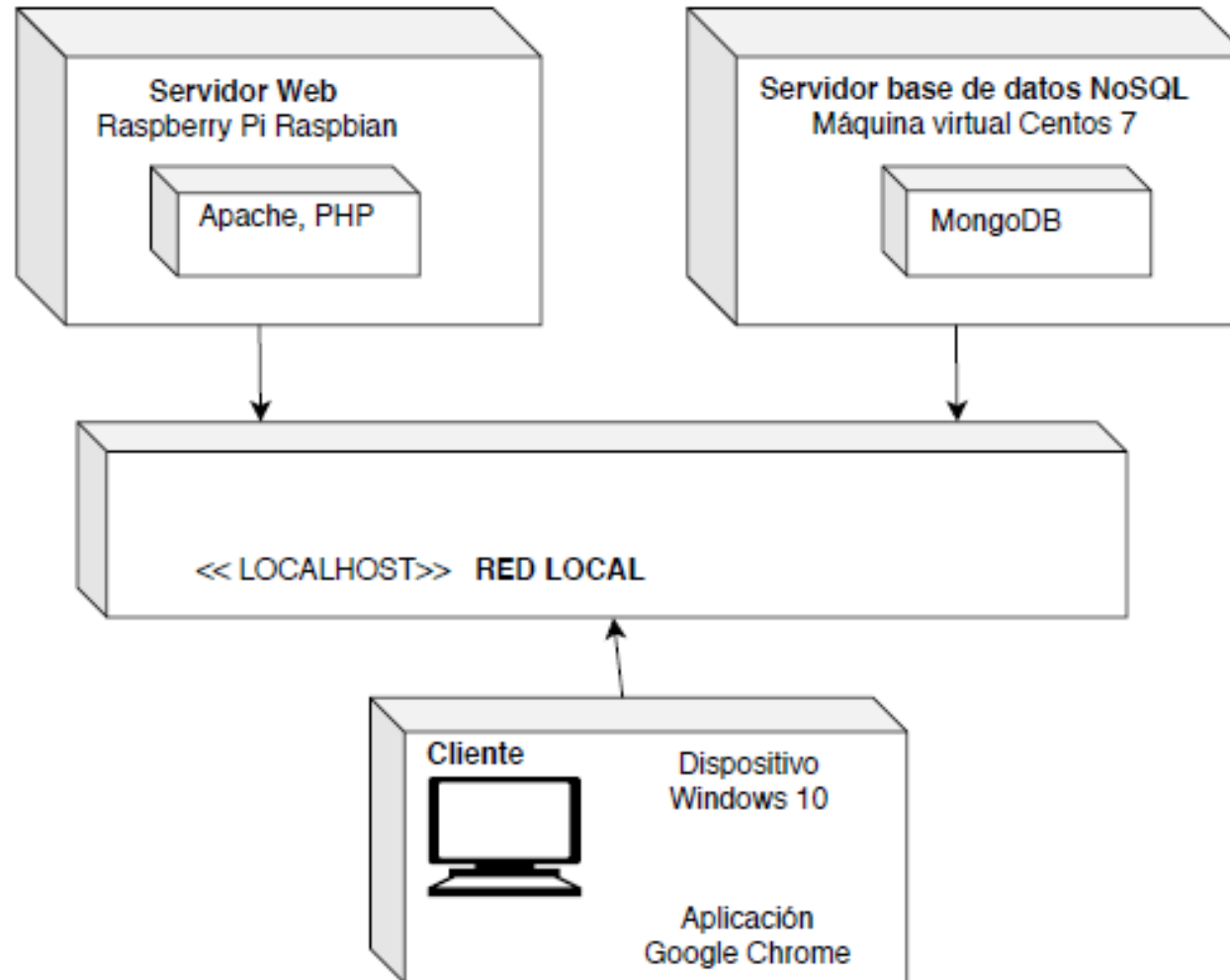
# Manejador de una Base de Dato No Relacional usando REST API

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Se implemento un Web-Server que consumirá datos de una Base NoSQL para alimentar un sitio web de música. Además de los datos mostrados, el sitio consumirá APIs de otras plataformas para enriquecer su contenido.

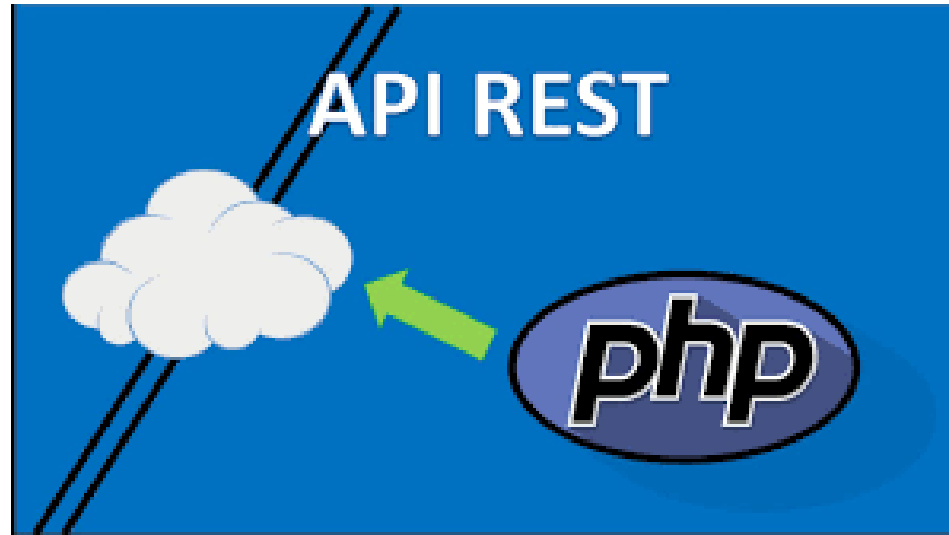


# Diagrama del diseño del proyecto.



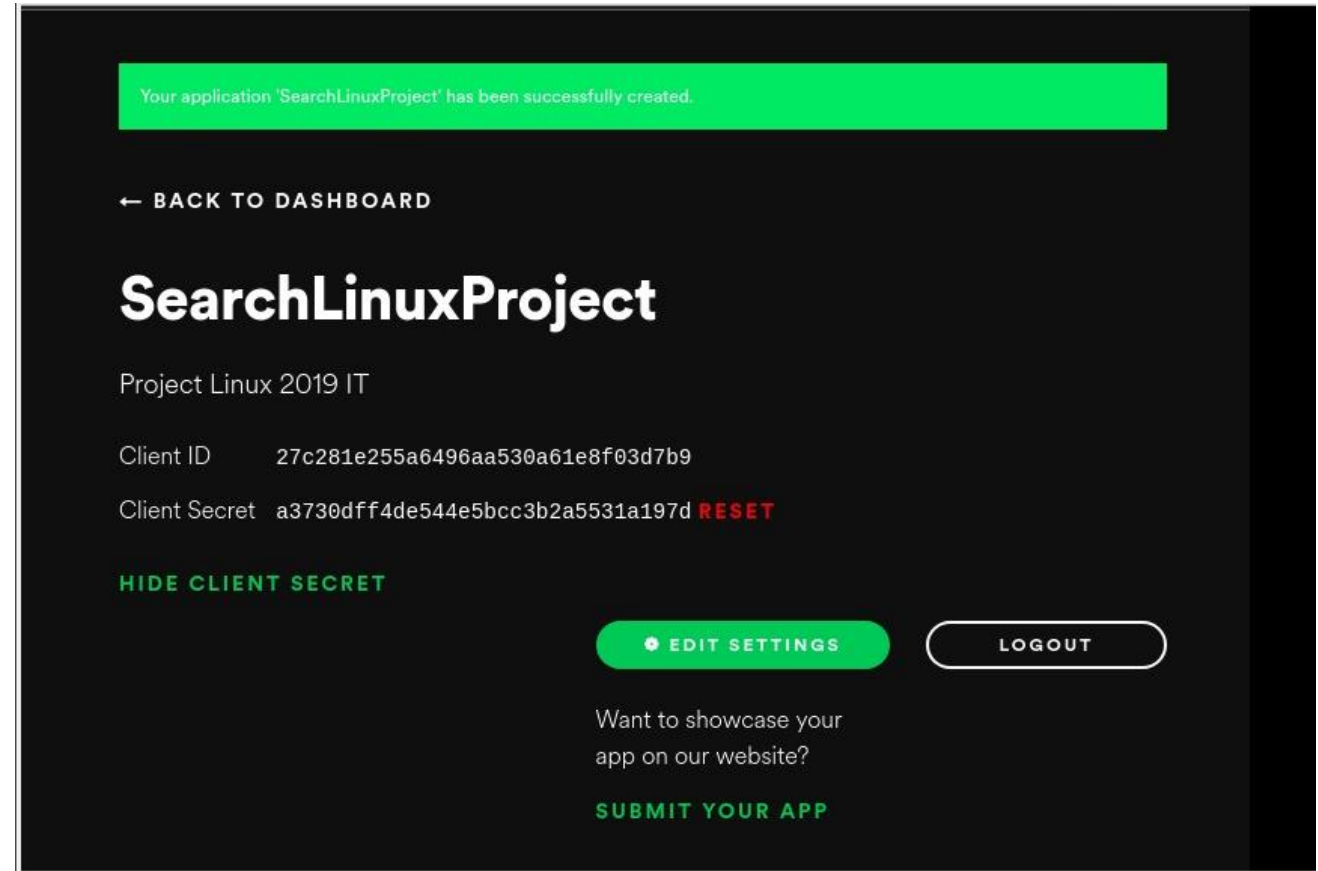
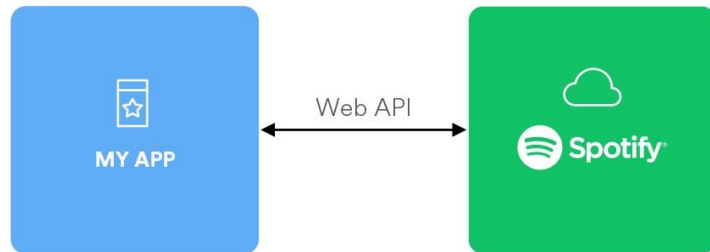
# Conexión al Web Server

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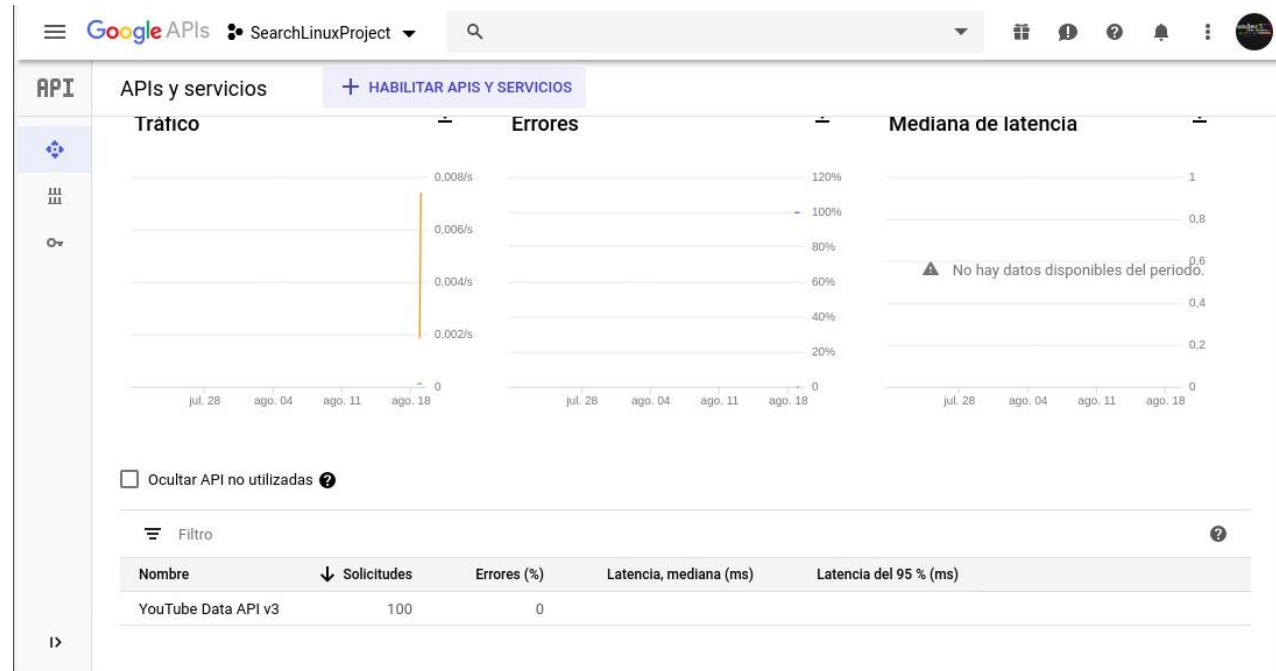




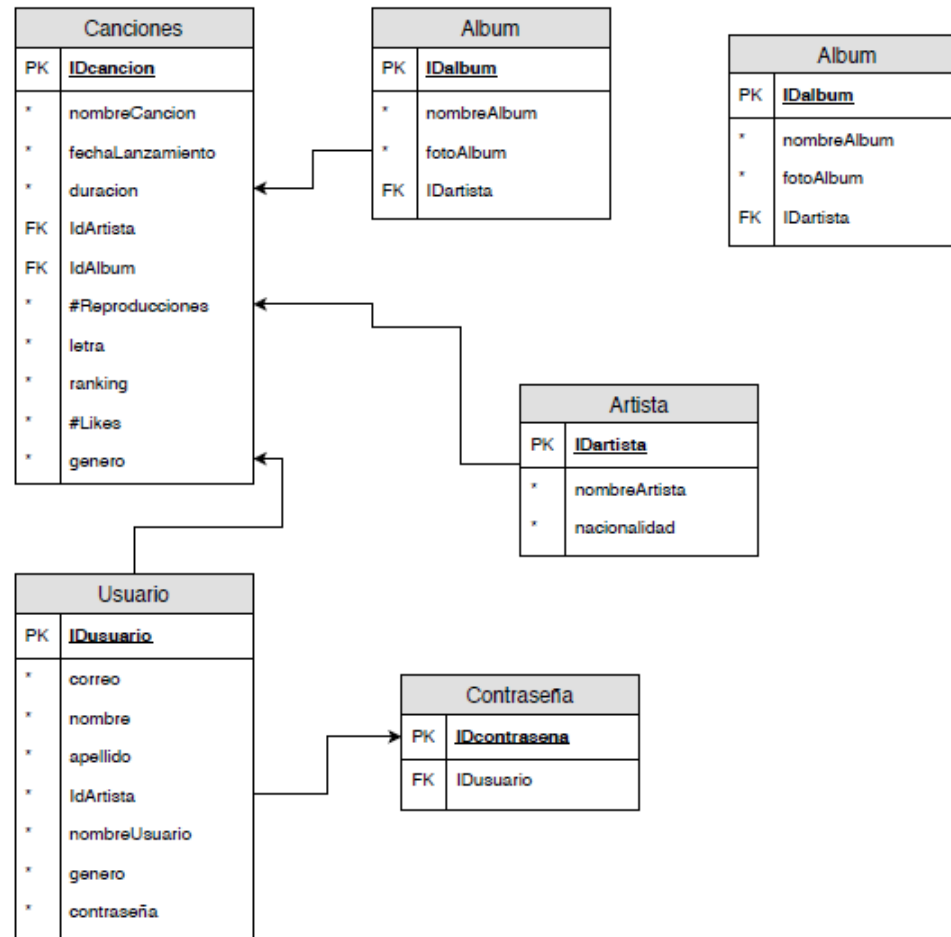
# Conexión para consumir API Spotify



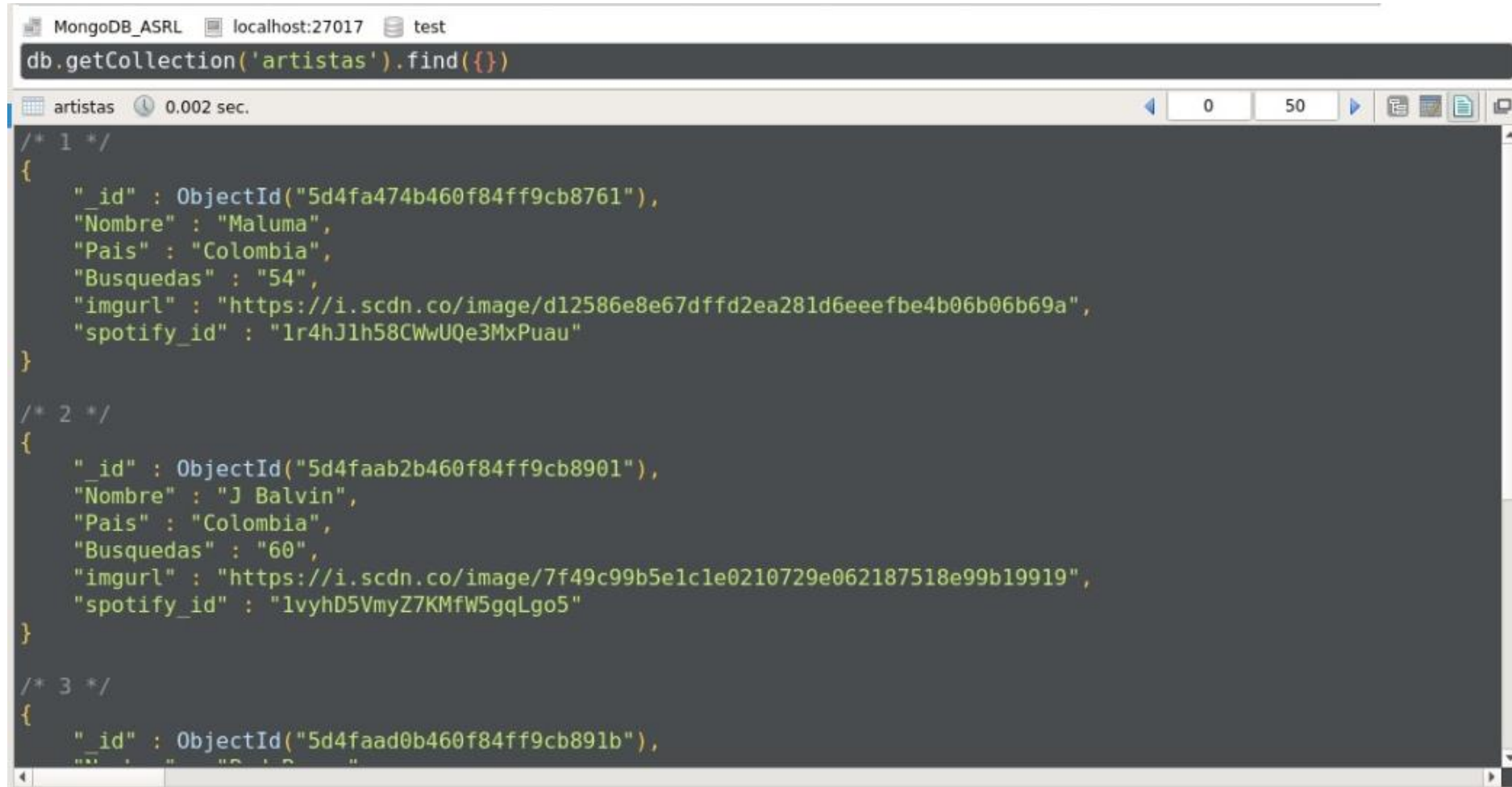
# Conexión para consumir API YouTube



# Diagrama modelo entidad-relación.



# ARTISTAS



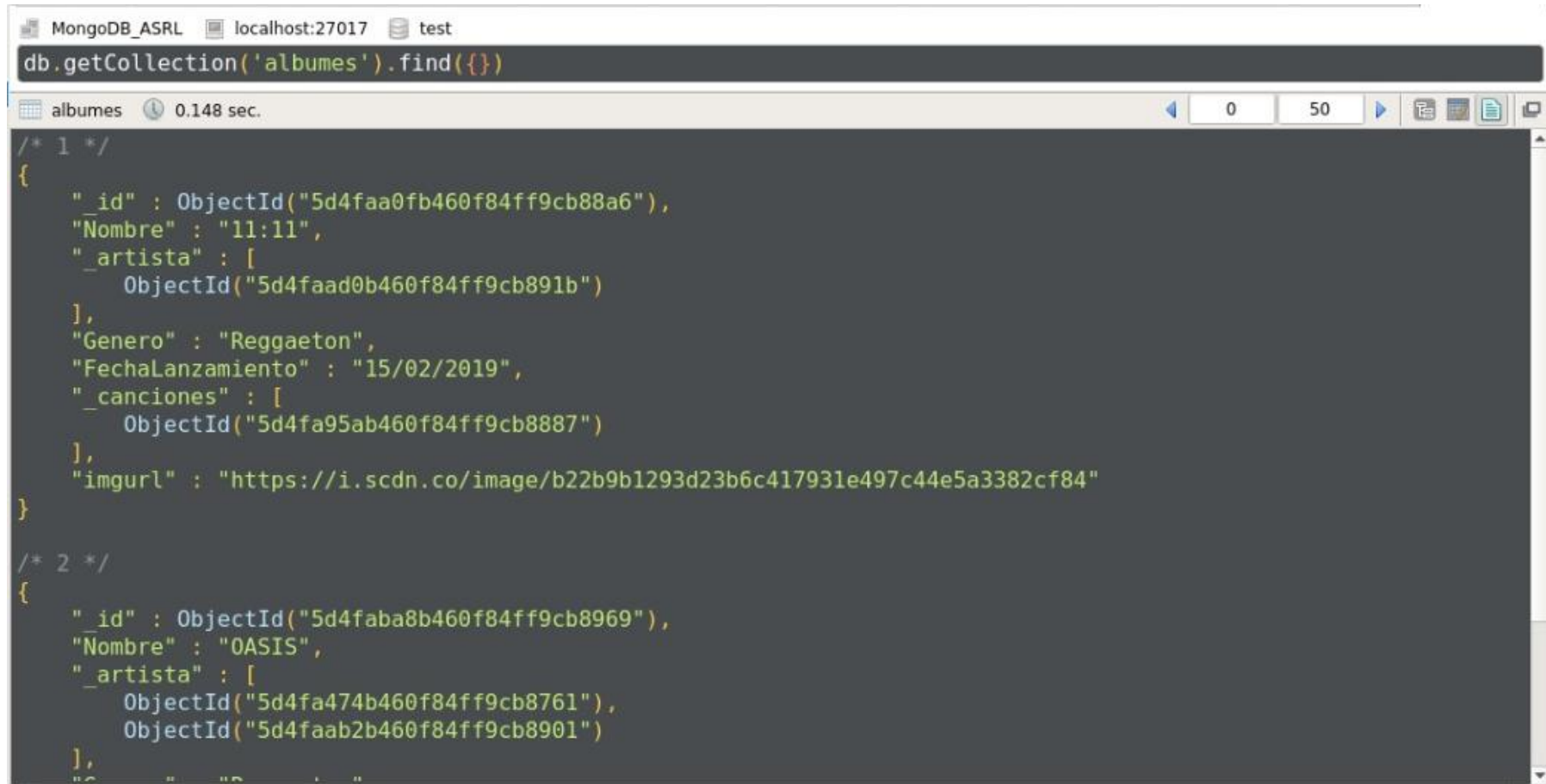
The screenshot shows a MongoDB query interface. At the top, the database is identified as 'MongoDB\_ASRL' on 'localhost:27017' in the 'test' database. The command entered in the query bar is `db.getCollection('artistas').find({})`. Below the command bar, the results are displayed for the 'artistas' collection, showing a time of 0.002 seconds. The results are presented as a list of three JSON documents, each representing an artist. The first document is for Maluma, the second for J Balvin, and the third is partially visible for another artist. Each document contains fields for \_id, Nombre, Pais, Busquedas, imgurl, and spotify\_id.

```
/* 1 */
{
  "_id" : ObjectId("5d4fa474b460f84ff9cb8761"),
  "Nombre" : "Maluma",
  "Pais" : "Colombia",
  "Busquedas" : "54",
  "imgurl" : "https://i.scdn.co/image/d12586e8e67dffd2ea281d6eeefbe4b06b06b69a",
  "spotify_id" : "1r4hJ1h58CWwUQe3MxPuau"
}

/* 2 */
{
  "_id" : ObjectId("5d4faab2b460f84ff9cb8901"),
  "Nombre" : "J Balvin",
  "Pais" : "Colombia",
  "Busquedas" : "60",
  "imgurl" : "https://i.scdn.co/image/7f49c99b5e1c1e0210729e062187518e99b19919",
  "spotify_id" : "1vyhD5VmyZ7KMfW5gqLgo5"
}

/* 3 */
{
  "_id" : ObjectId("5d4faad0b460f84ff9cb891b"),
  "Nombre" : "J Balvin",
  "Pais" : "Colombia",
  "Busquedas" : "60",
  "imgurl" : "https://i.scdn.co/image/7f49c99b5e1c1e0210729e062187518e99b19919",
  "spotify_id" : "1vyhD5VmyZ7KMfW5gqLgo5"
}
```

# ÁLBUM



The screenshot shows a web interface for MongoDB. At the top, it says 'MongoDB\_ASRL localhost:27017 test'. Below that, a command bar contains the query `db.getCollection('albumes').find({})`. The results are displayed in a table-like format with a header 'albumes' and a timing indicator '0.148 sec.'. The results are shown as a JSON array of two objects. The first object represents an album with the title '11:11', artist '5d4faad0b460f84ff9cb891b', genre 'Reggaeton', release date '15/02/2019', and a single song '5d4fa95ab460f84ff9cb8887'. The second object represents an album with the title 'OASIS', artists '5d4fa474b460f84ff9cb8761' and '5d4faab2b460f84ff9cb8901', and a genre 'Reggaeton'. The interface includes navigation buttons for page 0 of 50 results.

```
/* 1 */
{
  "_id" : ObjectId("5d4faa0fb460f84ff9cb88a6"),
  "Nombre" : "11:11",
  "_artista" : [
    ObjectId("5d4faad0b460f84ff9cb891b")
  ],
  "Genero" : "Reggaeton",
  "FechaLanzamiento" : "15/02/2019",
  "_canciones" : [
    ObjectId("5d4fa95ab460f84ff9cb8887")
  ],
  "imgurl" : "https://i.scdn.co/image/b22b9b1293d23b6c417931e497c44e5a3382cf84"
}

/* 2 */
{
  "_id" : ObjectId("5d4faba8b460f84ff9cb8969"),
  "Nombre" : "OASIS",
  "_artista" : [
    ObjectId("5d4fa474b460f84ff9cb8761"),
    ObjectId("5d4faab2b460f84ff9cb8901")
  ],
  "Genero" : "Reggaeton",
  "FechaLanzamiento" : "15/02/2019",
  "_canciones" : [
    ObjectId("5d4fa95ab460f84ff9cb8887")
  ],
  "imgurl" : "https://i.scdn.co/image/b22b9b1293d23b6c417931e497c44e5a3382cf84"
}
```

# CANCIONES

```
db.getCollection('canciones').find({})
```

canciones 0.03 sec. 0 50

```
/* 1 */
{
  "_id" : ObjectId("5d4fa95ab460f84ff9cb8887"),
  "Nombre" : "11:11",
  "_artista" : [
    ObjectId("5d4fa474b460f84ff9cb8761")
  ],
  "reproducciones" : "1523",
  "_album" : ObjectId("5d4faa0fb460f84ff9cb88a6"),
  "imgurl" : "https://i.scdn.co/image/b22b9b1293d23b6c417931e497c44e5a3382cf84"
}

/* 2 */
{
  "_id" : ObjectId("5d4fac47b460f84ff9cb89d3"),
  "Nombre" : "MOJAITA",
  "_artista" : [
    ObjectId("5d4fa474b460f84ff9cb8761"),
    ObjectId("5d4faab2b460f84ff9cb8901")
  ],
  "reproducciones" : "1523",
  "_album" : ObjectId("5d4faba8b460f84ff9cb8969"),
  "imgurl" : "https://i.scdn.co/image/8a88582386dbcbdfafb2cbba3664fda31ac4075f"
}
```

# CLIENTES

```
db.getCollection('clientes').find({})
```

clientes 0.073 sec.

```
/* 6 */
{
  "_id" : ObjectId("5d4f0db5af5e090cd6265593"),
  "Nombre" : "Lino ",
  "Apellidos" : "Ontano",
  "Correo" : "linontano88@gmail.com",
  "Usuario" : "lontano23",
  "Password" : "$2y$10$kjENs03S1l8wqFpK7fqBPekgYw24cojBE1PRs3xWcAqLr8bNgkIfW"
}

/* 7 */
{
  "_id" : ObjectId("5d4f1ac7af5e09795010c575"),
  "Nombre" : "Dario",
  "Apellidos" : "Realpe",
  "Correo" : "drealpe@espol.edu.ec",
  "Usuario" : "drealpe",
  "Password" : "$2y$10$vKutCKyqU/fzx3tdpr3a5eIqceQfFogqC8344rlZKm10YddDXviky"
}

/* 8 */
{
  "_id" : ObjectId("5d4f6469af5e092d7b66ae62"),
  "Nombre" : "Lino ",
  "Apellidos" : "Ontano",
  "Correo" : "linontano88@gmail.com",
  "Usuario" : "lontano23",
  "Password" : "$2y$10$kjENs03S1l8wqFpK7fqBPekgYw24cojBE1PRs3xWcAqLr8bNgkIfW"
```