

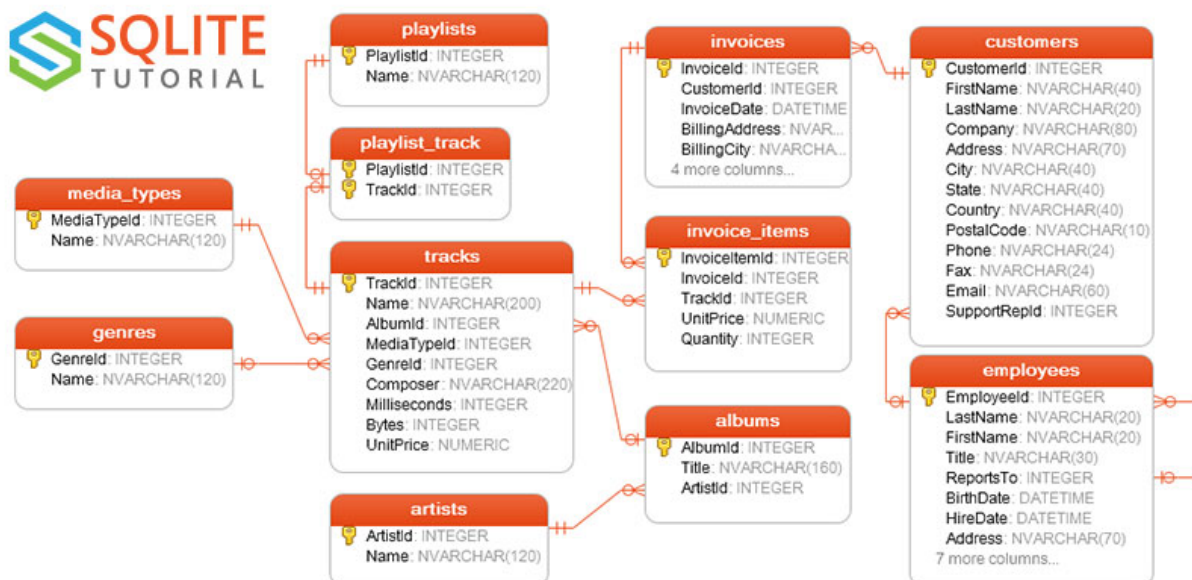
Music Playlist Editor

Introduction

Create a simple web application to manage **tracks** for **playlists**. Implement the backend using **Node.js** and **Express** and the frontend with **Angular**.

Task 1

The following database diagram illustrates the **Chinook database** tables and their relationships (Source: SQLite Tutorial)



Download the required **CSV-Files** from the following URL:

<https://github.com/dwhoman/chinook-database/tree/master/ChinookDatabase/DataSources/csv>

Load the ones needed for this exercise when launching the backend application. You can keep the data in memory.

Task 2

Implement the following RESTful API using **Node.js** and **Express**. Use the REST Client Plugin in Visual Studio Code to test your backend.

```
### Get all playlists
```

GET http://localhost:8000/api/playlists

Content-Type: application/json

Get tracks for a playlist

GET http://localhost:8000/api/playlisttracks/5

Content-Type: application/json

Get available genres

GET http://localhost:8000/api/genres

Content-Type: application/json

Get tracks for a certain genre

GET http://localhost:8000/api/tracks?genreid=5

Content-Type: application/json

Add a new track to a playlist

POST http://localhost:8000/api/track

Content-Type: application/json

```
{
  "playlistid": 5,
  "trackid": 10
}
```

Remove a track from a playlist

DELETE http://localhost:8000/api/track?playlistid=5&trackid=10

Content-Type: application/json

Task 3

Implement the following frontend. Your user interface does not have to look exactly as shown below -- please concentrate on the requested functionalities!

Playlist Editor

Playlist:	<input type="text" value="select one"/>	Number of tracks: 0	Total playtime: 0ms	<input type="button" value="Add new track"/>
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- Fill the selectbox "Playlist" with all available playlists in the `OnInit` method

- As soon as a playlist is selected, the button "Add new track" becomes available and the list of tracks is shown

Playlist Editor

Playlist: Grunge		Number of tracks: 15	Total playtime: 1h 8m 42s	<button>Add new track</button>	
Track #	Name	Album	Genre	Length	
2195	Alive	Ten	Rock	5m 41s	
2516	Black Hole Sun	A-Sides	Rock	5m 20.3s	
2005	Come As You Are	Nevermind	Rock	3m 39.2s	
2206	Daughter	Vs.	Rock	3m 55.5s	
2010	Drain You	Nevermind	Rock	3m 43.9s	
2194	Evenflow	Ten	Rock	4m 53.7s	
3367	Hunger Strike	Temple of the Dog	Alternative	4m 6.2s	
2004	In Bloom	Nevermind	Rock	4m 14.9s	
2198	Jeremy	Ten	Rock	5m 18.9s	
2007	Lithium	Nevermind	Rock	4m 16.9s	
52	Man In The Box	Facelift	Rock	4m 46.6s	
2013	On A Plain	Nevermind	Rock	3m 16.4s	
2512	Outshined	A-Sides	Rock	5m 12.4s	
2550	Plush	Core	Rock	5m 14s	
2003	Smells Like Teen Spirit	Nevermind	Rock	5m 1.2s	

- Sort the tracks by name
- Update the fields Number of tracks and Total playtime accordingly
- Convert the milliseconds per track into a reasonable format
- You can remove a track from the selected playlist by clicking on the trashcan icon
- If you click on the Add new track button, the following should be displayed:

Playlist Editor

Playlist: <div><div>Grunge</div><div></div></div>		Number of tracks: 15	Total playtime: 1h 8m 42s	<div>Add new track</div>	
Genre: <div><div>select one</div><div></div></div>		Track: <div><div>all</div><div></div></div>	<div>Add</div>		
Track #	Name	Album	Genre	Length	
2195	Alive	Ten	Rock	5m 41s	
2516	Black Hole Sun	A-Sides	Rock	5m 20.3s	

- After selecting a genre, the Track combobox becomes available, listing all the available tracks of the selected genre

Playlist:

Grunge

Number of tracks: 15

Total playtime: 1h 01m 42s

Add new track

Genre:

Drama

Track:

all

Add

Track #	Name	Album	Genre
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- After selecting a track, the Add button becomes available

Playlist: Grunge Number of tracks: **15** Total playtime: **1h 8m 42s** Add new tra
 Genre: Drama Track: Better Halves (Heroes, Season 1) Add

Track #	Name	Album	Genre
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- When clicking the Add button, the selected track is added to the playlist and the area to add a new track is hidden

Playlist Editor

Playlist: Grunge Number of tracks: 16 Total playtime: 1h 51m 35s Add new track					
Track #	Name	Album	Genre	Length	
2195	Alive	Ten	Rock	5m 41s	
2844	Better Halves	Heroes, Season 1	Drama	42m 53s	
2516	Black Hole Sun	A-Sides	Rock	5m 20.3s	
2005	Come As You Are	Nevermind	Rock	3m 39.2s	
2206	Daughter	Vs.	Rock	3m 55.5s	
2010	Drain You	Nevermind	Rock	3m 43.9s	
2194	Evenflow	Ten	Rock	4m 53.7s	
3367	Hunger Strike	Temple of the Dog	Alternative	4m 6.2s	
2004	In Bloom	Nevermind	Rock	4m 14.9s	
2198	Jeremy	Ten	Rock	5m 18.9s	
2007	Lithium	Nevermind	Rock	4m 16.9s	
52	Man In The Box	Facelift	Rock	4m 46.6s	
2013	On A Plain	Nevermind	Rock	3m 16.4s	
2512	Outshined	A-Sides	Rock	5m 12.4s	
2550	Plush	Core	Rock	5m 14s	
2003	Smells Like Teen Spirit	Nevermind	Rock	5m 1.2s	