

Spotify for Developers

developer.spotify.com

developer.spotify.com is where you can discover how to build experiences with Spotify for Developers using Spotify, the music streaming and podcast service, you can get documentation containing a complete reference for the Spotify Web API and a Web Console to try them using Sample Data and even obtain example CURL requests. Discover how to develop unique experiences for over 180 million global music fans with the following Spotify features:

Spotify's Features	
Audio Features & Analysis	Explore audio features and in-depth audio analysis of tracks
Playback	Bring music from Spotify to your application
Recommendations	Customise and serve Spotify's recommendations to your users
Search	Find any track, artist, album or playlist on Spotify
Playlists	Manage Spotify users' playlists directly from your application
Metadata	Access information about any track, artist or album
Curated Content	Get market-specific featured playlists and new releases from Spotify
User Taste	Read more about the user's listening tastes on Spotify

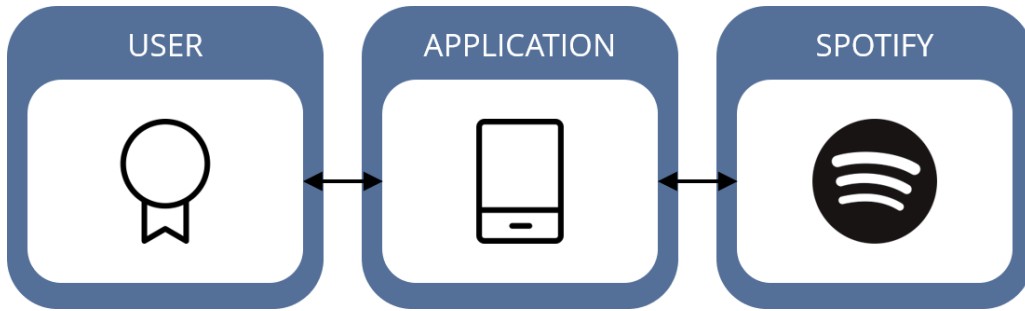


Use Cases where Spotify can be integrated include Home Audio with Spotify Connect, Voice Integrations offering immersive voice-controlled experiences, Wearable devices such as smart watches, health and fitness bands plus headphones, or you can innovate in new and emerging areas.

Dashboard is where you create and manage Spotify Integrations, you just need to log in with a Spotify account, agree to the terms and conditions, then choose "Create a Client Id", then in "Create an App or Hardware Integration" state the purpose of the non-commercial integration – although Spotify can approve commercial integrations. Once done you will get a Client Id and Client Secret to use with the Spotify API and be able to Edit Settings to set the Redirect URI for Authentication.

Authorisation

Your application can be authorised to get data or to allow an end user to approve your application to access their Spotify data or features.

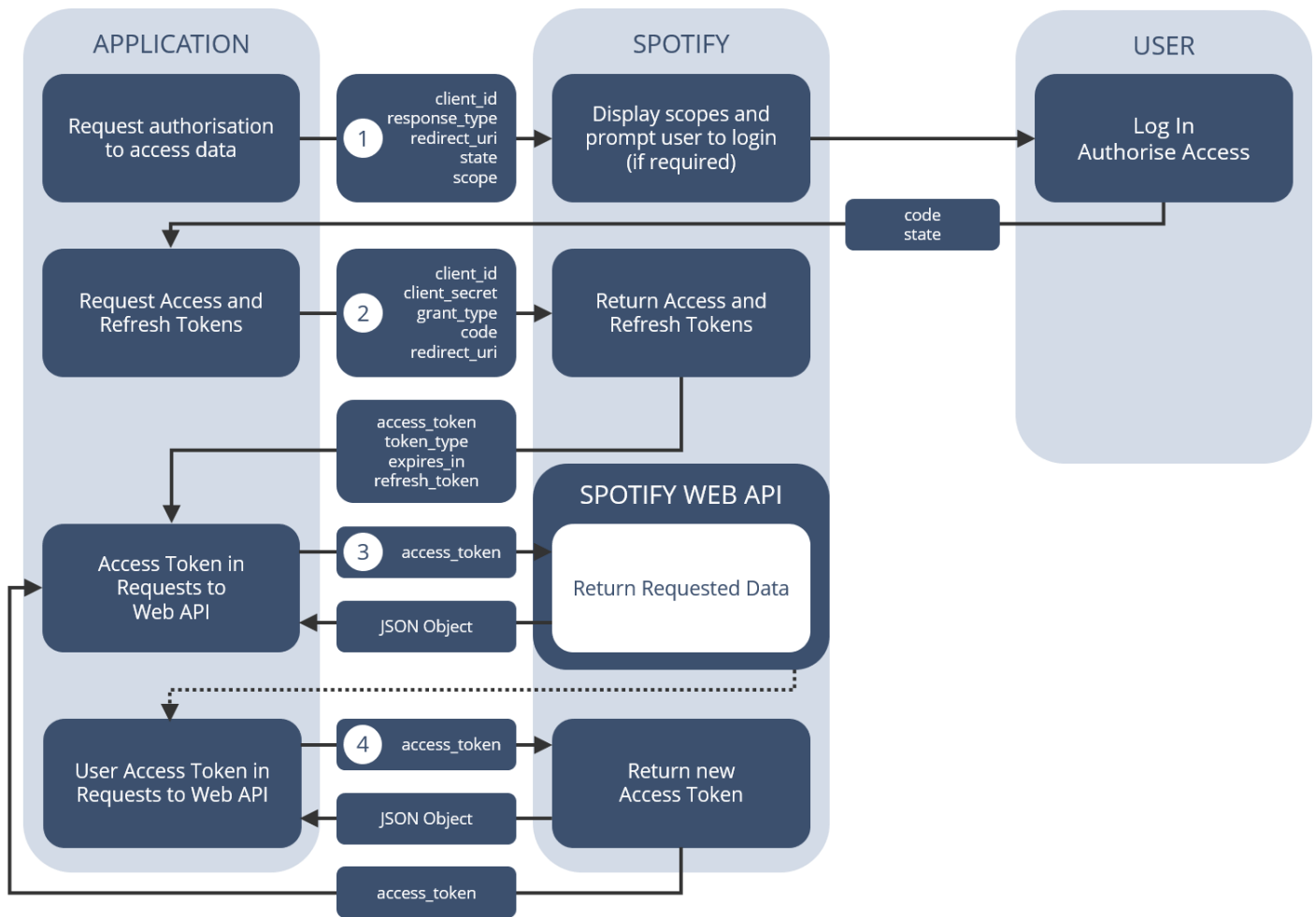


Authorised requests to Spotify require permission to be granted to access data, in accordance with OAuth 2.0 the parties involved in the authorisation process are the End User, Application Client and Spotify Server.

Obtain authorisation from the user by redirecting to a page where they may log into or sign up with Spotify. Then the requested information is presented including what account data an activity can be viewed and what actions can be performed based on the following Scopes:

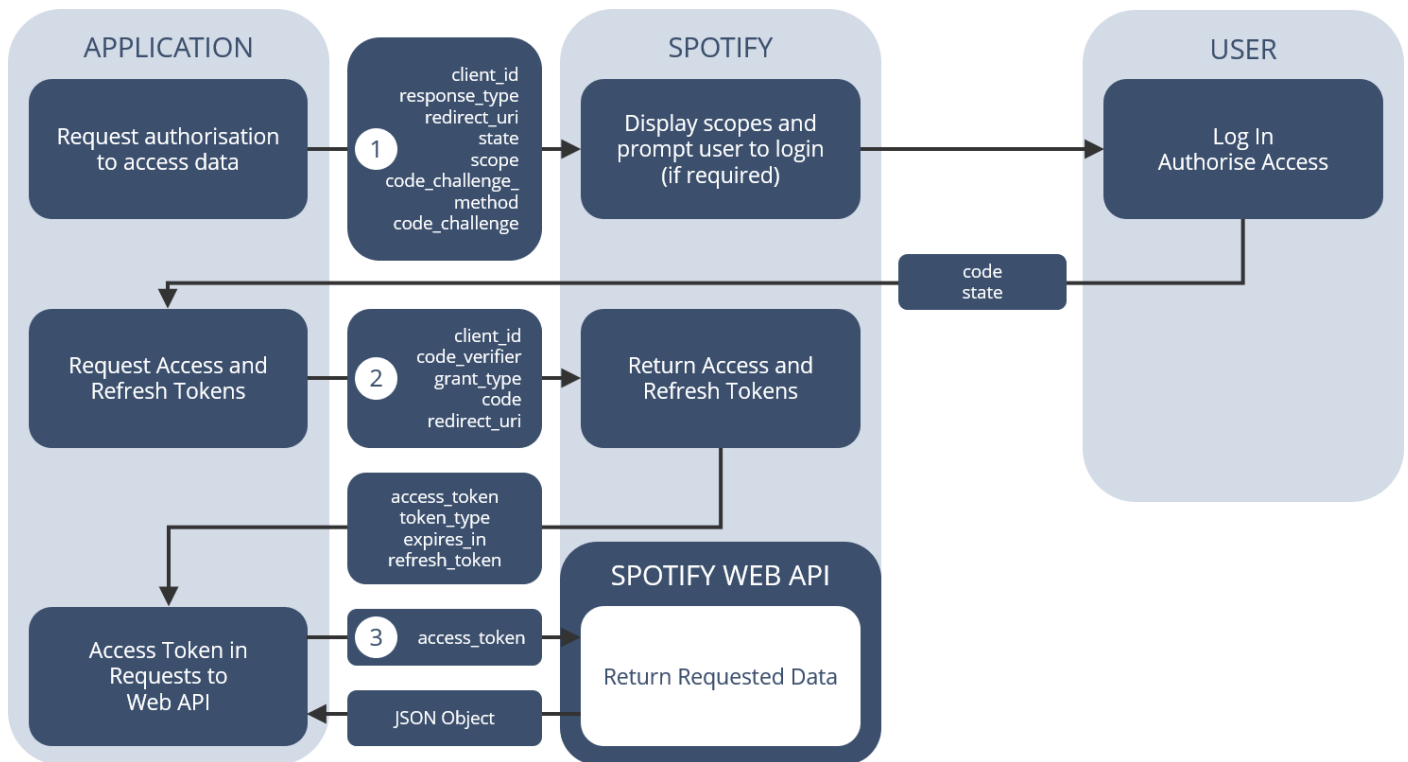
Scopes	
Images	ugc-image-upload
Spotify Connect	user-read-playback-state, user-modify-playback-state, user-read-currently-playing
Playback	app-remote-control, streaming
Users	user-read-email, user-read-birthdate, user-read-private
Playlists	playlist-read-private, playlist-modify-public, playlist-modify-private, playlist-read-collaborative
Library	user-library-modify, user-library-read
Listening History	user-read-recently-played, user-top-read
Follow	user-follow-read, user-follow-modify

Authorisation Code Flow



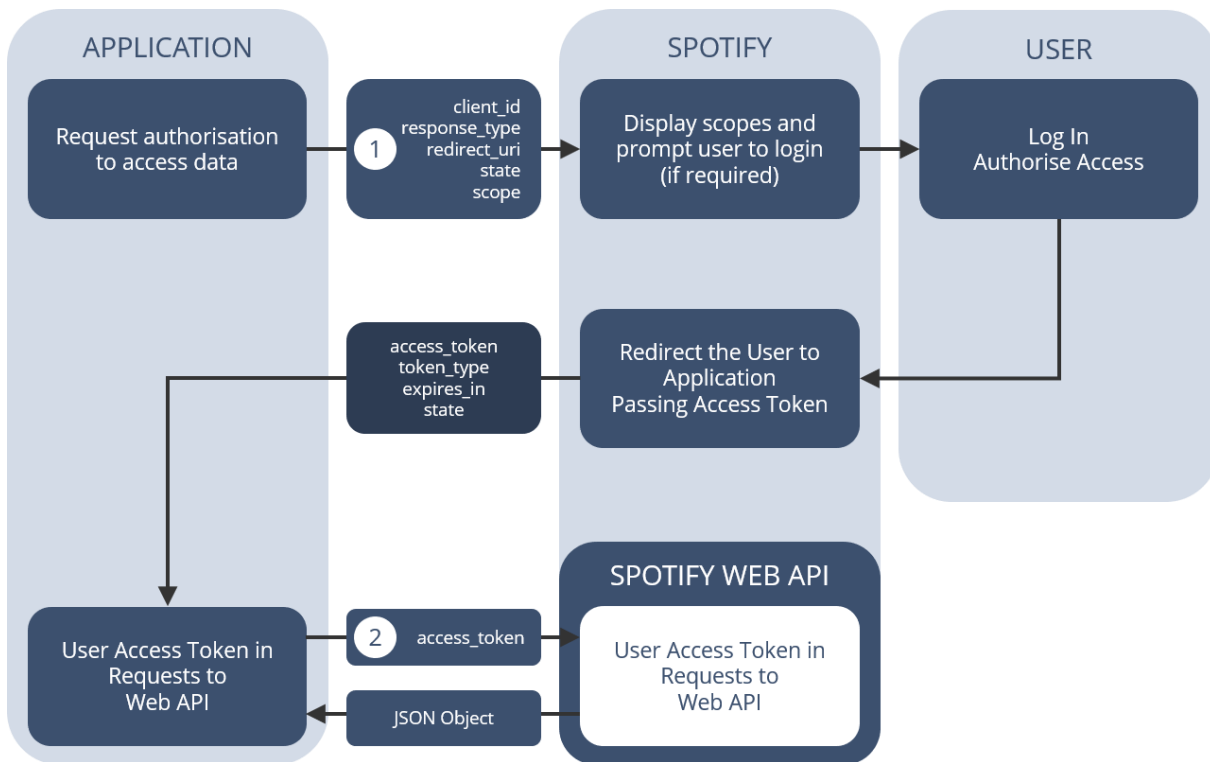
Authorisation Code Flow is suitable for long-running applications where the user grants permission only once and provides an Access Token that can be Refreshed and is performed on a back-end service rather than a client such as a browser or mobile app. First, application requests authorisation where a user logs in and authorised access, next the application requests Refresh and Access Tokens with the code returned in the Redirect URI, then use the Access Token which is set to expire after a short time to access the Spotify Web API, but a new Access Token may be requested using the Refresh Token.

Authorisation Code with Proof Key for Code Exchange Flow



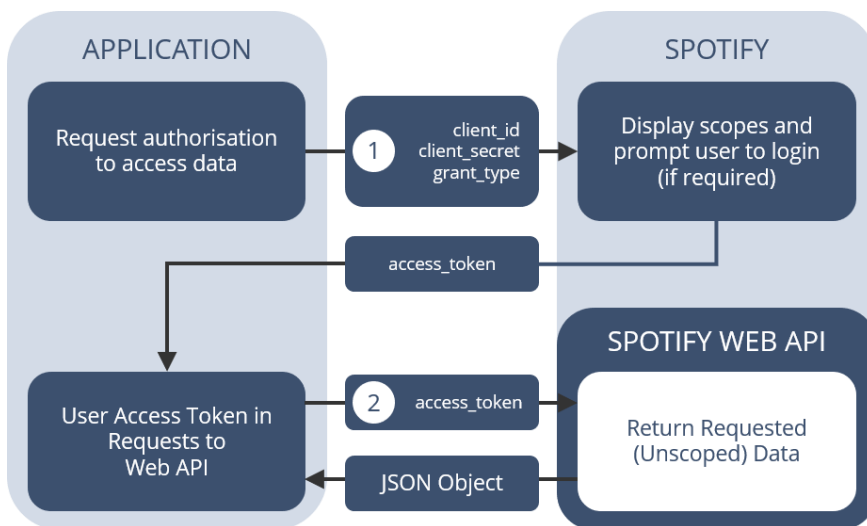
Authorisation Code Flow with Proof Key for Code Exchange is the best option for mobile and desktop applications and provides an Access Token that can be Refreshed. First, create the Code Verifier which is a cryptographically random string and then hash with SHA256 and base64url encode this to create the Code Challenge and construct and redirect to the Authorisation URI where the user logs in and authorises access. Next, use the Code returned in the Redirect URI to exchange for an Access Token and Refresh Token, then use the Access Token which is set to expire after a short time to access the Spotify Web API or request a new Access Token with the Refresh Token.

Implicit Grant Flow



Implicit Grant Flow is the best option for clients that are implemented entirely on the client such as browser however no Refresh Tokens are provided. First, have your application request authorisation where the user logs and authorises access, then the Access Token will be returned as a hash-fragment in the Redirect URI and use the Access Token with the Spotify Web API.

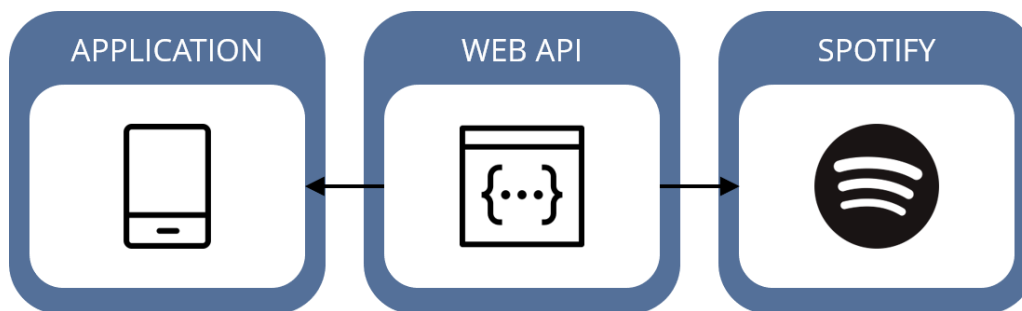
Client Credentials Flow



Client Credentials Flow is designed for server-to-server communication, only endpoints that do not access user information may be accessed. First, have your application request authorisation and then an Access Token will be returned and use this to access the Spotify Web API.

Spotify Web API

Spotify Web API allows applications to retrieve Spotify content such as album data, playlists and more.



Spotify Web API endpoints are based on simple REST principles and return JSON metadata about artists, albums and tracks. It also provided access to user related data like playlists and the music the user saves in their library.

Requests

Spotify Web API requests are performed using standard HTTPS requests in UTF-8 format to an API endpoint and where possible use the appropriate HTTP verbs for each action.

Albums API	
Get Multiple Albums	Get multiple Albums identified by their Spotify IDs
Get an Album	Get information for an Album
Get an Album's Tracks	Get information about an Album's Tracks

Artists API	
Get Multiple Artists	Get several Artists based on their Spotify IDs
Get an Artist	Get information for an Artist
Get an Artist's Top Tracks	Get an Artist's top Tracks by country
Get an Artist's Related Artists	Get Artists similar to a given Artist based on analysis of the Spotify community's listening history
Get an Artist's Albums	Get information about an Artist's Albums

Browse API

Get All New Releases	Get a list of new Album releases featured in Spotify shown in Spotify player's 'Browse' tab
Get All Featured Playlists	Get a list of Spotify featured Playlists shown in Spotify player's 'Browse' tab
Get All Categories	Get a list of Categories used to tag items in Spotify shown in Spotify player's 'Browse' tab
Get a Category	Get a single Category used to tag items in Spotify shown in Spotify player's 'Browse' tab
Get a Category's Playlists	Get a list of Spotify Playlists tagged with a particular Category
Get Recommendations	Get Recommendations for a given seed entity and matched against similar artists and track
Get Recommendation Genres	Retrieve a list of available Genres seed parameter values for Recommendations

Episode API

Get Multiple Episodes	Get several Episodes based on their Spotify IDs
Get an Episode	Get an Episode identified by its unique Spotify ID

Follow API

Follow a Playlist	Add the Current User as a Follower of a Playlist
Unfollow Playlist	Remove the Current User as a Follower of a Playlist
Check if Users Follow a Playlist	Check to see if one or more Spotify Users are Following a specified Playlist
Get User's Followed Artists	Get the Current User's Followed Artists
Follow Artists or Users	Add the Current User as a Follower of one or more Artists or other Spotify Users
Unfollow Artists or Users	Remove the Current User as a Follower of one or more Artists or other Spotify Users
Get Following State for Artists/Users	Check to see if the Current User is following one or more Artists or other Spotify Users

Follow API

Get User's Saved Albums	Get a list of the Albums Saved in the Current User's 'Your Music' Library
Save Albums for Current User	Save one or more Albums to the Current User's 'Your Music' Library
Remove Albums for Current User	Remove one or more Albums from the Current User's 'Your Music' Library
Check User's Saved Albums	Check if one or more Albums is already Saved in the Current User's 'Your Music' Library
Get User's Saved Tracks	Get a list of the Tracks saved in the Current User's 'Your Music' Library
Save Tracks for User	Save one or more Tracks to the Current User's 'Your Music' Library
Remove User's Saved Tracks	Remove one or more Tracks from the Current User's 'Your Music' Library
Check User's Saved Tracks	Check if one or more Tracks is already Saved in the Current User's 'Your Music' Library
Get User's Saved Shows	Get a list of Shows Saved in the Current User's Library
Save Shows for Current User	Save one or more Shows to Current User's Library
Remove User's Saved Shows	Delete one or more Shows from Current User's Library
Check User's Saved Shows	Check if one or more Shows is already Saved in the Current User's Library

Personalisation API

Get User's Top Artists / Tracks	Get the current user's top artists or tracks based on calculated affinity
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Player API

Get Information About the User's Current Playback	Get information about the User's current Playback state, including Track or Episode, Progress, and active Device
Transfer a User's Playback	Transfer Playback to a new Device and determine if it should start Playing
Get a User's Available Devices	Get information about a User's available Devices
Get the User's Currently Playing Track	Get the Object currently being played on the User's Spotify account
Start/Resume a User's Playback	Start a new Context or Resume current playback on the User's active Device
Pause a User's Playback	Pause Playback on the User's account
Skip User's Playback to Next Track	Skips to next Track in the User's Queue
Skip User's Playback to Previous Track	Skips to previous Track in the User's Queue
Seek to Position In Currently Playing Track	Seeks to the given Position in the User's currently Playing Track
Set Repeat Mode on User's Playback	Set the Repeat Mode for the User's Playback
Set Volume for User's Playback	Set the Volume for the User's current Playback Device
Toggle Shuffle for User's Playback	Toggle Shuffle On or Off for User's Playback
Get Current User's Recently Played Tracks	Get tracks from the Current User's recently Played Tracks
Add an Item to Queue	Add an item to the end of the User's current Playback Queue

Playlists API

Get a List of Current User's Playlists	Get a list of the Playlists Owned or Followed by the current Spotify User
Get a List of a User's Playlists	Get a list of the Playlists Owned or Followed by a Spotify User
Create a Playlist	Create a Playlist for a Spotify User
Get a Playlist	Get a Playlist Owned by a Spotify User
Change a Playlist's Details	Change a Playlist's Name and Public/Private state Owned by the current Spotify User
Get a Playlist's Items	Get full details of the Items of a Playlist Owned by a Spotify User
Add Items to a Playlist	Add one or more Items to a User's Playlist
Reorder or Replace a Playlist's Items	Reorder or Replace Items in a Playlist to replace or clear items in a Playlist
Remove Items from a Playlist	Remove one or more Items from a User's Playlist
Get a Playlist Cover Image	Get the current Image associated with a specific Playlist
Upload a Custom Playlist Cover Image	Replace the Image used to represent a specific Playlist

Search API

Search for an Item	Get Albums, Artists, Playlists, Tracks, Shows or Episodes that match a keyword string
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Shows API

Get Multiple Shows	Get several Shows based on their Spotify IDs
Get a Show	Get a single Show identified by its unique Spotify ID
Get a Show's Episodes	Get information about a Show's Episodes

Tracks API

Get Several Tracks	Get multiple tracks based on their Spotify IDs
Get a Track	Get a single Track identified by its unique Spotify ID
Get Audio Features for Several Tracks	Get Audio Features for multiple Tracks based on their Spotify IDs
Get Audio Features for a Track	Get Audio Feature information for a single Track identified by its unique Spotify ID
Get Audio Analysis for a Track	Get a detailed Audio Analysis for a single Track identified by its unique Spotify ID

User Profile API

Get Current User's Profile	Get several Shows based on their Spotify IDs
Get a User's Profile	Get a single Show identified by its unique Spotify ID

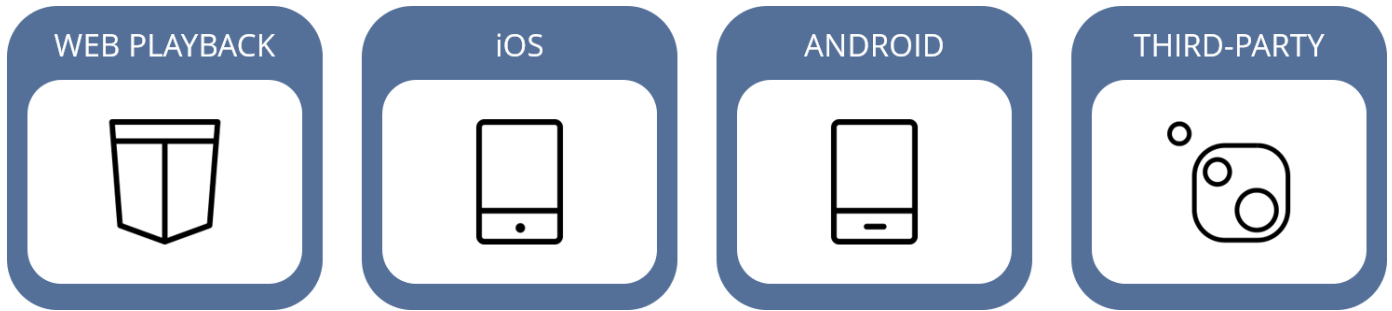
Responses

Spotify Web API responses are returned in JSON format with HTTP Status Codes for success or errors.

Objects Index

AlbumObject	ErrorObject	SavedShowObject
ArtistObject	ExternalIdObject	SavedTrackObject
AudioFeaturesObject	PagingObject	ShowObject
CategoryObject	PlayHistoryObject	SimplifiedAlbumObject
ContextObject	PlaylistObject	SimplifiedEpisodeObject
CurrentlyPlayingObject	PlaylistTrackObject	SimplifiedShowObject
CursorObject	PrivateUserObject	SimplifiedTrackObject
CursorPagingObject	PublicUserObject	TrackObject
DeviceObject	RecommendationSeedObject	TuneableTrackObject
EpisodeObject	RecommendationsResponseObject	SavedShowObject

Spotify SDKs



Web Playback SDK is a client-side JavaScript library which allows you to create a new player in Spotify Connect and play any audio track from Spotify in a Web Browser. Spotify iOS SDK allows access to the Spotify API and supports features such as playing a track using the Spotify App in the background or responding to changes in playback state. Spotify Android SDK allows access to the Spotify API and support features such as playing a track using the Spotify App in the background or subscribing to Player State. Third-party SDKs are available for other platforms such as .NET and the Universal Windows Platform are available on NuGet.

Spotify.NetStandard

Spotify.NetStandard covers the Spotify Web API and is available on NuGet and can be installed into any .NET Standard 2.0 compatible including .NET Framework, .NET Core and .NET 5 with source code available on GitHub including unit tests and documentation.

Details	
NuGet	nuget.org/packages/Spotify.NetStandard
GitHub	github.com/RoguePlanetoid/Spotify-NetStandard

Details	
Package Manager	PM> Install-Package Spotify.NetStandard
.NET CLI	> dotnet add package Spotify.NetStandard

```
Example

using Spotify.NetStandard.Client;
using Spotify.NetStandard.Requests;
var client = SpotifyClientFactory.CreateSpotifyClient("client-id", "client-secret");
var response = await client.LookupNewReleasesAsync(page: new Page() { Limit = 10 });
foreach (var album in response.Albums.Items)
{
    Console.WriteLine(album.Name);
}
```

Spotify.NetStandard.Sdk

Spotify.NetStandard.Sdk wraps Spotify.NetStandard by adding support for commanding, rich data binding enhancements and more, making it easier to build Spotify applications supporting .NET Standard 2.0 using Xamarin, WinUI and WPF available on NuGet with documentation, unit tests and source code on GitHub.

Details

NuGet	nuget.org/packages/Spotify.NetStandard.Sdk
GitHub	github.com/RoguePlanetoid/Spotify-NetStandard-Sdk

Details

Package Manager	PM> Install-Package Spotify.NetStandard.Sdk
.NET CLI	> dotnet add package Spotify.NetStandard.Sdk

Example

```
using Spotify.NetStandard.Sdk;
var client = SpotifySdkClientFactory.CreateSpotifySdkClient("client-id", "client-secret");
var request = new AlbumsRequest() { AlbumType = AlbumType.NewReleases };
var response = client.ListAlbumsAsync(request);
foreach (var album in response.Items)
{
    Console.WriteLine(album.Name);
}
```

Spotify.Uwp

Spotify.Uwp extends Spotify.NetStandard.Sdk by adding dedicated support for Universal Windows Platform applications including lists as Observable Collections to support incremental loading for infinite scroll. It is available on NuGet and supports from the Windows 10 Fall Creators Updated from 2017 or later with full source code, unit tests and documentation available on GitHub.

Details

NuGet	nuget.org/packages/Spotify.Uwp
GitHub	github.com/RoguePlanetoid/Spotify-Uwp

Details

Package Manager	PM> Install-Package Spotify.Uwp
.NET CLI	> dotnet add package Spotify.Uwp

Example

```
using Spotify.NetStandard.Sdk;  
  
var client = SpotifySdkClientFactory.CreateSpotifySdkClient("client-id", "client-secret");  
var model = new ListAlbumViewModel(client, AlbumType.NewReleases);
```

Summary

developer.spotify.com is where you can get started with Spotify for Developers, read documentation, try out API calls with the Console and create your Client Id and Client Secret to use the Spotify API in your applications from the Dashboard.

Authorisation for the Spotify Platform has four flows to obtain application authorisation. Refreshable user authorisation with Authorization Code Flow and Authorization Code Flow With Proof Key for Code Exchange, Refreshable app authorisation with Client Credentials Flow and Temporary user authorisation with Implicit Grant Flow.

Spotify Web API endpoints are based on simple REST principles and return JSON metadata about music artists, albums, and tracks, directly from the Spotify catalogue.

Spotify SDKs from Spotify include Web Playback, iOS and Android SDKs plus there are third-party SDKs available including .NET Standard SDKs and Universal Windows Platform SDK.