

# Package ‘spotifyr’

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**Title** Pull Track Audio Features from the 'Spotify' Web API

**Version** 1.0.0

**Description** A wrapper for pulling track audio features from the 'Spotify' Web API <<http://developer.spotify.com/web-api>> in bulk. By automatically batching API requests, it allows you to enter an artist's name and retrieve their entire discography in seconds, along with audio features and track/album popularity metrics. You can also pull song and playlist information for a given 'Spotify' user (including yourself!).

**Depends** R (>= 3.3.3)

**Imports** dplyr, purrr, tidyr, httr, lubridate

**License** MIT + file LICENSE

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 6.0.1

**Suggests** testthat

**URL** <http://github.com/charlie86/spotifyr>

**BugReports** <http://github.com/charlie86/spotifyr/issues>

**NeedsCompilation** no

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**Repository** CRAN

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get_albums	<i>Get Albums</i>
------------	-------------------

---

## Description

This function returns an artist's discography on Spotify

## Usage

```
get_albums(artist_uri, access_token = get_spotify_access_token())
```

## Arguments

artist_uri	String identifier for an artist on Spotify. Can be found within the Spotify app or with <code>spotifyr::get_artists()</code>
access_token	Spotify Web API token. Defaults to <code>spotifyr::get_spotify_access_token()</code>

## Examples

```
## Not run:
artists <- get_artists('radiohead')
albums <- get_albums(artists$artist_uri[1])

## End(Not run)
```

---

get\_album\_popularity *Get Album Popularity*

---

### Description

This function returns popularity of albums on Spotify

### Usage

```
get_album_popularity(albums, access_token = get_spotify_access_token())
```

### Arguments

albums                 Dataframe containing a column 'album\_uri', corresponding to Spotify Album URIs. Can be output from `spotifyr::get_albums()`

access\_token         Spotify Web API token. Defaults to `spotifyr::get_spotify_access_token()`

### Examples

```
## Not run:  
artists <- get_artists('radiohead')  
albums <- get_albums(artists$artist_uri[1])  
get_album_popularity(albums)  
  
## End(Not run)
```

---

get\_album\_tracks         *Get tracks from one or more albums on Spotify*

---

### Description

This function returns tracks from a dataframe of albums on Spotify

### Usage

```
get_album_tracks(albums, access_token = get_spotify_access_token())
```

### Arguments

albums                 Dataframe containing a column 'album\_uri', corresponding to Spotify Album URIs. Can be output from `spotifyr::get_albums()`

access\_token         Spotify Web API token. Defaults to `spotifyr::get_spotify_access_token()`

**Examples**

```
## Not run:
artists <- get_artists('radiohead')
albums <- get_albums(artists$artist_uri[1])
get_album_tracks(albums)

## End(Not run)
```

---

get\_artists

*Get Artists*


---

**Description**

This function searches Spotify's library for artists by name

**Usage**

```
get_artists(artist_name, access_token = get_spotify_access_token())
```

**Arguments**

artist\_name     String of artist name  
access\_token     Spotify Web API token. Defaults to spotifyr::get\_spotify\_access\_token()

**Examples**

```
## Not run:
get_artists('radiohead')

## End(Not run)
```

---

get\_artist\_audio\_features

*Get features and popularity for an artist's entire discography on Spotify*


---

**Description**

This function returns the popularity and audio features for every song and album for a given artist on Spotify

**Usage**

```
get_artist_audio_features(artist_name,
  access_token = get_spotify_access_token())
```

### Arguments

artist\_name     String of artist name  
access\_token    Spotify Web API token. Defaults to `spotifyr::get_spotify_access_token()`

### Examples

```
## Not run:  
radiohead_features <- get_artist_audio_features('radiohead')  
  
## End(Not run)
```

---

`get_playlist_tracks`     *Get tracks from one or more playlists*

---

### Description

This function returns tracks from a dataframe of playlists on Spotify

### Usage

```
get_playlist_tracks(playlists, access_token = get_spotify_access_token())
```

### Arguments

playlists        Dataframe containing the columns 'playlist\_num\_tracks', 'playlist\_tracks\_url', 'playlist\_name', and 'playlist\_img', corresponding to Spotify playlists. Can be output from `spotifyr::get_user_playlists()`  
access\_token    Spotify Web API token. Defaults to `spotifyr::get_spotify_access_token()`

### Examples

```
## Not run:  
playlists <- get_user_playlists('barackobama')  
playlist_tracks <- get_playlist_tracks(playlists)  
  
## End(Not run)
```

---

```
get_spotify_access_token
```

*Get Spotify Access Token*

---

### Description

This function creates a Spotify access token.

### Usage

```
get_spotify_access_token(client_id = Sys.getenv("SPOTIFY_CLIENT_ID"),
  client_secret = Sys.getenv("SPOTIFY_CLIENT_SECRET"))
```

### Arguments

`client_id` Defaults to System Environment variable "SPOTIFY\_CLIENT\_ID"  
`client_secret` Defaults to System Environment variable "SPOTIFY\_CLIENT\_SECRET"

### Examples

```
## Not run:
get_spotify_access_token()

## End(Not run)
```

---

```
get_track_audio_features
```

*Get audio features from one or more tracks on Spotify*

---

### Description

This function returns audio features from a dataframe of tracks on Spotify

### Usage

```
get_track_audio_features(tracks, access_token = get_spotify_access_token())
```

### Arguments

`tracks` Dataframe containing a column 'track\_uri', corresponding to Spotify Album URIs. Can be output from `spotifyr::get_album_tracks` or `spotifyr::get_playlist_tracks()`  
`access_token` Spotify Web API token. Defaults to `spotifyr::get_spotify_access_token()`

## Examples

```
## Not run:
##### Get tracks for all of Radiohead's albums
artists <- get_artists('radiohead')
albums <- get_albums(artists$artist_uri[1])
tracks <- get_album_tracks(albums)
radiohead_audio_features <- get_track_audio_features(tracks)

##### Get tracks for all of Barack Obama's playlists
playlists <- get_user_playlists('barackobama')
tracks <- get_playlist_tracks(playlists)
obama_audio_features <- get_track_audio_features(tracks)

## End(Not run)
```

---

get\_track\_popularity *Get popularity of one or more tracks on Spotify*

---

## Description

This function returns the popularity of tracks on Spotify

## Usage

```
get_track_popularity(tracks, access_token = get_spotify_access_token())
```

## Arguments

tracks	Dataframe containing a column 'track_uri', corresponding to Spotify Album URIs. Can be output from <code>spotify::get_album_tracks</code> or <code>spotify::get_playlist_tracks()</code>
access_token	Spotify Web API token. Defaults to <code>spotify::get_spotify_access_token()</code>

## Examples

```
## Not run:
artists <- get_artists('radiohead')
albums <- get_albums(artists$artist_uri[1])
tracks <- get_album_tracks(albums)
track_popularity <- get_track_popularity(tracks)

## End(Not run)
```

---

```
get_user_audio_features
```

*Get features and popularity for all of a user's playlists on Spotify*

---

### Description

This function returns the popularity and audio features for every song for all of a given user's playlists on Spotify

### Usage

```
get_user_audio_features(username, access_token = get_spotify_access_token())
```

### Arguments

username	String of Spotify username. Can be found on the Spotify app. (See <a href="http://rcharlie.net/sentify/user_uri.gif">http://rcharlie.net/sentify/user_uri.gif</a> for example)
access_token	Spotify Web API token. Defaults to <code>spotify::get_spotify_access_token()</code>

### Examples

```
## Not run:
obama_track_features <- get_user_audio_features('barackobama')

## End(Not run)
```

---

```
get_user_playlists
```

*Get user playlists*

---

### Description

This function returns a dataframe of playlists for a given Spotify username

### Usage

```
get_user_playlists(username, access_token = get_spotify_access_token())
```

### Arguments

username	String of Spotify username. Can be found within the Spotify App
access_token	Spotify Web API token. Defaults to <code>spotify::get_spotify_access_token()</code>

### Examples

```
## Not run:
get_user_playlists('barackobama')

## End(Not run)
```



---

`get_user_playlist_count`*Get count of Spotify playlists for a given user*

---

**Description**

Helper function for `spotifyr::get_user_playlists()`

**Usage**

```
get_user_playlist_count(username, access_token = get_spotify_access_token(),
  echo = F)
```

**Arguments**

<code>username</code>	String of Spotify username. Can be found within the Spotify App
<code>access_token</code>	Spotify Web API token. Defaults to <code>spotifyr::get_spotify_access_token()</code>
<code>echo</code>	Boolean for whether or not to print number of playlists for the given username. Defaults to FALSE

**Examples**

```
## Not run:
obama_playlist_count <- get_user_playlist_count('barackobama')

## End(Not run)
```

---

`parse_playlist_list_to_df`*Parse Spotify playlist list to a dataframe*

---

**Description**

Helper function for `spotifyr::get_user_playlists()`

**Usage**

```
parse_playlist_list_to_df(playlist_list)
```

**Arguments**

`playlist_list` List of Spotify playlists, in the format of output from `spotifyr::get_user_playlists`

## Examples

```
## Not run:
username <- 'barackobama'
playlist_count <- get_user_playlist_count(username)
num_loops <- ceiling(playlist_count / 50)
offset <- 0

pb <- txtProgressBar(min = 0, max = num_loops, style = 3)

playlist_list <- map(1:ceiling(num_loops), function(this_loop) {
  endpoint <- paste0('https://api.spotify.com/v1/users/', username, '/playlists')
  res <- GET(endpoint, query = list(access_token = get_spotify_access_token(),
                                   offset = offset,
                                   limit = 50)) %>% content

  if (!is.null(res$error)) {
    stop(paste0(res$error$message, ' (', res$error$status, ')'))
  }

  content <- res$items

  total <- content$total
  offset <-<- offset + 50
  setTxtProgressBar(pb, this_loop)
  return(content)
})

playlist_df <- parse_playlist_list_to_df(playlist_list)

## End(Not run)
```

---

spotifyr

spotifyr *package*

---

## Description

A Quick and Easy Wrapper for Pulling Track Audio Features from Spotify's Web API in Bulk

## Details

See the README on [GitHub](#)

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