

Package ‘starwarsdb’

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Title Relational Data from the 'Star Wars' API for Learning and Teaching

Version 0.1.2

Description Provides data about the 'Star Wars' movie franchise in a set of relational tables or as a complete 'DuckDB' database. All data was collected from the open source 'Star Wars' API <<https://swapi.dev/>>.

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URL <https://github.com/gadenbuie/starwarsdb>

BugReports <https://github.com/gadenbuie/starwarsdb/issues>

Depends R (>= 2.10)

Imports DBI, duckdb, magrittr, tibble

Suggests dbplyr, dm, dplyr, testthat

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 films

Films

Description

Films in the Star Wars movie franchise.

Usage

films

Format

A data frame with 6 rows and 6 variables:

`title` The title of this film.

`episode_id` The episode number of this film.

`opening_crawl` The opening crawl text at the beginning of this film.

`director` The director of this film.

`producer` he producer(s) of this film.

`release_date` The release date at original creator country.

References

<https://swapi.dev/>

films_people	<i>People in Films</i>
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Description

Links characters (people) to the films in which they appear.

Usage

```
films_people
```

Format

A data frame with 162 rows and 2 variables:

title The title of the film.

character The name of the character who appeared in the film.

References

<https://swapi.dev/>

films_planets	<i>Planets in Films</i>
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Description

Links planets to the films in which they appear.

Usage

```
films_planets
```

Format

A data frame with 33 rows and 2 variables:

title The title of the film.

planet The name of the planet that appeared in the film.

References

<https://swapi.dev/>

films_vehicles	<i>Vehicles in Films</i>
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Description

Links vehicles to the films in which they appear

Usage

films_vehicles

Format

A data frame with 104 rows and 2 variables:

title The title of the film.

vehicle The name of the vehicle that appeared in the film.

References

<https://swapi.dev/>

people	<i>People</i>
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Description

Characters within the Star Wars universe.

Usage

people

Format

A data frame with 82 rows and 10 variables:

name The name of this person.

height The height of this person in meters.

mass The mass of this person in kilograms.

hair_color The hair color of this person.

skin_color The skin color of this person.

eye_color The eye color of this person.

birth_year The birth year of this person. BBY (Before the Battle of Yavin) or ABY (After the Battle of Yavin).

sex The biological sex of the character. One of male, female, hermaphroditic, or none.

gender The gender role or gender identity of the character.

homeworld The planet the character was born on.

species The species of the character.

References

<https://swapi.dev/>

pilots

Pilots

Description

Links people to the vehicles they have piloted.

Usage

pilots

Format

A data frame with 43 rows and 2 variables:

pilot The name of the person who piloted the vehicle.

vehicle The name of the vehicle that was piloted.

References

<https://swapi.dev/>

planets

Planets

Description

Planets in the Star Wars universe.

Usage

planets

Format

A data frame with 59 rows and 9 variables:

`name` The name of this planet.

`rotation_period` The number of standard hours it takes for this planet to complete a single rotation on its axis.

`orbital_period` The number of standard days it takes for this planet to complete a single orbit of its local star.

`diameter` The diameter of this planet in kilometers.

`climate` The climate of this planet. Comma-separated if diverse.

`gravity` A number denoting the gravity of this planet. Where 1 is normal.

`terrain` The terrain of this planet. Comma-separated if diverse.

`surface_water` The percentage of the planet surface that is naturally occurring water or bodies of water.

`population` The average population of sentient beings inhabiting this planet.

References

<https://swapi.dev/>

schema

Star Wars Data Schema

Description

Includes information about the schema of the tables that were sourced from **SWAPI**, the *Star Wars API*. Not all properties returned from the API are columns in the data in this package: some properties were refactored into separate tables. For example, I combined the `starships/` and `vehicles/` endpoint into a single table. Both API endpoints returned a "pilots" property, which is described in the schema as an array of people who piloted the vehicle. The information in this property has been extracted into a separate table called `pilots` in the **starwarsdb** package.

Usage

schema

Format

A data frame with 5 rows and 4 variables:

`endpoint` The name of the SWAPI endpoint.

`endpoint_title` The title of the SWAPI endpoint.

`endpoint_description` The description of the SWAPI endpoint.

`properties` The properties of the endpoint as a nested table containing the variable, the data type, a description and the format of the property.

References

<https://swapi.dev/>

species	<i>Species</i>
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Description

Species within the Star Wars universe.

Usage

species

Format

A data frame with 37 rows and 10 variables:

name The name of this species.

classification The classification of this species.

designation The designation of this species.

average_height The average height of this person in centimeters.

skin_colors A comma-separated string of common skin colors for this species, none if this species does not typically have skin.

hair_colors A comma-separated string of common hair colors for this species, none if this species does not typically have hair.

eye_colors A comma-separated string of common eye colors for this species, none if this species does not typically have eyes.

average_lifespan The average lifespan of this species in years.

homeworld The URL of a planet resource, a planet that this species originates from.

language The language commonly spoken by this species.

References

<https://swapi.dev/>

 starwars_db

Connect to the Star Wars Database

Description

Provides a connection to a DuckDB database of the Star Wars data. Alternatively, you can use `starwars_db()` to manually connect to the database using `DBI::dbConnect()` and `duckdb::duckdb()`.

Usage

```
starwars_connect(dbdir = ":memory:", ...)
```

```
starwars_disconnect(con)
```

```
starwars_db()
```

Arguments

<code>dbdir</code>	Location for database files. Should be a path to an existing directory in the file system. With the default, all data is kept in RAM
<code>...</code>	Additional parameters passed to <code>DBI::dbConnect()</code>
<code>con</code>	A connection to the Star Wars database

Value

A connection to the Star Wars database, or the path to the database.

Functions

- `starwars_connect`: Connect to the DuckDB database
- `starwars_disconnect`: Disconnect from the DuckDB database
- `starwars_db`: Returns the path to the starwarsdb database

Examples

```
# Manually connect using {duckdb} and {DBI}
con <- DBI::dbConnect(
  duckdb::duckdb(),
  dbdir = starwars_db(),
  read_only = TRUE
)

if (requireNamespace("dplyr", quietly = TRUE)) {
  dplyr::tbl(con, "films")
}

# Disconnect from that database (shutdown is specific to duckdb)
```



```
DBI::dbDisconnect(con, shutdown = TRUE)

# Or connect without worrying about connection details
con <- starwars_connect()

if (requireNamespace("dplyr", quietly = TRUE)) {
  dplyr::tbl(con, "films")
}

# Similarly, disconnect quickly without worrying about duckdb arguments
starwars_disconnect(con)
```

starwars_dm

Create a Star Wars Data Model Object

Description

Creates a **dm** object with the starwarsdb tables.

Usage

```
starwars_dm(configure_dm = TRUE, remote = FALSE)
```

```
starwars_dm_configure(dm)
```

Arguments

configure_dm	If TRUE (default) the returned dm object is completely configured with all of the primary and foreign keys. Set to FALSE if you want to practice configuring the dm object yourself.
remote	If TRUE, uses the internal DuckDB database rather than local tables, which is the default.
dm	A dm object with the starwarsdb tables

Value

A **dm** object

Functions

- starwars_dm_configure: Configure the starwars **dm** object with primary and foreign keys and colors.

See Also

[dm::dm\(\)](#), [dm::dm_add_pk\(\)](#), [dm::dm_add_fk\(\)](#), [dm::dm_from_src\(\)](#)

Examples

```
# If the {dm} package is installed...
if (requireNamespace("dm", quietly = TRUE)) {
  # Create a full starwars {dm} object from local tables
  starwars_dm(remote = TRUE)

  # Create a base starwars {dm} object from remote tables without keys
  starwars_dm(configure_dm = FALSE, remote = TRUE)
}
```

vehicles

Starships or Vehicles

Description

A Starship or vehicle in the Star Wars universe.

Usage

```
vehicles
```

Format

A data frame with 75 rows and 14 variables:

name The name of this vehicle. The common name, such as Sand Crawler.

type The type of the vehicle: starship or vehicle.

class The class of the vehicle, source from `starship_class` or `vehicle_class`.

model The model or official name of this vehicle. Such as All Terrain Attack Transport.

manufacturer The manufacturer of this vehicle. Comma separated if more than one.

cost_in_credits The cost of this vehicle new, in galactic credits.

length The length of this vehicle in meters.

max_atmosphering_speed The maximum speed of this vehicle in atmosphere.

crew The number of personnel needed to run or pilot this vehicle.

passengers The number of non-essential people this vehicle can transport.

cargo_capacity The maximum number of kilograms that this vehicle can transport.

consumables The maximum length of time that this vehicle can provide consumables for its entire crew without having to resupply.

hyperdrive_rating The class of this starships hyperdrive.

MGLT The Maximum number of Megalights this starship can travel in a standard hour. A Megalight is a standard unit of distance and has never been defined before within the Star Wars universe. This figure is only really useful for measuring the difference in speed of starships. We can assume it is similar to AU, the distance between our Sun (Sol) and Earth.

References

<https://swapi.dev/>

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