



Project:
Data Modeling with Postgres



Project Instructions

SEARCH



RESOURCES

CONCEPTS

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- ✓ 2. Project Datasets
- ✓ 3. Project Instructions
- ✓ 4. Project Workspace
- ✓ 5. Project Cheat Sheet
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Schema for Song Play Analysis

Using the song and log datasets, you'll need to create a star schema optimized analysis. This includes the following tables.

Fact Table

1. **songplays** - records in log data associated with song plays i.e. records with
 - *songplay_id, start_time, user_id, level, song_id, artist_id, session_id, location*

Dimension Tables

2. **users** - users in the app
 - *user_id, first_name, last_name, gender, level*
3. **songs** - songs in music database
 - *song_id, title, artist_id, year, duration*
4. **artists** - artists in music database
 - *artist_id, name, location, latitude, longitude*
5. **time** - timestamps of records in **songplays** broken down into specific unit
 - *start_time, hour, day, week, month, year, weekday*

Project Template

To get started with the project, go to the workspace on the next page, where you'll find template files. You can work on your project and submit your work through this page. Alternatively, you can download the project template files from the Resources page and develop your project locally.

In addition to the data files, the project workspace includes six files:

1. `test.ipynb` displays the first few rows of each table to let you check your data.
2. `create_tables.py` drops and creates your tables. You run this file to reset the database each time you run your ETL scripts.
3. `etl.ipynb` reads and processes a single file from `song_data` and `log_data` into your tables. This notebook contains detailed instructions on the ETL process.
4. `etl.py` reads and processes files from `song_data` and `log_data` and loads them into your tables. You can fill this out based on your work in the ETL notebook.
5. `sql_queries.py` contains all your SQL queries, and is imported into the `etl.py` file.
6. `README.md` provides discussion on your project.

Project Steps

Below are steps you can follow to complete the project:

Create Tables

1. Write `CREATE` statements in `sql_queries.py` to create each table.
2. Write `DROP` statements in `sql_queries.py` to drop each table if it exists.
3. Run `create_tables.py` to create your database and tables.
4. Run `test.ipynb` to confirm the creation of your tables with the correct column names. Click "Restart kernel" to close the connection to the database after running.

Build ETL Processes

Mentor Help

Ask a mentor on our Q&A platform

1 Peer Chat

Chat with peers and alumni