

## PROJECT SPECIFICATION

## Data Modeling with Postgres

## Table Creation

CRITERIA	MEETS SPECIFICATIONS
Table creation script runs without errors.	The script, <code>create_tables.py</code> , runs in the terminal without errors. The script successfully connects to the Sparkify database, drops any tables if they exist, and creates the tables.
Fact and dimensional tables for a star schema are properly defined.	CREATE statements in <code>sql_queries.py</code> specify all columns for each of the five tables with the right data types and conditions.

## ETL

CRITERIA	MEETS SPECIFICATIONS
ETL script runs without errors.	<p>The script, <code>etl.py</code>, runs in the terminal without errors. The script connects to the Sparkify database, extracts and processes the <code>log_data</code> and <code>song_data</code>, and loads data into the five tables.</p> <p>Since this is a subset of the much larger dataset, the solution dataset will only have 1 row with values for value containing ID for both <code>songid</code> and <code>artistid</code> in the fact table. Those are the only 2 values that the query in the <code>sql_queries.py</code> will return that are not-NONE. The rest of the rows will have NONE values for those two variables.</p>
ETL script properly processes transformations in Python.	INSERT statements are correctly written for each table, and handle existing records where appropriate. <code>songs</code> and <code>artists</code> tables are used to retrieve the correct information for the <code>songplays</code> INSERT.

## Code Quality

CRITERIA	MEETS SPECIFICATIONS
The project shows proper use of documentation.	The README file includes a summary of the project, how to run the Python scripts, and an explanation of the files in the repository. Comments are used effectively and each function has a docstring.

The project code is clean and modular.

Scripts have an intuitive, easy-to-follow structure with code separated into logical functions. Naming for variables and functions follows the PEP8 style guidelines.

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### Suggestions to Make Your Project Stand Out!

- Insert data using the COPY command to bulk insert log files instead of using INSERT on one row at a time
  - Add data quality checks
  - Create a dashboard for analytic queries on your new database
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