

The Pepperoni Query: Slicing Through the Cheese

A pizza company owned 100 outlets across the country at the beginning of 2021.

The company would like to know at any given point in time how many outlets are open.

- An outlet is considered “closed” if it has had no transactions for 30 consecutive days.
- Outlets can re-open.

Sample Data

The sample data contains 2 years of data (approximately 55k records)

It contains the following columns:

- shop_id: unique identifier for each outlet
- date: date the transactions occurred
- n_trans: number of transactions

1. Setup

Using the python sqlite3 package(<https://docs.python.org/3/library/sqlite3.html>) please provide python code to:

- set up the database
- create a table to store the sample data (the DDL script can be in SQL)

2. Load

Provide python code to load the sample csv into the sqlite3 database table created above.

Note: there is a possibility that some rows of the dataset may be incorrect and require cleaning.

3. Transform

Please provide a SQL script that can be used to create a view to show the open/closed status of outlets over time.

Example

Here is an example of the expected view's output for a single outlet

SHOP_ID	STATUS	LOWER_RANGE	UPPER_RANGE
5	open	1/01/2021	23/09/2021
5	clsd	24/09/2021	16/12/2021
5	open	17/12/2021	

(when upper_range is null this indicates the status is current)