

Danny & Sons Electronics

Background

Danny & Sons Electronic is a retail company that specializes in the distribution of TV brands in Lagos, Nigeria. They have been operating in the heart of Ladipo for a few years, and during this time, they have established a reputation for providing high-quality products and exceptional customer service.

One of the reasons for Danny & Sons' success is their commitment to understanding their customers' needs. They have invested heavily in market research and trend analysis to stay ahead of the competition. By identifying emerging trends and anticipating their customers' changing needs, they have been able to maintain a loyal customer base and attract new business.

In addition to their focus on customer needs, Danny & Sons also places a strong emphasis on quality. They carefully select the brands they work with and ensure that all products meet their rigorous standards. As a result, customers can trust that they are getting the best possible products when they shop with Danny & Sons.

Case Study

Danny & Sons are facing stifling competition from other electronics retailers in the area, and they need to stay ahead of the curve to maintain their competitive edge.

To do this, they want you to spool the necessary data from the database that will be used to analyze their sales against competitors and provide answers to the following questions:

- Demand for different types of televisions and Number of Players in the market
- Which brand has the highest number of products i.e. television ?
- Are televisions with higher ratings more expensive?
- Average Selling Price by Brand
- Which are the top 5 brands for television?

Data Dictionary

Brand: This refers to the manufacturer or brand name of the TV.

Resolution: This has multiple categories and indicates the type of display i.e. LED, HD LED, etc.

Size: This refers to the diagonal size of the TV screen, measured in inches.

Selling Price: This column has the Selling Price or the Discounted Price of the product

Original Price: This includes the Original Price of the product from the manufacturer.

Operating System: This refers to the software that runs on the TV and controls its functions.

Rating: Average customer ratings on a scale of 5.

Questions

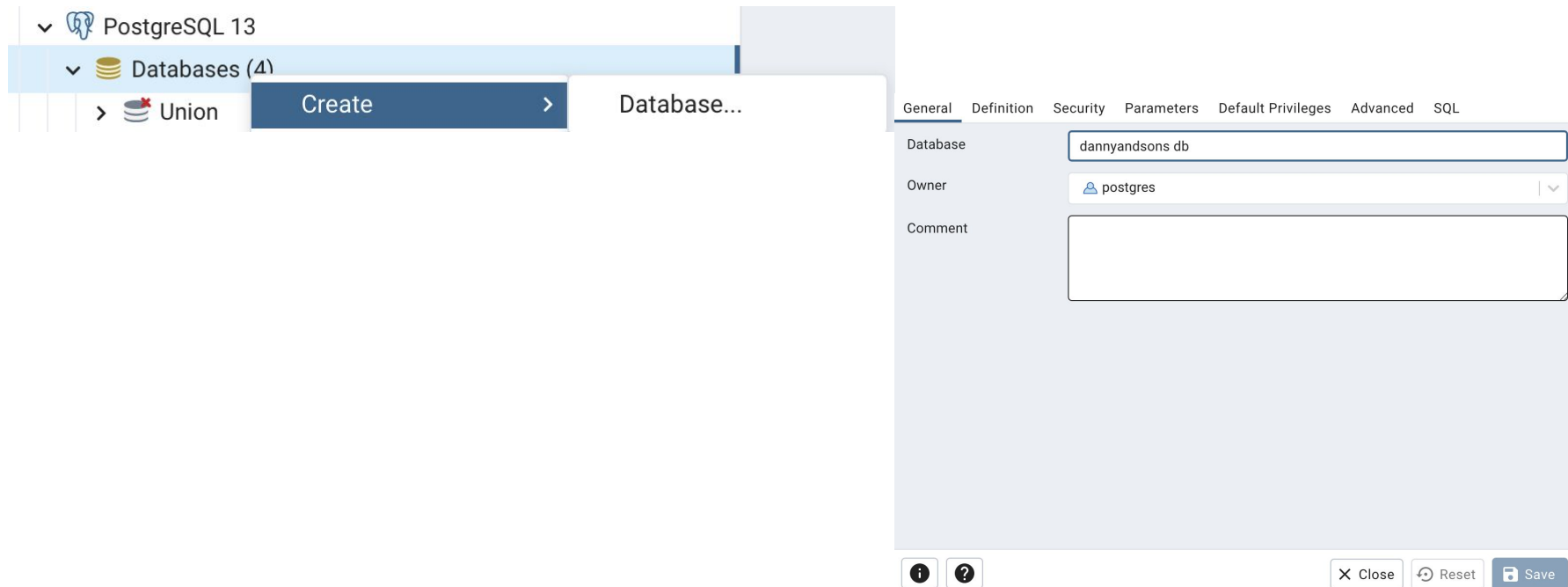
1. What are the distinct TV brands available in the store?
2. Calculate the number of sales, total sales and average sales by each TV brands?
 - a. Which TV brand has the highest number of sales?
 - b. Which TV brand has the highest sales?
3. Calculate the difference between the original price and the selling price
4. Calculate the percentage difference between the original price and the selling price
5. What are the distinct resolutions available for the TVs in the store?
6. How many TVs are there with an operating system of "Android" and a screen size less than or equal to 40 inches?
7. Which TVs have a screen size greater than 50 inches and a QLED Ultra HD resolution?
8. Which brands have an average customer rating of 4 or higher?
9. Which brand has the highest number of 50-inch TVs available in the store?
10. What is the average rating for each TV brand
11. What is the average rating for TVs with a screen size between 40 and 50 inches?

Questions

12. What is the difference between the highest and lowest selling prices for each brand?
13. How many TVs are there with a resolution of "OLED" and a screen size greater than or equal to 55 inches and an operating system of "Smart TV"?
14. Which TVs have a resolution of "Full HD" and a rating of 4 or more?
15. Which brand has the highest number of 50-inch TVs available in the store?
16. Which TVs have a resolution that includes the string "Plasma"?
17. Which brands have at least 3 TVs with a resolution of "4K"?
18. What is the average selling price of TVs for each brand, and which brands have an average selling price of more than \$1000?

How to Import the dataset (csv.)

Step 1: Create a database “dannyyandsons db”



The screenshot shows the PostgreSQL interface. On the left, the 'Databases (4)' folder is expanded, showing a 'Union' button and a 'Create' button. The 'Create' button is highlighted, and a 'Database...' dialog box is open. The dialog box has tabs for 'General', 'Definition', 'Security', 'Parameters', 'Default Privileges', 'Advanced', and 'SQL'. The 'General' tab is selected. The 'Database' field contains 'dannyyandsons db'. The 'Owner' field is set to 'postgres'. The 'Comment' field is empty. At the bottom of the dialog box, there are buttons for 'Close', 'Reset', and 'Save'.

PostgreSQL 13

Databases (4)

Union

Create

Database...

General Definition Security Parameters Default Privileges Advanced SQL

Database: dannyyandsons db

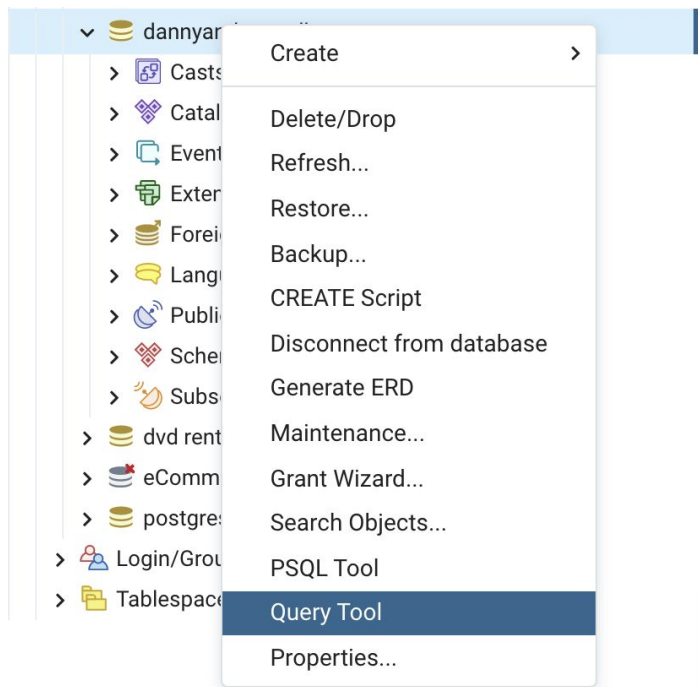
Owner: postgres

Comment:

Close Reset Save

How to Import the dataset (csv.)

Step 2: Right click on “dannyyandsonsdbs” and select Query Tool



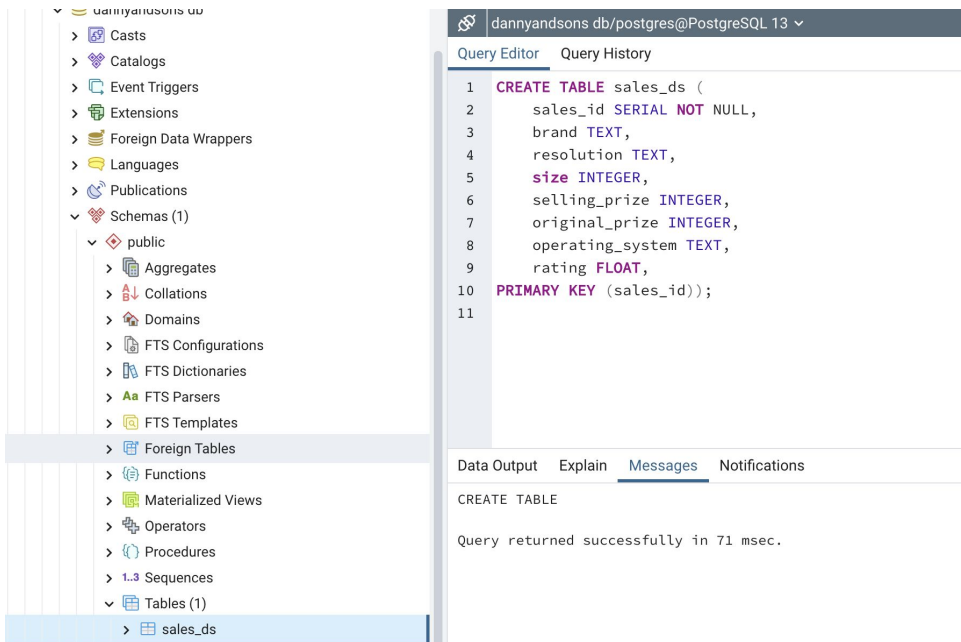
How to Import the dataset (csv.)

Step 3: Paste the below query in the Query Editor and Execute.

```
CREATE TABLE sales_ds (  
    sales_id SERIAL NOT NULL,  
    brand TEXT,  
    resolution TEXT,  
    size INTEGER,  
    selling_prize INTEGER,  
    original_prize INTEGER,  
    operating_system TEXT,  
    rating FLOAT,  
    PRIMARY KEY (sales_id)  
);
```

How to Import the dataset (csv.)

You should get a successful query result and the table created under “Table” as shown in the screenshot below.



The screenshot displays a database management interface. On the left, a sidebar shows a tree view of the database structure. Under the 'Schemas (1)' section, the 'public' schema is expanded, and 'Tables (1)' is selected, showing a table named 'sales_ds'. The main panel on the right is titled 'Query Editor' and shows a SQL query that has been executed successfully. The query is as follows:

```
1 CREATE TABLE sales_ds (  
2     sales_id SERIAL NOT NULL,  
3     brand TEXT,  
4     resolution TEXT,  
5     size INTEGER,  
6     selling_price INTEGER,  
7     original_price INTEGER,  
8     operating_system TEXT,  
9     rating FLOAT,  
10    PRIMARY KEY (sales_id));  
11
```

Below the query editor, the 'Messages' tab is active, displaying the following message:

```
CREATE TABLE  
  
Query returned successfully in 71 msec.
```

How to Import the dataset (csv.)

Step 4: Import the dataset **electronic_store.csv**:

https://drive.google.com/file/d/1oX8o8Dy_OQPDO-ojbYAPdwFNO7-3mUBx/view?usp=sharing

- Right click on the created table “sales_id” and select “Import/Export Data”
- Select “import” and bring in the dataset from your computer files
- Enable “Header” and select comma as “Delimiter”
- Click on “Column” displayed at the top and select the columns to be imported in the “Columns to import” field
- Click OK or Save.

