



Query a Database

Learning Objectives

The student can query a relational database to extract desired information. The student can write SQL queries that include joins, aggregations, and subqueries. The student can display their analyses effectively through data visualizations.

Business Scenario

You're a business intelligence analyst for a wholesaler of various food products. You're in charge of putting together analytics dashboards for management. They have requested that you focus on one area of the business and create a dashboard that provides various summary statistics related to that area.

Select one of the following areas. Create a presentation with visualizations that provides high level summary information about that area.

- Customers
- Suppliers
- Products
- Employees

Questions to help guide your analysis:

- Where are my customers located?
- What companies supply the majority of the products I sell?
- Who are my highest performing employees?
- What products are growing in terms of sales?

Database

You'll be using a database called Northwind.sqlite3. If you are using DB Browser for SQLite:

- Click open database at the top of the interface.
- Navigate to and open the Northwind.sqlite3 database file.
- Spend a few moments to explore and understand the data.

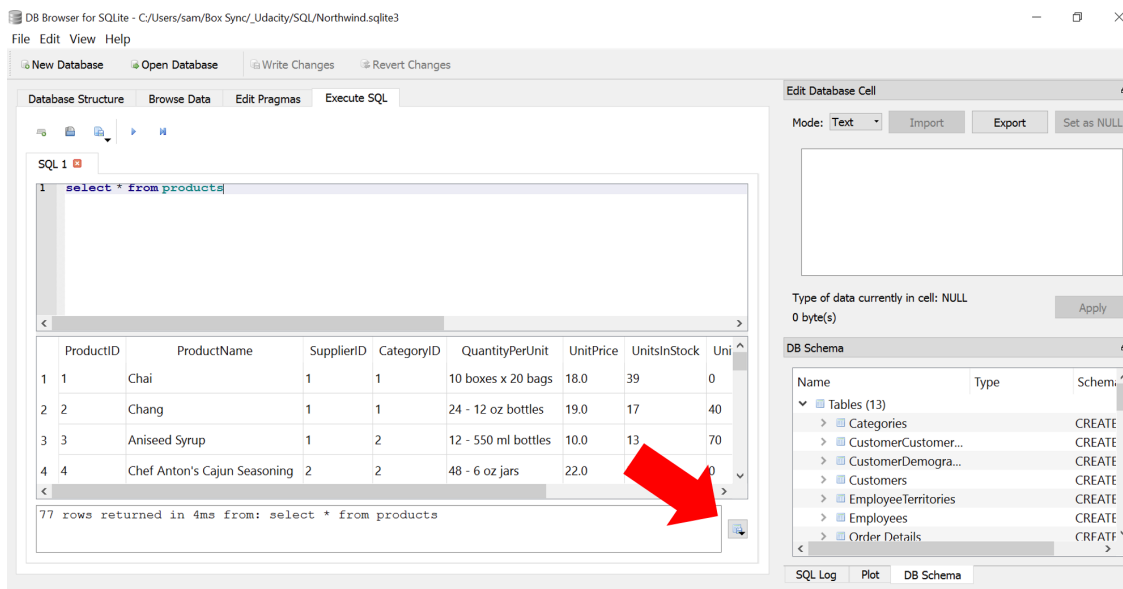


Project Details

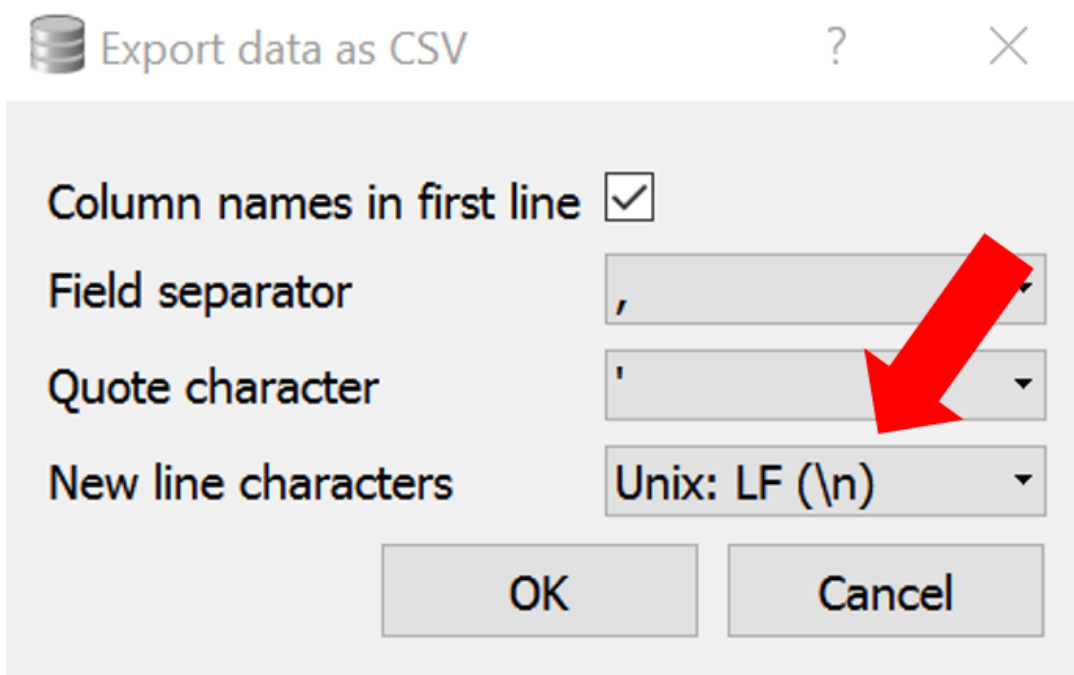
visualizations

We suggest you use a spreadsheet application, such as Excel or Google Sheets to create your visualizations. However, you're welcome to use whatever tool you'd like.

To export the results of your queries from DB Browser, use the button below and to the right of the results window.



Select Export to CSV, and then select the settings that match the ones below. Make sure your setting on **New line characters** is set to **Unix: LF(\n)**.





Project Details

- Four to five slides
- One visualization per slide
- A 1-2 sentence explanation of each slide
- The SQL query used to create the data used in the visualization.

The submission template is a Google Slides file. Make a copy of the submission template to complete your project. We suggest you use the layout provided, though it is not a requirement.

Queries

Please include a text file that includes each of the queries used to create the visualizations.

SUBMISSION TEMPLATE

Additional Guidelines

- There shouldn't be any additional data prep (sorting, filtering, renaming, etc.) between the query output and the visualization.
- All your four queries must include a join and an aggregation.
- At least one of your queries includes a subquery.
- Review your project against the [project rubric](#). Reviewers will use this to evaluate your work.
- Once you've finished your project, submit the presentation and the queries file as a PDF.

Supporting Materials

[Northwind Database](#)
[All Project Files](#)

NEXT