

- Each query is selecting a different table within the CAP3 database (customers, agents, products, orders).

The image displays four screenshots of a PostgreSQL SQL Editor, each showing a query and its output. The queries are:

- Query 1:** Selects from the customers table. The output table has columns: cid (character(4)), name (text), city (text), and discount (numeric(5,2)).
- Query 2:** Selects from the agents table. The output table has columns: aid (character(3)), name (text), city (text), and commission (numeric(5,2)).
- Query 3:** Selects from the products table. The output table has columns: pid (character(3)), name (text), city (text), quantity (integer), and priceusd (numeric(10,2)).
- Query 4:** Selects from the orders table. The output table has columns: ordnum (integer), mon (character(3)), cid (character(4)), aid (character(3)), pid (character(3)), qty (integer), and totalusd (numeric(12,2)).

- Primary Key- A super key made primary and uniquely identifies a row in a table.

Candidate Key- A super key with minimal columns. Super Key- A column or set of columns that uniquely identifies every row in a table.

- Data types are different ways of classifying and sorting data in a database. They specify the types of data, so that the data is more meaningful. For example, if you were to create a database to show different countries trade exports, you might have a table called exports. In this table, you would include columns of the different countries, which would be a text data type and cannot be null. Also, you might include the exports from each country, which would also be a text data type and cannot be null. Lastly, you might include the cost of the exports, which would be an integer data type and can be null. Different data types classify data and make each value have more meaning.

4. “First normal form” Rule- Columns intersected with rows have unique and atomic values.

This is important because it eliminates repeating groups in individual tables, creates separate tables for sets of related data, and identifies each tables with a primary key.

“Access rows by content only”/“What not where” Rule- Retrieving data in a database must be based on information within the rows and columns of a table. This is important because it makes things easier to organize, search for, and retrieve data in a database.

“All rows must be unique” Rule- Rows in a database must not duplicate and must be unique. This is important because there should be no duplicating data in a database.