

Software Development

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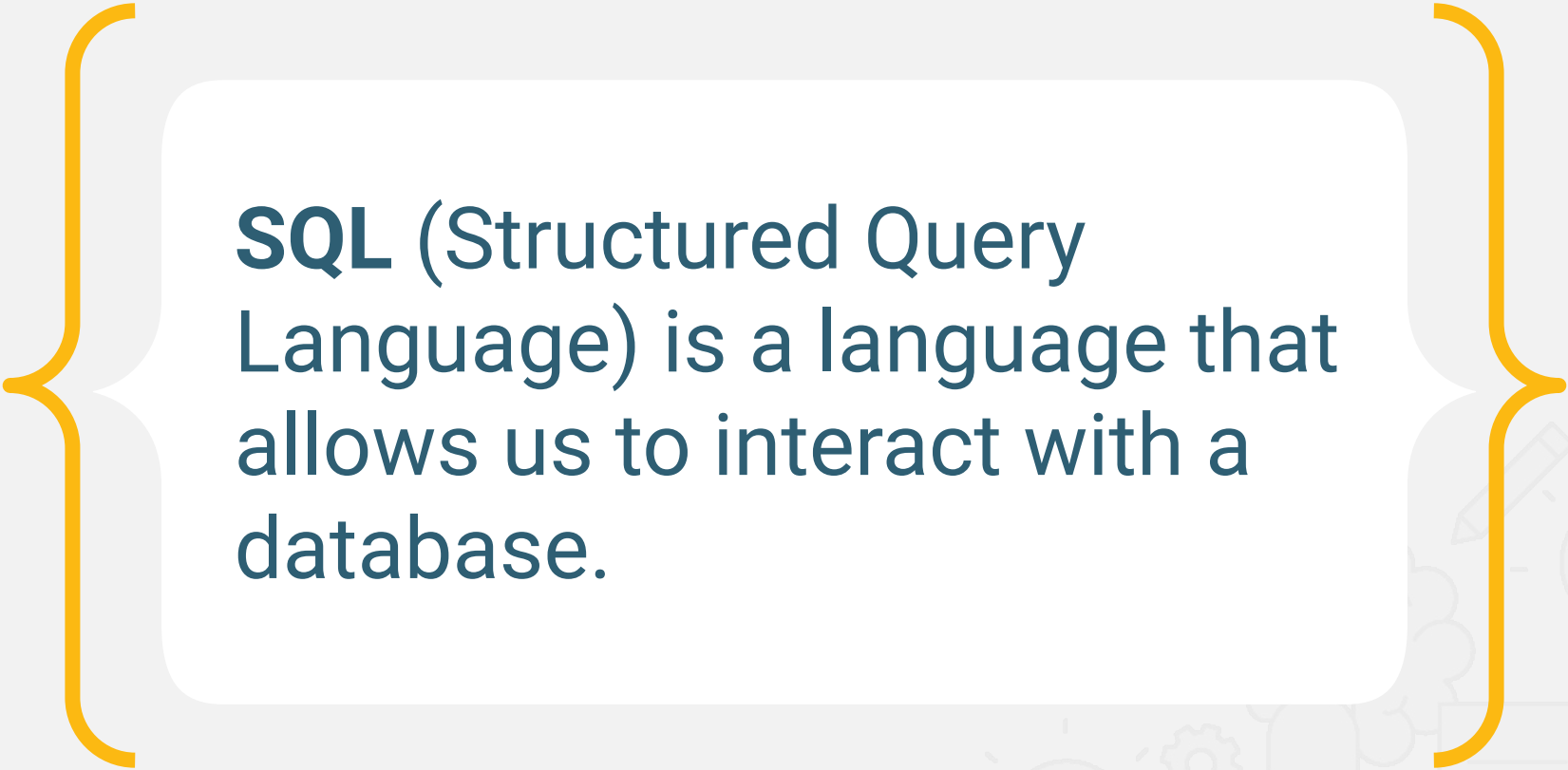
# SQL

Module 10

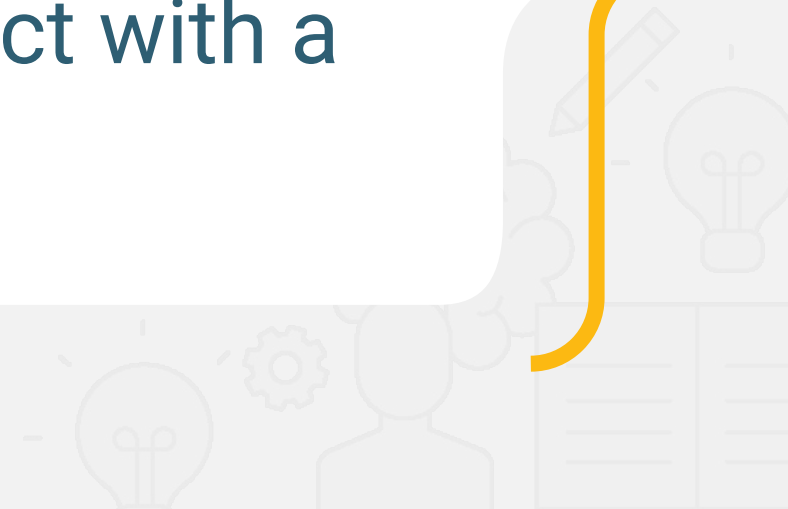


What is SQL?





**SQL** (Structured Query Language) is a language that allows us to interact with a database.



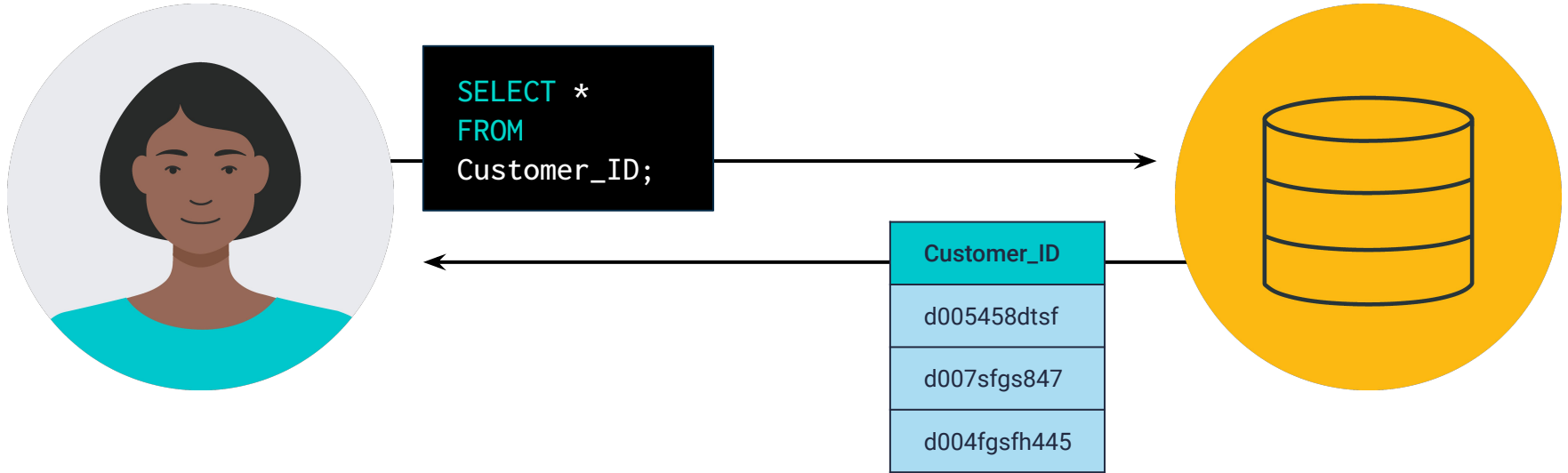


How does SQL interact  
with a database?



# Interacting With a Database

SQL uses a query to interact with data that is stored in a database. You can use a SQL query to create, read, update, and delete data.



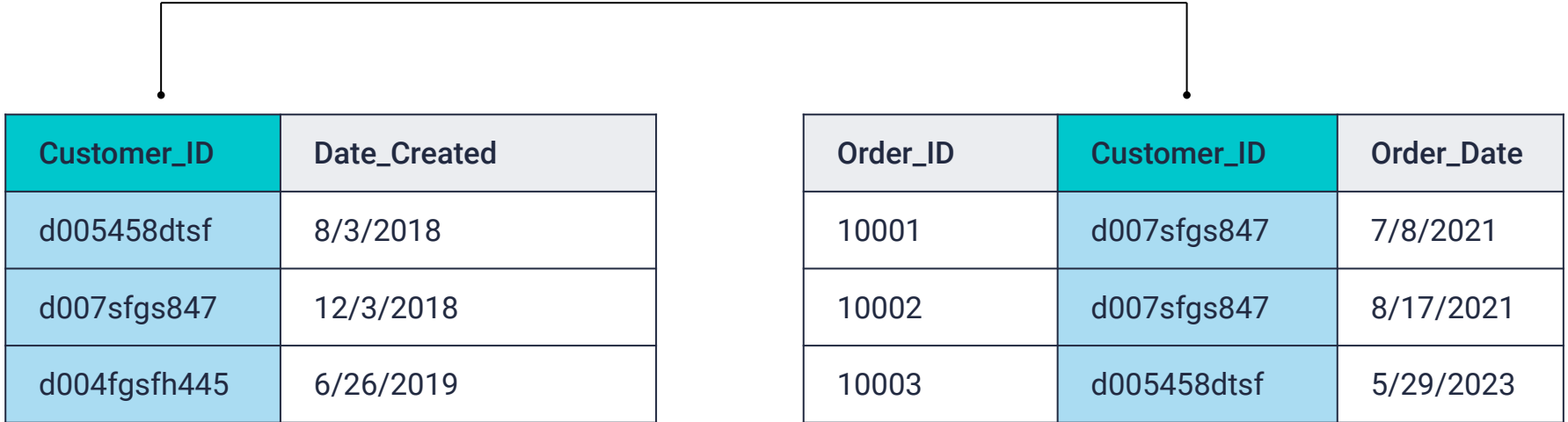


What is a relational  
database?



# Relational Databases

A relational database organizes data into tables. A table holds a group of data and is divided into rows and columns. The tables can be linked to form relationships.





How do we link tables?

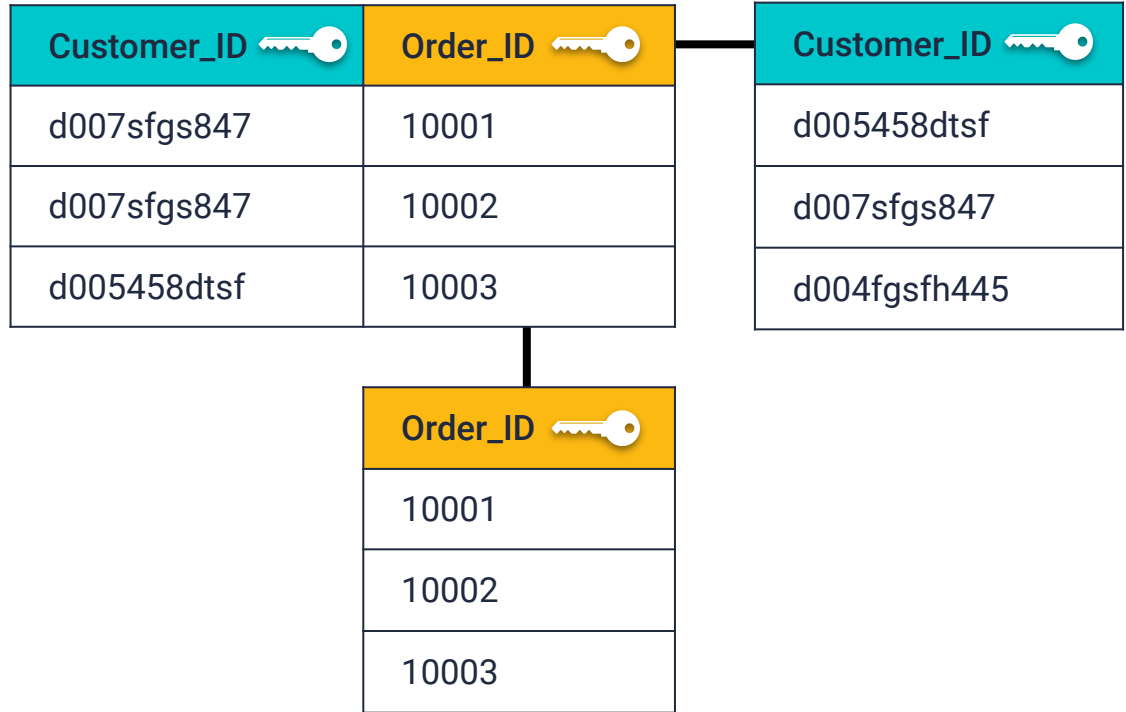




# Relational Databases

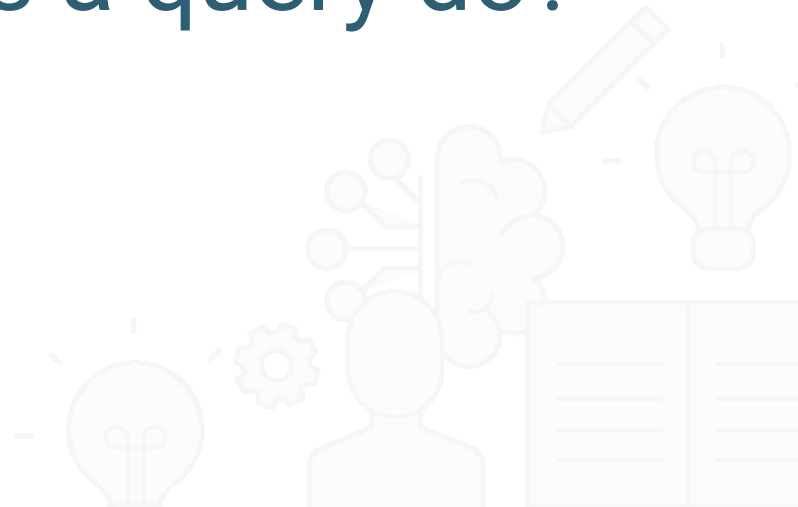
Tables can be linked based on data that is common to both of them.

**Keys** identify rows of data in a table. By matching keys between two tables, a relationship is formed.





What does a query do?



# SQL Queries

A SQL query interacts with data in a database using the names of tables, columns, and relationships between tables. Queries enable us to supply data to the front end to build sites that can interact with lots of data quickly and easily.

```
SELECT *  
FROM A_TABLE  
INNER JOIN A_RELATED_TABLE  
ON DATA_THEY_HAVE_IN_COMMON;
```

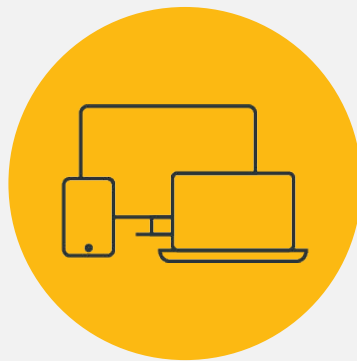


Why Learn SQL?





SQL is a marketable skill that's used in a majority of databases in every economic sector, from manufacturing, logistics, and health care to insurance, commerce, and much more. SQL also makes it easy to handle large amounts of data and scale up quickly.



# Instructor **Demonstration**

Mini-Project



**The End**