

Introduction to SQL

What does open source mean?

Freely available for users to modify and redistribute software

What SQL variety are we using in this course?

PostgreSQL = PostgreSQL

What does SQL stand for?

Standard Query language

Why SQL?

At work we might use applications anchored by a relational database and we don't even know it or at school to check on our grades pulled from a relational database and not even know it.

Almost all businesses incorporate SQL and relational databases in some ways. SQL is ubiquitous at the enterprise level.

We can bucket or pair inferential statistics and python programming to SQL.

What is MySQL?

What is PostgreSQL?

A database

What is a relational database?

A relational database consists of tuples and attributes.

A set of tuples with the same attribute all put together form a relation. In my words, a relation is rows or tuples with the same attributes put together.

We can think of a tuple as a row (data that represents a person, outcome or an event)

Attributes are the columns.

Attributes are the things that describe the data in our tuples.

Tuples and attributes all put together form a table or a set of tables which form our database.

The relational database is then installed on (or hosted on) a server where it has access to computing power, memory and disk storage to function.

The word tuples and attributes is of British origin by scientist Ted Codd at IBM.

A small startup Software Development Laboratories (SDL) first commercialized SQL DBs. The product was called RDBMS (relational database management system).

RDBMS aids in management of dbs by creating them and interacting with them either using a dev language (scripting) or user interface. The famous Oracle story about taking the IBM idea of dbs to create Oracle.

What are 2 open source flavors of SQL?

mySQL and postgreS(QL).

What is microsofts SQL flavor?

Azure SQL

What is Amazon's SQL flavor?

Amazon Redshift (an older version of postgreS)

What is SQL dialect for Oracle?

PL/SQL (PL=procedural language)

What is Microsoft dialect for Oracle?

T/SQL (T=transact SQL)

What is SQL dialect for postgreS?

PL/pgSQL (PL=procedural language)

Why should I not be nervous about these different dialects?

The core syntax is 95% similar due to the common origin in 1979

What are the 3 most popular flavors of SQL?

Oracle

mySQL

Microsoft SQL server

4=postgreS

5= MongoDB

What does ERD stand for?

Entity relationship diagram (ERD)

What is crows foot notation?

I don't know

What is a primary key?

A column that is unique for each row in a well-designed database denoted by PK.

What is declarative programming?

Provide a query with parameters and the system determines the best possible way to achieve the task

SQL defaults to ASC order?

True

What is an example of a comparison operator?

=

What is an example of a logical operator?

AND

What are comparison operators?

Test whether 2 expressions or statements are the same

What are logical operators?

Test whether some condition** is TRUE

SQL follows the order of operation in regards to parantheses?

TRUE

Give examples of some weird logical operators?

LIKE

EXISTS

BETWEEN

4000 and 2794

What is an example of a wildcard operator?

%

Makes sense this only works with LIKE logic

What does ANSI stand for?

American National Standard Institute

