

The Complete Oracle SQL Certification Course

Thursday, May 28, 2020 12:25 AM

[Course Link: The Complete Oracle SQL Certification Course](#)

SECTION 1: Database Basics

1. Oracle Database Introduction & Basics of Tables

- A **Database** is where you store data.
 - Its symbol is depicted as follows:
 - It represents a hard drives with disks



- Information stored in a database are stored in something called **tables** with columns and rows
- **Columns:** store attributes and numbered starting in the first element.
 - Each columns can store specific data types (ie. Text, numbers, integer, dates) and only that datatype
- **Rows:** Also known as records. The records start at the second row because the first row contains the columns attribute label

Hand-drawn diagram illustrating a table structure:

Persons (Columns) **Columns** (1, 2, 3, 4)

Records Rows (1, 2, 3, 4, 5)

	1	2	3	4
	Name	DOB	Address	Phone
1 →	Tom	9/17/81	...	732 198
2 →	Mat	2/12/72	..	1191 78
3	Sam	8/1/01	..	402 763
4	Patel	4/9/76	..	703 81
5	Tim

Handwritten note: "Numbers" (circled) with an arrow pointing to the Phone column.

- **SQL** pronounced 'sequel' stand for Structured Query Language is a language used to interact with a database
 - It is a set of commands that can be sent to the database. (ie return some data back, return a visual data grid, delete tables, etc)

- Tables are the most important objects in SQL. It is where all of the information is stored in a database
- **Queries:** basically a parametrized question that we ask the database. (ie. Employees in department A who hired at date B, and are over the age of C)
- **Oracle:** Software installed in a server or a machine and uses the hardware of that machine
 - The server could have many persistent disk
 - When someone usually talk about Oracle they are talking about the representation of the entire Oracle infrastructure-a combination of the software and the hardware
 - Oracle usually provide companies with the software the hardware including the Oracle database software
 - **For this course we are going to be using the *Oracle Cloud installation*. Which is a cloud instance of the database. We can access this using the application called *Apex* which is a website where you can get access to the databse and you can type sql commands right in the browser and it will make changes to the database

3. Prepare the Sample Data

- In Apex workspace
 - Go to > SQL workshop > utilities > sample data sets >> install the DEPT/EMP databse
 - Go to > SQL workshop > SQL commands
 - Here we can play around with the database and learn the SQL commands