

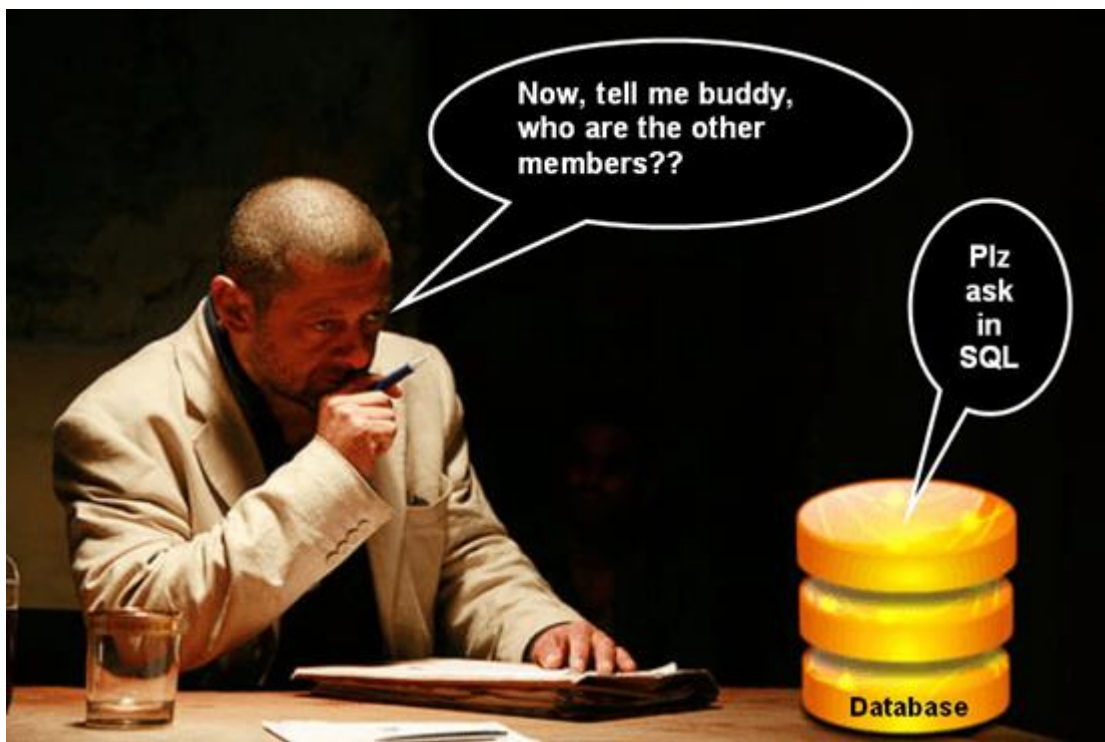
# What is SQL?



**SQL** is the standard language for dealing with Relational Databases. SQL can be used to insert, search, update, and delete database records. SQL can do lots of other operations, including optimizing and maintenance of databases.

## SQL Full Form

SQL stands for Structured Query language, pronounced as "S-Q-L" or sometimes as "See-Quel"... Relational databases like MySQL Database, Oracle, MS SQL Server, Sybase, etc. use ANSI SQL.



## What is SQL used for?

Here are important reasons for using SQL

- It helps users to access data in the RDBMS system.
- It helps you to describe the data.
- It allows you to define the data in a database and manipulate that specific data.
- With the help of SQL, you can create and drop databases and tables.
- SQL offers you to use the function in a database, create a view, and stored procedure.
- You can set permissions on tables, procedures, and views.

## A Brief History of SQL

Here are important landmarks from the history of SQL:

- 1970 - Dr. Edgar F. "Ted" Codd described a relational model for databases.
- 1974 - Structured Query Language appeared.
- 1978 - IBM released a product called System/R.
- 1986 - IBM developed the prototype of a relational database, which is standardized by ANSI.
- 1989 - First ever version launched of SQL
- 1999 - SQL 3 launched with features like triggers, object-orientation, etc.
- SQL 2003 - window functions, XML-related features, etc.
- SQL 2006 - Support for XML Query Language
- SQL 2011 -improved support for temporal databases

## Types of SQL Statements

Here are five types of widely used SQL queries.

- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Data Control Language (DCL)
- Transaction Control Language (TCL)

- Data Query Language (DQL)

## List of SQL Commands

Here's a list of some of the most commonly used **SQL commands**:

- **CREATE** - defines the database structure schema
- **INSERT** - inserts data into the row of a table
- **UPDATE** - updates data in a database
- **DELETE** - removes one or more rows from a table
- **SELECT** - selects the attribute based on the condition described by the WHERE clause
- **DROP** - removes tables and databases

## SQL Process

When you want to execute an SQL command for any DBMS system, you need to find the best method to carry out your request, and SQL engine determines how to interpret that specific task.

Important components included in this SQL process are:

- SQL Query Engine
- Optimization Engines
- Query Dispatcher
- Classic Query Engine

A classic query engine allows you to manage all the non-SQL queries.

