SQL

What is SQL ?

SQL (pronounced **ess-que-ell**, **not see'qwl**) is a language specifically designed with database. SQL enables people to create databases, add new data to them, maintain the data in them, and retrieve selected parts of the data using **queries**. Developed in the 1970s at IBM, SQL has grown and advanced over the years to become the industry standard.

What is Query ?

A **query** is a question you ask the database. If any of the data in the database satisfies the conditions of your query, SQL retrieves that data.

History of SQL ?

SQL originated in one of IBM's research laboratories, as did relational database theory. In the early 1970s, as IBM researchers developed early relational DBMS (or RDBMS) systems, they created a data sublanguage to operate on these systems. They named the ***pre-release*** *version of this sublanguage* ***SEQUEL*** *(****Structured English QUEry Language****). However, when it came time to formally release their query language as a product, they found that another company had already trademarked the product name "Sequel." Therefore, the marketing geniuses at IBM decided to give the released product a name that was different from SEQUEL but still recognizable as a member of the same family. So they named it* ***SQL****, pronounced* ***ess-que-ell****. Although the official pronunciation is ess-que-ell, people had become accustomed to pronouncing it "Sequel" in the early pre-release days and continued to do so. That practice has persisted to the present day; some people will say "Sequel" and others will say "S-Q-L," but they are both talking about the same thing.*

SQL is not an acronym standing for ***"structured query language."*** *It is a sequence of three letters that* ***don't stand for anything****, just like the name of the* ***C*** *language does not stand for anything.*

History of SQL ?

*In **1986**, **ANSI** (**the American National Standards Institute**) released a formal standard it named **SQL-86**. ANSI updated that standard in 1989 to **SQL-89** and again in 1992 to **SQL-92**. As DBMS vendors proceed through new releases of their products, they try to bring their implementations ever closer to this standard. This effort has brought the goal of true SQL portability much closer to reality.*

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Elements of SQL

Types of SQL Statements

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

What is DDL ?

Data Definition Language helps you to define the database structure or schema. Let's learn about **DDL** commands with syntax.

- Create
- Drop
- Alter
- Truncate

What is DML ?

Data Manipulation Language (**DML**) allows you to modify the database instance by inserting, modifying, and deleting its data. It is responsible for performing all types of data modification in a database.

- Insert
- Update
- Delete

What is TCL ?

Transaction Control Language or **TCL** commands deal with the transaction within the database.

- Commit
- Rollback
- Savepoint

What is DQL ?

Data Query Language (**DQL**) is used to fetch the data from the database.

- Select

Interview Questions