

SQL

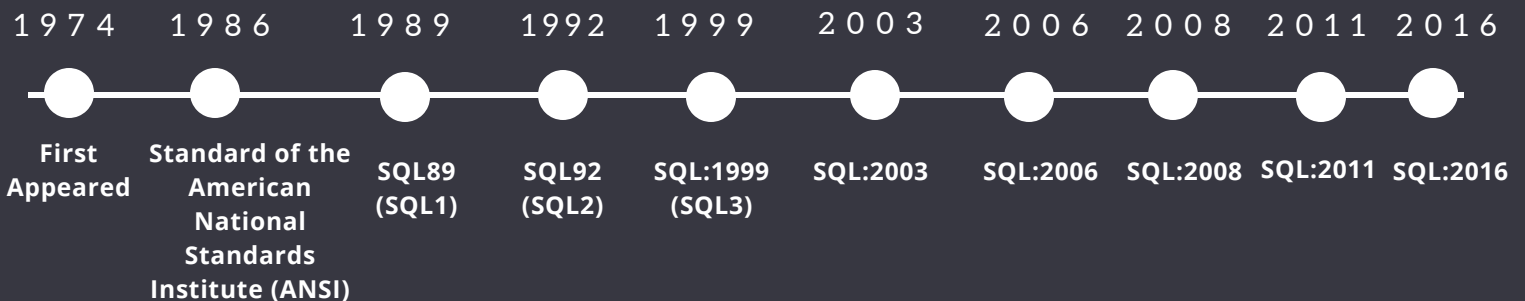
ORIGIN - 1974

Structured Query Language

BASIC IDEA

- SQL is a domain-specific language used in managing data held in a relational database management system (RDBMS). It is particularly useful in handling structured data where there are relations between different entities/variables of the data.
- The origins of the SQL go back to the 1970s, when in the IBM laboratories, new database software was created - System R. And to manage the data stored in System R, the SQL language was created. At first it was called SEQUEL, a name which is still used as an alternative pronunciation for SQL, but was later renamed to just SQL.

Timeline of SQL Standard versions



SQL Language elements

The SQL language is based on several elements. For the convenience of SQL developers all necessary language commands in the corresponding database management systems are usually executed through a specific SQL command-line interface (CLI).



Clauses

- The clauses are components of the statements and the queries

Expressions

- The expressions can produce scalar values or tables, which consist of columns and rows of data

Predicates

- They specify conditions, which are used to limit the effects of the statements and the queries, or to change the program flow

Queries

- A query will retrieve data, based on a given criteria

Statements

- With the statements one can control transactions, program flow, connections, sessions, or diagnostics.