

1. There are many reasons why database administrators, programmers, consider the use of SQL standards. One of it is consistency, when you have consistency in managing your database it can be very easy to maintain and interact with the relational database and can help them have a clear, uniform way of understanding the database. By using SQL standards, It can also provide advantages like portability, meaning it can easily change to another database with or without minor changes.

2. SQL standards

a) SQL - 86

- i. Was released in the year 1987. It is also known as SQL 87. The general purpose of this SQL version is it provided more comprehensive and standardized way of interacting with relational databases.
- ii. For keys, it has unique key and foreign keys. And as for the definition syntax, it has SELECT, INSERT UPDATE, and DELETE. It has data types like char, varchar, integer, decimal, date, time, datetime, boolean, float and blob (Binary Large Object)
- iii. Primary keys, foreign keys, check constraints, full outer joins user-defined types.
- iv. Oracle, Microsoft SQL server, Informix, IBM db2 Sybase SQL Server

b) SQL - 92

- i. A version three SQL standard released in the year 1992. it is also called SQL 2. This version of SQL standard introduces the explicit join syntax and the other outer joins like inner join, left join, full join, and full join. This version also introduces the natural join and cross join. This also introduces the set operations. This is also where the conditional expression "case when " was created. Additionally, this version of SQL standard introduce the data definition statements : ALTER AND DROP with new data types (date, time, timestamp, interval, bit, string, varchar and national character strings)
- ii. Primary keys, Unique key, Foreign key, check constraints. Definition syntax: alter table, drop table, create table. SQL functions: select, insert, update, delete, count, sum, avg, max, min. Data types: char, varchar, integer, date, time, datetime, boolean.
- iii. None
- iv. PostgreSQL, MySQL, Oracle

c) SQL -2019

- i. Most recent version of the SQL standard. Its revisions add new support and new features like, JSON data types, lateral joins, regular expressions, and merge statements
- ii. Keys: Primary key, foreign key, unique key. Definition syntax: Create table, drop table, alter table. Functionalities: Select, insert, update, delete, count, and aggregate functions. Data types: char, varchar, integer, decimal, and all other data types from the older versions.
- iii. None standard joins, non-standard date functions.
- iv. Microsoft SQL server, Oracle, PostgreSQL, MySQL, SQLite

REFERENCES:

<https://learnsql.com/blog/history-of-sql-standards/>
<https://en.wikipedia.org/wiki/SQL-92>