

Topic - Advantages of SQL

There are the following advantages of SQL:

1. High speed

Using the SQL queries, the user can quickly and efficiently retrieve a large amount of records from a database.

2. No coding needed

In the standard SQL, it is very easy to manage the database system. It doesn't require a substantial amount of code to manage the database system.

3. Well defined standards

Long established are used by the SQL databases that are being used by ISO and ANSI.

4. Portability

SQL can be used in laptop, PCs, server and even some mobile phones.

5. Interactive language

SQL is a domain language used to communicate with the database. It is also used to receive answers to the complex questions in seconds.

6. Multiple data view

Using the SQL language, the users can make different views of the database structure.

Topic - SQL Datatype

SQL Datatype is used to define the values that a column can contain.

Every column is required to have a name and data type in the database table.

Datatype of SQL:

1. Binary Datatypes

There are Three types of binary Datatypes which are given below:

Data Type	Description
binary	It has a maximum length of 8000 bytes. It contains fixed-length binary data.
varbinary	It has a maximum length of 8000 bytes. It contains variable-length binary data.

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image It has a maximum length of 2,147,483,647 bytes. It contains variable-length binary data.

2. Approximate Numeric Datatype :

The subtypes are given below:

Data type	From	To	Description
float	-1.79E + 308	1.79E + 308	It is used to specify a floating-point value e.g. 6.2, 2.9 etc.
real	-3.40e + 38	3.40E + 38	It specifies a single precision floating point number

3. Exact Numeric Datatype

The subtypes are given below:

Data type	Description
int	It is used to specify an integer value.
smallint	It is used to specify small integer value.
bit	It has the number of bits to store.
decimal	It specifies a numeric value that can have a decimal number.
numeric	It is used to specify a numeric value.

4. Character String Datatype

The subtypes are given below:

Data type	Description
char	It has a maximum length of 8000 characters. It contains Fixed-length non-unicode characters.
varchar	It has a maximum length of 8000 characters. It contains variable-length non-unicode characters.
text	It has a maximum length of 2,147,483,647 characters. It contains variable-length non-unicode characters.

5. Date and time Datatypes

The subtypes are given below:

Datatype	Description
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- date It is used to store the year, month, and days value.
- time It is used to store the hour, minute, and second values.
- timestamp It stores the year, month, day, hour, minute, and the second value.