

LET'S START WITH SQL :)

Datatypes in SQL

Data types are used to specify the type of data that a column can store.

Numeric

- INTEGER/ INT
- SMALLINT
- BIGINT
- DECIMAL
- FLOAT
- DOUBLE

Character/ String

- CHAR(n)
- VARCHAR(n)
- TEXT

Date & Time

- DATE
- TIME
- DATETIME
- TIMESTAMP

Boolean

- BOOLEAN

Binary

- BINARY(n)
- VARBINARY(n)
- BLOB

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Datatypes

Numeric Datatypes

1. INT – Used for storing whole numbers without decimal points.
(–2,147,483,648 to 2,147,483,647 (signed integer))
2. BIGINT – Used for storing large whole numbers. (–9,223,372,036,854,775,808 to 9,223,372,036,854,775,807)
3. FLOAT– Used for storing decimal numbers. (4-byte)

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Datatypes

Numeric Datatypes

3. FLOAT– Used for storing decimal numbers. (4-byte)

4. DOUBLE– Used for storing decimal numbers. (8-byte)

5. DECIMAL(p,s)– Used for exact numeric representation. p is the precision and s is the scale.

Command :

```
CREATE TABLE example1 (  
  id INT  
);
```

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Datatypes

Numeric Datatypes

By default all the numeric datatypes can have negative as well as positive values. This restrict the range so if we know there is only +ve values which is stored we use UNSIGNED attribute (0-255).

for eg- salary can never be in negative or age

Command :

```
CREATE TABLE example1 (  
  id INT UNSIGNED  
);
```

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Datatypes

Character Datatypes

1. CHAR(n)– Fixed-length character strings can be stored. (0–255)
2. VARCHAR(n)– Variable-length character strings can be stored.(0–255)
3. TEXT– Variable-length character string with no specified limit.

Command :

```
CREATE TABLE example1 (  
  name VARCHAR(50)  
);
```

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Datatypes

Date & Time Datatypes

1. DATE– Used for storing date values. (YYYY-MM-DD)
2. TIME – Used for storing time values. (hh:mm:ss)
3. DATETIME/TIMESTAMP– Used for storing date and time values. (yyyy-mm-dd hh:mm:ss)

Command :

```
CREATE TABLE example1 (  
createdTs TIMESTAMP  
);
```

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Datatypes

Boolean Datatypes

1. BOOLEAN– Used to store a true or false value.

Command :

```
CREATE TABLE example1 (  
isActive BOOLEAN  
);
```

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Datatypes

Binary Datatypes

1. BINARY(n)– Used for fixed-length binary data.
2. VARBINARY(n)– Used for storing variable-length binary data.
3. BLOB (Binary Large Object)– Used for storing large amounts of binary data.(var len)

Command :

```
CREATE TABLE document (  
data BLOB  
);
```