**SQL Data Types**

SQL offers a variety of data types to accommodate different kinds of data. Here are some common ones, along with examples:

**Numeric Data Types**

* **INT:** Integer values (e.g., 10, -5, 0)
* **DECIMAL:** Decimal numbers with a specified precision and scale (e.g., 123.45, -987.6)
* **FLOAT:** Floating-point numbers (e.g., 3.14159, -1.2e5)
* **DOUBLE:** Double-precision floating-point numbers (e.g., 1.79769e+308, -4.9e-324)

**Character Data Types**

* **CHAR:** Fixed-length character strings (e.g., 'Hello', 'World')
* **VARCHAR:** Variable-length character strings (e.g., 'This is a long string', 'Short')
* **TEXT:** Large text strings (e.g., 'A very long article')

**Date and Time Data Types**

* **DATE:** Date values (e.g., '2023-12-31')
* **TIME:** Time values (e.g., '12:34:56')
* **DATETIME:** Date and time values (e.g., '2023-12-31 12:34:56')
* **TIMESTAMP:** Timestamp values with timezone information (e.g., '2023-12-31 12:34:56+01:00')

**Other Data Types**

* **BINARY:** Binary data (e.g., BLOBs)
* **VARBINARY:** Variable-length binary data (e.g., BLOBs)
* **BOOLEAN:** Boolean values (e.g., TRUE, FALSE)
* **ENUM:** Enumerated values (e.g., 'Red', 'Green', 'Blue')
* **SET:** Set of values (e.g., 'Male', 'Female')

**Example:** SQL

CREATE TABLE person (

id **INT PRIMARY KEY,**

name **VARCHAR(50),**

age **INT,**

birthdate **DATE,**

email **VARCHAR(100),**

is\_active **BOOLEAN**

Borrow\_date **DATETIME** **DEFAULT** **CURRENT\_TIMESTAMP**,

);

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CREATE TABLE customers (

customer\_id **INT PRIMARY KEY,**

first\_name **VARCHAR(50),**

last\_name **VARCHAR(50),**

email **VARCHAR(100),**

birthdate **DATE,**

is\_active **BOOLEAN**,

last\_login **TIMESTAMP**

);

**INSERT** **INTO** customers **(**customer\_id, first\_name, last\_name, email, birthdate, is\_active**)**

**VALUES** **(**1, 'John', 'Doe', 'johndoe@example.com', '1990-01-01', TRUE**)**;

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CREATE TABLE appointments (

appointment\_id **INT PRIMARY KEY,**

start\_date **DATE,**

start\_time **TIME,**

start\_datetime **DATETIME,**

end\_datetime **TIMESTAMP**

);

**INSERT INTO** appointments (appointment\_id, start\_date, start\_time, start\_datetime, end\_datetime)

**VALUES** (1, '2024-10-01', '12:30:00', '2024-10-01 12:30:00', '2024-10-01 13:30:00+06:00');

In this example, id is an integer, name and email are variable-length character strings, age is an integer, birthdate is a date, and is\_active is a boolean.

**Note:** The specific data types available and their syntax may vary slightly depending on the database system you're using (e.g., MySQL, PostgreSQL, Oracle).