

1. Write a few lines about Data Types In SQL with examples.

Ans. In SQL, data types are used to define the type of data that a particular column or variable can hold. The most commonly used data types in SQL include:

- **Integer:** used to store whole numbers, such as 1, 2, 3, etc. Examples of integer data types include INT, SMALLINT, and BIGINT.
- **Character:** used to store alphanumeric characters, such as names, addresses, and descriptions. Examples of character data types include CHAR, VARCHAR, and TEXT.
- **Date and Time:** used to store date and time values, such as birthdays, appointment times, and other events. Examples of date and time data types include DATE, DATETIME, and TIMESTAMP.
- **Boolean:** used to store true/false values, such as yes/no, true/false, or 1/0. Examples of boolean data types include BIT and BOOLEAN.
- **Float and Decimal:** used to store decimal or floating-point values, such as monetary values, weights, or measurements. Examples of float and decimal data types include FLOAT, DECIMAL, and NUMERIC.

For example, if we have a table to store information about employees, we might define columns with the following data types:

- Employee ID: INT
- First Name: VARCHAR
- Last Name: VARCHAR
- Date of Birth: DATE
- Salary: DECIMAL(10,2)
- Full-time employee: BOOLEAN

These data types would ensure that each column only stores the appropriate type of data, making it easier to manage and analyze the information in the table.

