



The **DECIMAL** data type parameters specify the total number of permissible digits, and the number of digits that may follow the decimal point – not the number of permissible digits for the decimal point’s left side and right side.

Defining data types

The table below describes the range of data type specifiers that can be used to define database table columns. It is advisable to specify the permitted data type precisely. For instance, if a column only contains short strings, use **VARCHAR()** rather than **TEXT**.

Type:	Value:
INT	An integer -2,147,483,648 to 2,147,483,647
DECIMAL	A floating point number that can specify the number of permissible digits. For example, DECIMAL(5,2) permits -999.99 to 999.99
DOUBLE	A double-precision floating point number
DATE	A date in the YYYY-MM-DD format
TIME	A time in the HH:MM:SS format
DATETIME	A combined date and time in the format YYYY-MM-DD HH:MM:SS
YEAR	A year 1901-2155 in either YY or YYYY format
TIMESTAMP	Automatic date and time of last record entry
CHAR()	A string of defined <u>fixed</u> length up to 255 characters long. For example, CHAR(100) pads a smaller string to make it 100 characters long
VARCHAR()	A string of <u>variable</u> length up to 65,535 characters long that is stored without padding
TEXT	A string up to 65,535 characters long
BLOB	A binary type for variable data
ENUM	A single string value from a defined list. For example, ENUM("red", "green", "blue") allows entry of any one of these three colors only
SET	A string or multiple strings from a defined list. For example, SET("red", "green", "blue") allows entry of any one, or more, of these colors

The **SQL** script listed opposite creates a table that includes data type specifiers in the column definitions. The “id” column only accepts integer values. The date and time of each entry can be recorded in the “date” column. The “first_name” and “last_name” columns may each contain up to 20 characters.