Create Table

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- CREATE [OR REPLACE] TABLE table_name (column datatype,…);
- CREATE TABLE [if not exists] table_name (column datatype,…);

Column Options

create_definition:

 { col_name column_definition | index_definition | period_definition | CHECK (expr) }

column_definition:

 data_type

   [NOT NULL | NULL] [DEFAULT default_value | (expression)]

   [ON UPDATE [NOW | CURRENT_TIMESTAMP] [(precision)]]

   [AUTO_INCREMENT] [ZEROFILL] [UNIQUE [KEY] | [PRIMARY] KEY]

   [INVISIBLE] [{WITH|WITHOUT} SYSTEM VERSIONING]

   [COMMENT 'string'] [REF_SYSTEM_ID = value]

   [reference_definition]

 | data_type [GENERATED ALWAYS]

 AS [ROW {START|END} [NOT NULL ENABLE] [[PRIMARY] KEY]

    | (expression) [VIRTUAL | PERSISTENT | STORED]]

   [INVISIBLE] [UNIQUE [KEY]] [COMMENT 'string']

constraint_definition:

 CONSTRAINT [constraint_name] CHECK (expression)

Table Options

table_option:

  [STORAGE] ENGINE [=] engine_name

 | AUTO_INCREMENT [=] number

 | AVG_ROW_LENGTH [=] number

 | [DEFAULT] CHARACTER SET [=] charset_name

 | CHECKSUM [=] {0 | 1}

 | [DEFAULT] COLLATE [=] collation_name

 | COMMENT [=] 'string'

 | CONNECTION [=] 'connect_string'

 | DATA DIRECTORY [=] 'absolute path to directory'

 | DELAY_KEY_WRITE [=] {0 | 1}

 | ENCRYPTED [=] {YES | NO}

 | ENCRYPTION_KEY_ID [=] number

 | IETF_QUOTES [=] {YES | NO}

 | INDEX DIRECTORY [=] 'absolute path to directory'

 | INSERT_METHOD [=] { NO | FIRST | LAST }

 | KEY_BLOCK_SIZE [=] number

 | MAX_ROWS [=] number

 | MIN_ROWS [=] number

 | PACK_KEYS [=] {0 | 1 | DEFAULT}

 | PAGE_CHECKSUM [=] {0 | 1}

 | PAGE_COMPRESSED [=] {0 | 1}

 | PAGE_COMPRESSION_LEVEL [=] {0 .. 9}

 | PASSWORD [=] 'string'

 | ROW_FORMAT [=] {DEFAULT|DYNAMIC|FIXED|COMPRESSED|REDUNDANT|COMPACT|PAGE}

 | SEQUENCE [=] {0|1}

 | STATS_AUTO_RECALC [=] {DEFAULT|0|1}

 | STATS_PERSISTENT [=] {DEFAULT|0|1}

 | STATS_SAMPLE_PAGES [=] {DEFAULT|number}

 | TABLESPACE tablespace_name

 | TRANSACTIONAL [=] {0 | 1}

 | UNION [=] (tbl_name[,tbl_name]...)

 | WITH SYSTEM VERSIONING

Datatypes

Numeric Data Type Overview
Overview and usage of the numeric data types.

TINYINT
*Tiny integer, -128 to 127 signed.*

**BOOLEAN**
Synonym for TINYINT(1).

SMALLINT
Small integer from -32768 to 32767 signed.

MEDIUMINT
Medium integer from -8388608 to 8388607 signed.

INT
Integer from -2147483648 to 2147483647 signed.

INTEGER
Synonym for INT

BIGINT
Large integer.

DECIMAL
A packed "exact" fixed-point number.

DEC, NUMERIC, FIXED
Synonyms for DECIMAL.

NUMBER
Synonym for DECIMAL in Oracle mode.

FLOAT
Single-precision floating-point number.

DOUBLE
Normal-size (double-precision) floating-point number.

DOUBLE PRECISION
REAL and DOUBLE PRECISION are synonyms for DOUBLE.

BIT
Bit field type.

Floating-point Accuracy
Not all floating-point numbers can be stored with exact precision

INT1
A synonym for TINYINT.

INT2
Synonym for SMALLINT.

INT3
Synonym for MEDIUMINT.

INT4
Synonym for INT.

INT8
Synonym for BIGINT.

String Data Types

String Literals
Strings are sequences of characters and are enclosed with quotes.

BINARY
Fixed-length binary byte string.

BLOB
Binary large object up to 65,535 bytes.

BLOB and TEXT Data Types
Binary large object data types and the corresponding TEXT types.

CHAR
Fixed-length string.

CHAR BYTE
Alias for BINARY.

VARCHAR
Variable-length string.

ENUM
Enumeration, or string object that can have one value chosen from a list of values.

INET4
For storage of IPv4 addresses.

INET6
For storage of IPv6 addresses.

JSON Data Type
Compatibility data type that is an alias for LONGTEXT.

MEDIUMBLOB
Medium binary large object up to 16,777,215 bytes.

MEDIUMTEXT
A TEXT column with a maximum length of 16,777,215 characters.

LONGBLOB
Long BLOB holding up to 4GB.

LONG and LONG VARCHAR
LONG and LONG VARCHAR are synonyms for MEDIUMTEXT.

LONGTEXT
A TEXT column with a maximum length of 4,294,967,295 characters.

ROW
Data type for stored procedure variables.

TEXT
A TEXT column with a maximum length of 65,535 characters.

TINYBLOB
Tiny binary large object up to 255 bytes.

TINYTEXT
A TEXT column with a maximum length of 255 characters.

VARBINARY
Variable-length binary byte string.

VARCHAR
Variable-length string.

SET Data Type
Set, or string object that can have 0 or more values chosen from a list of values.

UUID Data Type
Data type intended for the storage of UUID data.

Data Type Storage Requirements
Storage requirements for the various data types.

Supported Character Sets and Collations
MariaDB supports the following character sets and collations.

Character Sets and Collations
Setting character set and collation for a language.

Date and Time Data Types

DATE
The date type YYYY-MM-DD.

TIME
Time format HH:MM:SS.ssssss

DATETIME
Date and time combination displayed as YYYY-MM-DD HH:MM:SS.

TIMESTAMP
YYYY-MM-DD HH:MM:SS

YEAR Data Type
A four-digit year.

CREATE TEMPORARY TABLE

- CREATE TEMPORARY TABLE table_name (column datatype);

CREATE TABLE … LIKE

- CREATE TABLE tab2 LIKE tab1;

CREATE TABLE … SELECT

- CREATE TABLE tab2 as
  Select …
  From tab1
  [where conditions];