

MariaDB Repository — Covered Topics

Term	What it means	Example / Command
LAMP	Linux + Apache + MariaDB + PHP web stack	Complete web stack
AlmaLinux	Linux operating system used as the server platform	AlmaLinux 9/10
Apache	Web server that delivers websites and web applications	httpd
HTTPD	AlmaLinux package/service name for Apache	httpd.service
MariaDB	Relational database management system (RDBMS)	mariadb.service
PHP	Server-side scripting language	php -v
PHP-FPM	PHP process manager used to execute PHP applications	php-fpm
DNF	AlmaLinux package-management tool	sudo dnf install mariadb-server
systemctl	Command used to manage Linux services	sudo systemctl status mariadb
MariaDB Client	Command-line program used to connect to MariaDB	mariadb -u root -p
Database	Container used to organize tables and other database objects	company
Table	Structure that stores data in rows and columns	staff
Row	A single record in a table	One employee record

Term	What it means	Example / Command
Column	A field that describes a property of a record	name, salary
User	MariaDB account used to connect to the database server	company_app
Host	Specifies where a MariaDB user is allowed to connect from	localhost
Password	Credential used to authenticate a database user	IDENTIFIED BY '...'
Privilege	Permission that controls what a user can do	SELECT, INSERT
GRANT	Gives privileges to a MariaDB user	GRANT SELECT ...
REVOKE	Removes privileges from a MariaDB user	REVOKE SELECT ...
Primary Key	Uniquely identifies each row in a table	id
AUTO_INCREMENT	Automatically generates a new numeric ID for each inserted row	id INT AUTO_INCREMENT
VARCHAR	Stores variable-length text	VARCHAR(100)
INT	Stores integer values	INT
DECIMAL	Stores fixed-point decimal numbers	DECIMAL(10,2)
DATE	Stores calendar dates	2025-01-15
NOT NULL	Prevents a column from containing NULL	name VARCHAR(100) NOT NULL
SQL	Language used to interact with relational databases	SELECT * FROM staff;
CREATE DATABASE	Creates a new database	CREATE DATABASE company;

Term	What it means	Example / Command
USE	Selects the database on which subsequent commands operate	USE company;
CREATE TABLE	Creates a new table	CREATE TABLE staff (...);
SHOW TABLES	Displays tables in the selected database	SHOW TABLES;
DESCRIBE	Displays the structure of a table	DESCRIBE staff;
ALTER TABLE	Modifies an existing table's structure	ALTER TABLE staff ADD COLUMN ...
RENAME COLUMN	Changes the name of an existing column	RENAME COLUMN phone TO phone_number
RENAME TABLE	Changes the name of a table	RENAME TABLE employees TO staff;
DROP COLUMN	Removes a column from a table	ALTER TABLE staff DROP COLUMN phone_number;
INSERT	Adds new records to a table	INSERT INTO staff ...
SELECT	Retrieves data from a table	SELECT * FROM staff;
WHERE	Filters records based on a condition	WHERE department = 'IT'
UPDATE	Modifies existing records	UPDATE staff SET salary = ...
DELETE	Removes records from a table	DELETE FROM staff WHERE ...
CRUD	Four basic data operations: Create, Read, Update, Delete	INSERT, SELECT, UPDATE, DELETE