Difference between MongoDb and MariaDB database

MongoDB:

MongoDB is a cross-platform document-oriented and a non relational (i.e., [NoSQL](https://www.geeksforgeeks.org/introduction-to-nosql/)) database program. It is an open-source document database, that stores the data in the form of key-value pairs

MariaDB:

MariaDB is an open source relational database management system (RDBMS) that is a compatible drop-in replacement for the widely used MySQL database technology.

you can easily (and safely!) transition from one database system to the other.

how MariaDB can improve your data management experience when it comes to databases

Storage Engines. MariaDB comes with a dozen storage engines (Cassandra, TokuDB, etc.), which allow you to store different types of data more effectively. This also means accessing the said types of data becomes less reliant on server performance.

Faster Caching/Indexing. A unique storage engine called “Memory” is up to 25% faster for INSERT commands than that of MySQL. This grows in significance as the amount of information you store in your database expands.

Plugins System. MariaDB supports the use of plugins, software components that may be added to the core software without having to rebuild the MariaDB server from source code. Therefore, plugins can be loaded at start-up, or loaded and unloaded while the server is running without interruption.

Over the last couple of years, companies like Wikipedia, Google, and numerous world-class banks have all adopted MariaDB as their primary choice of a database system. This goes to show not only the robustness of MariaDB but also the trust that large-scale brands have in the project.

Drop-in replacement:

Drop-in replacement is a term used in computer science and other fields. It refers to **the ability to replace one hardware (or software) component with another one** without any other code or configuration changes being required and resulting in no negative impacts.

MySQL:

MariaDB has 12 new storage engines whereas MySQL has lesser storage engines.

<https://www.guru99.com/mariadb-vs-mysql.html>

Binary compatible with MySQL:

Two computers can be considered binary compatible if they can run the same software without requiring that the application be recompiled. The computers can be different generations of machines from the same manufacturer, or they can be competing products from different vendors.

# Node.js MySQL Integration

**How to Setup MySQL database**

MySQL is the world's most popular open-source database.

**Steps to be followed for NodeJS MySQL database integration**

## **Install MySQL Driver**

Once you have MySQL up and running on your computer, you can access it by using Node.js.

To access a MySQL database with Node.js, you need a MySQL driver. This tutorial will use the "mysql" module, downloaded from NPM.

To download and install the "mysql" module, open the Command Terminal and execute the following:

npm install mysql

Node.js can use this module to manipulate the MySQL database:

Var mysql=require(“mysql”)

Create Connection

Start by creating a connection to the database.

Use the username and password from your MySQL database.

demo\_db\_connection.js

var mysql = require('mysql');

var con = mysql.createConnection({

host: "localhost",

user: "yourusername",

password: "yourpassword"

});

con.connect(function(err) {

if (err) throw err;

console.log("Connected!");

});

If the database is connected

Then:

## Query a Database

Use SQL statements to read from (or write to) a MySQL database. This is also called "to query" the database.

The connection object created in the example above, has a method for querying the database:

con.connect(function(err) {  
  if (err) throw err;  
  console.log("Connected!");  
**con.query(sql, function (err, result) {  
    if (err) throw err;  
    console.log("Result: " + result);  
  });**});

**NodeJS and MariaDB Integration**

NodeJS MariaDB Integration is an innovative process to make the best use of both technologies and help in the data mapping and data transformation process. NodeJS is a cross-platform, Open-Source, and back-end JavaScript runtime environment that uses a V8 engine to execute JavaScript code outside a web browser.