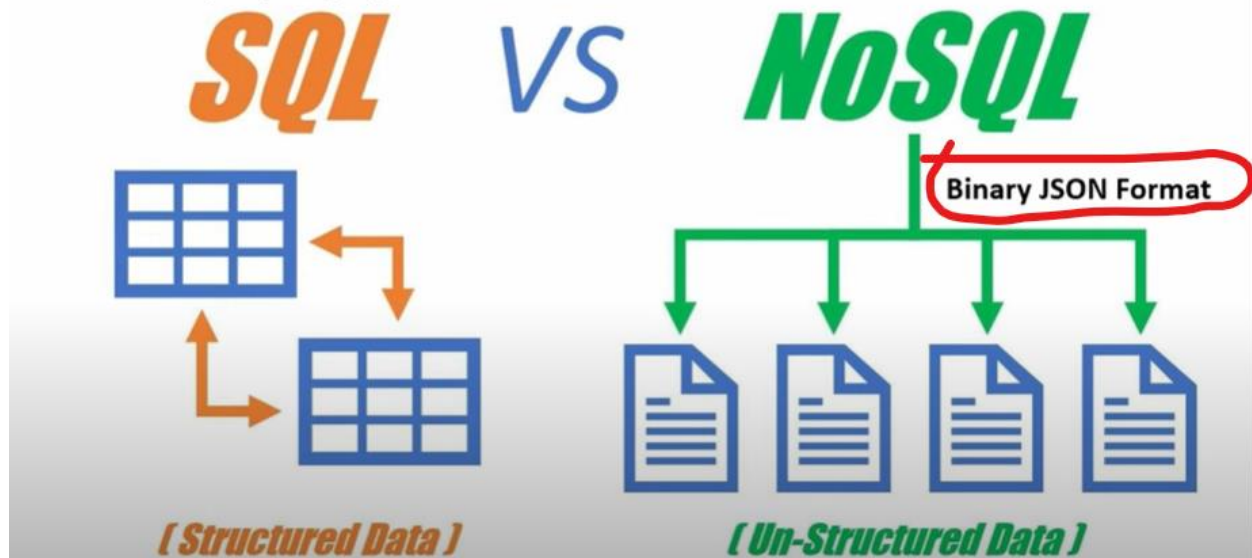


Connect MongoDB with Node/Express JS

Structured Query Language



MongoDB is → no sql

BSON Format

```
_id: ObjectId("614849d8a7d572e816b223c9")
_t: "MongoDB.Bson.BsonDocument, MongoDB.Bson"
_v: Object
  student_id: 10000
  class_id: 400
  name: "BsonDocument"

_id: ObjectId("61484a48a7d572e816b22864")
class_id: 401
student_id: 10000
name: "NormalDocument?"
```

MongoDB is a popular open-source, NoSQL database management system (DBMS) that is designed for handling large amounts of unstructured or semi-structured data. MongoDB is often used for applications that require flexible, scalable, and high-performance data storage and retrieval

CRUD (Create, Read, Update, Delete) operations with MongoDB involve creating documents in collections, retrieving data using queries, updating existing documents, and deleting records. MongoDB's flexible NoSQL structure allows for efficient storage and retrieval, making it popular for managing data in modern web and mobile applications.

There are two ways of connection

1)



MongoDB Atlas is a fully managed cloud database service for MongoDB, offering features like automated scaling, high availability, robust security, backup and recovery, global clusters, monitoring tools, and integration with major cloud providers. It simplifies MongoDB database deployment and management, making it an ideal choice for modern, scalable applications in the cloud.

It used in browser

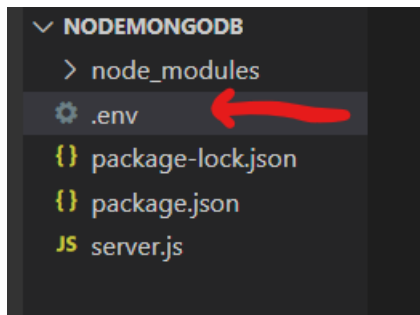
2)



MongoDB Compass is an official graphical user interface (GUI) tool for MongoDB. It provides an intuitive interface for developers and administrators to explore, query, and manipulate MongoDB databases. Compass offers visual schema design, real-time data visualization, and query optimization, making MongoDB database management more efficient and user-friendly.

It can be downloaded in your system

We are using → mongoDBAtlas



.env → Used to store sensitive and secret information

To install .env → `npm install dotenv`

Mongoose library used to interact with MongoDB and perform operations

To install MongoDB → `npm install mongodb`

Step 1

Now we have require mongodb in our code → using MongoClient

```
server.js > ...
1  const express = require("express");
2  const dotenv = require("dotenv");
3  const {MongoClient}=require("mongodb")
4
5  const app = express();
6  const port = 5000;
7
8  app.listen(port,()=>{
9    console.log(`Server Started and running at ${port}`
10  })
```

Step2

process.env is a global object . we can access anything in our folder using process.env

step 3

now we have to connect mongodb with server.js by taking link from .env file by seeing below→

```
dotenv.config();

// TO GET LINK FROM .env--> process.env.nameofvariable
MongoClient.connect(process.env.MONGO_URI)
  .then(() => {
    console.log("MongoDB Connected Successfully");
  })
  .catch((error) => {
    console.log("Error", error);
  });
```

Final code →

```
{} package.json  JS server.js  .env x
.env
1 MONGO_URI="mongodb+srv://vvvarshithnagubandi:vvv1234@cluster0.gu819k3.mongodb.net/Learning"
```

```
const express = require("express");
const dotenv = require("dotenv");
const { MongoClient } = require("mongodb");
const app = express();

dotenv.config();

// TO GET LINK FROM .env --> process.env.nameofvariable
MongoClient.connect(process.env.MONGO_URI)
  .then(() => {
    console.log("MongoDB Connected Successfully");
  })
  .catch((error) => {
    console.log("Error", error);
  });

const port = 5000;

app.listen(port, () => {
  console.log(`Server Started and running at ${port}`);
});
```

```
[nodemon] restarting due to changes...
[nodemon] starting `node server.js`
Server Started and running at 5000
MongoDB Connected Successfully
```