

## PRACTICAL 2

### 1. CRUD operation using NodeJS .

CODE :

```

index.js
1 import express, { request } from "express";
2 import mongoose from "mongoose";
3 import bodyParser from "body-parser";
4 import Student from "./model/studentmodel.js";
5
6 const app = express();
7
8 app.use(express.json());
9
10 const connect = async () => {
11   try {
12     await mongoose.connect(
13       "mongodb+srv://Jimmy0915:Jimmy$0912@studentmangementsystem.ker0nuf
14     );
15     console.log("Connected to MongoDB !!! 🥳 🥳 🥳");
16   } catch (error) {
17     throw error;
18   }
19 };
20
21 mongoose.connection.on("disconnected", () => {
22   console.log("Disconnected from MongoDB !!! 🥲 🥲 🥲");
23 });
24
25 app.post("/addstudent", async (req, res) => {
26   try {
27     let data = new Student(req.body);
28     await data.save();
29     res.status(200).json({
30       status: 200,
31       message: "Student Added Successfully !!",
32       data: data,
33     });
34   } catch (error) {
35     res.send(error.message);
36   }
37 });
38
39 app.listen(3000, () => {
40   connect();
41   console.log("Listening on port 3000!!! 🥳 🥳 🥳");
42 });
43
44 app.delete("/deletestudent/:id", async (req, res) => {
45   try {
46     let data = Student.findByIdAndDelete(req.params.id);
47     res.status(200).json({
48       status: 200,
49       message: "Student Delete Successfully !!",
50       data: data,
51     });
52   } catch (error) {
53     res.send(error.message);
54   }
55 });
56
57 app.put("/editstudent/:id", async (req, res) => {
58   try {
59     let data = Student.findByIdAndUpdate(
60       req.params.id,
61       { $set: req.body },
62       { new: true }
63     );
64     res.status(200).json({
65       status: 200,
66       message: "Student Edit Successfully !!",
67       data: data,
68     });
69   } catch (error) {
70     res.send(error.message);
71   }
72 });
73
74 app.get("/liststudent", async (req, res) => {
75   try {
76     let data = Student.find();
77     res.status(200).json({
78       status: 200,
79       message: "Student List Get Successfully !!",
80       data: data,
81     });
82   } catch (error) {
83     res.send(error.message);
84   }
85 });
86
studentmodel.js
1 import mongoose from "mongoose";
2
3 const { Schema } = mongoose;
4
5 const StudentSchema = new mongoose.Schema(
6   {
7     studentID: {
8       type: String,
9       required: true,
10     },
11     StudentName: {
12       type: String,
13       required: true,
14     },
15     StudentmobileNo: {
16       type: Number,
17       required: false,
18       unique: true, // define a unique value
19       trim: true,
20     },
21     StudentEmail: {
22       type: String,
23       required: true,
24       unique: true,
25       trim: true,
26       lowercase: true,
27     },
28   },
29   { timestamps: true } // show created and updated time in database
30 );
31
32 export default mongoose.model("Student", StudentSchema);
33

```

**OUTPUT :**

The screenshot shows the VS Code REST Client interface. The request is a POST to `localhost:3000/addstudent`. The body is a JSON object with student details. The response is a 200 OK status with a message "Student Added Successfully !!".

```
POST localhost:3000/addstudent

{
  "studentID": "20IT120",
  "StudentName": "Jimmy Prajapati",
  "StudentmobileNo": "7202929303",
  "StudentEmail": "jimmyprajapati332gmail.com"
}
```

```
{
  "status": 200,
  "message": "Student Added Successfully !!",
  "data": {
    "studentID": "20IT120",
    "StudentName": "Jimmy Prajapati",
    "StudentmobileNo": "7202929303",
    "StudentEmail": "jimmyprajapati332gmail.com",
    "_id": "63445fcba54d3abd0f9cee7e",
    "createdAt": "2022-10-10T18:09:15.973Z",
    "updatedAt": "2022-10-10T18:09:15.973Z",
    "__v": 0
  }
}
```

The screenshot shows the VS Code REST Client interface. The request is a GET to `localhost:3000/liststudent`. The response is a 200 OK status with a message "Student List Get Successfully !!".

```
GET localhost:3000/liststudent
```

```
{
  "status": 200,
  "message": "Student List Get Successfully !!",
  "data": [
    {
      "_id": "63445fcba54d3abd0f9cee7e",
      "studentID": "20IT120",
      "StudentName": "Jimmy Prajapati",
      "StudentmobileNo": "7202929303",
      "StudentEmail": "jimmyprajapati332gmail.com",
      "createdAt": "2022-10-10T18:09:15.973Z",
      "updatedAt": "2022-10-10T18:09:15.973Z",
      "__v": 0
    }
  ]
}
```

The screenshot shows the VS Code REST Client interface. The request is a PUT to `localhost:3000/editstudent/63445fcba54d3abd0f9cee7e`. The body is a JSON object with updated student details. The response is a 200 OK status with a message "Student Edit Successfully !!".

```
PUT localhost:3000/editstudent/63445fcba54d3abd0f9cee7e

{
  "studentID": "20IT120",
  "StudentName": "Jimmy Ramani",
  "StudentmobileNo": "7202929303",
  "StudentEmail": "jimmyprajapati332gmail.com"
}
```

```
{
  "status": 200,
  "message": "Student Edit Successfully !!",
  "data": {
    "_id": "63445fcba54d3abd0f9cee7e",
    "studentID": "20IT120",
    "StudentName": "Jimmy Ramani",
    "StudentmobileNo": "7202929303",
    "StudentEmail": "jimmyprajapati332gmail.com",
    "createdAt": "2022-10-10T18:09:15.973Z",
    "updatedAt": "2022-10-10T18:34:49.328Z",
    "__v": 0
  }
}
```

TC New Request X

DELETE localhost:3000/deletestudent/63445fcb54d3abd0f9cee7e Send

Query Headers 2 Auth Body 1 Tests

Json Xml Text Form Form-encode GraphQL Binary

Json Content Format

```

1 {
2   "studentID": "20IT120",
3   "StudentName": "Jimmy Ramani",
4   "StudentmobileNo": "7202929303",
5   "StudentEmail": "jimmyprajapati332gmail.com"
6 }

```

Status: 200 OK Size: 309 Bytes Time: 43 ms

Response Headers 6 Cookies Results Docs

```

1 {
2   "status": 200,
3   "message": "Student Deleted Successfully !!",
4   "data": {
5     "_id": "63445fcb54d3abd0f9cee7e",
6     "studentID": "20IT120",
7     "StudentName": "Jimmy Ramani",
8     "StudentmobileNo": "7202929303",
9     "StudentEmail": "jimmyprajapati332gmail.com",
10    "createdAt": "2022-10-10T18:09:15.973Z",
11    "updatedAt": "2022-10-10T18:34:49.328Z",
12    "__v": 0
13  }
14 }

```

MongoDB Compass - Student Management Sysytem/test.students

Connect View Collection Help

Student Management Sysytem

3 DBS 1 COLLECTIONS

★ FAVORITE

HOSTS

ac-v4ejqqv-shard-00-02.k...

ac-v4ejqqv-shard-00-00.k...

ac-v4ejqqv-shard-00-01.ke...

CLUSTER

Replica Set (atlas-6bu753-...

3 Nodes

EDITION

MongoDB 5.0.13 Enterprise

{ My Queries

Databases

Filter your data

admin

local

test

students

Documents test.students

test.students

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' }

ADD DATA

VIEW

```

_id: ObjectId('63445fcb54d3abd0f9cee7e')
studentID: "20IT120"
StudentName: "Jimmy Ramani"
StudentmobileNo: 7202929303
StudentEmail: "jimmyprajapati332gmail.com"
createdAt: 2022-10-10T18:09:15.973+00:00
updatedAt: 2022-10-10T18:34:49.328+00:00
__v: 0

```