

# Students Manage

## I. Introduction

We should manage students with software, which helps us save time and effort, and also helps to monitor students' learning progress better.

## II. Technology

- NestJS

**NestJS** is a powerful and extensible framework for building server-side applications using **Node.js**. It is primarily used to develop scalable and maintainable web applications, APIs, and microservices. NestJS is built with TypeScript and leverages many modern JavaScript features, making it highly type-safe and developer-friendly.

- Prisma

**Prisma** is an open-source **ORM (Object-Relational Mapping)** tool for Node.js and TypeScript, designed to simplify database interaction and improve the developer experience when working with databases. It provides a type-safe query engine that allows developers to interact with relational databases in a more efficient and intuitive way.

- MySQL

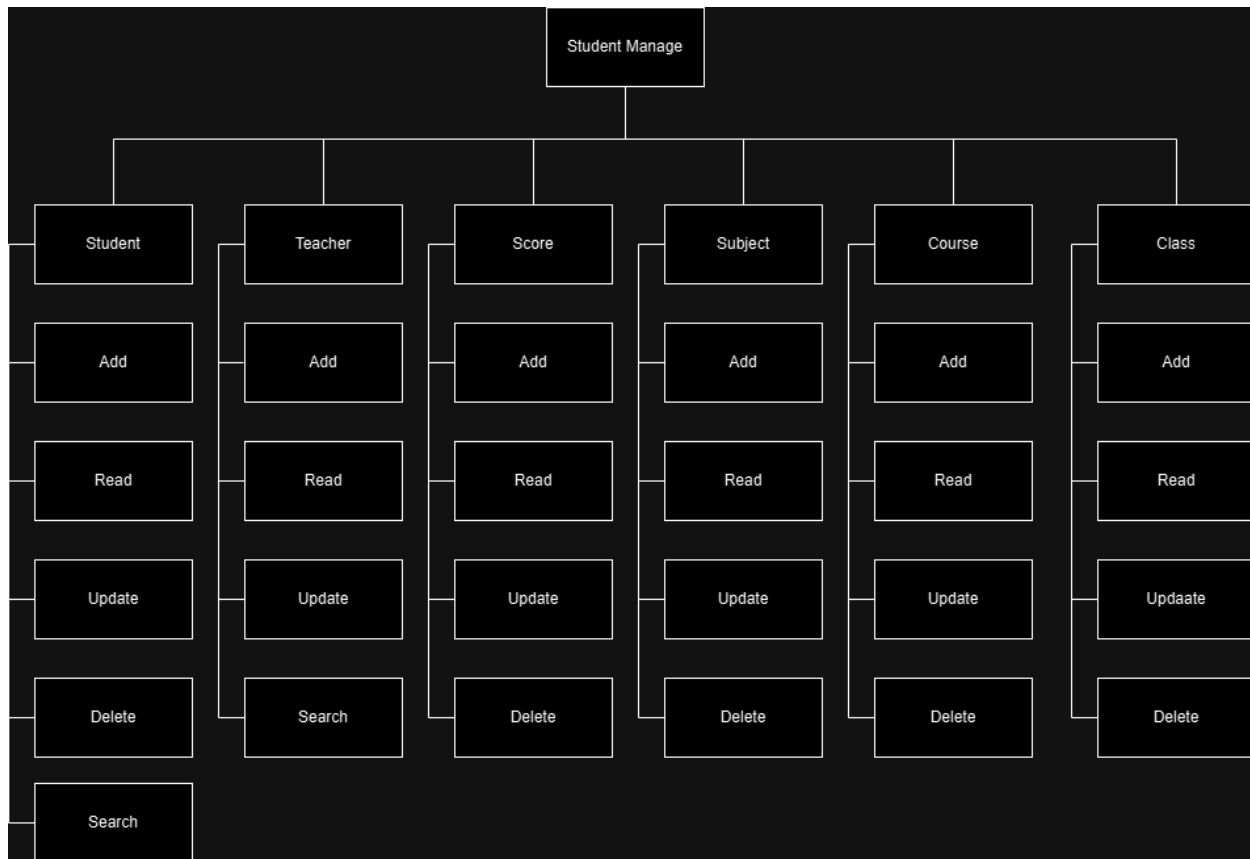
**MySQL** is one of the most popular open-source **relational database management systems (RDBMS)**. It is used to store, manage, and retrieve data for applications, websites, and other software systems. MySQL uses structured query language (**SQL**) to interact with the data, which is stored in tables and organized into rows and columns.

- Docker

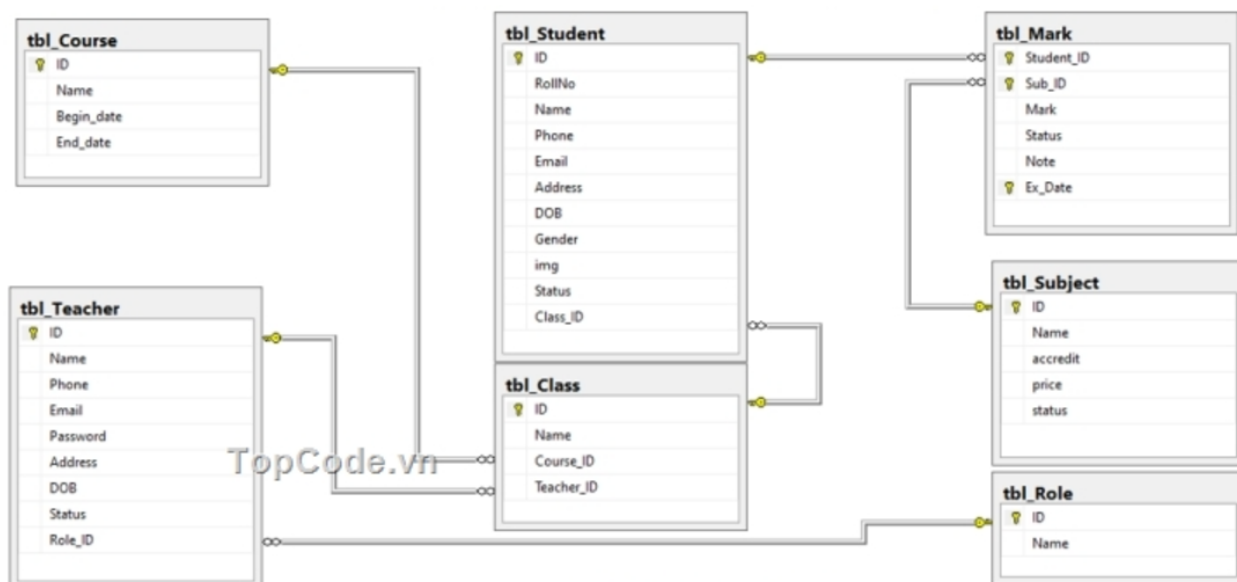
**Docker** is an open-source platform used to automate the deployment, scaling, and management of applications inside lightweight, portable containers. Containers package an application and its dependencies, including libraries and configurations, into a standardized unit that can run consistently across different environments, making it easier to develop, test, and deploy applications.

### III. Design System

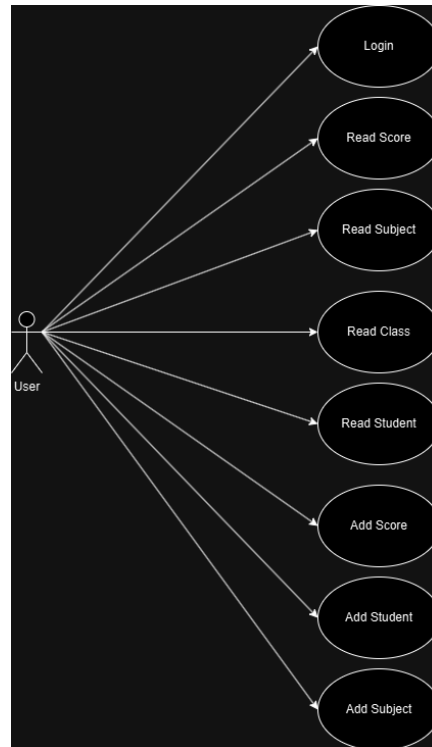
#### 1. Function



#### 2. ERD

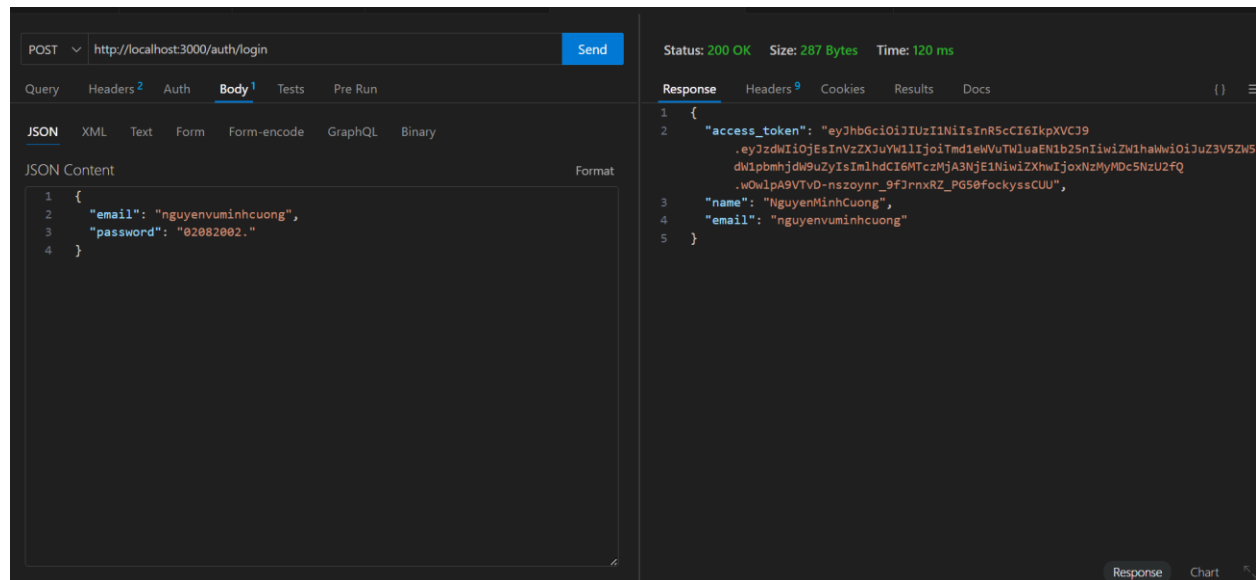


### 3. Use-case



## IV. Test System

## 1. Login



## 2. Get List

GET http://localhost:3000/teacher Send

Query Headers **Auth** Body Tests Pre Run

None Basic **Bearer** OAuth 2 NTLM AWS

Bearer Token

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJlbnVzZXJ1YV1lIjo1Tmd1eWVuTWluaEN1b25nl  
iwiZW1haWwiOiJ1Z3V5ZW52dW1pbmhtdW9uZyIsImhhdCI6MTczMjA3NjE1NiwiZhwijoxNzMyM  
Dc5NzU2fQ.wOwlpA9VTvD-nszoynr_9fJmxRZ_PG50focKyssCUU
```

Token Prefix Bearer

Status: 200 OK Size: 431 Bytes Time: 17 ms

Response Headers Cookies Results Docs

```
1 {  
2   {  
3     "id": 1,  
4     "email": "nguyenvuminhcuong",  
5     "name": "NguyenMinhCuong",  
6     "age": 22,  
7     "address": "dong lac chi linh",  
8     "courseId": null,  
9     "password": "$2b$10$XW4KXrIYmug71VHF6YYCiekymQy/vxg43BMzrujp/8RmzIRtJHmV."  
10    },  
11   },  
12   {  
13     "id": 4,  
14     "email": "nguyenvuminhcuong@gmail.com",  
15     "name": "NguyenMinhCuong03",  
16     "age": 22,  
17     "address": "dong lac chi linh",  
18     "courseId": null,  
19     "password": "$2b$10$Sc206bFWrw2.BrUOU1V6qOmUP.kdj0ZsCxYi.r107ps4yfV1b2.yS"  
20    },  
21   },  
22   }  
23 }
```

### 3. Create Object

POST http://localhost:3000/teacher/create-teacher Send

Query Headers **Auth** Body Tests Pre Run

None Basic **Bearer** OAuth 2 NTLM AWS

Bearer Token

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJlbnVzZXJ1YV1lIjo1Tmd1eWVuTWluaEN1b25nl  
iwiZW1haWwiOiJ1Z3V5ZW52dW1pbmhtdW9uZyIsImhhdCI6MTczMjA3NjE1NiwiZhwijoxNzMyM  
Dc5NzU2fQ.wOwlpA9VTvD-nszoynr_9fJmxRZ_PG50focKyssCUU
```

Token Prefix Bearer

Status: 201 Created Size: 227 Bytes Time: 82 ms

Response Headers Cookies Results Docs

```
1 {  
2   {  
3     "id": 5,  
4     "email": "nguyenvuminhcuong2002@gmail.com",  
5     "name": "NguyenVuMinhCuong03",  
6     "age": 22,  
7     "address": "dong lac chi linh",  
8     "courseId": null,  
9     "password": "$2b$10$73nOZcxS3C1Pw0hB1mB/uu.Z/xBf8pFkKUzoHGstTo518bHynnXqW",  
10    },  
11   },  
12   }  
13 }
```

### 4. Update Object

PUT http://localhost:3000/student/3 Send

Query Headers **Auth** **Body** Tests Pre Run

JSON XML Text Form Form-encode GraphQL Binary

JSON Content Format

```
1 {  
2   "name": "KietLac09",  
3   "phone": "02020202",  
4   "email": "kietlac09@gmail.com",  
5   "address": "donglac-chilinh-haiduong-vietnam",  
6   "Dob": "03-06-2002",  
7   "Gender": true,  
8   "classId": null  
9 }
```

Status: 200 OK Size: 183 Bytes Time: 32 ms

Response Headers Cookies Results Docs

```
1 {  
2   "id": 3,  
3   "name": "KietLac09",  
4   "phone": "02020202",  
5   "email": "kietlac09@gmail.com",  
6   "address": "donglac-chilinh-haiduong-vietnam",  
7   "Dob": "2002-03-06T00:00:00.000Z",  
8   "Gender": true,  
9   "classId": null  
10 }
```