

# TASK 4

Web frontend UI

## EducateU: A Student Record Management System

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**College:** VIT VELLORE

## **About The Project**

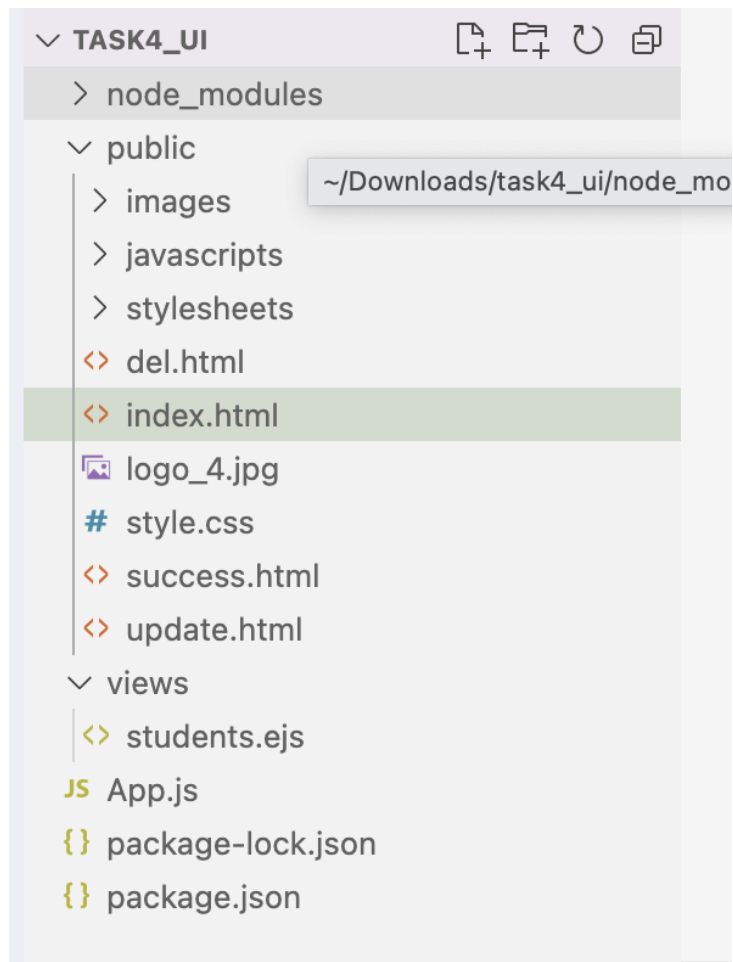
A simple student record management system is intended to access the database of 'students' and perform actions such as inserting, deleting, and displaying records on the website.

The project is a web application that connects to a MongoDB database and allows users to perform CRUD (Create, Read, Update, Delete) operations on a student database. The application is built using Node.js, Express.js, Mongoose, EJS, HTML, and CSS. The web interface provides a form to add new student records, a different page to display existing student records, and buttons to edit and delete existing records. The database stores information such as student names, student numbers, email addresses, courses, and GPA. Users (admin access) can update or delete existing records, or add new ones, and see the updated results displayed in real-time.

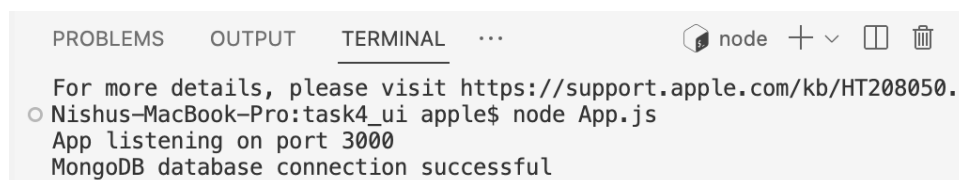
## **Steps**

1. Install MongoDB on your system.
2. Create a new project directory and initialize a new Node.js project in it using npm init.
3. Install the necessary dependencies: express, ejs, and mongoose.
4. Create an App.js file and set up the Express app with basic middleware and routes.
5. Define a Student Mongoose schema and model.
6. Connect the Mongoose app to your local MongoDB instance.
7. Implement the necessary routes to create, read, and delete student records from the database.
8. Create EJS templates to render the views for the routes. EJS is used for showing students records on the web page.
9. Other pages are designed with basic html and css and rendered with the help of App.js
10. Run the server and test the application by visiting the appropriate routes in a web browser.

# Project Structure



Start your mongo dB database and then start your App.js



# RESULTS

## WEB FRONTEND

Student Information System

localhost:3000

Java Programmin... Vellore Institute of... Inbox (152) - ryan... Oracle Live SQL -... Python Programmi... (647) Why take th... The Complete 20... Other Bookmarks

**EducateU**  
Learn & Grow

Home About Contact Delete Record Show Database

**Student Details**

Name:




Student Number:

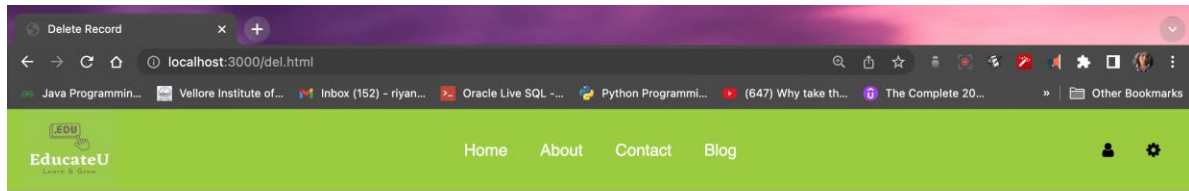
Email:

Courses:

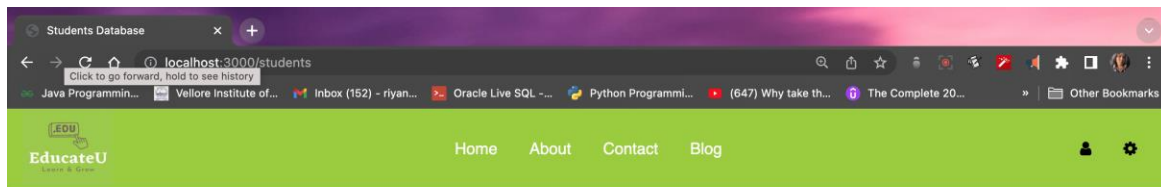
GPA:

**Newsletter** Your email

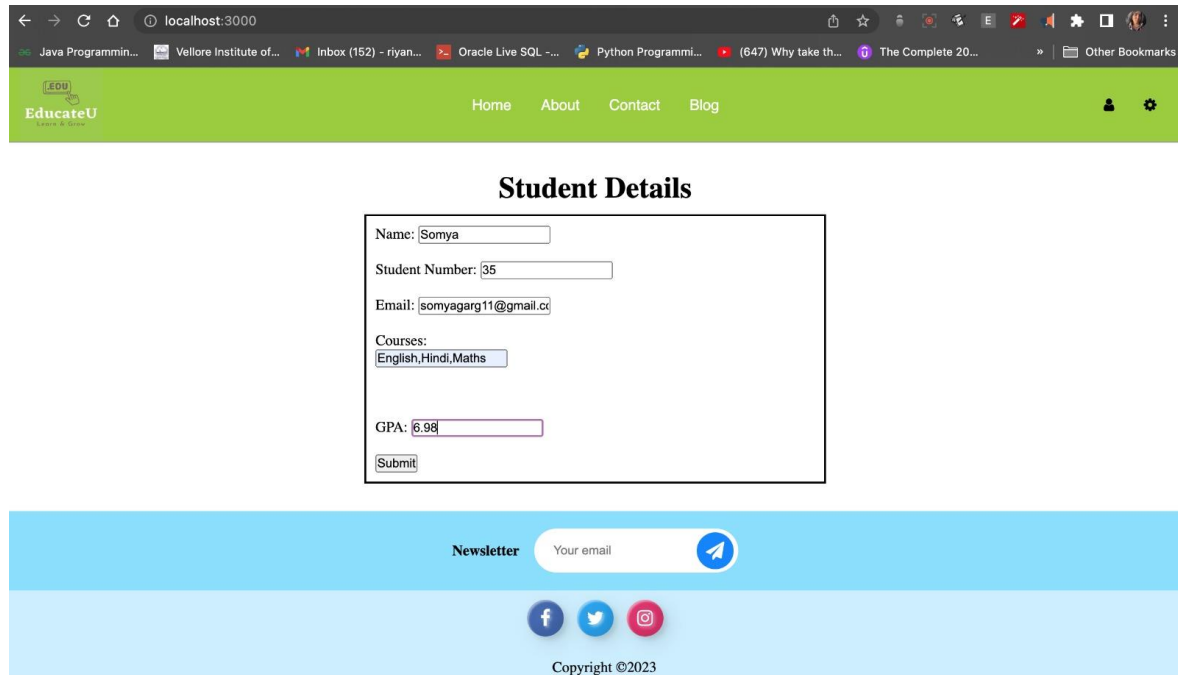


Student Number:



## Student Data

# INSERT A NEW RECORD IN DATABASE



The screenshot shows a web browser window with the address bar displaying 'localhost:3000'. The website has a green header with the 'EducateU' logo and navigation links: Home, About, Contact, and Blog. The main content area is titled 'Student Details' and contains a form with the following fields:

- Name:
- Student Number:
- Email:
- Courses:
- GPA:
- 

Below the form is a light blue footer section containing a 'Newsletter' sign-up area with a text input 'Your email' and a blue arrow button. Below this are social media icons for Facebook, Twitter, and Instagram, followed by the text 'Copyright ©2023'.

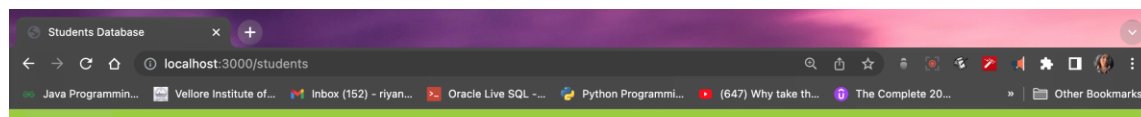


**Signup Successful**

**Record is Inserted in the Database.**

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + - □ □
```

```
}
Inserted new student: {
  name: 'Somya',
  studentNumber: '35',
  email: 'somyagarg11@gmail.com',
  courses: [ 'English', 'Hindi', 'Maths' ],
  gpa: 6.98,
  _id: new ObjectId("6423bc75ee8769195458b1e2"),
  __v: 0
}
```



## Student Data

**Name:** Deep  
**Student Number:** 71  
**Email:** deepkot71@gmail.com  
**Courses:** Maths  
**GPA:** 8.56

---

**Name:** Rahul  
**Student Number:** 36  
**Email:** rahuldua231@gmail.com  
**Courses:** Maths, Science, Social Science  
**GPA:** 7.7

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**Name:** Nishtha Singh  
**Student Number:** 37  
**Email:** riyanshiptha@gmail.com  
**Courses:** Science, Maths  
**GPA:** 8.44

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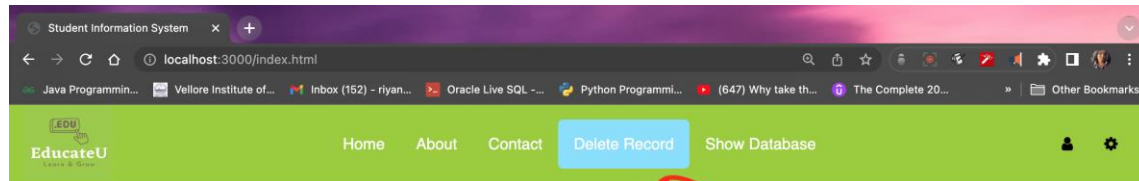
**Name:** Somya  
**Student Number:** 35  
**Email:** somyagarg11@gmail.com  
**Courses:** English, Hindi, Maths  
**GPA:** 6.98

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# DELETE A RECORD IN DATABASE BASED ON STUDENT NUMBER



## Student Details

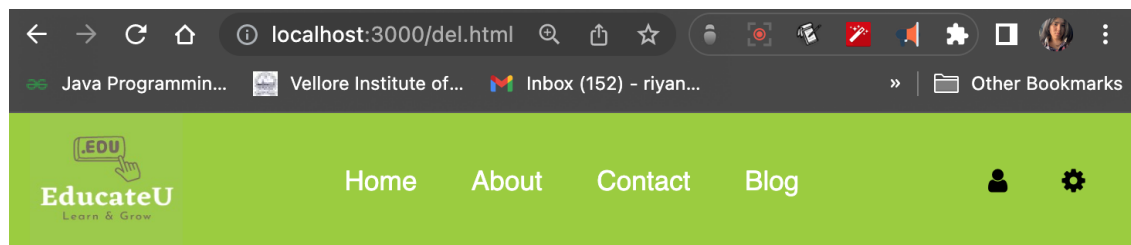
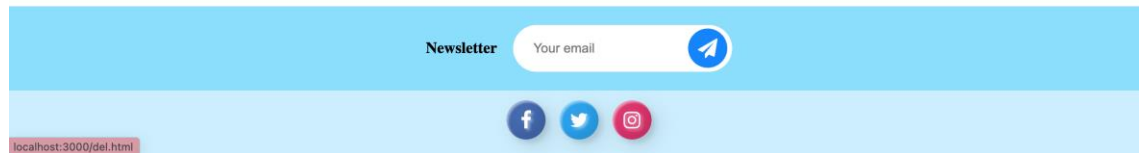
Name:

Student Number:

Email:

Courses:

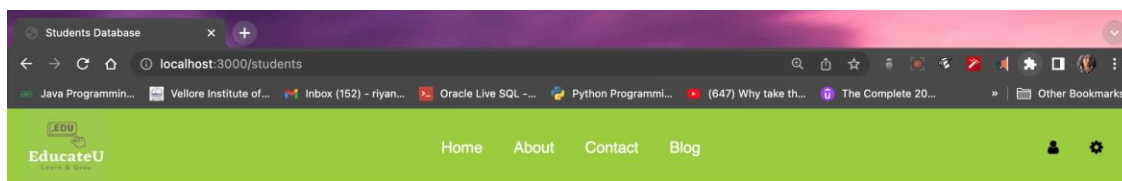
GPA:



Student Number:

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE node + - [ ] [ ] ... ^

value: {
  _id: new ObjectId("6423bb5dee8769195458b1d8"),
  name: 'Deep',
  studentNumber: '71',
  email: 'deepkot71@gmail.com',
  courses: [ 'Maths' ],
  gpa: 8.56,
  __v: 0
},
ok: 1
}
Student deleted successfully
```



## Student Data

**Name:** Rahul  
**Student Number:** 36  
**Email:** rahuldua231@gmail.com  
**Courses:** Maths, Science, Social Science  
**GPA:** 7.7

---

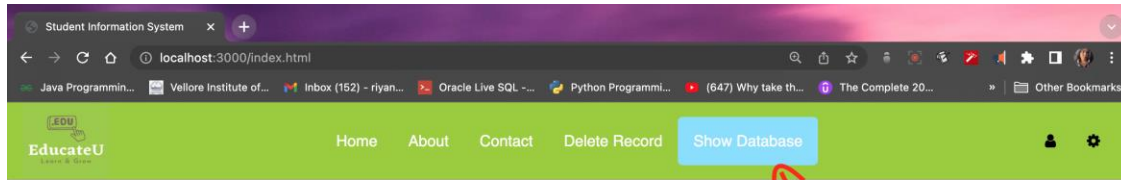
**Name:** Nishtha Singh  
**Student Number:** 37  
**Email:** riyanishtha@gmail.com  
**Courses:** Science, Maths  
**GPA:** 8.44

---

**Name:** Somya  
**Student Number:** 35  
**Email:** somyagarg11@gmail.com  
**Courses:** English, Hindi, Maths  
**GPA:** 6.98

---

# SHOW ALL RECORDS OF THE DATABASE



## Student Details

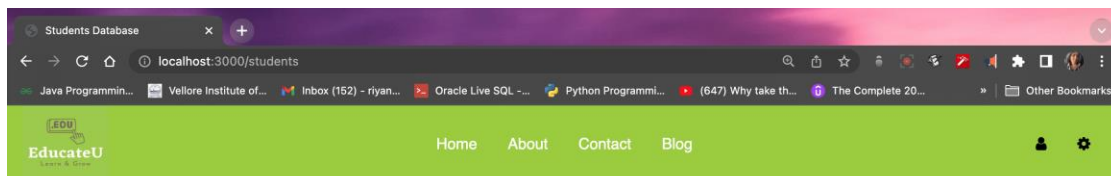
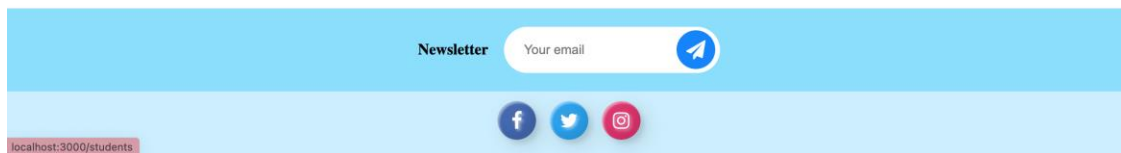
Name:

Student Number:

Email:

Courses:

GPA:



## Student Data

**Name:** Rahul  
**Student Number:** 36  
**Email:** rahuldua231@gmail.com  
**Courses:** Maths, Science, Social Science  
**GPA:** 7.7

---

**Name:** Nishtha Singh  
**Student Number:** 37  
**Email:** riyanishtha@gmail.com  
**Courses:** Science, Maths  
**GPA:** 8.44

---

**Name:** Somya  
**Student Number:** 35  
**Email:** somyagarg11@gmail.com  
**Courses:** English, Hindi, Maths  
**GPA:** 6.98

---

# THE STUDENTS DATABASE

```
~ — mongod --dbpath /usr/local/mongodb ... ~ — mongo +
> db.students.find().pretty()
{
  "_id" : ObjectId("6423bb9cee8769195458b1dc"),
  "name" : "Rahul",
  "studentNumber" : "36",
  "email" : "rahuldua231@gmail.com",
  "courses" : [
    "Maths",
    "Science",
    "Social Science"
  ],
  "gpa" : 7.7,
  "__v" : 0
}
{
  "_id" : ObjectId("6423bbccee8769195458b1df"),
  "name" : "Nishtha Singh",
  "studentNumber" : "37",
  "email" : "riyanishtha@gmail.com",
  "courses" : [
    "Science",
    "Maths"
  ],
  "gpa" : 8.44,
  "__v" : 0
}
{
  "_id" : ObjectId("6423bc75ee8769195458b1e2"),
  "name" : "Somya",
  "studentNumber" : "35",
  "email" : "somyagarg11@gmail.com",
  "courses" : [
    "English",
    "Hindi",
    "Maths"
  ],
  "gpa" : 6.98,
  "__v" : 0
}
>
```