

## Lab#13(a) Setup a Node.js project on Student Information System

### Final Outcome:

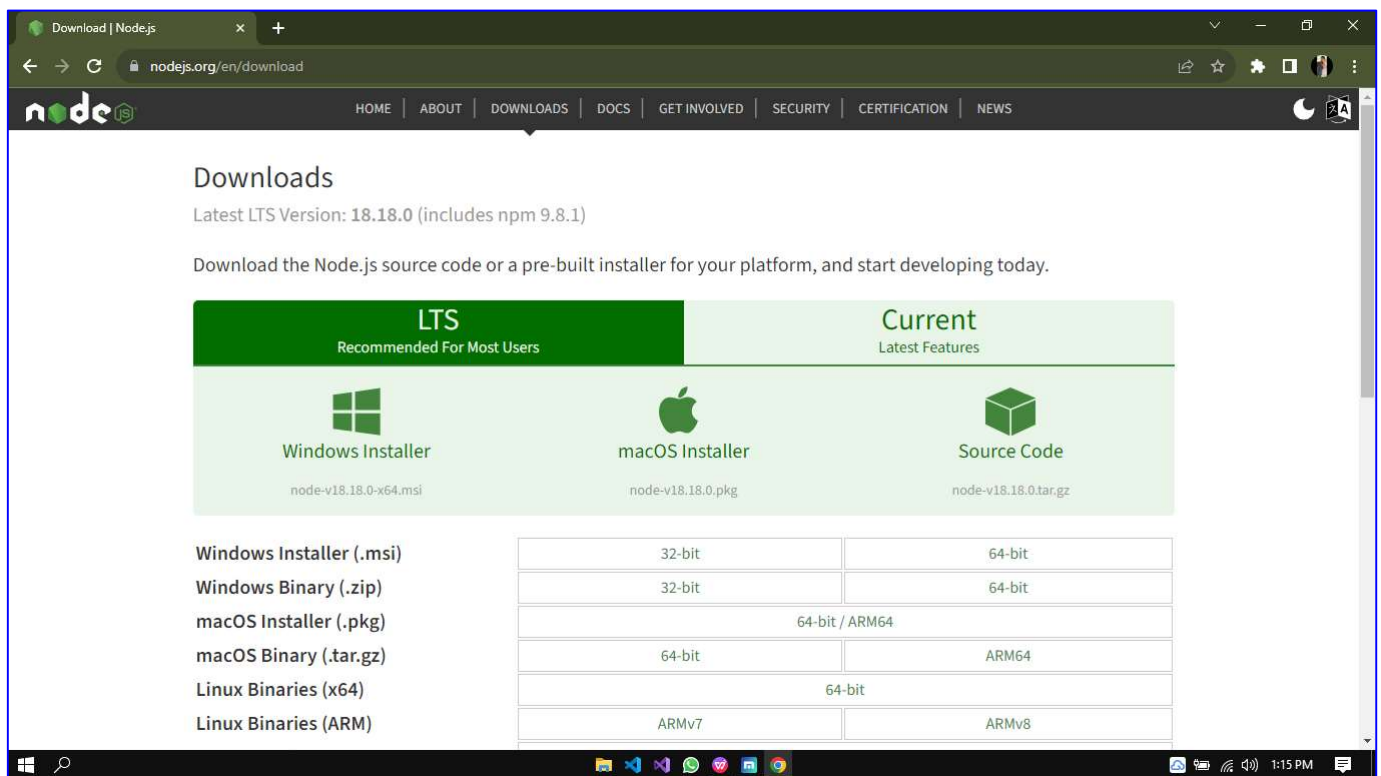


Figure 1 - Downloading Node.js

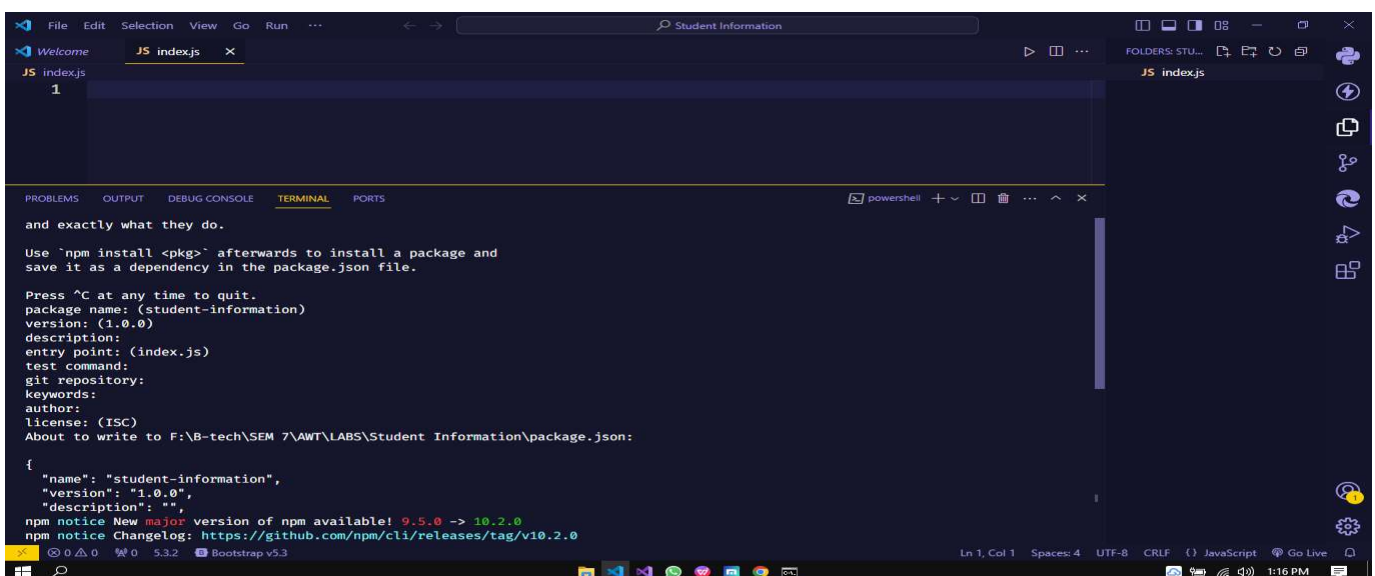


Figure 2 - Creating a folder for index.js file



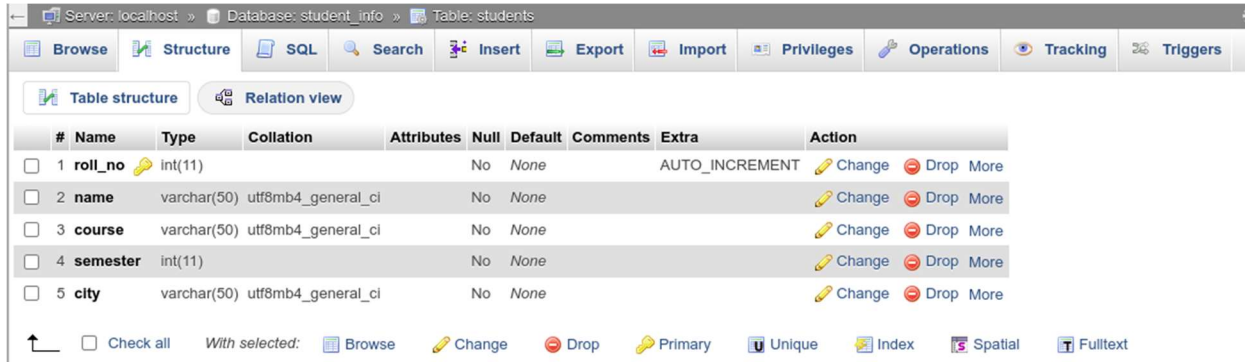
**Steps:**

1. Download Nodejs from **nodejs.org/eng/download** and install it
2. Create a folder name as “**Student Information**” and create “**Index.js**” file in it.
3. Execute command “**npm init**” to initialize node.js project.
4. Install **mysql** using npm install mysql.
5. Install **express** using npm install express.

## Lab #13(b)

### Lab#13(b) Setup the database in Node.js in Student Information System.

#### Final Outcome:



The screenshot shows the MySQL Table Structure for the 'students' table in the 'student\_info' database. The table has five columns: roll\_no, name, course, semester, and city. The 'roll\_no' column is the primary key and has an AUTO\_INCREMENT attribute.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	roll_no	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	name	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
3	course	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
4	semester	int(11)			No	None			Change Drop More
5	city	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

#### Code Snippet:

```
const mysql = require('mysql')

const express = require('express')

const app = express()

app.use(express.json())

const conn = mysql.createConnection({

  host: 'localhost',

  user: 'root',

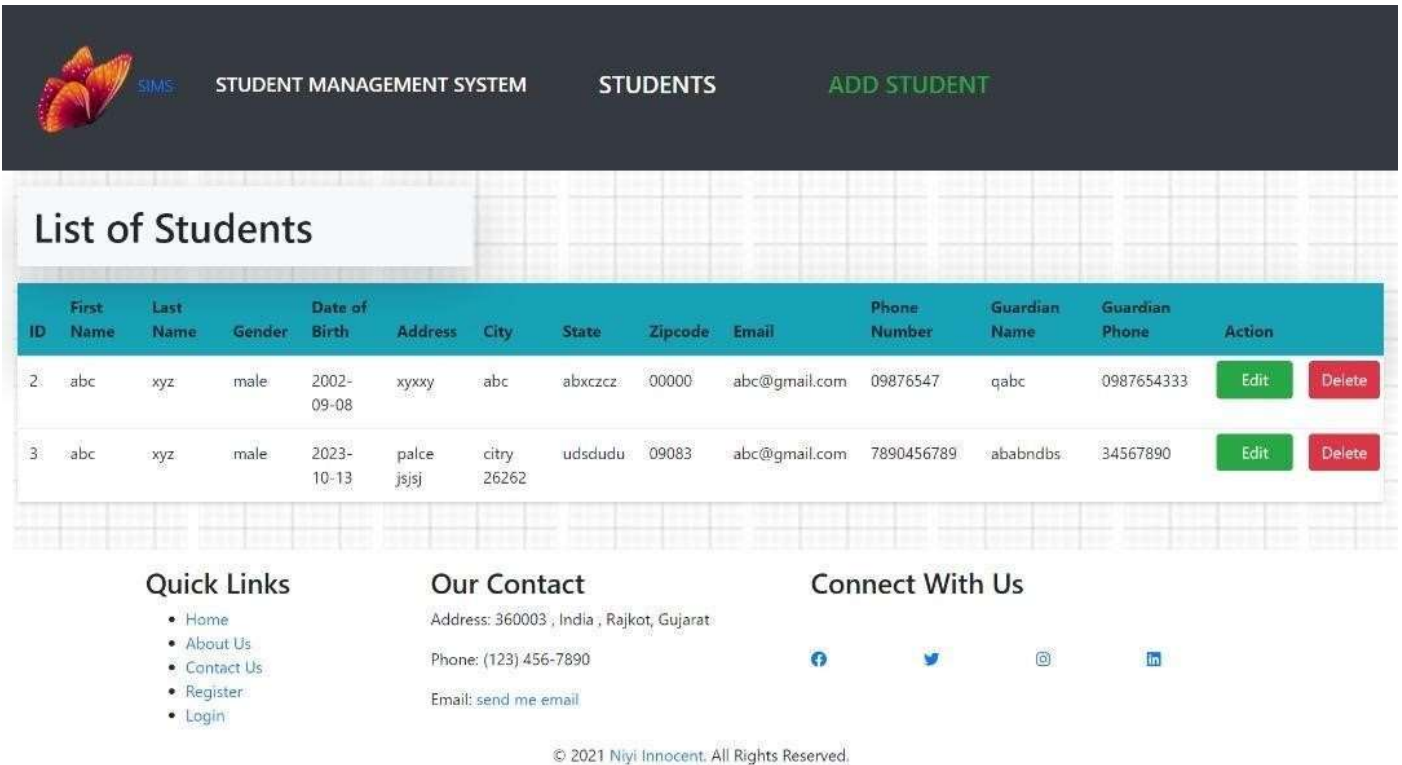
  password: '',

  database: 'student_info'

})
```

## Lab#13(c) Implement Select Operation to fetch details of students from Student Information System.

### Final Outcome:



The screenshot displays the SIMS (Student Information Management System) web application. The header includes the SIMS logo, navigation links for STUDENT MANAGEMENT SYSTEM, STUDENTS, and ADD STUDENT. The main content area shows a 'List of Students' table with the following data:

ID	First Name	Last Name	Gender	Date of Birth	Address	City	State	Zipcode	Email	Phone Number	Guardian Name	Guardian Phone	Action
2	abc	xyz	male	2002-09-08	xyxy	abc	abxczcz	00000	abc@gmail.com	09876547	qabc	0987654333	<a href="#">Edit</a> <a href="#">Delete</a>
3	abc	xyz	male	2023-10-13	palce jsjsj	citry 26262	udscludu	09083	abc@gmail.com	7890456789	ababndbs	34567890	<a href="#">Edit</a> <a href="#">Delete</a>

The footer contains 'Quick Links' (Home, About Us, Contact Us, Register, Login), 'Our Contact' information (Address: 360003, India, Rajkot, Gujarat; Phone: (123) 456-7890; Email: send me email), and social media icons for Facebook, Twitter, Instagram, and LinkedIn. A copyright notice for 2021 Niyi Innocent is also present.

### Code snippet:

```
// Route handler to list all students
exports.listStudents = (req, res) => {
  db.all("SELECT * FROM students", (err, students) =>
    { if (err) {
      console.error(err);
      res.status(500).send("Internal Server Error");
      return;
    }
  })
}
```



---

**Lab #13(c)**

```
if (students.length === 0) {  
    // Handle the case where no students are  
    found res.status(404).send("No Students  
    Found"); return;  
}
```