



COMSATS University Islamabad, Lahore Campus

Lab Terminal Examination – Spring 2024

Course Title:	Web Technologies			Course Code:	CSC336	Credit Hours:	4(3,1)
Instructor/s:	Shuja Akbar			Program Name:	BS		
Semester:		Batch:	FA21-BSE	Section:		Date:	28-05-2024
Time Allowed:	3 Hours			Maximum Marks:	50		
Student's Name:				Reg. No.			

Question 1 (CLO - 5)

25 Marks

Section 1: Frontend Development

- Database Setup:
 - Create a MongoDB database named `student_records`.
 - Create a `.env` file to store the database connection string.
- Create Server:
 - Set up an Express server in `server.js`.
 - Connect to MongoDB using Mongoose.
- Create Models:
 - Define a Mongoose model for Student with fields: name, age, course, email.
- Create API Routes:
 - GET `/students`: Retrieve all student records.
 - POST `/students`: Add a new student.
 - PUT `/students/`
: Update an existing student record.
 - DELETE `/students/`
: Delete a student record.

Section 2: Frontend Development

- Component Structure:
 - Create a folder **components** inside `src`.
 - Create the following components: `StudentList`, `AddStudent`, `EditStudent`.
- Setup Routing:
 - Use `react-router-dom` to set up routes for Home, Add Student, and Edit Student.
- Fetch and Display Data:
 - In `StudentList`, use `axios` to fetch and display all students from the backend.

- Add a button to delete a student, which makes a DELETE request to the backend.
4. Form Handling:
- In AddStudent, create a form to add a new student. On form submission, send a POST request to the backend.
 - In EditStudent, create a form pre-filled with the student data. On form submission, send a PUT request to update the student details.

Question 2 (CLO -5)

25 Marks

Semester Project and Viva Voce.