BUILDING FULL-STACK APPLICATIONS WITH REACT AND NODE.JS

Event No	CS001
Organizing Department	Computer Science and Engineering
Date	10/02/2024
Time	11:30 AM to 01:00 PM
Event Type	Expert Talk
Event Level	Dept. Level
Venue	Elective class room
Total Participants	29
Industry Personnel	1
Faculty - Internal	3
Students - Internal	25

Related SDG

Resource Persons

Sl	Type	Name	Designation	Company	Email	Phone
1	Resource Person	Mathan raju	Senior Software Engineer Manager	Microsoft	matraju@microsoft.com	xxxxxxxxxx

Involved Staffs

Sl	Name	Role
1	Kandasamy Sellamuthu	Coordinator
2	Thivaharan S	Coordinator

Outcome

students are able to understand the concept of nodejs and mongoDB

Event Summary

Points Discussed: During the interactive session on react and node js, the following points were discussed:1. Introduction to React and Node.js: Providing an overview of React for frontend development and Node.js for backend development.2. Setting Up the Development Environment: Discussing how to set up the development environment for both frontend (React) and backend (Node.js), including installing necessary dependencies and tools.3. Creating a RESTful API with Node.js: Explaining how to create a RESTful API using Node.js with frameworks like Express.js, including handling routes, requests, and responses.4. Database Integration: Discussing how to integrate a database (e.g., MongoDB, PostgreSQL) with Node.js for storing and retrieving data.5. React Components and State Management: Explaining React component structure, state, and props, and introducing state management libraries like Redux or context API for managing application state.6. API Integration: Discussing how to make API requests from a React application to the backend built with Node.js, including handling asynchronous operations.7. Authentication and Authorization: Explaining how to implement authentication and authorization in a full-stack application using techniques like JWT (JSON Web Tokens) and middleware in Node.js.8. Frontend Routing: Discussing how to implement client-side routing in a React application using libraries like React Router.9. Error Handling: Explaining techniques for error handling both on the frontend and backend, including how to handle errors returned from API requests.10. Deployment: Discussing strategies for deploying both frontend and backend applications to production environments, including considerations for hosting providers, server setup, and CI/CD pipelines.11. Best Practices and Optimization: Covering best practices for both frontend and backend development, including code organization, performance optimization, and security considerations.12. Testing: Explaining the importance of testing in both frontend and backend development and introducing testing frameworks like Jest for React and tools like Postman for API testing.13. Real-world Examples and Case Studies: Providing real-world examples or case studies of full-stack applications built with React and Node.js to illustrate concepts discussed.

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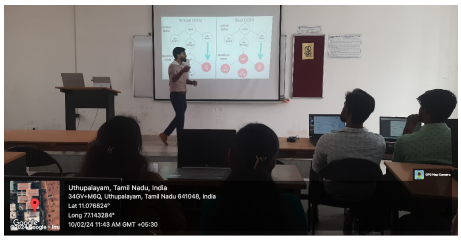

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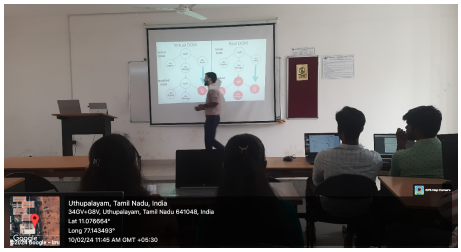

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