

**Charotar University Of Science & Technology**  
**Faculty Of Technology & Engineering**  
**Chandubhai S. Patel Institute Of Technology**  
**Smt. KundanbenDinsha Patel Department Of Information Technology**

**WEEKLY REPORT**  
**Summer Internship 2024**

Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 1	Duration: 20/05/24: 26/05/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- What is Node.js?, Installation and Setup
- Your First Node.js Application, Node.js Architecture
- The Node.js Ecosystem, Basic JavaScript Refresher
- Node.js REPL, Modules in Node.js
- Creating a Simple Server, Understanding package.json
- Assignment - Set up Node.js and create your first application.
- Set up the final project structure and initialize Node.js with Express.js.

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%201](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%201)

**Plans for next week:**

- Assignment - Build a file management tool using core modules.
- Utilizing core modules and set up basic npm packages for the final project

**References:** <https://nodejs.org/en/docs/>



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Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 2	Duration: 27/05/24: 02/06/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- File System Module, HTTP Module
- Events Module, Util Module
- Path Module, NPM Basics
- Installing Packages, Creating a Package
- Version Management, NPM Scripts
- Assignment - Build a file management tool using core modules.
- Utilized core modules and set up basic npm packages for the final project

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%202](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%202)

**Plans for next week:**

- Assignment - Convert callback-based code to Promises and Async/Await.
- Implement Promises and async/await for database interactions in the project.

**References:**

<https://nodejs.org/en/docs/>



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Student Name: VRAJ VIPUL DESAI

Roll No 21IT032

Week No: 3

Duration: 03/06/24: 09/06/24

Company Name: Celebal Technologies

Project Name: E-commerce Website Backend

**Summary of Work done the week:**

- Callback Functions, Handling Errors in Callbacks
- Promises, Async/Await
- Event Loop, Handling Asynchronous Operations
- File System with Promises, Creating Promises
- Promise Chaining, Error Handling in Async/Await
- Assignment - Convert callback-based code to Promises and Async/Await.
- Implemented Promises and async/await for database interactions in the project

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%203](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%203)

**Plans for next week:**

- Assignment - Create a basic web server with Express.js.
- Set up an Express server with routing and middleware for user authentication in the project.

**References:**

<https://nodejs.org/en/docs/>



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Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 4	Duration: 10/06/24: 16/06/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- What is Express.js, Setting Up an Express Server
- Routing, Middleware
- Handling Requests and Responses, Query Parameters and URL Parameters
- Static Files, Template Engines
- Express Router, Basic Express.js Security
- Assignment - Create a basic web server with Express.js.
- Set up an Express server with routing and middleware for user authentication in the project.

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%204](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%204)

**Plans for next week:**

- Assignment - Build a CRUD application with MongoDB.
- Implementing MongoDB with CRUD operations for product management.

**References:**

<https://expressjs.com/>



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Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 5	Duration: 17/06/24: 23/06/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- Introduction to Databases, Using MongoDB with Node.js and CRUD Operations
- Relational Databases and Node.js, Database Schema Design
- Data Validation and Sanitization, Connecting to a Database
- Migrations and Seeding, Advanced Query Techniques
- Assignment - Build a CRUD application with MongoDB.
- Implemented MongoDB with CRUD operations for product management.

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%205](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%205)

**Plans for next week:**

- Assignment - Develop a RESTful API.
- Developed and tested RESTful API endpoints for product and user data.

**References:**

- <https://expressjs.com/>
- <https://docs.mongodb.com/>



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Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 6	Duration: 24/06/24: 30/06/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- Introduction to REST, Setting Up a REST API
- Middleware for REST APIs, Authentication in APIs
- Error Handling in APIs, Documenting APIs
- Testing APIs, Versioning APIs
- Assignment - Develop a RESTful API.
- Developed and tested RESTful API endpoints for product and user data

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%206](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%206)

**Plans for next week:**

- Assignment - Implement JWT-based authentication in your API.
- Implemented JWT-based authentication and apply security best practices.

**References:**

- <https://jwt.io/introduction/>
- <https://expressjs.com/>



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Student Name: VRAJ VIPUL DESAI

Roll No 21IT032

Week No: 7

Duration: 01/07/24: 07/07/24

Company Name: Celebal Technologies

Project Name: E-commerce Website Backend

**Summary of Work done the week:**

- User Authentication, Hashing and Salting Passwords
- JSON Web Tokens (JWT), OAuth and Social Login
- Session Management, HTTPS and SSL/TLS
- Security Best Practices, Preventing Common Attacks
- Rate Limiting and Throttling, Dependency Security
- Assignment - Implement JWT-based authentication in your API.
- Implemented JWT-based authentication and apply security best practices

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%207](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%207)

**Plans for next week:**

- Assignment - Enhance your Express.js application.
- Enhanced Express.js application with advanced routing and error handling.

**References:**

- <https://jwt.io/introduction/>
- <https://expressjs.com/>



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Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 8	Duration: 08/07/24: 13/07/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- Advanced Routing, Error Handling in Express
- Performance Optimization, Middleware Stacks
- Express and WebSocket Integration, File Uploads
- Server, Express App Structure
- Assignment - Enhance your Express.js application.
- Enhanced Express.js application with advanced routing and error handling.

Proof of Work: [https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/Week%208](https://github.com/BumbleBee09/Celebal_Internship/tree/main/Week%208)

**Plans for next week:**

- Completing the Project.

**References:**

- <https://expressjs.com/>



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Student Name: VRAJ VIPUL DESAI	Roll No 21IT032
Week No: 9	Duration: 15/07/24: 20/07/24
Company Name: Celebal Technologies	
Project Name: E-commerce Website Backend	

**Summary of Work done the week:**

- Implemented the user shopping cart functionality (add to cart, remove from cart, view cart).
- Developed the checkout process including order placement and payment integration.
- Conducted comprehensive testing and debugging of the entire application using Postman.

Proof of Work:

[https://github.com/BumbleBee09/Celebal\\_Internship/tree/main/E-commerce\\_Final\\_Project](https://github.com/BumbleBee09/Celebal_Internship/tree/main/E-commerce_Final_Project)

**References:**

- <https://expressjs.com/>
- <https://nodejs.org/en/docs/>
- <https://docs.mongodb.com/>
- <https://jwt.io/introduction/>
- <https://www.youtube.com/watch?v=gnsO8-xJ8rs>
- [https://www.youtube.com/watch?v=7S\\_tz1z\\_5bA](https://www.youtube.com/watch?v=7S_tz1z_5bA)
- <https://www.youtube.com/watch?v=9zUHg7xjIqQ>



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