

MERN Stack Training

Company: Sensation Software Solutions

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Training Duration: 6 Months

Days: 87

Objective of the Day

The objective of **Day 87** was to implement the **complete CRUD functionality** for tasks and configure secure **file upload handling** using Multer. The goal was to ensure that tasks can be created, updated, fetched, and deleted efficiently with optional image uploads.

Introduction to API Development

The trainer started the day by explaining RESTful API principles and how frontend applications communicate with backend servers.

Emphasis was placed on HTTP methods such as **GET, POST, PUT, and DELETE**.

Multer Middleware Configuration

A custom Multer middleware was implemented with:

- File size limitation
- Allowed formats (JPEG, PNG)

- Rejection of unsupported files

This ensured secure and optimized file handling.

Create Task API

The **POST /api/tasks** endpoint was implemented to:

- Parse multipart form data
- Upload image if provided
- Generate image URL
- Save task data to MongoDB

Special handling was done to allow task creation **with or without an image**.

Other CRUD APIs Implementation

Additional APIs were implemented:

- **GET /api/tasks** – Fetch all tasks
- **GET /api/tasks/:id** – Fetch single task
- **PUT /api/tasks/:id** – Update task data
- **DELETE /api/tasks/:id** – Delete task

Filtering by status was added using query parameters.

API Testing Using Postman

All APIs were thoroughly tested using Postman to verify:

- Data validation
- Error handling
- File upload functionality
- Filtering logic

Learning Outcome

- Strong understanding of CRUD APIs
- Hands-on experience with file uploads
- Backend debugging and testing skills

Conclusion

Day 87 successfully completed the **backend development phase**, delivering a fully functional task management API system.

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