

Overview :

This project aims to build a backend system using NestJS with TypeORM and SQLite as the database. The system follows a modular architecture and is designed to manage Users, Teams, Projects, and Tasks.

Each of these modules (Users, Teams, Projects, Tasks) is developed as a RESTful API, which allows frontend or client apps to interact with the backend securely and efficiently. The application uses JWT (JSON Web Token) for authentication and securing endpoints.

Technologies used :

- NestJS
- TypeORM
- SQLite
- Docker
- Swagger UI
- JWT

API Structure :

The application follows a RESTful structure with common HTTP methods:

- **GET** – Retrieve data
- **POST** – Create new data
- **PUT** – Update existing data
- **DELETE** – Remove data

Status codes :

Code	Meaning
200	Request succeeded
400	Invalid data or input
401	Missing or invalid token
403	Access denied
404	Not found
405	Method Not Allowed (wrong HTTP method)
500	Internal Server Error

Endpoints :

Endpoint	HTTP Method	Description
/users	GET	Get list of users
/users	POST	Create user account
/teams	POST	Create a new team
/teams/:id	DELETE	Delete a team by ID
/projects	GET	Get all projects
/projects/:id	DELETE	Delete a project by ID
/tasks	POST	Create a task
/tasks/:id	DELETE	Delete a task by ID
/budget	POST	Add new budget entry
/budget/:id	PUT	Update a budget entry by ID
/health_status	GET	Get the health status
/dates	GET	Get a list of important dates
/dates/:id	PUT	Update an existing date entry

Note: All endpoints will be protected using JWT-based authentication to ensure secure access. Additionally, Swagger UI is integrated into the project to provide an interactive interface for testing and exploring the API endpoints.