

Full Stack Mini App with Docker Compose

Project Description

This project is a small full-stack web application built with Node.js, MongoDB, and a minimal frontend using HTML and JavaScript. The goal was to containerize the entire application using Docker Compose, making it easy to run everything with a single command.

Technologies Used

- Backend: Node.js + Express.js
- Database: MongoDB
- Frontend: HTML + JavaScript
- Docker + Docker Compose

Features

- Add a new note
- Display all notes
- Delete note by ID (optional)
- Data is persisted in MongoDB Docker container

Project Structure

```
fullstack-mini-app/
|
├── backend/
|   ├── Dockerfile
|   ├── package.json
|   └── server.js
|
├── frontend/
|   ├── Dockerfile
|   ├── index.html
|   └── script.js
|
├── docker-compose.yml
└── README.md
```

How to Run the App

1. Open terminal and navigate to the root of the project folder.
2. Run the following command:
 docker-compose up --build

3. Open your browser and go to <http://localhost:8080>
4. Add or view notes.
5. Data is saved into MongoDB and can be viewed with MongoDB Compass.

Screenshots

Below are the screenshots showing the Docker containers running and the saved note confirmation:

<input type="checkbox"/>		fullstack-mini-aj	-	-	-	0.47%	2 minur			
<input type="checkbox"/>		mongo-1	f74a2de995f3	mongo	27017:27017 ↗	0.47%	2 minur			
<input type="checkbox"/>		backend-1	1f72fa6852d0	fullstack-m	3001:3001 ↗	0%	2 minur			
<input type="checkbox"/>		frontend-1	ef29857175e6	fullstack-m	8080:80 ↗	0%	2 minur			

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

"I", "c":"NETWORK", "id":51800, "ctx":"conn3","msg":"client m
etadata","attr":{"remote":"172.19.0.3:54538","client":"conn3","ne
gotiatedCompressors":[],"doc":{"driver":{"name":"nodejs|Mongoose"
,"version":"5.9.2|7.8.6"},"platform":"Node.js v18.20.8, LE","os":
{"name":"linux","architecture":"x64","version":"5.15.167.4-micros
oft-standard-WSL2","type":"Linux"}}}}
frontend-1 | 172.19.0.1 - - [24/Apr/2025:08:00:41 +0000] "GET /
HTTP/1.1" 304 0 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) Ap
pleWebKit/537.36 (KHTML, like Gecko) Chrome/135.0.0.0 Safari/537.
36" "-"
frontend-1 | 172.19.0.1 - - [24/Apr/2025:08:00:41 +0000] "GET /s
cript.js HTTP/1.1" 304 0 "http://localhost:8080/" "Mozilla/5.0 (W
indows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko
) Chrome/135.0.0.0 Safari/537.36" "-"
backend-1 |  Saved note: {
backend-1 |   text: 'Test nga Roza',
backend-1 |   _id: new ObjectId("6809efb2f95ae6e8f0609345"),
backend-1 |   __v: 0
backend-1 | }
[]

View in Docker Desktop  View Config  Enable Watch
```