
Group 05

muly
Software Architecture Document

Version <1.3>

muly	Version: <1.3>
Software Architecture Document	Date: <23/12/2022>
<document identifier>	

Revision History

Date	Version	Description	Author
08/12/2022	<1.1>	Draw class and write report	muly
09/12/2022	<1.2>	Draw class and write report	muly
23/12/2022	<1.3>	Reconstruct folder tree and update DB schema	

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Software Architecture Document

1. Introduction

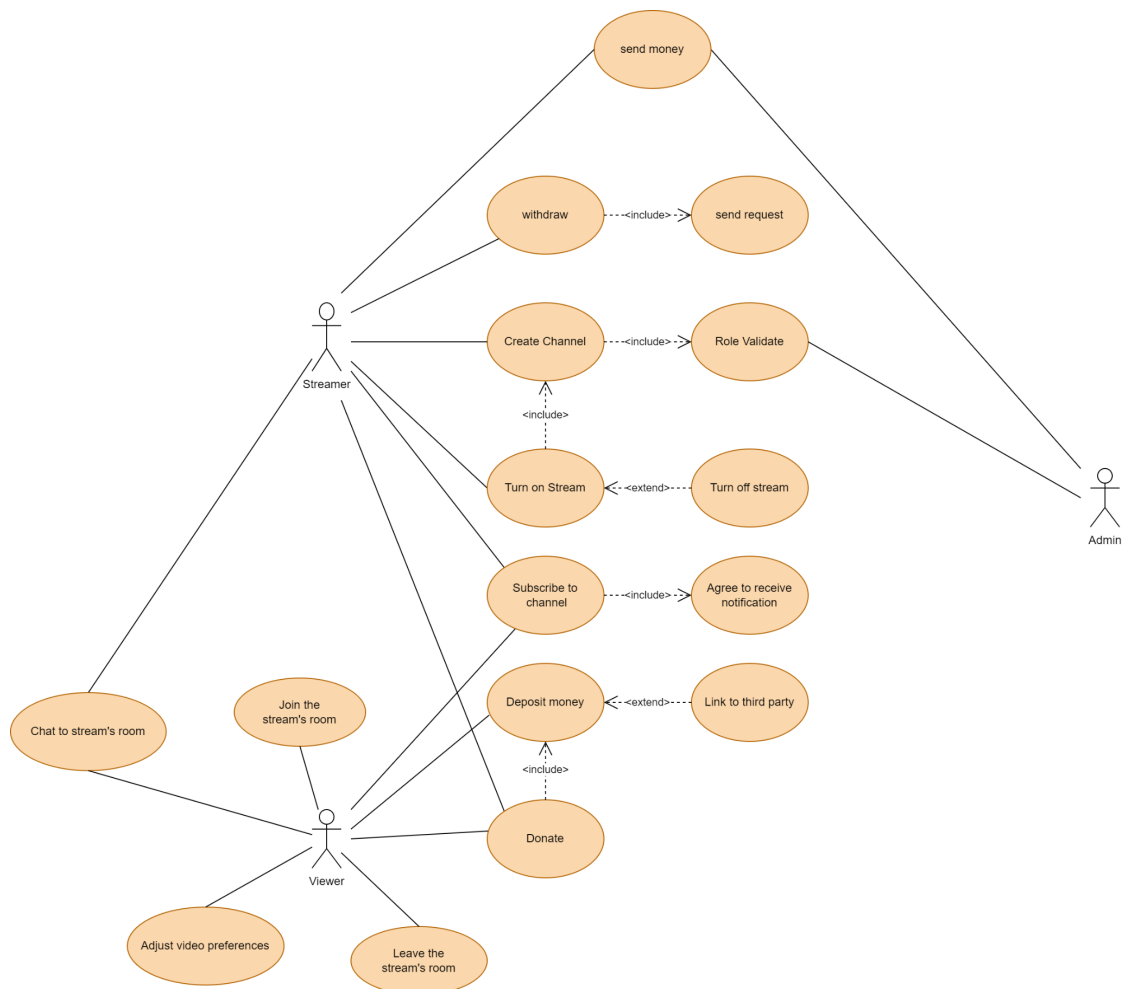
This Software Architecture Document provides an overview of the architecture of the **muly** website.

The document is intended to provide a comprehensive architectural overview of the system with different architectural views from different aspects of the system. Moreover, it conveys the significant decisions which have been made on the project.

2. Architectural Goals and Constraints

- Programming Language: Go (Back-end), JavaScript(Front-end).
- The application should run all current modern browsers.
- The application should support a minimum of 50 users at the same time watching one streaming session.
- Delay of streaming should not be higher than 5 minutes.

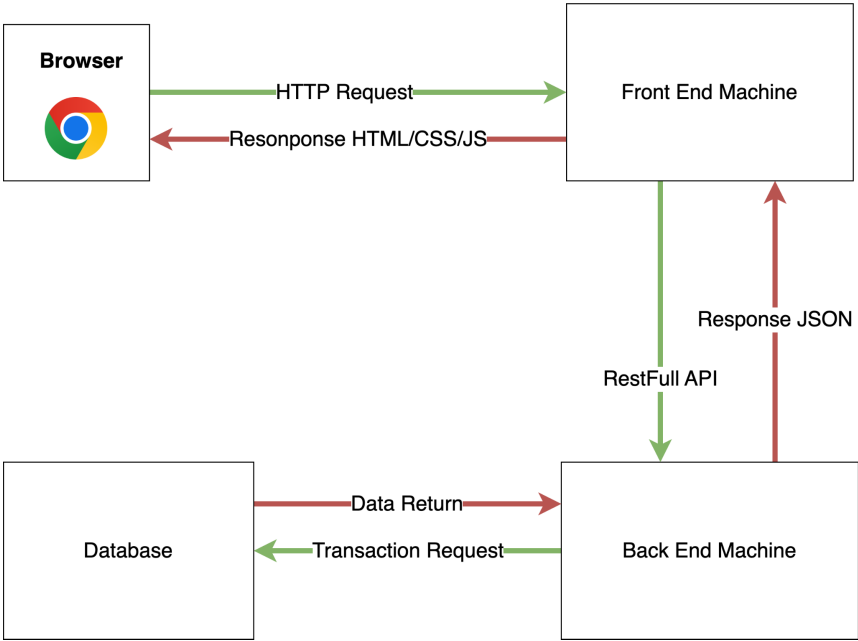
3. Use-Case Model



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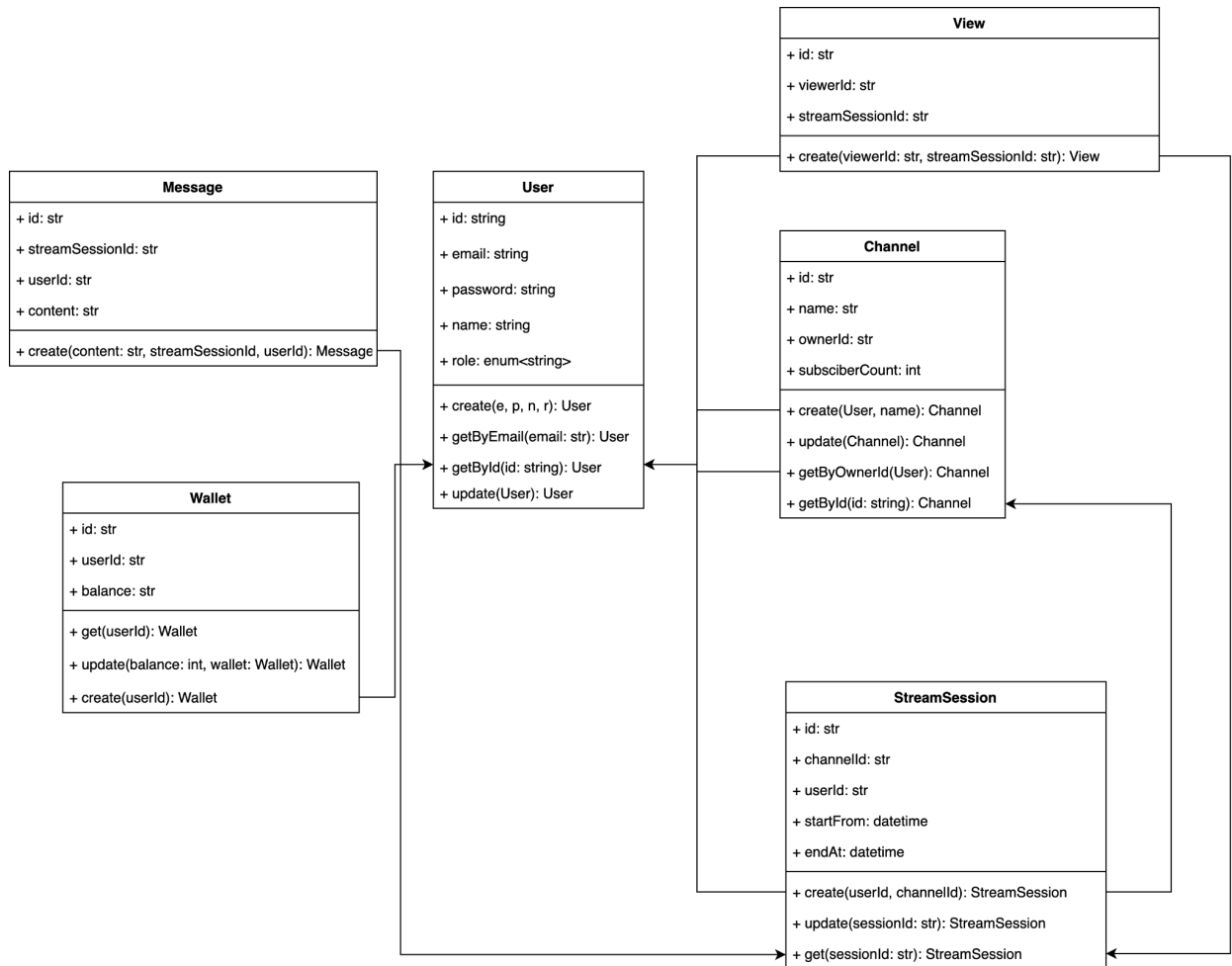
4. Logical View

Logical View



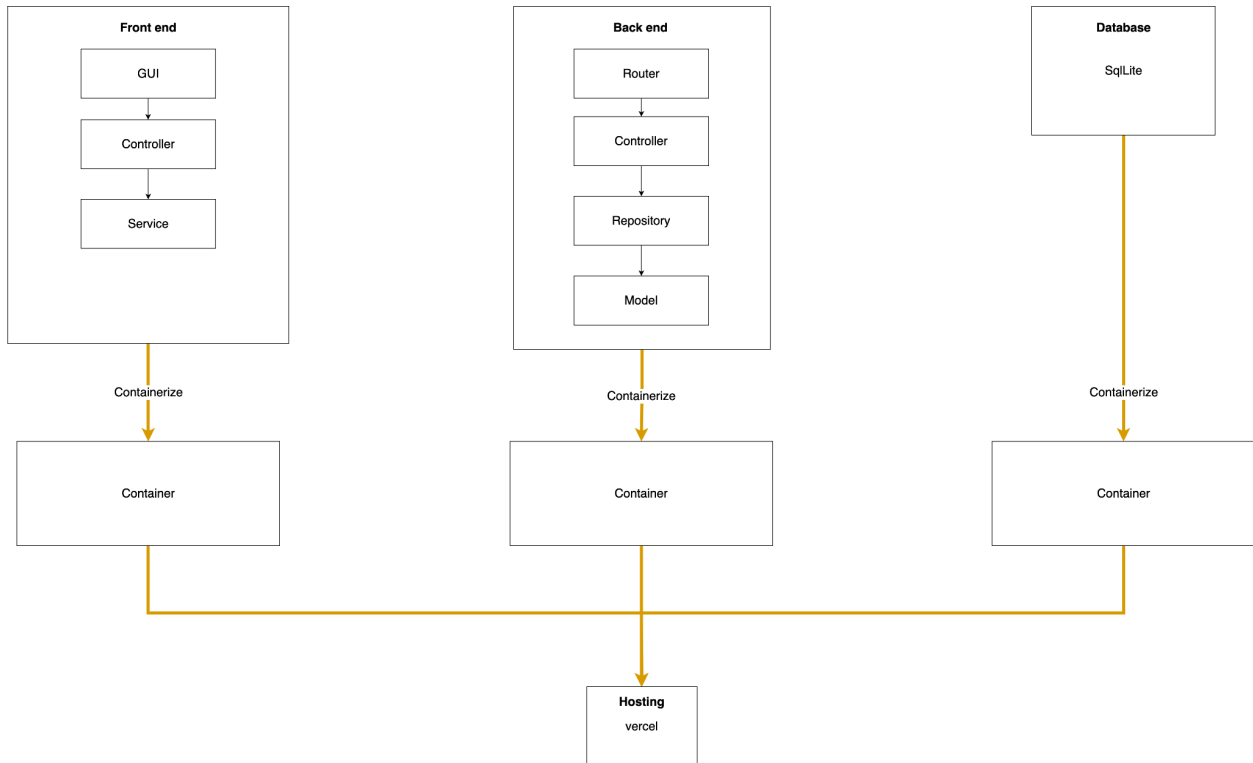
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4.1 Component:



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5. Deployment View



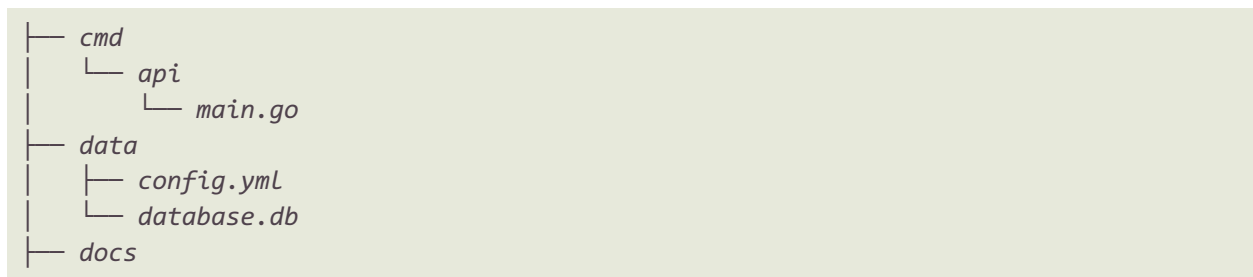
The figure above shows the entire deployment view of **muly**:

- We containerize three sources front-end, back-end, and database into the container by docker.
- Deploy three sources into Vercel service with port 8080 for front-end and 3000 for back-end.
- Client sends a request to port 8080 to get HTML/CSS/JS and the front-end code will call port 3000 to execute server-side stuff.

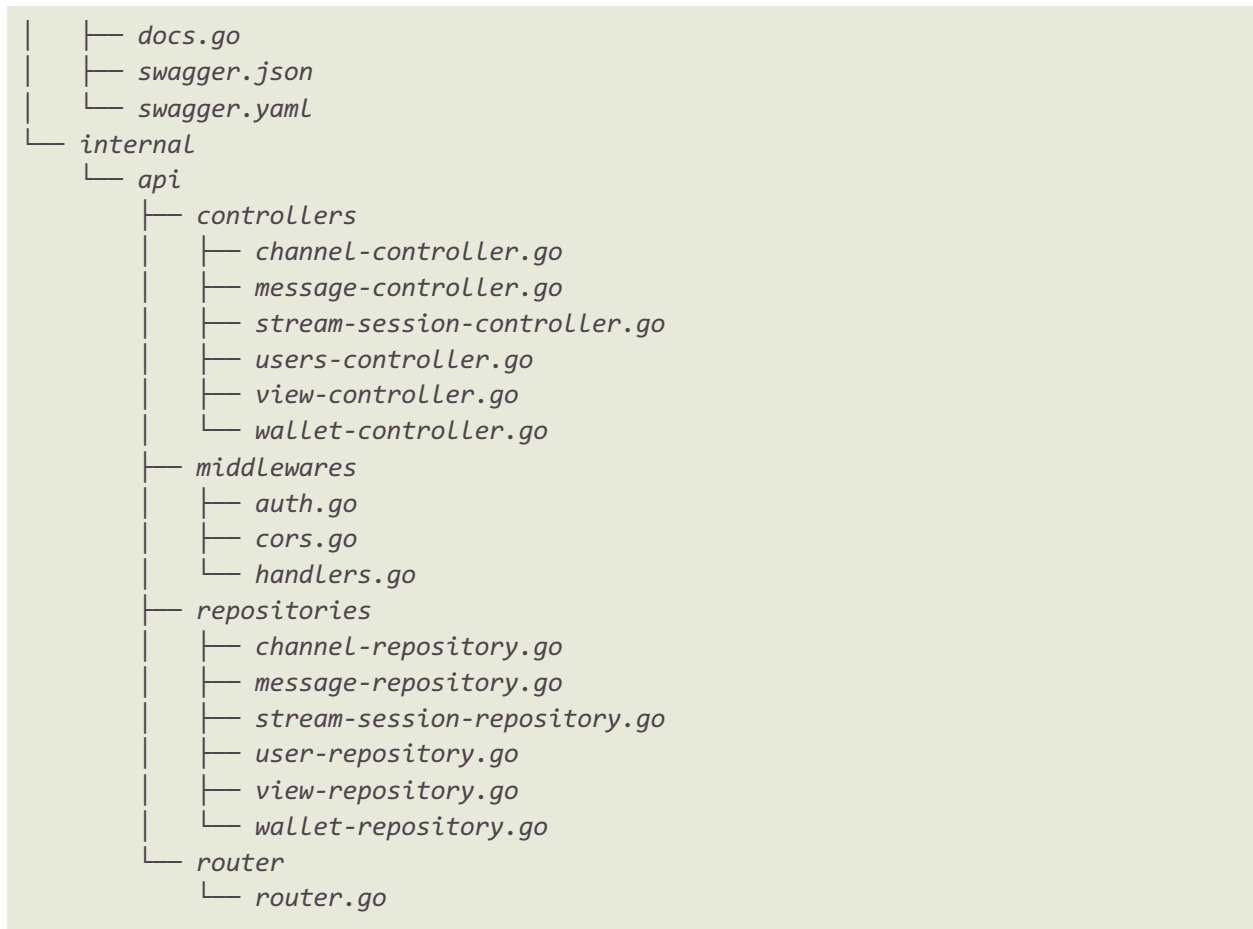
Node:

- **Frontend:** We deploy frontend in port 8080 to send CSS/HTML/JS to the browser client whenever they request, frontend will call to port 3000 of backend to request logic processing and data interacting
- **Backend:** Backend node will be deployed in port 3000 of EC2 service in AWS web services. Backend will call the SQLite database to get and update data
- **Database:** We deploy databases in the same EC2 instance at port default 5432

6. Implementation View



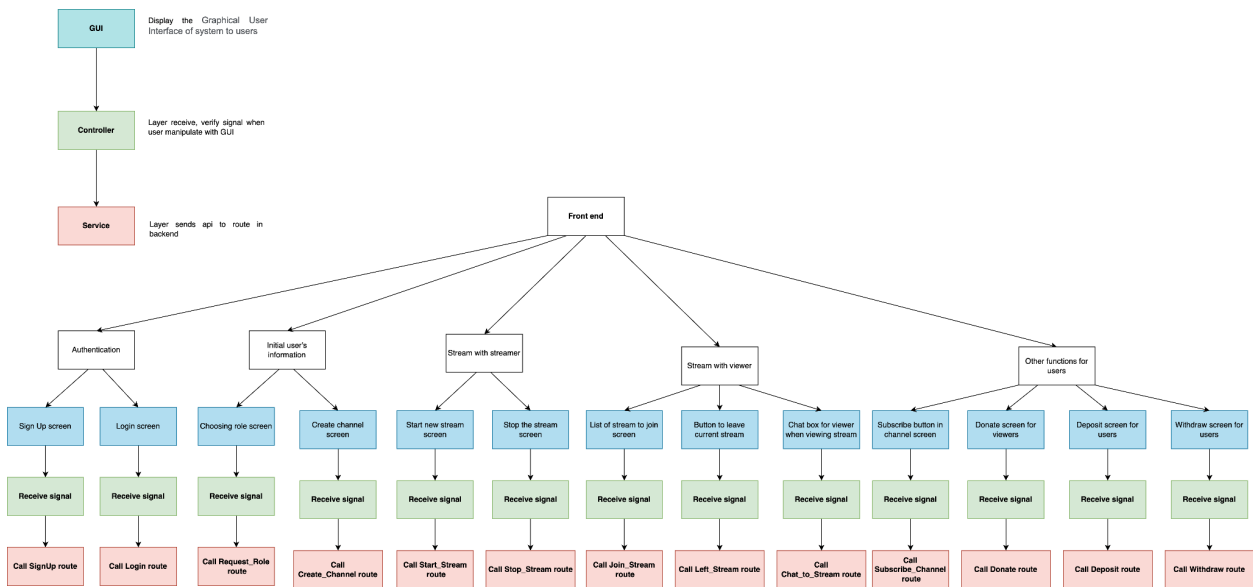
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7. Implementation View

7.1 Front end:

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7.2 Back end:

