



# **Team 4 early**

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DiplomaGuild DAO

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# The DiplomaGuild DAO Team



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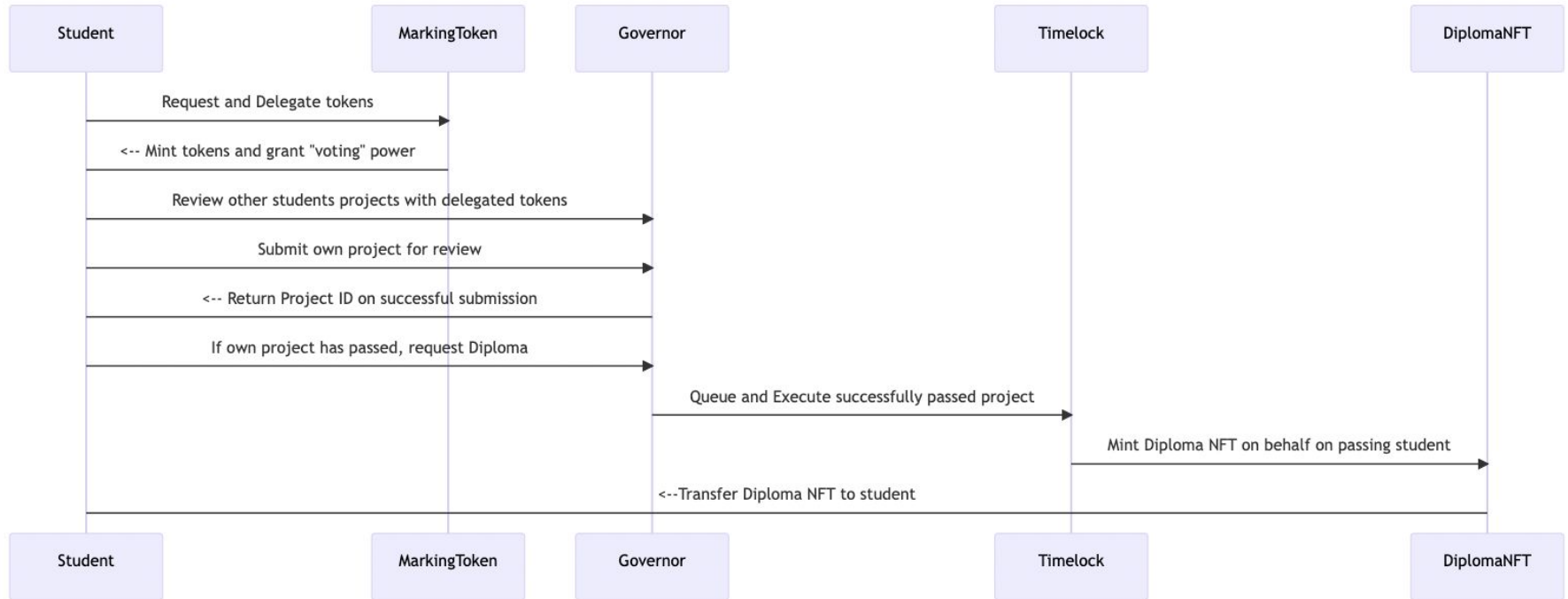
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# OVERVIEW

DiplomaGuild DAO is a community governed educational organization

- Student uploads project on IPFS and submits project to DAO
- Community grades body of work uploaded to IPFS
- Soulbound diploma is issued upon successful completion

# SEQUENCE DIAGRAM



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# CONTRACTS

DiplomaGuild DAO functions with 5 smart contracts

- OpenZeppelin governor system used as foundation
- ERC20 token contract used for voting
- Timelock contract manages roles and execution delay
- Soulbound ERC721 token contract used to issue diploma
- One additional contract for tracking project state



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# FRONTEND

- Used React with the tailwind daisyUI library
- Rainbow Wallet for provider and signing transactions
- Three pages: Main, My Projects and Cohort
- Main: mint voting tokens and navigate to other pages
- My Project: submit your project to IPFS and view status
- Cohort: view all projects submitted by cohort and vote



# BACKEND

- NEST API built to handle minting of soulbound NFT diploma

To facilitate the Timelock aspect of the DAO i.e. Queuing and Execution, an API layer is implemented with the following single end-point that will be called by the Application's front-end:

POST /queue-and-execute

Request Body:

```
{
  projectURL: <STRING>
  studentAddress: <STRING>
}
```

Response:

```
{
  execution_tx_id: <STRING>
}
```





# Thank you!

Additional information:

<https://github.com/w3ia/Encode-Solidity-Bootcamp---Team-4-Final-Project/blob/main/README.md>