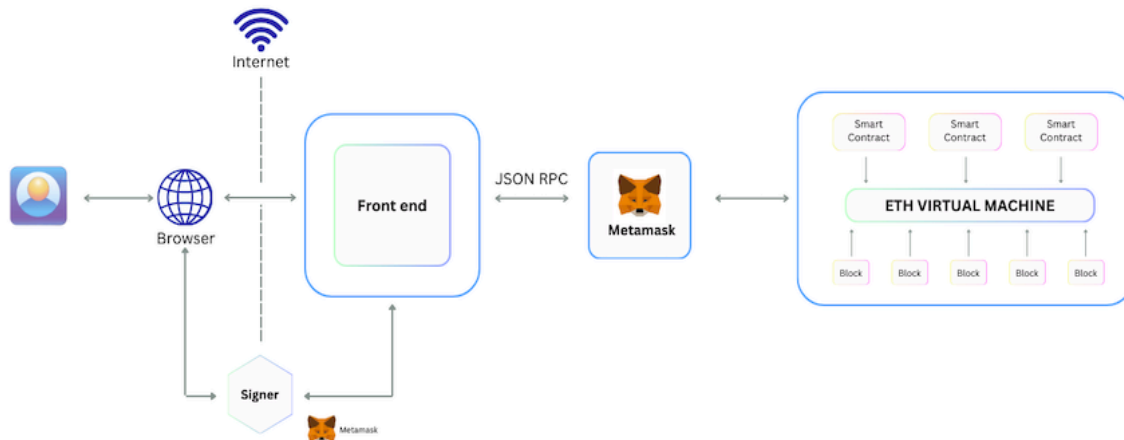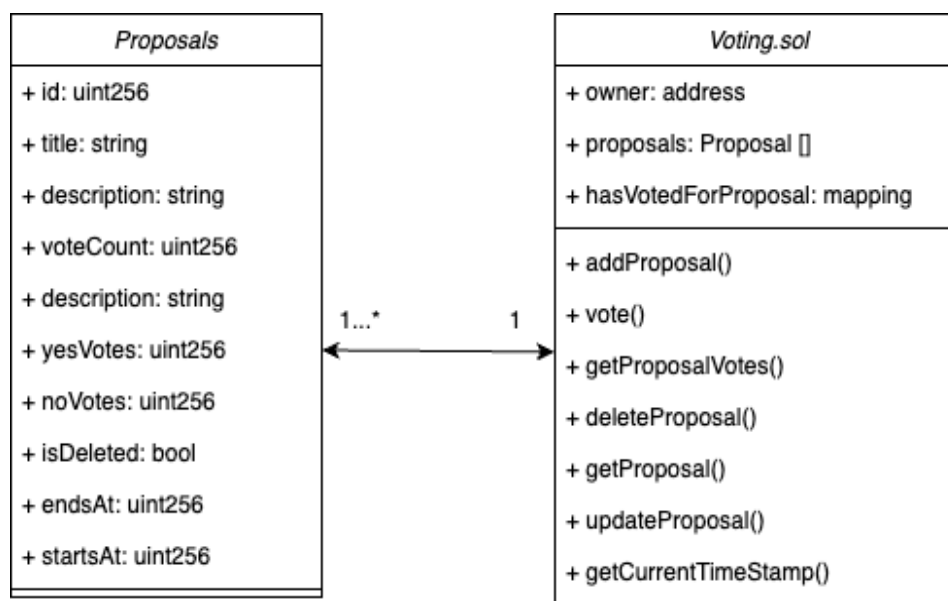# SOFTWARE DESIGN

FUNIX VOTING DAAP

1. Architecture

2. Application Design

3. Functional Design

- ➢ **addProposal()**
    - ○ *Function Name*: addProposal
    - ○ *Function Purpose*: Adds a new proposal to the list of proposals.
    - ○ *Parameters*:
        - ■ _title (string): Title of the proposal.
        - ■ _description (string): Description of the proposal.
        - ■ _endsAt (uint256): Timestamp when the proposal ends.
    - ○ *Modifiers*:
        - ■ nonEmptyString: Checks that strings are not empty.
    - ○ *Access:* Public
    - ○ *Return Type*: None
    - ○ *Events:* Emits ProposalAdded event.
- ➢ **vote()**
    - ○ *Function Name:* vote
    - ○ *Function Purpose:* Allows a user to vote on a specific proposal.
    - ○ *Parameters:*
        - ■ _proposalId (uint256): Identifier of the proposal.
        - ■ _yesVote (bool): Indicates whether the vote is "yes" or "no".
    - ○ *Access:* Public
    - ○ *Return Type:* None
- ➢ **getProposalVotes()**
    - ○ *Function Name:* getProposalVotes
    - ○ *Function Purpose:* Retrieves the number of "yes" and "no" votes for a specific proposal.
    - ○ *Parameters:*
        - ■ _proposalId (uint256): Identifier of the proposal.
    - ○ *Access:* Public
    - ○ *Return Type:* Two uint256 values (yesVotes, noVotes).
- ➢ **updateProposal()**
    - ○ *Function Name:* updateProposal
    - ○ *Function Purpose:* Allows the owner to update the details of a proposal.

- ○ *Parameters:*
  - ■ _proposalId (uint256): Identifier of the proposal.
  - ■ _title (string): New title of the proposal.
  - ■ _description (string): New description of the proposal.
  - ■ _endsAt (uint256): New time in minutes when the proposal ends.
- ○ *Modifiers:*
  - ■ onlyOwner: Restricts access to the owner of the contract.
- ○ *Access:* Public
- ○ *Return Type:* None

➢ **deleteProposal()**
- ○ *Function Name:* deleteProposal
- ○ *Function Purpose:* Allows the owner to delete a proposal.
- ○ *Parameters:*
  - ■ _proposalId (uint256): Identifier of the proposal.
- ○ *Modifiers:*
  - ■ onlyOwner: Restricts access to the owner of the contract.
- ○ *Access:* Public
- ○ *Return Type:* None

➢ **getProposals()**
- ○ *Function Name:* getProposals
- ○ *Function Purpose:* Retrieves all non-deleted proposals.
- ○ *Access:* Public
- ○ *Return Type:* Array of Proposal structs.

➢ **getCurrentTimestamp()**
- ○ *Function Name:* getCurrentTimestamp
- ○ *Function Purpose:* Retrieves the current timestamp.
- ○ *Access:* External
- ○ *Return Type:* uint256