

IDEATION PHASE

Date	04 NOVEMBER 2023
TeamID	NM2023TMIDO2239
Project Name	Electronic Voting System
Maximum Mark	4 Mark

BRAINSTORM & PRIORITIZE IDEAS

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Step-1: Team Gathering, Collaboration and Select the Problem Statement

1

Define your problem statement

Electronic voting systems have been in use for decades, but they have been plagued by issues such as vote rigging, hacking, election manipulation, and booth capturing. Blockchain technology can provide a solution to these problems by offering decentralized nodes for electronic voting, which can replace traditional electronic voting solutions with distributed, non-repudiation, and security protection characteristics. However, there are still some challenges that need to be addressed when it comes to electronic voting systems using blockchain technology.

🕒 5 minutes



Key rules of brainstorming

To run a smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

2

Brainstorm

Ideas that come to mind that address our problem statement.

🕒 10 minutes

A.Aswin

- The system can use cryptographic techniques to ensure the privacy of the voters while also ensuring that the voting process is fair and transparent
- The system can use a consensus mechanism that is optimized for high transaction speed, such as Proof of Stake (PoS) or Delegated Proof of Stake (DPoS)

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- The system can be designed to be highly reliable by using redundant nodes and a fault-tolerant architecture.
- The system can use a combination of cryptographic techniques and decentralized nodes to provide a secure and anonymous system for voting

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- The system can be designed to be accessible to all eligible voters, regardless of their location or technical capabilities, by using a user-friendly interface and providing support for multiple languages
- The system can use a combination of cryptographic techniques and decentralized nodes to allow voters to verify that their vote has been counted accurately

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- The system can be designed to provide a secure and tamper-proof system for voting by using a combination of cryptographic techniques and decentralized nodes
- The system can provide end-to-end verification of votes by using a combination of cryptographic techniques and decentralized nodes to ensure that each vote is counted accurately and that no votes are lost or tampered with.

Step-2: Brainstorm, Idea Listing and Grouping

3

Group ideas

Let's brainstorm some key ideas for implementing an electronic voting system using blockchain

🕒 20 minutes

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

Decentralized Ledger

- Utilize blockchain to create a decentralized and tamper-resistant ledger of votes.
- Each vote is recorded as a block, linked in a chain, providing transparency and security

Smart Contracts

- Implement smart contracts to automate the voting process.
- Smart contracts can verify voter eligibility, count votes, and trigger events based on predefined rules.

Incentivize Node Operators

- Introduce a reward system for individuals or organizations running blockchain nodes.
- This could encourage more participation in maintaining the network, enhancing its overall security and reliability.

Multi-language Support

- Ensure that the electronic voting system supports multiple languages to cater to a diverse voter demographic.
- This promotes inclusivity and accessibility.

Immutable Timestamps

- Implement timestamping for each vote to enhance the chronological integrity of the blockchain.
- This can be crucial for auditing and resolving disputes.

Integration with External Systems

- Allow integration with external systems, such as government databases, to streamline the verification process.
- This can enhance accuracy in confirming voter eligibility.

Step-3: Idea Prioritization

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Prioritize

Let's prioritize the group ideas based on both importance and feasibility

🕒 20 minutes



