SMART VOTING

Presentation Two

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Introductions

The Project Team

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Technology Stack

Front End - React

Advantages

- Open source
- Fast workflow
- Large community support
- Frequently updated
- Easy to test
- Easy to deploy

Disadvantages

- Environment constantly changes
- Documentation can be challenging

Back End - Node JS

Advantages

- Open source
- Large community support
- Scalable
- Event based models
- JSON support

Disadvantages

- Poorer performance with more computation
- Asynchronous
- Documentation can be challenging

Back End - Express JS

Advantages

- Open source
- Scalable
- Supports caching
- Supports middleware
- Well documented

Disadvantages

- Asynchronous
- Error messages can be unhelpful

Database - PostgreSQL

Advantages

- Open source
- Highly expandable
- Low maintenance
- Includes logging for fault tolerance
- Process complex data types
- Large language support
- JSON support

Disadvantages

- Slower than MySQL
- Requires more work for configuration than MySQL

Database - Amazon DynamoDB

Advantages

- High performance
- Able to handle large datasets
- Highly scalable
- Predictable pricing

Disadvantages

- Can only be deployed to AWS
- Limited support for advanced queries
- No support for triggers or joins

Database - Amazon Quantum Ledger Database

Advantages

- Immutable and transparent
- Cryptographically verifiable
- Easy to learn and use
- High levels of security
- Entries can not be modified or deleted once written to the ledger

Disadvantages

- Serverless - Can only run on AWS
- Can not be run on premise

Storage - Amazon S3

Advantages

- Extensive documentation
- Highly scalable
- Reliable and secure
- High durability
- Easy integration with other AWS services
- Simple server-side encryption
- Low cost

Disadvantages

- Steep learning curve
- Complex to setup and configure
- Poor online user interface
- Slow access to objects

Functional Prototype

https://adobe.ly/32QpYQz