



Atheneum
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What is Atheneum?

Atheneum is a decentralized file-sharing platform that utilizes the Ethereum Blockchain to handle transactions without third party involvement.



Problem/Application Domain

- Third party involvement with transactions are not instant
- Other sites use subscription fees to access their content
- Other sites censor content
- Blockchain technology is new and upcoming, with all payments made publicly on the blockchain

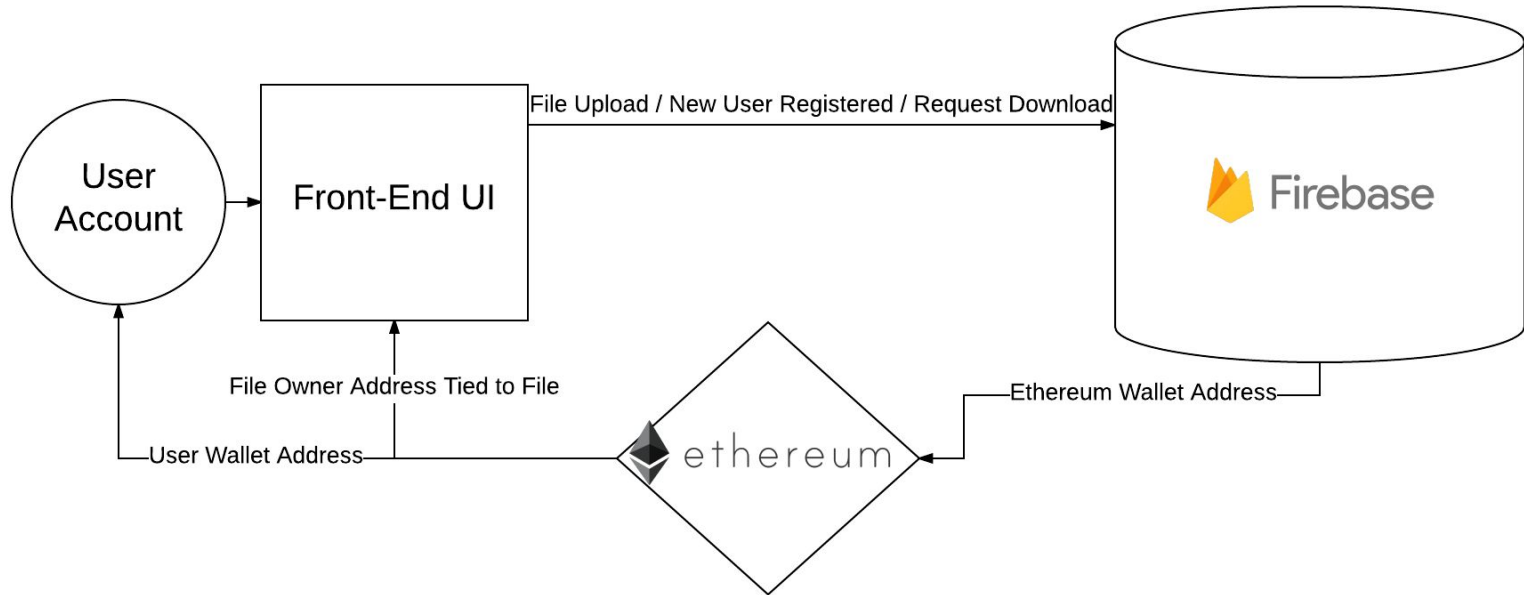
SOLUTION: Utilize the Ethereum blockchain to create peer to peer file exchange

Goals

- Users can utilize Ether as a form of a payment for content they want to download
- Users can create their own accounts
- Users can upload their own content
- Users can access their transaction history posted on the Ethereum Blockchain
- Users can rate content they've purchased

Completed: 5/5

System Diagram



Demo

Can be viewed [HERE](#)



System Screenshots Available: [Here](#)



Technologies and Tools

Technology

- Ethereum (Blockchain)
- Web3.js
- Material Design Light (HTML Framework)
- Solidity(smart contracts)
- Firebase (Database and Cloud Storage)
- Node.js and Express (Javascript frameworks)

Tools:

- Cloud9.io (Collaborative IDE)
- Slack (Communication)
- Heroku (Hosting)
- Google Drive (Document creation)
- Github (Version control)
- MetaMask(Chrome-Plugin for Ethereum Wallets)
- Trello (Scrum board)

Challenges and Accomplishments

Challenges:

- DDOS attacks
- Downloading the entire blockchain to deploy our smart contract
- Interacting with the blockchain
- The campus buses
- Coordinating the varying schedules of five team members.

Accomplishments

- Number 1 Ether based meme marketplace in Santa Cruz county.
- Only 0.05 Eth(\$12) for the hottest memes!
- Directly contributed to the great upward trajectory of Eth prices.
- Implemented a contract on the Ethereum Blockchain!

Project Management Techniques

- Scrum Meetings three times per week.
- Focus on mobile scrum
- Informed division of labor
- Frequent integration of components.
- Emergent Architecture
- Adaptation to changing requirements.



Reflections

Things we enjoyed:

- Learning new technologies and languages.
- Learning about, and developing software for new and exciting blockchain technology.
- Experiencing the growing Ethereum community.

Things we did not enjoy:

Nothing



Lessons Learned

- Don't be scared to change technology, it can be really worth it.
- Expect a lot of setbacks when working with developing technologies.
- Frequent communication is key to success.
- Push and merge early.

Questions?

