

BoilerTicketChain Q&A

1) What is the purpose of BoilerTicketChain?

- The purpose of BoilerTicketChain is to create a safe and reliable platform for University students and fans to exchange and auction tickets for sports and other events.
- Our aim is to address issues related to traditional ticketing systems, such as fraud, lack of transparency, and difficulty in tracking tickets. By using blockchain technology, the project aims to create a secure system for managing tickets.

2) Who would want to use BoilerTicketChain?

- Any students looking to buy or sell tickets related to events taking place in their University. BoilerTicketChain aims to provide a secure and automated tool to exchange tickets so that the user does not have worry about fraud, counterfeiting or any complications that may arise during such transactions.

3) How do you use BoilerTicketChain?

- It's simple! Just log on to our app and start a session by connecting to your MetaMask account. After which you will be directed to our marketplace where you can see all the tickets up for sale. If you are a seller you can access your "MyProfile" page which will show you all the tickets you own after which you can decide which ones to list on the market.

4) How does BoilerTicketChain provide security and reliability?

- BoilerTicketChain aims to be secure and reliable through its use of blockchain technology, which provides a secure and tamper-proof way of storing data. Each ticket is recorded on the blockchain, creating a transparent and immutable ledger of all ticket transactions. This makes it difficult for bad actors to tamper with the data or alter any records.
- Additionally, the use of smart contracts on the blockchain ensures that transactions are executed automatically and without the need for intermediaries, reducing the risk of fraud or errors. The smart contracts are programmed with specific rules and conditions that must be met before a transaction can be executed, providing an added layer of security and reliability.

5) What tools were used to build BoilerTicketChain?

- Ethereum: A popular decentralized blockchain that allows for the creation of smart contracts and decentralized applications.
- Solidity: A programming language used to write smart contracts that run on the Ethereum platform. Using solidity we were able to implement most of our backend functionality.
- Hardhat: A development environment for building, testing, and deploying our smart contracts on Ethereum.
- IPFS: A decentralized file storage system that provides a peer-to-peer method of storing and sharing hypermedia in a distributed file system.
- React.js: A JavaScript library used for building user interfaces for web applications.
- Next.js: A framework built on top of React.js that adds features like server-side rendering and automatic code splitting to improve the performance of web applications.

- Node.js: A JavaScript runtime that allows developers to run JavaScript code outside of a web browser, making it possible to build server-side applications.
- Ethers.js: A JavaScript library that provides a simple and consistent API for interacting with Ethereum-based blockchains and smart contracts.

6) **How to buy a ticket?**

- Once you log into our application and connect to your MetaMask account you will be directed to a marketplace where you will be able to view all the tickets for sale after which you can view the ticket details and buy it.

7) **How to sell a ticket?**

- After logging on to our application if you visit the user profile page you will be able to see the various tickets you own. If you decide to sell a ticket you list the ticket on the marketplace from there.

8) **Can fake tickets be uploaded to the marketplace from the seller?**

- **No!**, our implementation ensures that all the tickets that are in circulation are originally minted and owned by the admin and stored on the blockchain. Our smart contract ensures that only and only the admin can mint the tickets and using the blockchain we can verify the owner reducing the risk of fraud.

9) **Is BoilerTicketChain only aimed for Purdue Students?**

- For now yes, but we can improve and change the UI to make specific to any University that may want to use the application.

10) **Is BoilerTicketChain free to use?**

- Yes! It is free to use, our aim is to enable user to user interaction directly without the interference of 3rd Party vendors who may try and artificially inflate the prices of tickets.