CS300 - Group 5 - PA0

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1. Introduction

Our idea:

AuraSky NFT marketplace is a digital platform where users can easily buy and sell NFTs with minimal complexity. AuraSky offers a straightforward and user-friendly interface, making it accessible to a broad audience. Users can create their NFTs, explore available items, and complete transactions with ease, without the added features and complexity found in larger NFT marketplaces like OpenSea. The focus is on simplicity and a seamless user experience for NFT trading.

A short introduction about NFT:

- An NFT can represent anything, but let's explore some of the ways NFTs are being used today and potential implementations for the future.

- NFT (Non-Fungible Token) is a digital certificate of ownership for unique digital items. NFTs may be art, profile pictures, collectibles, domain names, ticketing and membership, gaming, virtual works, and future applications. It's a way to prove the authenticity and scarcity of digital assets.

The reasons why it is worth doing:

- The diverse range of NFTs from the world's brilliant artists and influencers.

- With the increase in interest from artists, collectors, and investors. Creating a marketplace allows you to tap into this expanding market.

- Create a place where you can buy and sell like traditional markets.
  Verify identity in a unique way.

- Creating a bridge allows users to connect to popular blockchain networks.

- Blockchain ensures transparent ownership and transaction history, which can build trust among users.

- Explore your virtual worlds.

- AuraSky can serve as an educational platform → help users learn about blockchain technology and NFTs.

2. Target users and environments

Target users

Our NFT marketplace is a vibrant, user-friendly platform that caters to both creators and collectors, offering a wide range of features to empower and connect users in the ever-expanding world of non-fungible tokens.

Whether you're an artist, a crypto enthusiast, or a collector, we provide the tools and community to make your NFT journey an exciting and rewarding one. **Anyone**, especially those with an interest in crypto and NFTs.

Environments

Web apps are easy to use on computers, laptops, and mobile phones which can use search engines like Google, CocCoc, or Safari.

Technologies

Frontend

- Next.js using TypeScript

- Connect crypto wallet via Metamask Web3 API

Backend

- Using Firebase for image storage

- Real-time database using MongoDB

- NodeJS and ExpressJs for server

Smart contract (Blockchain)

- Solidity

- Metamask API

- Endpoints:

  - ETH Testnet (Sepolia)

  - Poligon Testnet (Mumbai) (Optional)

3. Key features

- **Authenticate user with Metamask wallet**

Access our platform with identity and wallet ownership through their MetaMask wallet.

- **Create and keep track of your NFTs.**

Our intuitive interface makes it easy to manage your creations, whether they're unique artworks, collectibles, domain names, tickets, or virtual gaming items.

- **Sell your own NFTs (arts, profile pictures, collectibles, domain names, ticketing and membership, gaming, virtual works, and future applications,...).**

Monetize your digital talent or assets. List your NFTs for sale on our marketplace, reaching a global audience.

- **Buy and keep NFTs in your collections NFTs.**

Discover a vast world of unique digital assets. Browse, bid, and purchase NFTs from a variety of categories, adding them to your ever-growing collection.

- **Connect to multiple networks (ETH, BSC, Polygon,...).**

We support multiple blockchain networks, enabling you to transact with NFTs on Ethereum, Binance Smart Chain, Polygon, and more.

- **View trending, the most searched, the most valuable NFTs.**

Our platform allows you to explore trending NFTs, discover what's being searched for, and evaluate the most valuable NFTs, keeping you informed and inspired.

- **Stat the ranking and activities.**

Get insights into your NFT ranking and activities, empowering you to make informed decisions about your NFT portfolio and creations.

- **Ownership franchise to Partners.**

The ownership franchise feature lets you collaborate with others on NFT projects.

- **Join our social networks and enjoy your virtual world.**

Collaborate with others on NFT projects, creating new possibilities for joint ventures and co-ownership.

Tools setup

- **Trello**: https://trello.com/b/JbAaRdzN/intro2se-21tt1-group05

- **Github**: https://github.com/hoangrank1/AuraSky_NFT-Market

  This GitHub `repository/src` includes 3 main folders:

      AuraSky - Frontend

      AuraSky - Backend

      AuraSky - Blockchain

- **Google Drive:**
  https://drive.google.com/drive/u/1/folders/1oBKex-_WhGQxUWKy9zfq4bjAE7yiA3gq?fbclid=IwAR2IUwRQNaVR_U-RxDS2rQEJiA0JJdLHADJzx3zNwRN6yrzkGpNfJVsGBfk

- **Facebook Group:**
  https://www.facebook.com/groups/886216796170155

- **Slack:** https://app.slack.com/client/T05U2F1N4CW/C060ZQ56TCZ