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NFT HUNT APP

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Introduction to Idea -

NFT HUNT - My idea is a mobile application for NFT Hunting, which would incorporate the concept of augmented reality (AR) using the user's phone camera. The application will have 3 options :-

1. **Start Hunting :-**
   - User clicks this button and starts hunting for NFTs (similar to hunting of Pokemon in Pokemon Go).
   - User receives notification if NFT is within 5 metre radius of area of his location and guided to move to it
   - User finds NFT and collects it in his wallet by clicking on it (NFT will be debited from it's owner's account)
   - NFT gets collected in user's OpenSea account in "NFT_HUNT" named collection

2. **Connect OpenSea account option :-** Used to connect the respective OpenSea account of the user.

3. **Settings :-** Volume settings, Text Size Settings etc.

Tech Stack -

- Google Maps API - for location tracking
- ARCore(Android)
- Firebase - for real-time database, geolocation and push notifications
- Solidity – for smart contract as we will use Polygon blockchain
- Polygon Blockchain - Mumbai Testnet
- Java
- Web3j API - used to interact with the Mumbai testnet of Polygon
- Python - to convert jpeg to glb (basically to get 3d model)
- Chainlink Automation Tool - Used for automating NFT Transfer process without signing the transaction

NOTE :- Need to download Google ARCore app in your phone to run the app successfully.

What I Implemented in prototype -

- Implemented the fundamental functionality of "Start Hunting Option" i.e. the AR feature of to hunt NFTs (similar feature to hunting Pokemons in Pokemon Go).

- Upon discovering an NFT and tapping on it, the prototype app credits the NFT to the user's OpenSea account.

- Also implemented real-time function to show necessary messages ike Move Right, Move Left, etc. useful for hunting NFTs. (shows these messages only when NFT is in the vicinity of user).
- Automated NFT transfer process using Chainlink Automation so that user can directly get NFT in his account without signing the transaction.

- Video Demonstration link :- Dorahack_Hackathon_Submission

Screenshot Of Deployed Smart Contract -

Our smart contract is deployed at this Address :-
0x3C8829F81f174Eeefe7d01221b0A421cD9108E24

Screenshot :-


```
The following libraries are accessible:
• web3 version 1.5.2
• ethers.js
• remix

Type the library name to see available commands.
creation of MyToken pending...


  ✓    [block:42671949 txIndex:3]  from: 0x876...83a44 to: MyToken.(constructor) value: 0 wei data: 0x608...83a44 logs: 1 hash: 0x748...51b51
```

Screenshot Of Chainlink Upkeep -

Home /

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Status	Date ran	Balance	Minimum Balance ⓘ
⊘ Active	-	10 LINK	0.18388951667667136 LINK

Registry address	Total spent
🟪 0xf97C...C14A ⧉	0 LINK

Details ^

Registration 📅	Upkeep 📄	Trigger 📦

Date UTC ⇅	Transaction hash	Activity type	Trigger	Amount LINK	Balance LINK
November 21, 2023 at 15:10	0x1e01...cb5d ⧉	Fund Upkeep		10	10

What Positive and Unique Solutions my Idea have ?

- **Augmented Reality Functionality:** This app offers positive and unique solution by providing a fun and engaging way for users to discover and collect NFTs in the real world through the use of augmented reality technology.
- **Gamification of NFT collection:** This app's innovative approach to NFT collection provides users with a unique experience that combines elements of gaming and blockchain technology.
- **Location-based NFT discovery:** This app's use of geolocation and push notifications enables users to locate NFTs near them and encourages them to explore new areas in search of rare and valuable NFTs.
- **Integration with Polygon Blockchain:** This app's integration with Polygon ensures that the NFTs collected by users are secure and can be easily traded or sold on the blockchain network.

So, overall, the NFT HUNT app offers a new and exciting way for users to engage with NFTs and the blockchain ecosystem, making it a positive and unique solution for NFT collectors and enthusiasts.

Impact of this Idea on Society And Industry -

The NFT HUNT APP has the potential to impact the blockchain, gaming, and art industries, as well as the broader society in several ways:

- **Introducing new audiences to NFTs:** The app's gamified approach to NFT collection and trading can help introduce new audiences to the world of NFTs, making them more accessible and engaging for a wider range of people.

- **Driving adoption of blockchain technology:** People who are unaware about the NFTs, Web3 like concepts, plays this game and come to know there exists something known as NFT, Web3 etc. So, now they will study about this topics if interested and will work on so eventually adoption of blockchain tech increases.

- **Supporting the art industry:** The app's ability to showcase and trade NFT art can provide artists with a new revenue stream and help democratize the art market by allowing artists to reach a wider audience.

- **Boosting local economies:** The app's location-based AR functionality can drive foot traffic to local businesses, helping to support local economies and small businesses.

Monetization Strategies -

- **In-app purchases:** Allow users to buy virtual goods such as power-ups or exclusive NFTs that can enhance their experience in the app.
- **Premium subscription:** Offer a subscription model with additional features, exclusive NFTs or perks, like early access to new NFTs or more NFTs in a single hunt
- **Sponsored content:** Partner with relevant brands or companies to offer unique NFTs or promotions that users can collect or unlock in the app
- **Transaction fees:** Charge a small fee for each NFT transaction that occurs within the app. This can be particularly useful if the app becomes popular with high-volume collectors
- **Secondary market support:** Charge a small fee for the ability to resell NFTs within the app or offer users the option to sell their NFTs through an integrated marketplace
- **Advertising:** Display ads from relevant businesses or brands that are interested in targeting the app's audience
- **Affiliate marketing:** Recommend relevant products or services to users and earn a commission on any resulting sales

Marketing Strategies -

- **Market Analysis:** Conducting market research to understand the current demand for NFTs and AR gaming apps. Also analyzing the target audience and their preferences
- **Unique Selling Point:** Emphasizing the unique features of the app, such as the AR-based NFT hunting experience, and the opportunity to collect rare NFTs that provide access to the entire code of the application
- **Influencer Marketing:** Collaborating with popular social media influencers and NFT collectors to promote the app and reach a larger audience
- **Partnerships:** Building partnerships with NFT artists and creators to offer exclusive NFTs on the app and attract more users
- **Public Relations:** Releasing press releases and reaching out to media outlets to get coverage for the app
- **Events:** Organizing or participating in events related to NFTs, gaming, and technology to showcase the app and attract potential users
- **Referral Program:** Implementing a referral program to encourage users to invite their friends to use the app and receive rewards for doing so
- **User Reviews:** Encouraging users to provide reviews and ratings on app stores to improve visibility and attract more downloads

Future Enhancement Ideas-

- **Multiplayer Mode:** Allow users to team up and compete with other players to find rare NFTs, increasing user engagement and interaction.
- **Customizable avatar:** Allow users to customize their avatar, providing a personalized and fun experience
- **Geotagging:** Allow users to create and leave NFTs in specific locations for other users to find, creating a treasure-hunt-like experience
- **Social media integration:** Integrate the app with social media platforms to share NFT finds, engage with friends and increase app visibility
- **Additional rewards:** Offer additional rewards, such as discounts or exclusive content, to users who find and collect a certain number of NFTs
- **Sponsored NFTs:** Collaborate with brands or individuals to offer sponsored NFTs, generating additional revenue and exposure for the app
- **NFT rarity level indicators:** Implement a system to show the rarity level of NFTs to add more value to the user experience
- **AVR Project:** This project can be expanded as **Augmented Virtual Reality (AVR) Project** for VR headsets with cameras.
- **Integrated NFT Market:** An integrated NFT marketplace with **UPI feature to transfer NFTs** which allows user to do transactions seamlessly.

Screenshots of prototype app-

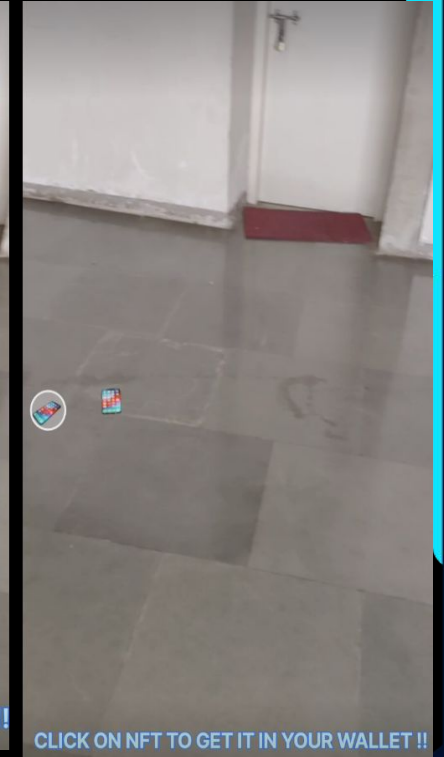## Prototype Application UI/UX Screenshots

Prototype App Logo

THANK YOU !!