

Travel DApp with NFTs and eip-6551

Problem Statement: The travel industry is in need of an innovative and engaging platform that not only promotes exploration but also creates a sustainable business model. Traditional travel itineraries often lack excitement and fail to provide long-term value to travelers. To address this, we aim to develop a decentralized travel DApp that offers unique experiences and rewards, ensuring that each trip is memorable and beneficial to both travelers and the travel industry.

Importance of the Problem: Creating an engaging and rewarding travel platform is crucial for several reasons. Firstly, it encourages travelers to fully immerse themselves in the destinations they visit, enhancing their overall travel experience. By providing a gamified approach, we can foster a sense of accomplishment and curiosity, making each trip unique and valuable. Secondly, this innovative DApp model creates a sustainable business ecosystem that incentivizes users and attracts sponsor travel companies. By leveraging the power of NFTs and eip-6551, we can revolutionize the travel industry and significantly increase user engagement and satisfaction.

Proposed Solution and Approach: Our proposed solution is to develop a decentralized application (DApp) on the Ethereum blockchain that seamlessly integrates travel programs with the issuance of NFTs using the eip-6551 standard. Here's how we plan to approach this:

a. Travel Program Selection: Users will have the opportunity to sign up for a variety of predefined travel programs that cater to different interests and travel styles. Initially, we will offer six programs, including the captivating India Golden Triangle, the iconic Los Angeles Hollywood Tour, the adventurous Backpacking Europe, and the relaxing General Hiking, General Beach, and General Cruise programs. Each program will feature unique locations and tasks to complete.

b. Proof of Location/Task Submission: Participants will be able to submit compelling proofs of their location or task completion through various media, such as captivating videos, stunning photos, or validated tickets. To ensure accuracy, we are considering employing a combination of AI and human verification processes.

c. Minting NFTs and Value Increase: Upon successful submission and verification, participants will be rewarded with exclusive NFTs associated with specific locations or tasks. These NFTs will be minted using the eip-6551 standard and seamlessly integrated within the participant's primary NFT, which will possess its unique address. As participants collect more NFTs within a program, their primary NFT's value will increase, showcasing their progress and accomplishments.

d. Rewards and Incentives: To further motivate participants, we will collaborate with esteemed sponsor travel companies to offer enticing rewards and perks. These can include valuable travel coupons, rewarding travel miles, complimentary stays, or other exclusive benefits. Participants who complete an entire program or successfully collect all NFTs within a program will gain access to special rewards, adding an element of exclusivity and further fueling their motivation.

e. User Engagement and Community: To enrich the travel experience and foster a sense of community, the DApp will feature interactive chat rooms where participants can engage in meaningful conversations, exchange valuable travel tips, and share their experiences. Additionally, we will provide comprehensive information on historic sites, offer curated itinerary suggestions,

and dedicate a section to cater specifically to budget travelers. These features will ensure that users have access to valuable resources and a platform to connect with like-minded travelers.

f. Branding and Target Audience: The branding of the DApp will be strategically crafted to resonate with various travel groups, including mountaineers, beach lovers, budget travelers, luxury seekers, relaxation enthusiasts, and party-goers. By tailoring experiences to cater to the preferences of these target audiences, we aim to provide personalized and memorable journeys. Our primary focus will be on individuals aged 35 and below, as they represent a significant portion of the travel market and are often seeking unique and immersive travel experiences.

To effectively solve the problem at hand and develop the proposed travel DApp, we have decided on a range of valuable resources. These **resources** include:

EIP-6551: We will utilize the eip-6551 standard as the foundation for creating Token Bound Accounts within the travel DApp. This will enable the seamless integration of NFTs and their associated addresses.

Push Protocol: To implement NFT Gated Push Chat and Notifications, we will leverage the Push Protocol. This will facilitate real-time communication and engagement among users within the travel DApp.

Next.js and React with Zustand: For the development of the user interface and the management of application state, we will utilize Next.js and React with Zustand. These frameworks will provide a robust and efficient development environment, ensuring a seamless user experience.

Hardhat: To set up a Smart Contract Development Environment, we will employ Hardhat. This will enable us to develop and deploy the necessary smart contracts for the travel DApp.

WeaveDB: We have access to WeaveDB, a reliable and cost-effective solution for permanent file storage. This will ensure secure storage of user data, proof submissions, and NFT metadata at a low cost.

By utilizing these hardware and software resources, we are confident in our ability to develop a robust and user-friendly travel DApp.

In conclusion, our proposal endeavors to address the lack of engagement and long-term value in traditional travel itineraries by developing a decentralized travel DApp that seamlessly combines predefined travel programs with NFTs issued using the eip-6551 standard. By gamifying the travel experience and incorporating rewards, we firmly believe that this solution will revolutionize the way people explore destinations, creating unforgettable memories, and benefiting the travel industry as a whole.

Team:

1. Taveesha Agarwal (Btech CSE 3rd year) (IEEE Membership id- 99425291)(Team Lead)
2. Shivam Dubey (Btech CSE(IOT) 2nd year)
3. Harshit Varma (Btech CCE 2nd year)