Sync.Land Design Setup

Last updated: 2024-04-01
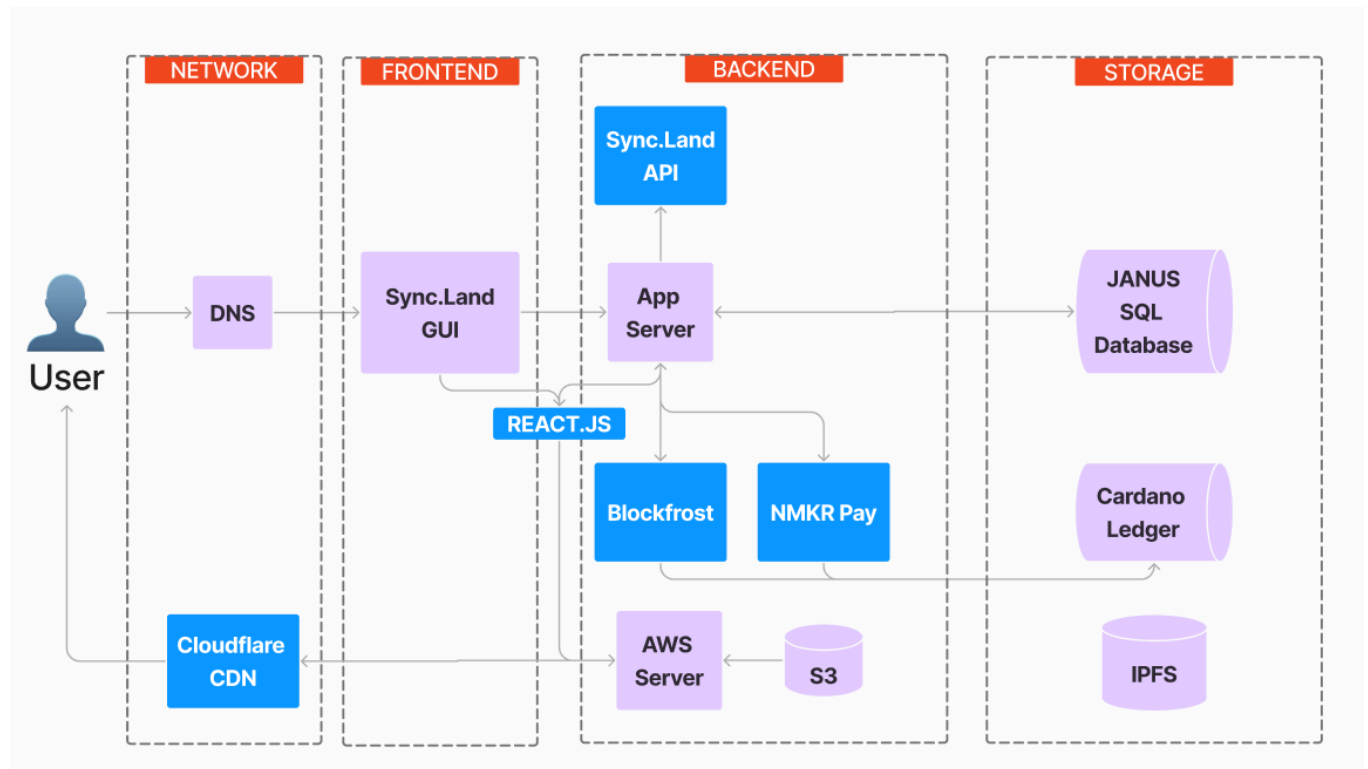
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Milestone 1: Initialization

Infrastructure Setup

The diagram outlines Sync.Land's infrastructure, highlighting the flow from user interface to data storage, integrating CDN, servers, and blockchain for a secure and efficient NFT licensing platform.

1. **User to Network**
   This section illustrates the user's initial interaction with the application, outlining the pathway from the user to the DNS resolution, facilitated by Cloudflare CDN for optimal performance and security.

2. **Frontend**
   The frontend showcases Sync.Land's user interface, built on React.js, providing a responsive and dynamic experience for creating NFT licenses.

3. **Backend**
   The backend details the core functional components, including Sync.Land API and the App Server, which interact with blockchain and payment services to process NFT licenses.

4. **Storage:**

Storage components depict the robust data management system, consisting of a JANUS SQL Database, Cardano Ledger for blockchain transactions, and IPFS for decentralized file storage.

NMKR Integration

NMKR Studio simplifies the creation and management of NFTs on Cardano, offering a no-code solution for projects of any scale, with robust API support for developers. It's an essential toolkit for those aiming to launch NFT ventures without the technical complexity.

Opting for NMKR as our payment gateway, we leverage its seamless integration and robust API to facilitate transactions within the Sync.Land platform. This choice aligns with our mission to provide an intuitive and efficient experience for users, enabling secure and scalable NFT purchases without the need for deep technical knowledge.

As of now, we have targeted two potential integrations –

Potential integrations
- We include the NMKR pay window in the page, and pull the responses from their API
- We build the transactions ourselves and pull the responses from the database/chain directly.

The following is a screenshot of successful creation of keys to access NMKR API.

API Keys

Key	Comment	State	Created	Expires	Actions
702******95c	SYNC.LAND API KEY	Active	30.03.2024 19:13	30.03.2025 19:12	Edit Limit IP Access Revoke

1–1 of 1 |<   <   >   >|

Blockfrost API

Blockfrost is integrated to provide Sync.Land with direct, optimized access to Cardano, eliminating the overhead of maintaining blockchain infrastructure, enhancing app resilience and uptime

Utilizing Blockfrost's IPFS services within Sync.Land's infrastructure allows for decentralized storage, ensuring fast, reliable access to NFT assets across a global network.

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Cullah ▲'s Workspace ⚙

STARTER PLAN 0/50,000 REQUESTS
IPFS USAGE 0/100 MB

+ ADD PROJECT

Projects

0 PROJECTS LEFT

PROJECT NAME	API KEY	NETWORK	REQUESTS TODAY
SYNC.LAND	preprodmd9qrOWiatKGp4KwGwSsRiH8y2lYX...	Cardano preprod	0

+ ADD WEBHOOK

Secure Webhooks BETA

0 WEBHOOKS LEFT

| WEBHOOK NAME	URL	NETWORK	STATUS
SYNC.LAND WEBHOOK	https://sync.land	Cardano preprod	● Enabled

Domain

In our design, sync.land app server is currently hosted on a VPS on Dreamhost.com and offers a scalable hosting solution, ensuring and endpoint for all users to access a marketing website for continued development and setup and an ultimate entryway into the app for all users.
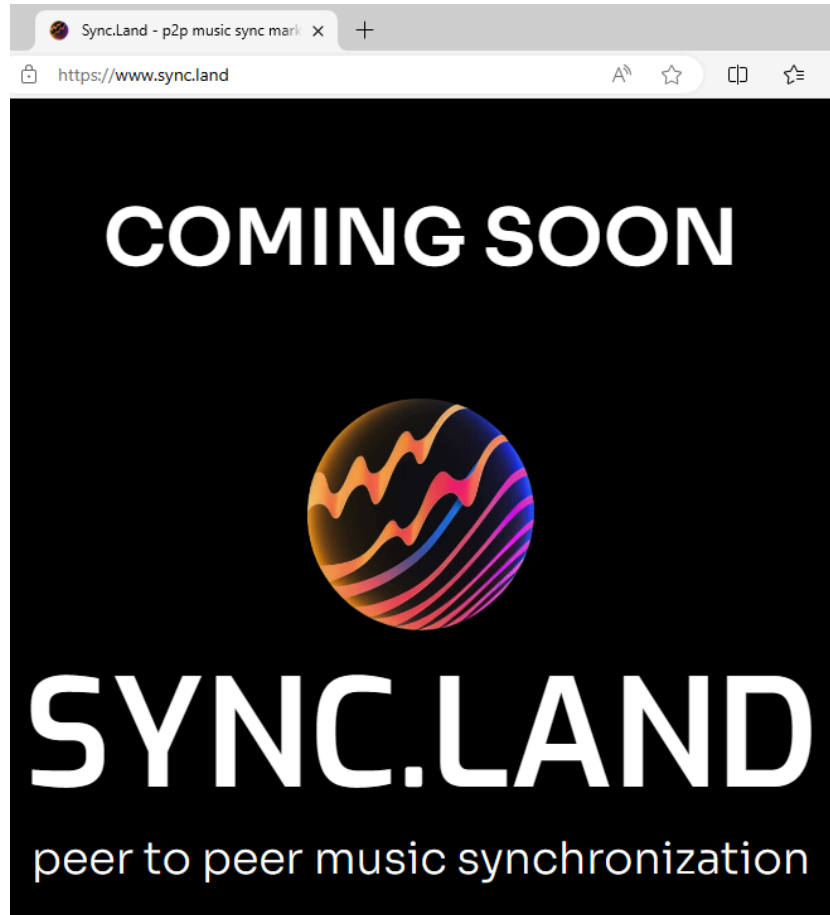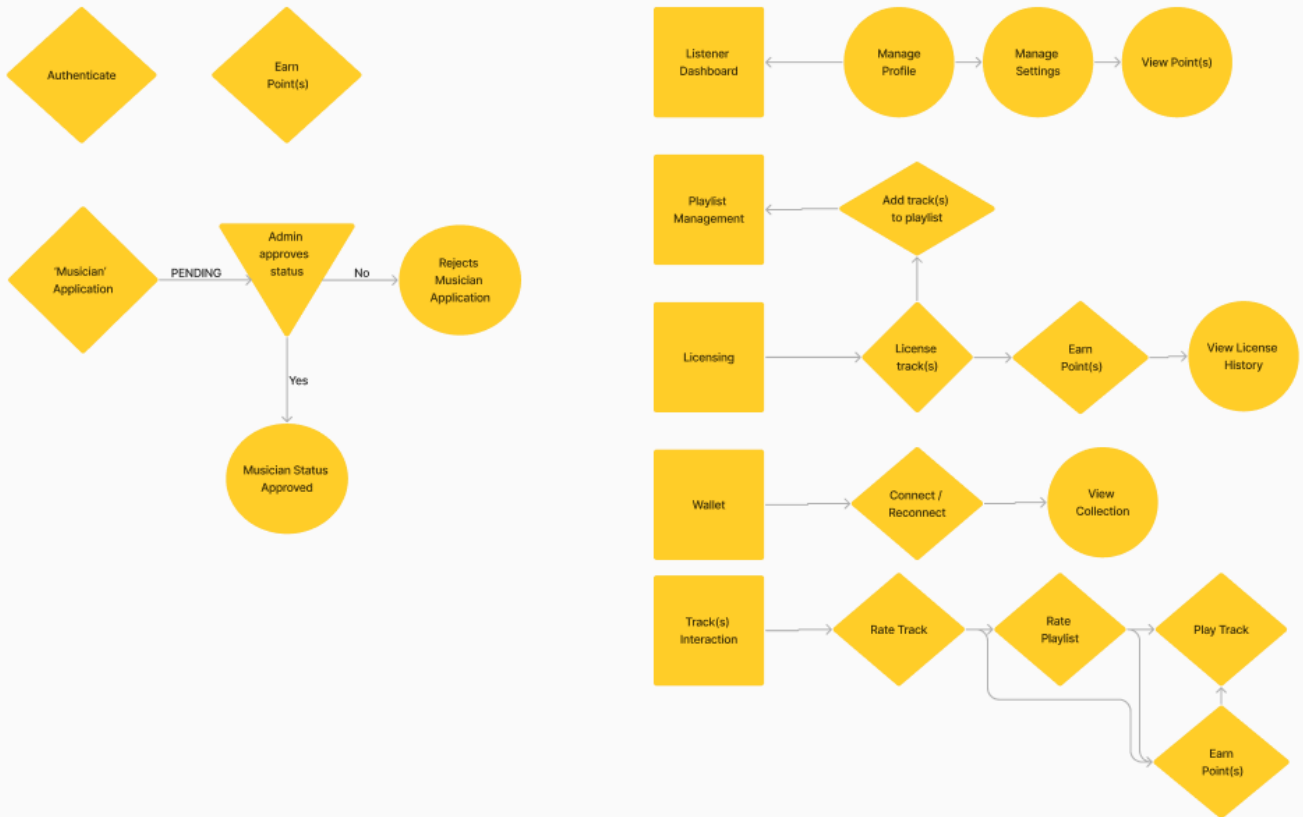
Initial User Flow Diagrams
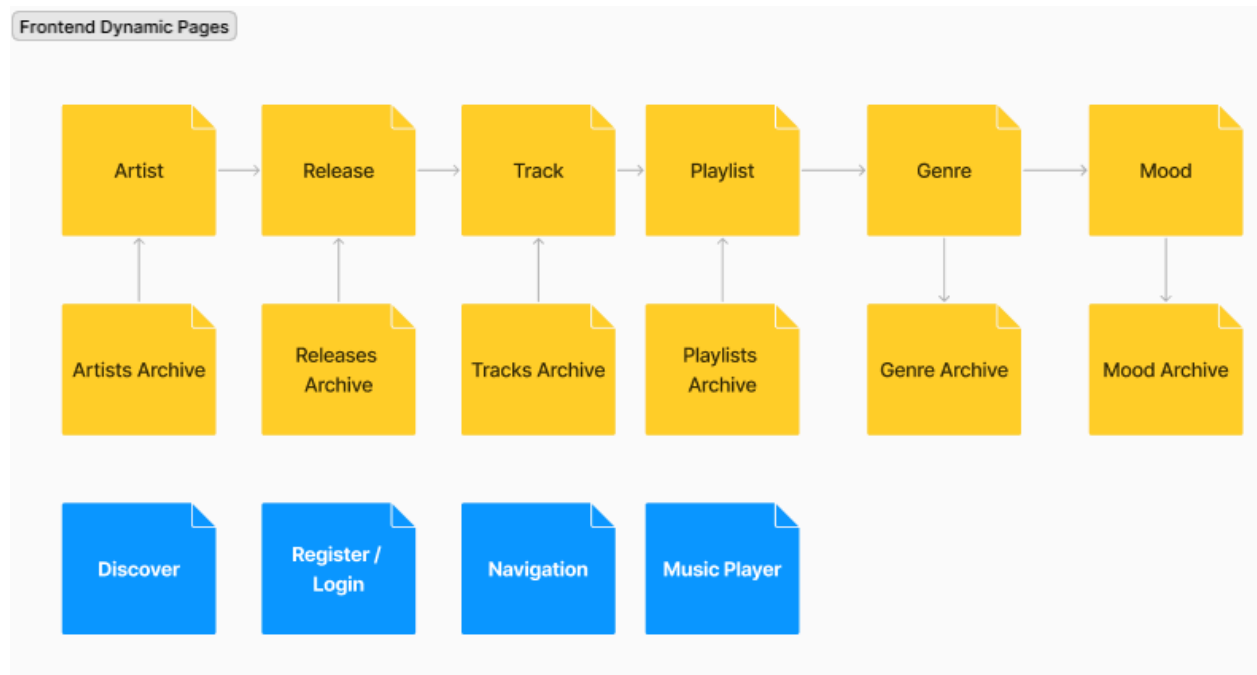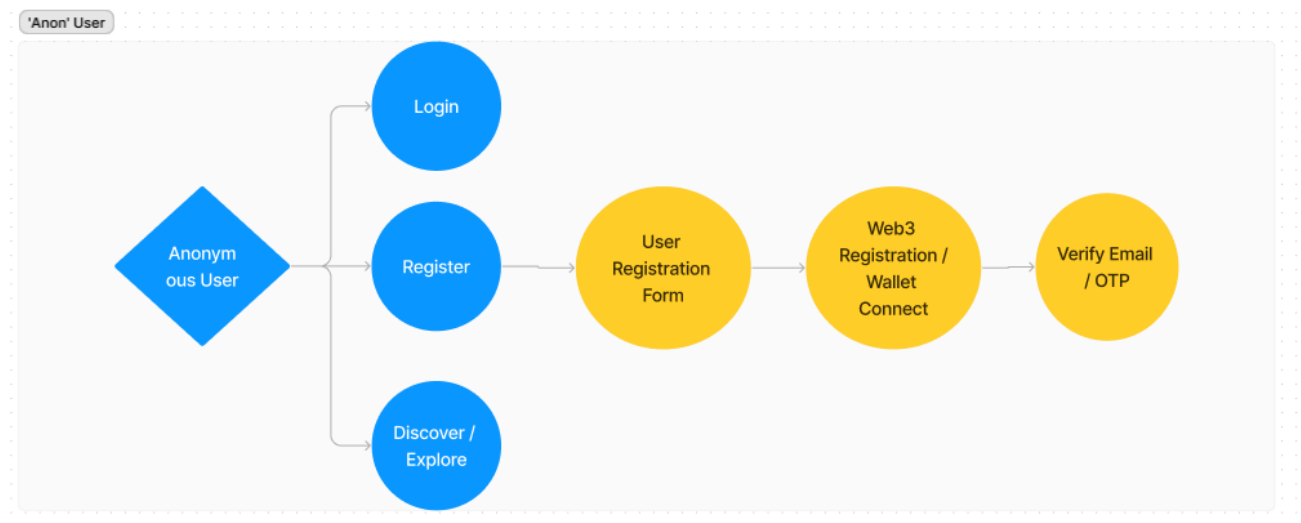
Anonymous User

Listener User

Artist User

inherits 'Listener'