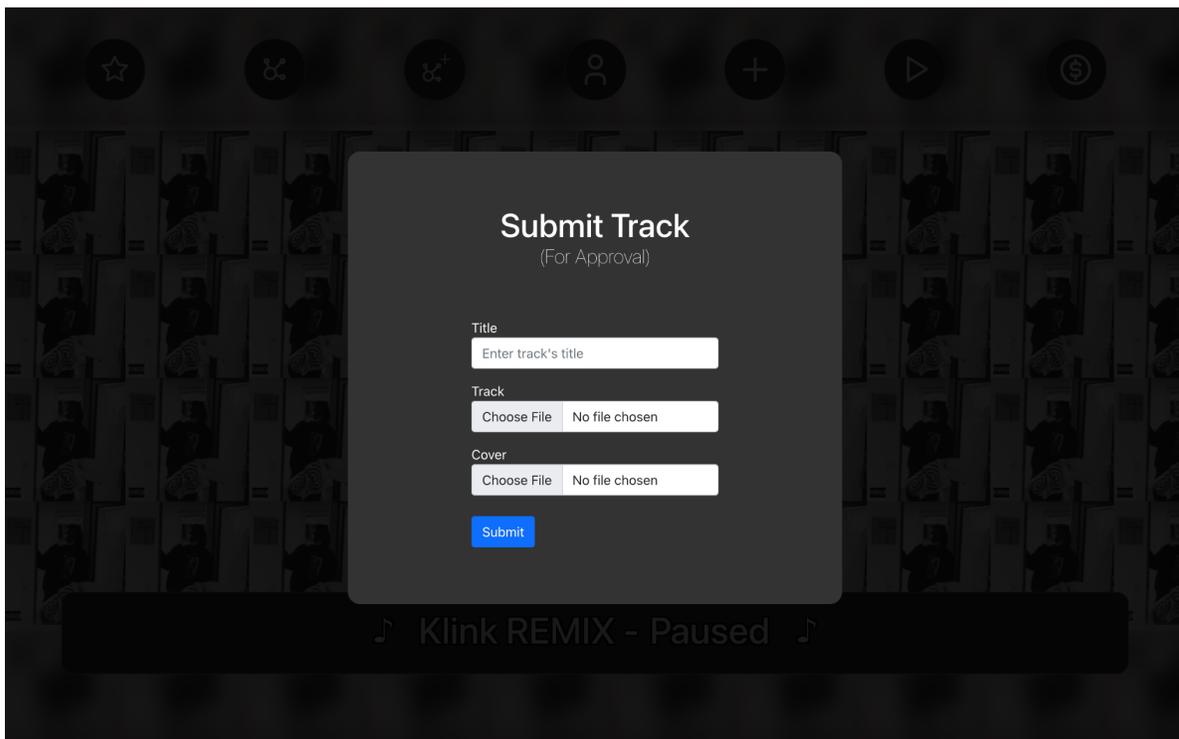
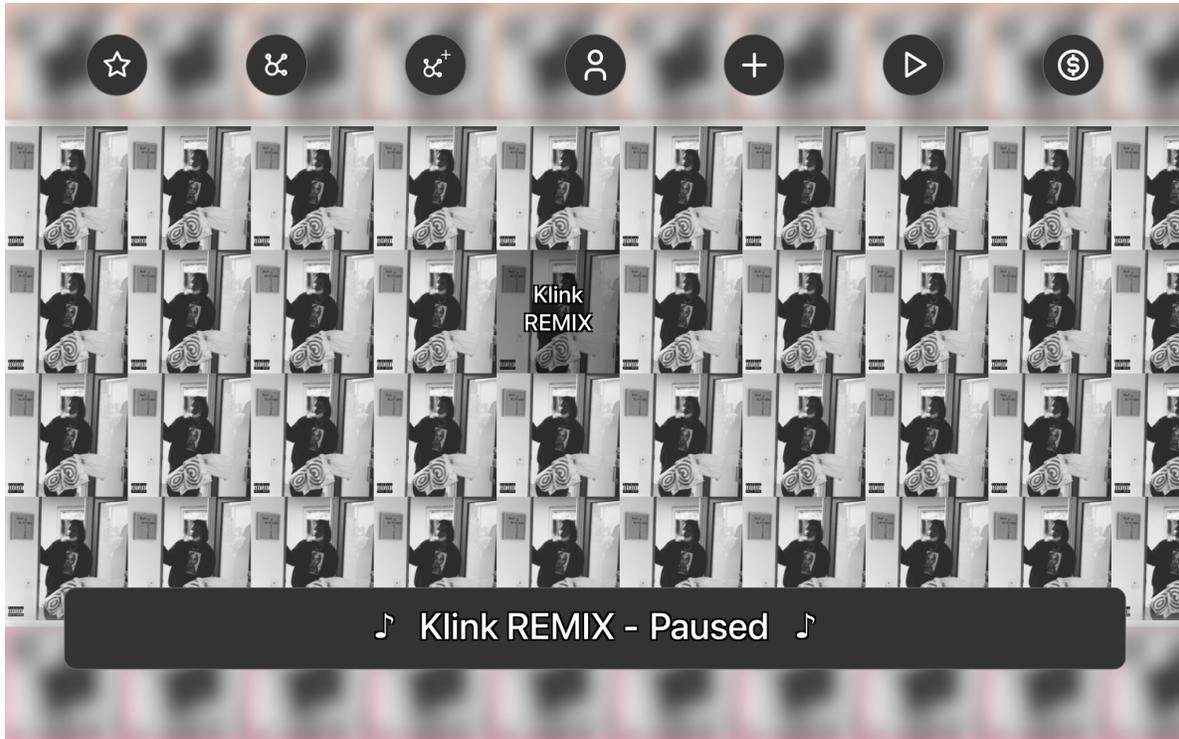


Emperius



Deployment Instructions



1. Unzip the archive.
2. Run `yarn install` or `npm install` in the root directory.
3. Copy the `.env.example` file and rename the copy as `.env`. Update the newly copied and renamed `.env` file using the `.env.example` file as a guide. The address of the owner of the token and smart contract needs to be updated. The host URL also needs to be updated if not using the default configuration for Ganache. Note, a new contract and token are deployed every time the server restarts. If you'd like to use an existing contract and token, then you can modify the `.env` file and add:

```
CONTRACT_ADDRESS=<address>  
TOKEN_ADDRESS=<address>
```

Otherwise you can remove those lines from the `.env` file.

4. Run `npm start`.
5. Note, the token and contract addresses are logged in the console, along with the port which the DApp is listening on. Navigate to <http://localhost:3010/>. If this port is in use, free it and run `npm start` once more.

Usage Instructions



Displayed above is the Emperius menu bar. The buttons, in order from left to right, are:

- the owner button
- the provider list button
- the provider creation button
- the account button
- the track creation button
- the play/pause button
- the stake button

On initial load up, when the app first starts, you will only see the account button as the user is not subscribed to the service yet. This button is located in the top center of the screen and lets users switch addresses, allowing users to use the DApp as multiple users.

Now, the first thing you'll want to do is click on the subscribe button located in the bottom center of the screen. This button pays the subscription fee and gives you access to the DApp once clicked. Each user will have to subscribe.

Then, as "OWNER_ADDRESS" you'll want to click on the second button from the right, the provider list button. A modal will appear, and the default Emperius provider (created by the node server) should be the first and only provider on the list. Click on the approve button to accept the default provider. Only approved providers can have tracks submitted to them.

The page will refresh, and you will be automatically signed in as the default user has already subscribed. Now click on the track creation button and submit a track. You can submit one of the provided tracks and cover images in the examples folder of the project, or use your own files. Fill out all of the form fields, provide a title, audio file and image file.

Now, clicking the submit button will submit the track to the provider, which automatically accepts any entry it receives. Alternatively, future providers can perform some action before approving a track entry. The Emperius provider (smart contract) stores all of its data on IPFS and stores the content identifiers on-chain.

When the page refreshes, you'll see the track on the screen. You can click on any cover to stream the track. The Emperius provider automatically accepts all stream requests, but future alternative providers can act on a stream request before approval.

Similar to traditional streaming services, subscriptions get reset monthly, although only the token owner can reset the subscriptions. This monthly behavior is implemented on the front-end but commented out for demo purposes. Click on the owner button on the left end of the menu bar, and a modal will pop up with a reset subscriptions button.

Tokens are distributed to the provider owner, stakers, and the artists whenever subscriptions get reset. So, click on the reset button, and wait for the page to refresh. When you click on the account button again, you will see that the balance updated to include the paid-out tokens. So, now that you have some EMP, you can stake a track.

First, you will have to reapprove the provider and resubmit another track as this data gets reset with the monthly subscriptions. Next, stream the song you would like to stake. Then click on the stack button, and a modal will appear with the track ID prefilled as the currently playing track. You can enter the number of tokens to stake and click submit.

When subscriptions get reset again, the staker will get some of the tokens minted this month. I recommend switching addresses and playing around with this functionality. It's vital to see how payout is different for the different users and roles in the Emperius ecosystem and how the tokens get divided.

It is also important to note that you can create providers from this portal. If you click the provider creation button, you can submit a new provider, and as "OWNER_ADDRESS" you can approve or refuse this new provider. By design, any new tracks submitted through this smart contract and portal will only be submitted to the Emperi.us provider. Alternative providers can make a portal they control, still in the Emperi.us token ecosystem, and advertise it to users.