

Jaypee Institute of Information Technology, Noida

Minor Project

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Progress Report-1/2

Group no: 51

Group Members Name and Enrollment Number:

Khushi Kalra 9920103025

Vaishali Ranjan 9920103013

Vreeti Aggarwal 9920103007

Supervisor: Dr. Himanshu Agarwal

A Responsive Web Application Based on Blockchain for Music Copyright Protection- MusX

Motivation: From online education and trading, all aspects of our lives are affected by digital technology. Among them, the storage of music has also entered the digital era. Music productions created by artists have brought great joy to people. However, when artists upload their works, they are most downloaded and reprinted by others, and copyright information and the issue associated with the sharing of music arise. This will have a significant negative impact on the enthusiasm and motivation of artists.

So this issue has motivated us to remove the intermediaries through blockchain. Creating a platform where musicians can authorize and manage copyright independently, instead of depending on third parties. Removing third parties, such as banks and music companies involved in the payment process, rights holders can help them receive almost all their royalties.

Objectives:

- With the help of Blockchain domain, musicians can easily authorize and manage their music copyright on a public ledger.
- With blockchain technology, the industry can build a global database for copyright of music and help to directly increase the income of musicians and copyright owners, and improve transparency by displaying transactions in the public chain.
- Artists would not have to worry anymore about pre-leaking of their albums since the private key of the block where their drafts and other content stored could not be accessed without the permission of the artist.
- Helps in tracking the copyright infringement and in reducing piracy. Piracy refers to artists unauthorized duplication of copyrighted content that is then sold at substantially lower prices in the 'grey' market. Due to this, artists suffer a huge loss.
- To provide a platform for small artists to make their way to the top. Small emerging artists may not have enough resources to produce or invest in music so this platform provides them the opportunity to showcase their talent without worrying about the production cost since it directly connects their contents to the listener.
- Artists put a lot of effort into writing music, but earn little from their works (around 14% of what they actually deserve). With the Blockchain platform their pay can rise up to 90%. It can ensure that musicians receive their royalty payments on time, and avoid unnecessary deductions from intermediaries. Since removing intermediaries reduces the cost of production, consumers or users find it a lot more productive to spend their money in order to buy their favorite albums and merchandise thus boosting the moral value of the artists.

Problems Addressed:

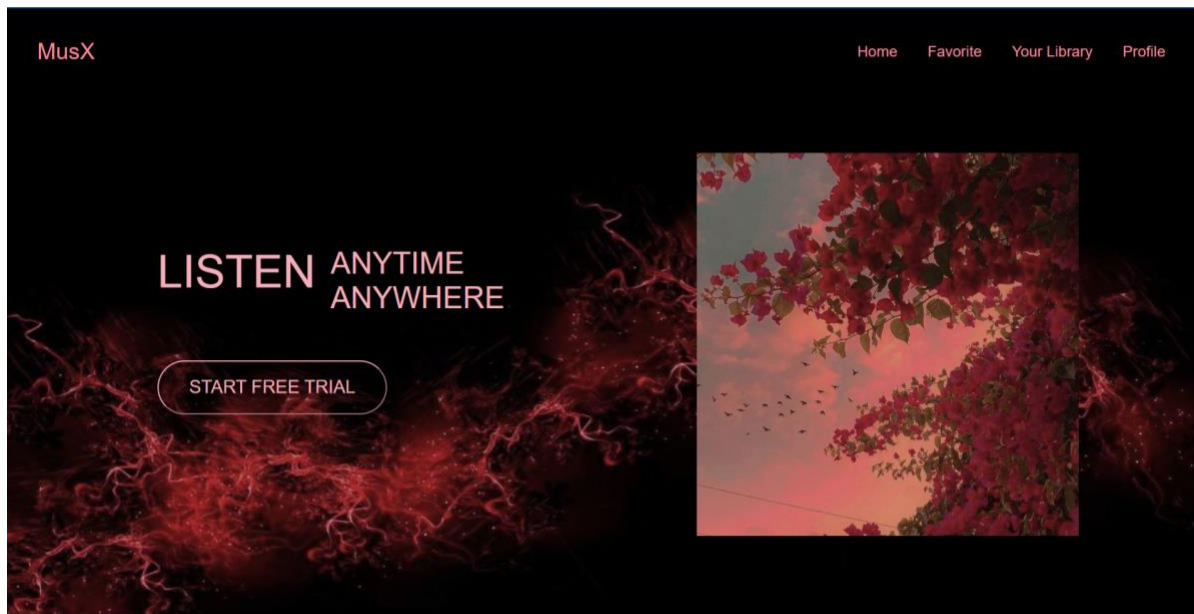
- **Copyright Infringement:** World is facing major scrutiny when it comes to online copyright infringement in the music industry and has been bombarded with lawsuits because of their inability to compensate artists appropriately.
- **Third Party:** After the many deductions, only a small amount of money remains for the creators who are the original owners.
- **Pre-leaking of albums:** Leaking months before the release date will mean the music unavoidably loses any momentum or hype initially generated by the time it hits the shelves.
- **Small Artists:** Small emerging artists may not have enough resources to produce or invest in music.

Solution:

- **Copyright Policy:** Blockchain has an excellent potential to be broadly applied in copyright protection and management applications. When an user will download a song, a hash will be generated with the song, and if the user tries to re-upload the song with a creator account, then the copyright issue will be raised.
- **No Third Party:** By using blockchain transaction, we'll be able to remove third parties, such as banks and music companies involved in the payment process, right holders can help them receive almost all their royalties .
- **Small Artists:** Our platform will provide them the opportunity to showcase their talent without worrying about the production cost since it directly connects their contents to the listener.
- **Work done:**

Designing of the Home page for our music platform MusX where technologies used are React Js, CSS and Html.

- Made a Header component which would remain the same for every page in our project.
- An Advertisement banner which includes a button (opening up a form asking for sign Up or log IN) and a Carousel Slider which slides all the slides at a time.



Code for the Header and the advertisement Banner

```
src > components > home > JS Header.js > MusxHeader
1  import React from "react";
2  import { Link } from "react-router-dom";
3  import classes from "../Header.module.css";
4
5  function MusxHeader() {
6    return (
7      <header className={classes.header}>
8        <div className={classes.h1}>MusX</div>
9        <div className={classes.headerflex}>
10         <Link to="/" className={classes.h2}>
11           Home
12         </Link>
13         <Link to="favorite" className={classes.h2}>
14           Favorite
15         </Link>
16         <Link to="library" className={classes.h2}>
17           Your Library
18         </Link>
19         <Link to="profile" className={classes.h2}>
20           Profile
21         </Link>
22       </div>
23     </header>
24   );
25 }
26 export default MusxHeader;
27
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

```
^C^CTerminate batch job (Y/N)? y
PS C:\Users\91730\blockchainMinor\music>
```

Header.js file

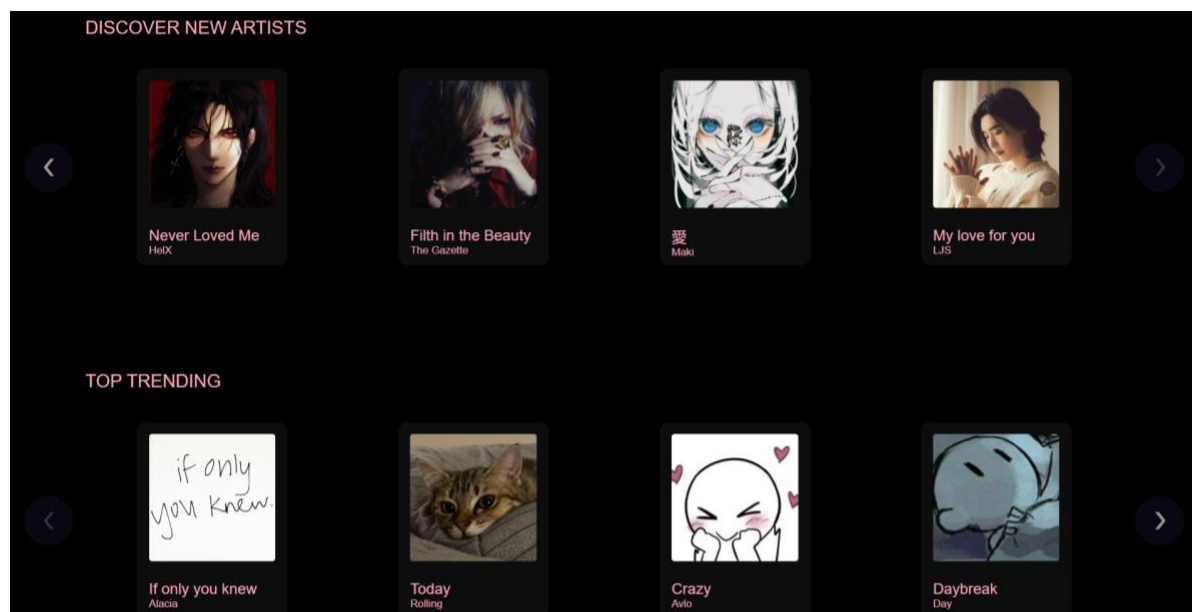
```

src > components > home > JS Discover.js > DiscoverNew
1  import React, { useState } from "react";
2  import classes from "../Discover.module.css";
3  import Carousel from "react-elastic-carousel";
4  import Card from "../Card";
5  import style from "styled-components";
6  import sky from "../images/sky.jpg";
7  import lofi from "../images/lofi.jpg";
8  import sad from "../images/sad.jpg";
9
10 function DiscoverNew() {
11   const [isShowing, setIsShowing] = useState(false);
12   return (
13     <section className={classes.discover}>
14       <div className={classes.globalflex}>
15         <div className={classes.flex}>
16           <span>
17             <h1 className={classes.heading}>LISTEN</h1>
18           </span>
19           <span>
20             <h1 className={classes.heading2}>ANYTIME</h1>
21             <h1 className={classes.heading2}>ANYWHERE</h1>
22           </span>
23         </div>
24         <button className={classes.button}>
25           <div>START FREE TRIAL</div>
26         </button>
27       </div>

```

Discover.js (For Banner)

- Made a Carousel Slider component which slides one card at a time.
- Made a Footer component which also remains the same for every page.



Code for the Carousel Slider

```

1  import classes from "../Content.module.css";
2  import React from "react";
3
4  export default function Playcard(props) {
5    return (
6      <div>
7        <img src={props.img} />
8        <div className={classes.info}>
9          <span>{props.song}</span>
10         <div className={classes.artist}>{props.artist}</div>
11       </div>
12     </div>
13   );
14 }
15

```

Playcard.js (Single Carousel Component)

```

src > components > home > JS Playlist.js > Play
17  function Play() {
18    const breakpoints = [{ width: 1200, itemsToShow: 4 }];
19    return (
20      <div className={classes.playlist}>
21        <Carousel pagination={false} breakpoints={breakpoints}>
22          <Item className={classes.item}>
23            <Playcard img={animeboy} song="Never Loved Me" artist="HelX" />
24          </Item>
25          <Item>
26            <Playcard
27              img={gazette}
28              song="Filth in the Beauty"
29              artist="The Gazette"
30            />
31          </Item>
32          <Item>
33            <Playcard img={girl} song="愛" artist="Maki" />
34          </Item>
35          <Item>
36            <Playcard img={leejongsuk} song="My love for you" artist="LJS" />
37          </Item>
38          <Item>
39            <Playcard img={stay} song="If only you knew" artist="Alacia" />
40          </Item>
41          <Item>
42            <Playcard img={cat} song="Today" artist="Rolling" />
43          </Item>

```

Playlist.js (For Carousel Slider)

- Implemented Link Rendering

```
13 function App() {
14   return (
15     <div>
16       <MusxHeader />
17       <DiscoverNew />
18       <ContentBody />
19       <Routes>
20         <Route path="/" element={<Mainpages />}></Route>
21         <Route path="favorite" element={<FavPage />}></Route>
22         <Route path="library" element={<LibPage />}></Route>
23         <Route path="profile" element={<ProfilePage />}></Route>
24       </Routes>
25     </div>
26   );
27 }
28
29 export default App;
30
```

App.js file