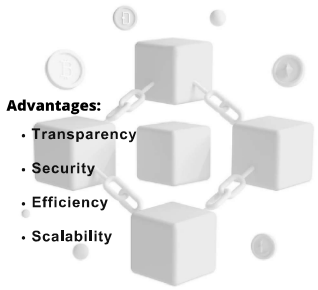
Blockchain for Artist Royalties

Presented by Aditi Salvi D17B / 62

What is Blockchain?

A blockchain is a distributed database that maintains a continuously growing list of ordered records called blocks. Each block contains a timestamp and a link to a previous block. This allows the blockchain to be used to record transactions securely and transparently without the need for a central authority.



Advantages:

- **Transparency**
- **Security**
- **Efficiency**
- **Scalability**

Artist Royalties:

- Artist royalties are like payments that musicians and artists get when their music is used or sold.
- It's a way for artists to earn money from their hard work and creativity.
- **Key issues in the existing system include:**
  - Lack of Authentic Copyright Database
  - Delayed and Unfair Payments
  - Lack of Data Transparency

Blockchain in Music

- Technology impact on music industry: Need for modernization in royalty management and rights tracking.
- Challenges in the music industry include music piracy and complex ownership laws.
- Blockchain's distributed ledger can combat piracy and ensure fair royalty payments.
- Emerging artists can benefit from blockchain through crowdfunding and prompt payments.
- Blockchain can support global currency for music-related transactions and offers high security.

Benefits of Blockchain in Music

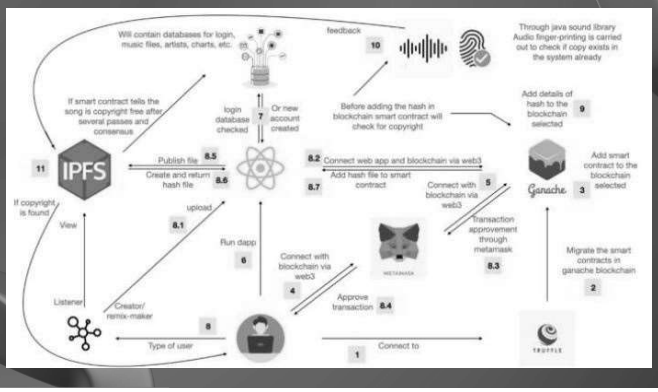
01 Transparency

02 Reduced Intermediaries

03 Smart Contracts

04 Fair Compensation for Remixes and Collaborations

Overview of the proposed System



Phase 1: Hash Generation

- Generated hash for copyright protection
- Perfomed various other tasks

Phase 2: Audio Fingerprinting

- focuses on audio fingerprinting for songs
- fingerprints, along with song metadata, are stored in a database to detect and prevent unauthorized uploads

Phase 3: Wallet Transaction

- It covers transactions like royalty transfers for remix makers and stream rate-dependent transfers.

Conclusion

- In conclusion, blockchain technology has the potential to revolutionize the way artist royalties are managed and distributed in the music industry, offering a range of benefits
- Overall, blockchain enhances transparency, fairness, security, and efficiency in artist royalty management, ultimately benefiting artists and stakeholders in the music industry.

Reference

Blockchain Based Model for Royalty Payments of Artists and Remix-
Makers by Ms. Shreya Bilonikara, Ms. Carol Mendoncab, Ms. Divita Phadakalec, Prof.Monali Shettyd

https://drive.google.com/file/d/1VKGNckG6k8dLkDaOeYImqv_tn_iGpPRV/view?usp=sharing

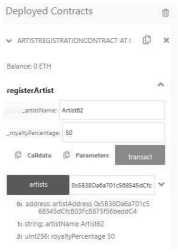
EXPERIMENT 6: Smart Contract 1:

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract ArtistRegistrationContract {
    struct Artist {
        address artistAddress;
        string artistName;
        uint256 royaltyPercentage;
    }
    mapping(address => Artist) public artists;
    event ArtistRegistered(address indexed artistAddress, string artistName, uint256 royaltyPercentage);
    function registerArtist(string memory _artistName, uint256 _royaltyPercentage) public {
        require(_royaltyPercentage >= 0 && _royaltyPercentage <= 100, "Invalid royalty percentage");
        require(artists[msg.sender].artistAddress == address(0), "Artist is already registered");
        artists[msg.sender] = Artist({
            artistAddress: msg.sender,
            artistName: _artistName,
            royaltyPercentage: _royaltyPercentage
        });
        emit ArtistRegistered(msg.sender, _artistName, _royaltyPercentage);
    }
}
```

EXPERIMENT 6:

Smart Contract 1:



EXPERIMENT 6: Smart Contract 2

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract ArtistRoyaltyContract {
    address public artist;
    uint256 public royaltyPercentage;
    event ArtworkSold(address indexed buyer, uint256 price, uint256 royalties);
    constructor(uint256 _royaltyPercentage) {
        artist = msg.sender;
        royaltyPercentage = _royaltyPercentage;
    }
    function setRoyaltyPercentage(uint256 _newRoyaltyPercentage) public {
        require(msg.sender == artist, "Only the artist can set the royalty percentage");
        require(_newRoyaltyPercentage >= 0 && _newRoyaltyPercentage <= 100, "Invalid royalty percentage");
        royaltyPercentage = _newRoyaltyPercentage;
    }
    function sellArtwork() public payable {
        uint256 artistRoyalty = (msg.value * royaltyPercentage) / 100;
        (bool success, ) = artist.call{value: artistRoyalty}("");
        require(success, "Failed to send royalties to the artist");
            emit ArtworkSold(msg.sender, msg.value, artistRoyalty);
    }
}
```

EXPERIMENT 6:

Smart Contract 2: