PHASE 1

MELO: DECENTRALIZED MUSIC PLATFORM

A FAIR, TRANSPARENT, COMMUNITY-DRIVEN MUSIC INDUSTRY

BY:

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UNDER THE GUIDANCE OF

Mr. SUMANTH CM

6TH SEMESTER MINI PROJECT

AGENDA

ABSTRACT

A FAIR, TRANSPARENT, COMMUNITY-DRIVEN MUSIC INDUSTRY

- Currently, the music industry is dominated by a few major record labels and distribution platforms that hold significant control over the artists and their revenue streams, and take a large portion of it.

- Through Web3 technologies of blockchain, decentralized storage, and dApps, our platform aims to provide a fair and transparent way for artists to distribute their music without intermediaries taking a large cut of their revenue.

- We allow artists to upload their music, set prices, and receive payments directly from the listeners without intermediaries taking a large cut.

- Listeners can easily support their favorite artists by purchasing music and album NFT drops using platform-specific cryptocurrency

INTRODUCTION

- The music industry has undergone a massive transformation in the digital age and is now integrating into the growing Web3 sector.

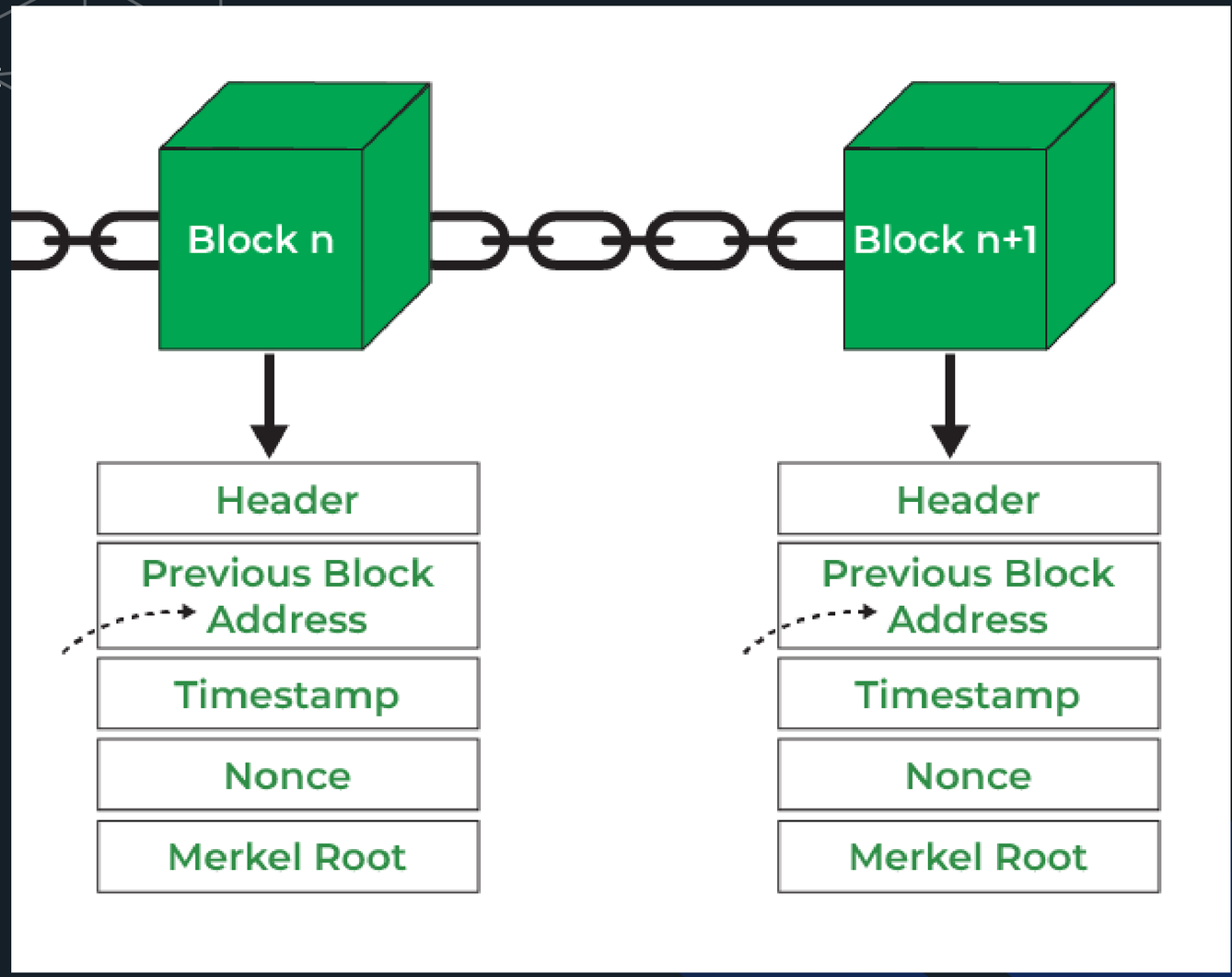
- Centralized Platforms like Spotify and Apple Music, have unfair practices and take away most profits generated by the artists.

- Therefore, there's a need for a decentralized music platform that provides a fair and transparent distribution model, enhances user privacy, and allows for a greater listener and artist connection, and community focus.

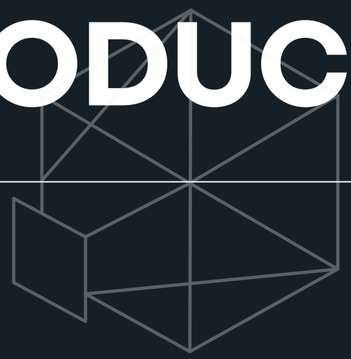
- The proposed decentralized platform addresses these issues by leveraging Web3 technologies like
  - Blockchain
  - Decentralized storage
  - dApps (Decentralized Applications)

INTRODUCTION

- Blockchain is a digital, decentralized, and distributed ledger technology that allows for secure and transparent transactions without the need for a central authority.
- A blockchain is made up of a network of computers (nodes) that store and verify transactions in a shared database called a "blockchain".
- Each block in the blockchain contains a set of transactions, as well as a unique code (hash) that links it to the previous block in the chain.
- Once a block is added to the blockchain, it cannot be altered or deleted, providing a tamper-proof and immutable record of all transactions on the network.
- Blockchain provides increased security, transparency, and efficiency in transactions, as well as the ability to reduce costs and eliminate intermediaries.



INTRODUCTION



- These enable trustless, decentralized systems that can be accessed by anyone with an internet connection
- This platform will provide a new paradigm for music distribution that is fair transparent, and community-driven.
- The platform's architecture will enable artists to distribute their music without intermediaries, and users will be able to stream and discover music without relying on centralized platforms.
- The platforms allow greater artist-listener connection as fans can purchase music, album art, and exclusive NFTs from the artist.

PROBLEM STATEMENT

- Platforms like Spotify and Apple Music,
  - Charge high commissions to artists and have complex licensing agreements.
  - Collect user data
  - Doesn't support new artists
  - Limits listeners' control over whom they support
  - Is secretive about how revenue is distributed to artists.

- This makes it difficult for independent artists to gain recognition and earn a living from their music.

- Additionally, these platforms collect user data, which can be a privacy concern for users.

- The key challenges in developing a platform to solve these issues include:
  - Building a decentralized infrastructure that is scalable, secure, and reliable.
  - Developing smart contracts for royalty distribution and licensing
  - Creating user-friendly interfaces for interacting with the platform

MOTIVATION

CURRENT INDUSTRY LANDSCAPE

Web3 Gaming has a market cap of **$4 billion**, while Web3 music is undervalued at $87 million. This gives tremendous headroom and potential for the Web3 music industry to boom in the next few years.

IMPROVE ARTIST COMPENSATION

Dominated by major record labels and platforms with too much control over artists and revenue, they offer abysmal compensation for most artists. Thus most artists are dissatisfied with the current industry.

ADDRESS PRIVACY CONCERNS

Users' privacy and data ownership is compromised using centralized platforms. A decentralized Web3 platform enhanced user privacy and allows for new business models.

LITERATURE SURVEY

OPUS - DECENTRALIZED MUSIC DISTRIBUTION USING INTERPLANETARY FILE SYSTEMS (IPFS) ON THE ETHEREUM BLOCKCHAIN V0.8.3

- A more efficient and cost-effective way for musicians and listeners to share and access music while maintaining ownership and control of their content.

- The authors of the paper highlight the limitations of traditional music distribution platforms like
  - High fees
  - Lack of control over content
  - Slow payment processing times

- They argue that a decentralized solution using blockchain technology can address these issues by enabling direct peer-to-peer transactions between artists and listeners without the need for intermediaries, while being scalable, secure, and resistant to censorship and tampering.

- The paper also discusses the technical details of the Opus platform, including the use of IPFS for storage and distribution, the design of the smart contracts, and the integration with the Ethereum blockchain.

DMS: AN ARCHITECTURE OF A DECENTRALIZED-BASED MUSIC STREAMING PLATFORM USING BLOCKCHAIN

- The proposed platform aims to solve the issues of traditional music streaming platforms, such as low royalty payouts and centralized control over the distribution of music

- To achieve decentralized music distribution, the paper suggests a combination of
  - Ethereum Blockchain to manage user accounts and rights
  - IPFS Protocol to storing and distributing music files

- The authors proposed an architecture for the DMS platform consisting of three layers
  - Data Layer - to store music files and metadata
  - Application Layer - to manage user accounts, music rights, and payments
  - Service Layer - front end interface for the users to access the platform

TAKEAWAY

- The literature survey suggests that a decentralized music platform can provide a fair and transparent music industry, empowering both artists and users.
- Web3 technologies, such as blockchain and decentralized storage, enable the creation of such platforms, and community-driven curation and playlists can enhance the user experience.
- Emphasis is placed on the decentralized aspect of a music platform and the benefits of integrating blockchain technology like Ethereum network, and decentralized storage, like IPFS.
- However, the implementation of such platforms requires overcoming technical and adoption challenges.

IMPROVEMENTS

- More emphasis can be placed on the community aspect of the platform which can create customer attachment, with a greater artist-listener connection so that it offers something greater that the users can find direct and immediate value to the platform.

- A custom platform token with which all transactions undergo can ensure a loyal customer base for the platform.

- Additional revenue streams using blockchain technology which wasn't possible before can be integrated, such as artist NFT collections, NFT drops, NFT auctions, and NFT marketplaces, along with direct concert ticket sales and supporting the artists with direct donations.

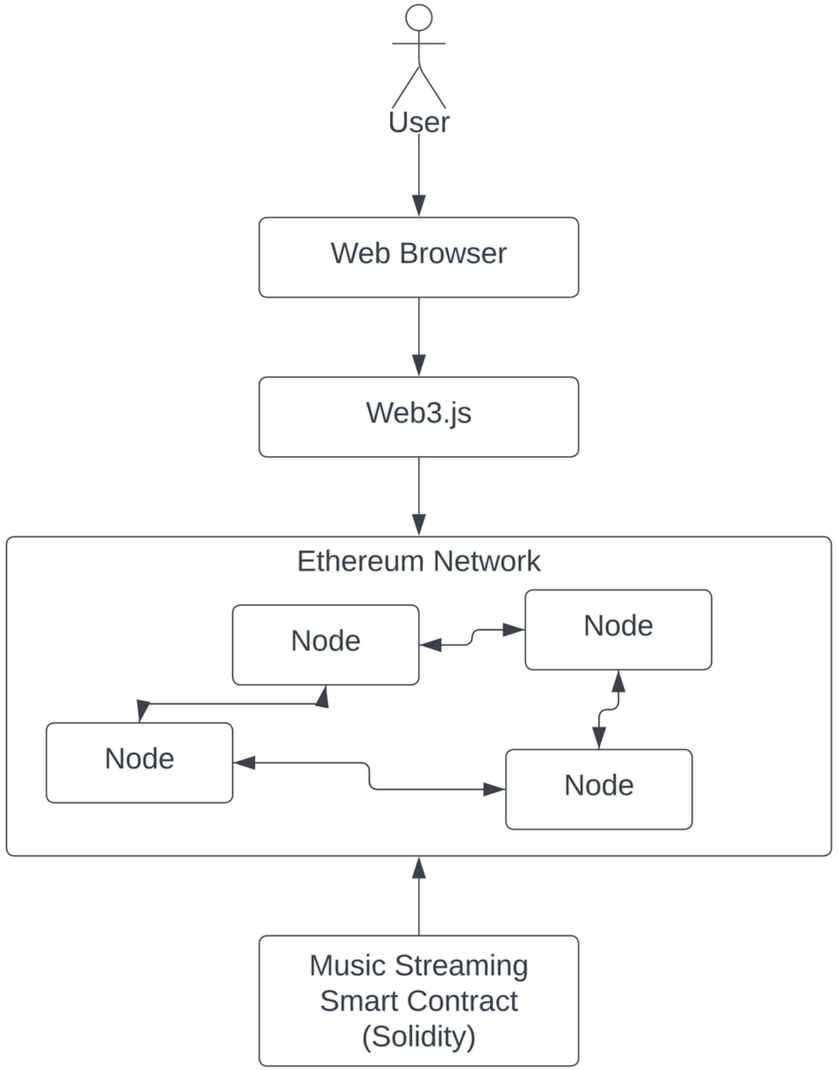
- NFT can also be used for licensing the artists music so it cannot be used by any other platform, with clear copyright laws.

- Extra services like auto album art generation can also help upcoming artists release their music sooner, with less hassle.

OBJECTIVES

- **Decentralized Music Streaming and Discovery:** allow users to discover and stream music without relying on centralized intermediaries.
- **Fair Royalty distribution:** Use smart contracts to ensure fair and transparent royalty distribution for artists.
- **Community-driven curation and playlists:** Allow users to create and curate playlists, creating a personalized music discovery experience.
- **Privacy and data ownership:** Ensure that user data is kept private and that artists have control over their music and revenue.
- **Open-source infrastructure:** Encourage collaboration and innovation by providing an open-source infrastructure for developers and entrepreneurs.

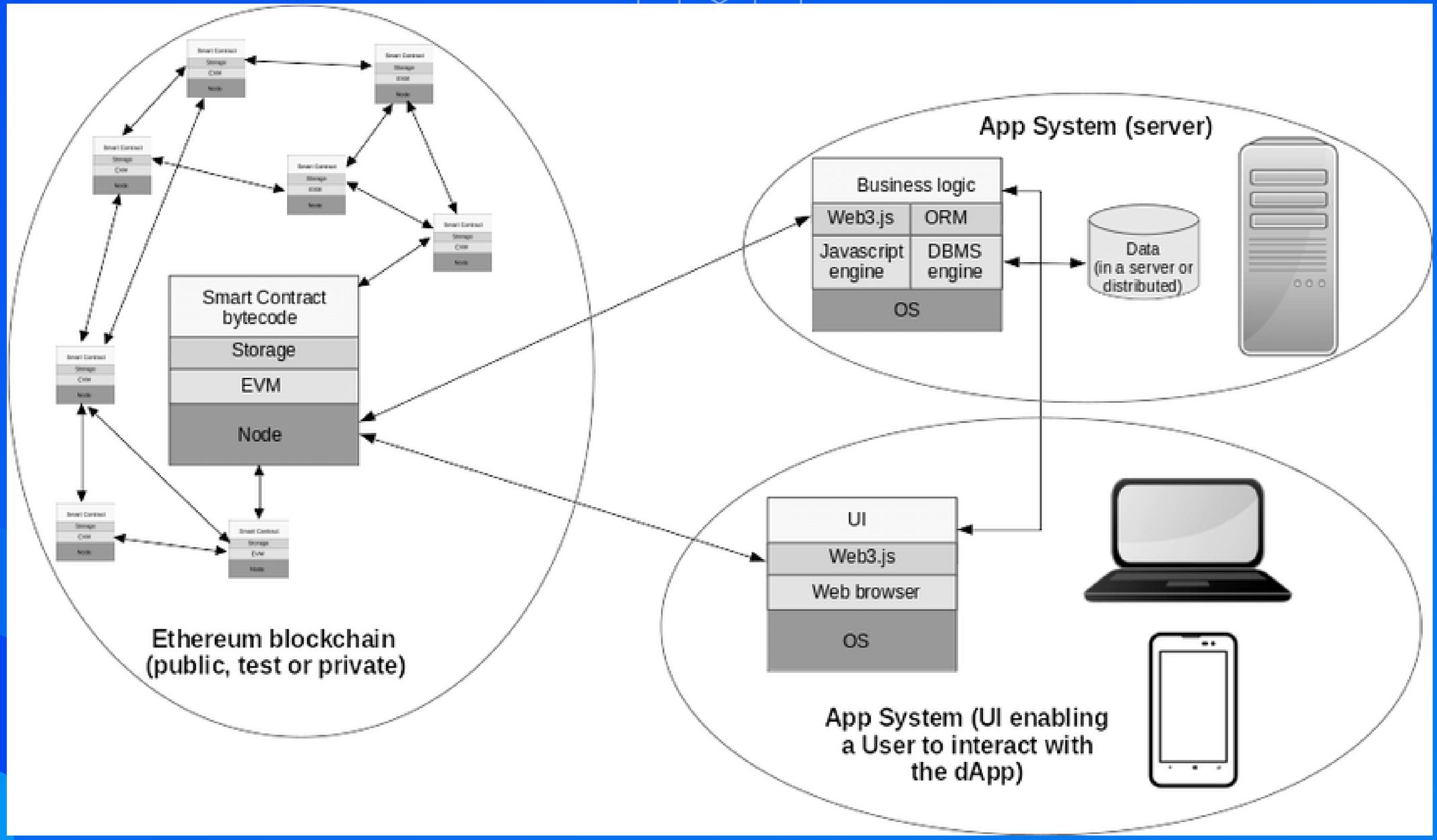
DECENTRALIZED MUSIC PLATFORM



METHODOLOGY

- The platform will be built on top of decentralized infrastructure, such as the Ethereum blockchain.
- Ethereum is an open-source, decentralized blockchain platform that allows developers to build and deploy decentralized applications (dapps).
- The network has its own cryptocurrency called Ether (ETH), which is used to pay for transactions and incentivize developers to build on the platform.
- One of the key features of Ethereum is the ability to create smart contracts, which are self-executing contracts with the terms of the agreement written into code.
- These smart contracts enable a wide range of applications, such as decentralized finance (DeFi), digital identity, and supply chain management.
- Ethereum also has its own programming language called Solidity, which is used to write smart contracts and dapps on the platform.

ETHEREUM DAPP ECOSYSTEM

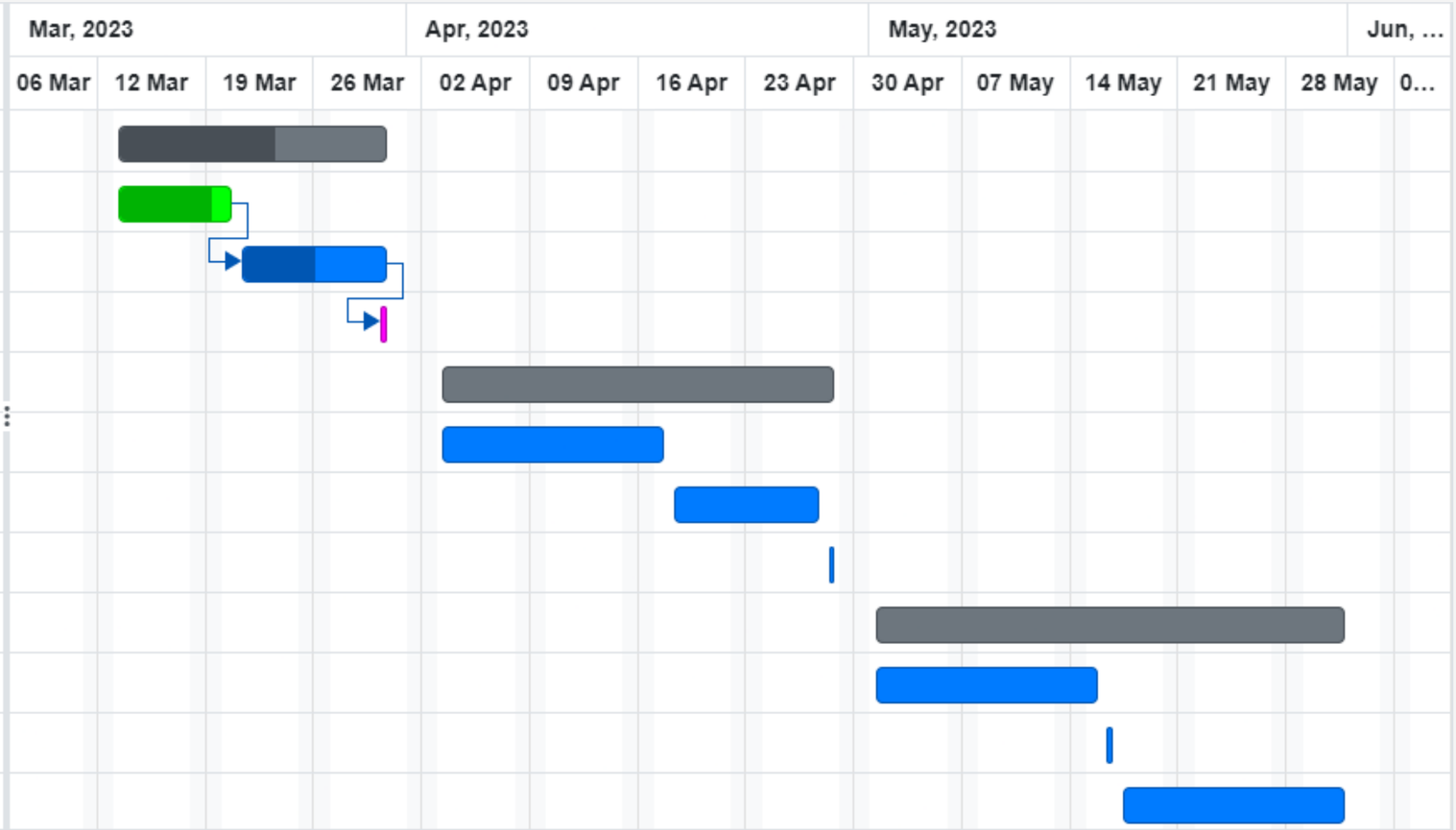


METHODOLOGY

- Using the Ethereum network, we can Enable users to interact with the platform using digital wallets, smart contracts, and decentralized apps (dApps).
- The use of blockchain technology will provide users with enhanced security, transparency, and privacy features, as well as enable new business models for artists and users alike.
- The platform will use IPFS (InterPlanatery File System) to store music files, which ensures that the files are distributed across a network of computers, making it resilient to attacks and data loss,
- The platform also uses decentralized curation and playlists to provide a personalized music discovery experience to users.
- Smart contracts will be used for royalty distribution, ensuring that artists receive their fair share of revenue.

SCHEDULE

ID	Name
1	Phase-1 (Project Proposal Submission)
2	Literature Survey
3	Synopsis writing
4	Presentation
5	Phase-2(Project progress)
6	System design and development
7	Identification of appropriate tool for application
8	Oral presentation
9	Phase-3 (Project Demonstration with Report)
10	Deployment and Testing
11	Demonstration
12	Documentation



Gantt Chart

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THANK YOU

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