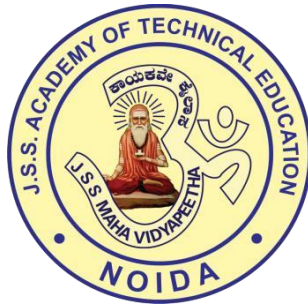# MINI PROJECT REPORT

ON

MINI PROJECT TITLE

B. TECH COMPUTER SCIENCE & ENGINEERING.

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INTRODUCTION

1.NFTs can be traded with other NFTs or sold/bought via the NFT marketplace, which is a decentralized platform.

2.This marketplace is like an eCommerce platform, say Amazon or eBay where different products are listed by sellers, and buyers can buy them.

3.NFT marketplace has numerous different features and types, which makes them quite distinct from eCommerce marketplaces. NFTs or digital assets can be stored, traded, and displayed to a large audience, and a unique business model is evolving.

4.NFT marketplaces are giving rise to the NFT Business Model, where unique non-fungible tokens related to art, video, audio, and other types are bought and sold.

5.And this is bringing in NFT development practices, for creating, launching, and maintaining NFT marketplaces and NFTs.

6.In order to transact at an NFT marketplace, having a crypto wallet is mandatory, because all transactions such as buying, selling, and storing the NFTs will happen via that crypto wallet.

MOTIVATION

The motivation behind working upon the proposed idea is:

1. People are buying and selling NFTs today and 99% of the people in this world are not aware of this billion-dollar market and this opportunity is really a once in a century opportunity.

2. Currently, NFTs are sweeping the digital art and collectibles industries. Due to significant sales to a new crypto-audience, digital artists are seeing a transformation in their existence.

3. Celebrities are also getting involved since they see this as a new way to interact with people. Digital art is merely one application for NFTs, though. As a deed for an item in the digital or physical world, they can be used to show the ownership of any special asset.

4. The establishment of NFT marketplaces is the most popular business opportunity in the internet community. Since its birth, it has been at the heart of NFT technology.

5. By contacting top-tier development companies, a variety of business sectors are entering the development industry and developing their own NFT markets. As a result, this is a great time for the digital community to get involved in the NFT space by creating NFT marketplaces.

OBJECTIVES

The Proposed Work aims to meet the following objectives (s):

➢ First and fore-most objective of the project is to, provide the users with fully functioning platform for testing authenticity of products.

You can use NFTs to verify that the thing you are buying is genuine. Since the blockchain can permanently record information about the goods, physical products will soon be able to check for uniqueness and authenticity as well
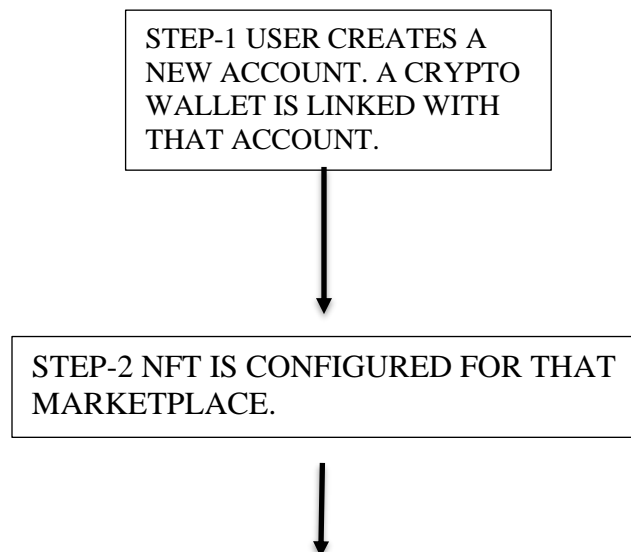
➢ NFTs can also be used to store data on the production process, assuring fair trade throughout. NFT has more uses besides just consumer goods. Numerous businesses have already used NFTs for industrial design prototyping with success..

➢ The protection of patents and intellectual property is excellent with NFTs. Additionally, users can use NFT tokens to demonstrate their ownership of any

piece of information, which is not achievable with conventional IP rights tools like trademarks and copyrights. Along with the above facilities, the website would be made disabled friendly thus helping out the people with differently abled.

➢ NFTs are a reliable approach to display academic credentials. NFTs can offer evidence of attendance, a degree earned, and other significant information. This data is then stored on the NFT chain which cannot be compromised or changed. By awarding tokens for each finished course and using smart contract verification mechanisms to validate any degrees received, NFTs may generate immutable records for the courses taken.

➢ A significant amount of art was destroyed after World War II. Some were replaced by knockoffs, while others were stolen by different people, organizations, and so on. Old artists' original artwork can soon be labeled for tracking with NFTs. Of course, this also applies to actual works of art that have not yet been produced.

METHODOLOGY/PROCESS FLOW

The process flow of the project is as follows:

STEP-1 USER CREATES A NEW ACCOUNT. A CRYPTO WALLET IS LINKED WITH THAT ACCOUNT.

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STEP-2 NFT IS CONFIGURED FOR THAT MARKETPLACE.

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┌─────────────────────────────────┐
│ STEP-3 THE MARKETPLACE AND      │
│ NFT LISTINGS ARE MODERATED.     │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│ STEP-4 NFT'S APPEAR FOR SELLING │
│ IN THE MARKETPLACE.             │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│ STEP-6 BIDS ARE PLACED          │
│ FOR THAT NFT.NFT IS SOLD        │
│ TO THE TOP BIDDER.THE           │
│ MARKETPLACE HANDLES             │
│ THE TRANSACTION VIA A           │
│ CRYPTO WALLET                   │
└─────────────────────────────────┘
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HARDWARE & SOFTWARE REQUIREMENTS

HARDWARE REQUIREMENTS:

1. A laptop with Windows/Mac/Linux OS along with i5 or above processor/Ryzen 5 processor
2. RAM – 8GB or more

SOFTWARE REQUIREMENTS:

1. Visual Studio Code

TECHNOLOGY:

1. Blockchain
2. Concept of NEFT
3. Machine Learning (for disabled friendly websites)

FRONT-END:

1. UI/UX – Figma, Adobe Illustrator, Adobe Photoshop
2. Tailwind CSS
3. Sass CSS
4. React JS

BACKEND

1. Filecoin/IPFS
2. Database – Firebase
3. Smart Contract deploy on Goerli Testnet
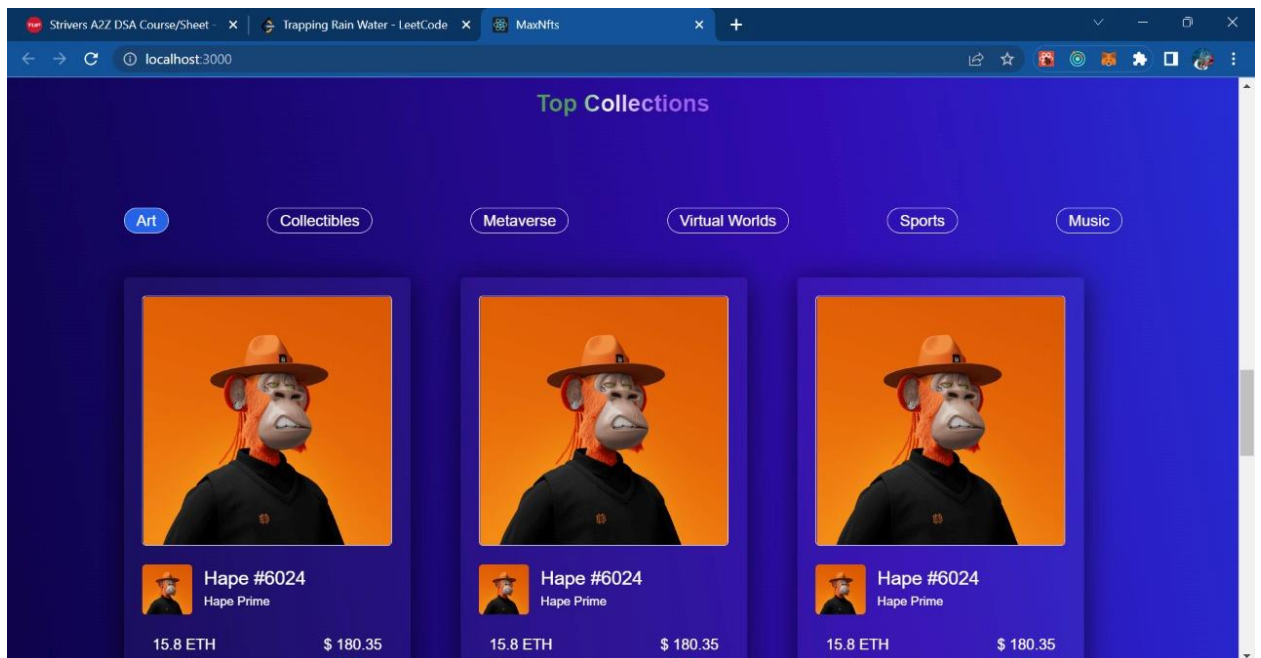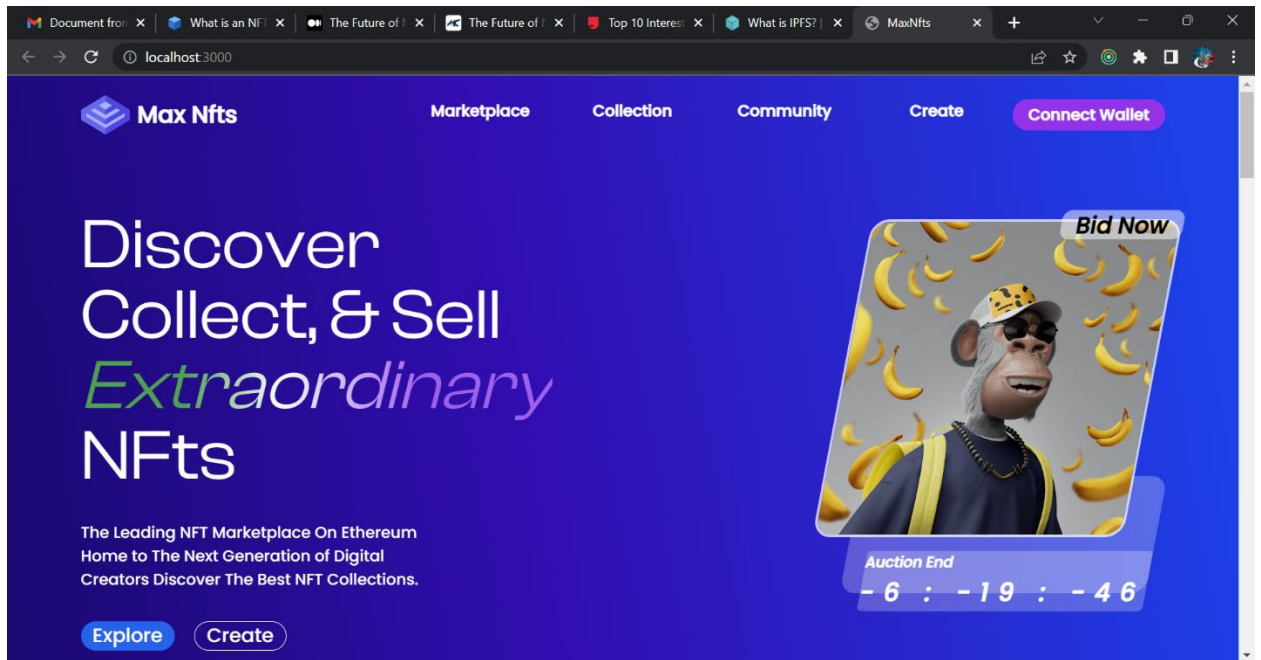
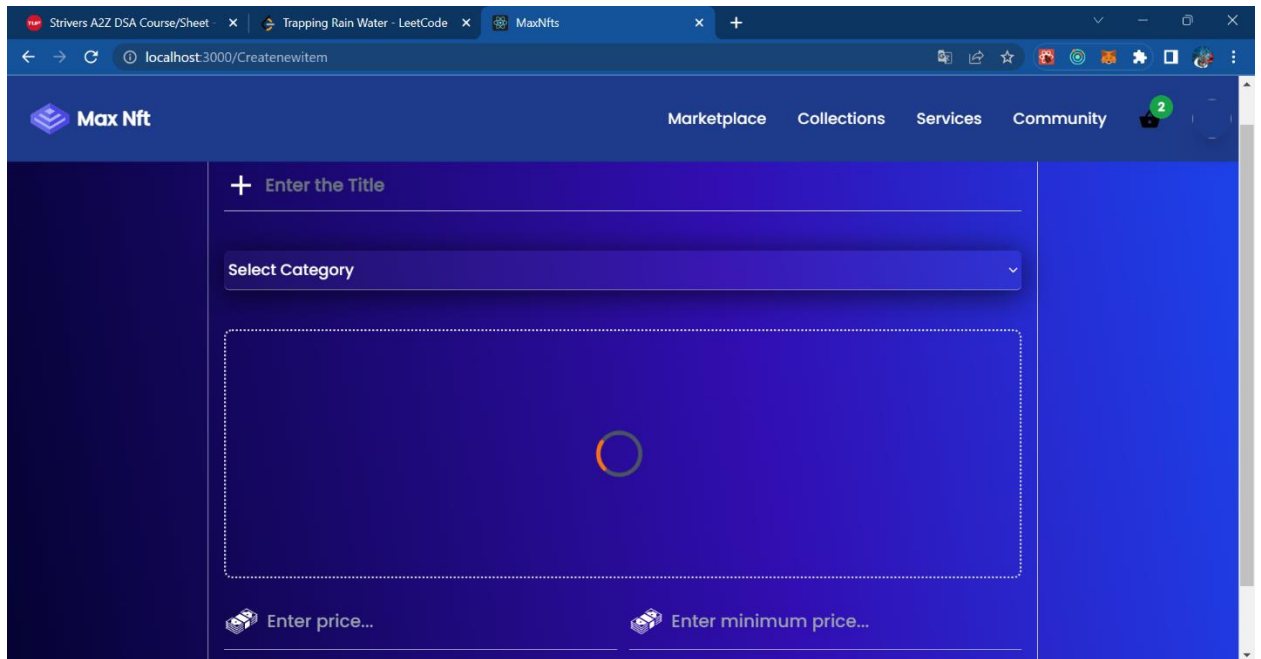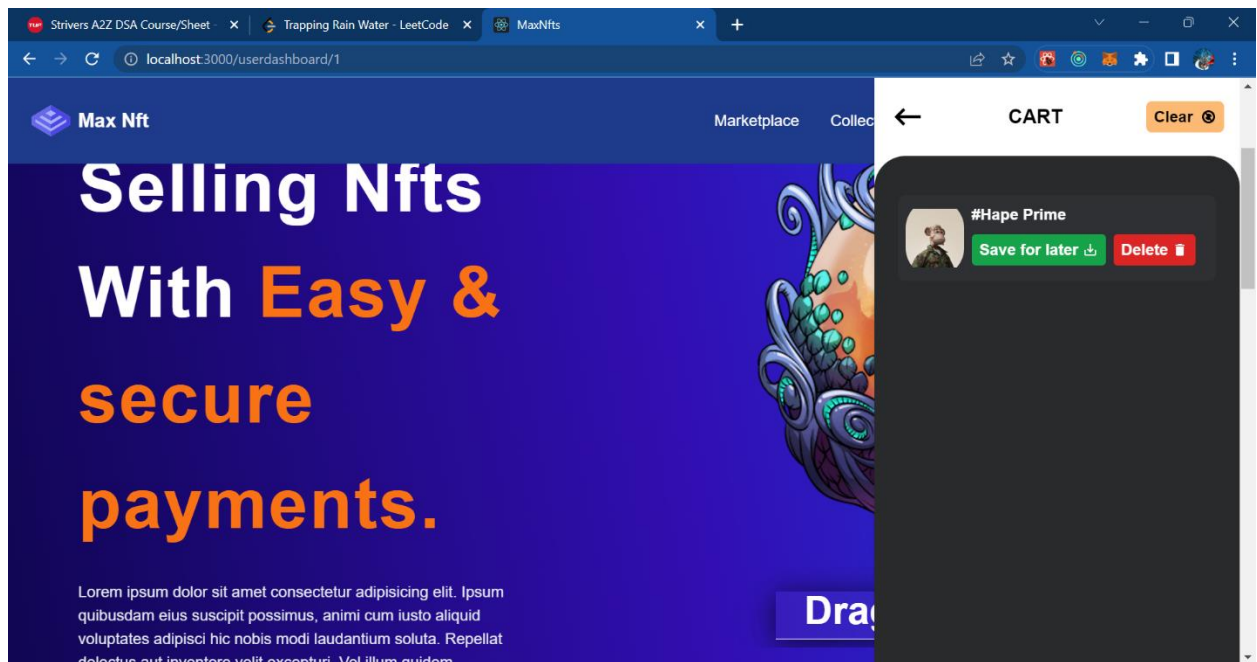PAYMENT METHOD

1. Metamask Wallet

HOSTING

1. Vercel

SNAPSHOTS OF PROJECT

FRONT END (CLIENT SIDE)

APPLICATION OF PROJECT

The application of the project is as follows:

1. Testing Authenticity of Products:
   You can use NFTs to verify that the thing you are buying is genuine. Since the blockchain can permanently record information about the goods, physical products will soon be able to check for uniqueness and authenticity as well

2. NFTs can also be used to store data on the production process, assuring fair trade throughout. NFT has more uses besides just consumer goods. Numerous businesses have already used NFTs for industrial design prototyping with success.

3. Intellectual Property and Patents :
   The protection of patents and intellectual property is excellent with NFTs. Additionally, users can use NFT tokens to demonstrate their ownership of any piece of information, which is not achievable with conventional IP rights tools like trademarks and copyrights.:

4. Academic Credentials
   NFTs are a reliable approach to display academic credentials. NFTs can offer evidence of attendance, a degree earned, and other significant information. This data is then stored on the NFT chain which cannot be compromised or changed. By awarding tokens for each finished course and using smart contract verification mechanisms to validate any degrees received, NFTs may generate immutable records for the courses taken..

5. Artwork Tracking
   A significant amount of art was destroyed after World War II. Some were replaced by knockoffs, while others were stolen by different people, organizations, and so on. Old artists' original artwork can soon be labeled for tracking with NFTs. Of course, this also applies to actual works of art that have not yet been produced.

CONCLUSION

Thus, from the project we want to conclude few points like:

1.NFT marketplace is the new age marketplace for trading, selling, and buying digital works

2.With the growing popularity and increasing valuation of cryptocurrency.

(1) It is safe to assume that the marketplaces for NFTs and the whole blockchain network will stay in demand in the long run.

(2) Serverless computing using AWS or Google Cloud
(3) Blockchain and concept of NEFT implementation.

Overall, to sum up the project is basically a dedicated website for NFT to ensure that the owner of any particular NFT is one and only in this entire Universe.

FUTURE SCOPE

We are intended to include many other features in near future like:

1.Using what we understand about marketplaces like Amazon, we can anticipate a more smooth user experience in which algorithms can direct you via your exploration process and provide recommendations based on preferences. Each time a user logs into the platform, the experience becomes more refined, personalized and intuitive, costing in every innovative piece of information about user behavior.

2.Consider platforms such as Airbnb, Instagram and Etsy. The experience is so immersive that you often forget you're on a marketplace the moment you access the app or website. Product exploration and transaction are combined with engaging elements and storytelling to create an entirely new world for the end user.

3.For NFT marketplaces, the anticipation is the same. The greater the number of NFT products and use cases, the greater the requirement for a wide range of local experiences that link the dots for users. From style to metaverse to game resources, the NFT marketplace umbrella will continue to expand, allowing for more innovation.

4.The marketplace will evolve into much more than just a platform for users to skim through products. It will be a place for brands to share their story and start engaging and building their community.

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[4] https://www.emizentech.com/blog/building-an-accessible-website-for-visually-impaired.html