COMSATS University Islamabad,
Abbottabad Campus

SOFTWARE DESIGN DESCRIPTION

(SDD DOCUMENT)

for

Decentralized Marketplace for buying and selling Digital assets

By

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Supervisor

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Bachelor of Science in Computer Science (2020-2024)

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Revision History

Name	Date	Reason for changes	Version

Application Evaluation History

Comments (by committee) ***include the ones given at scope time both in doc and presentation**	**Action Taken**

Supervised by

<Supervisor's Name>

Signature_____

Introduction

The proposed project is web3.0 application. It is decentralized marketplace on which user can create their profile using Meta Mask and email address. It will provide a platform to users to create the NFT of their digital assets include images, short clips videos, short clip audio and textual format. It will provide creator a percentage of profit whenever his created NFT get sold. User can easily search any type of NFT and can see trending NFTs and buy that NFT. If the owner is not willing to sell their NFT then user can offer money to owner for his NFT. User can share NFTs of their digital assets on social media and they can also generate QR-code of their NFT and then can share this QR-code. Other users can take copyright of their favourite digital asset or favourite person's asset. User's get informed about any type of event through notification.

Design methodology and software process model

Procedural design methodology will be followed in project. It follows the top-down approach. It divides into the functions along with the sequence of actions that needs to follow. The project starts with the planning, in initial planning focus is on goals, scope of our project. The proposed project will use the Iterative software process model. In first iteration, focus is on developing basic modules, like register, login using the MetaMask and email address, NFT creation (including the searching, buy/sell functionalities also),and integration of these modules. On the basis of evaluation, in the second iteration we focus on the enhancement of existing features, e.g.; profit sharing for creator and admin, allow users to offer for NFT when owner don't allow it's selling, along social media sharing include the QR generation for NFTs and profile advertisement. The top-down approach supports the iterative model by first identifying the high-level functionality and then breaking it down into smaller jobs to be handled iteratively. Through this combination, it is feasible to maintain a rigorous and efficient development process while accommodating changes and improvements at each iteration.

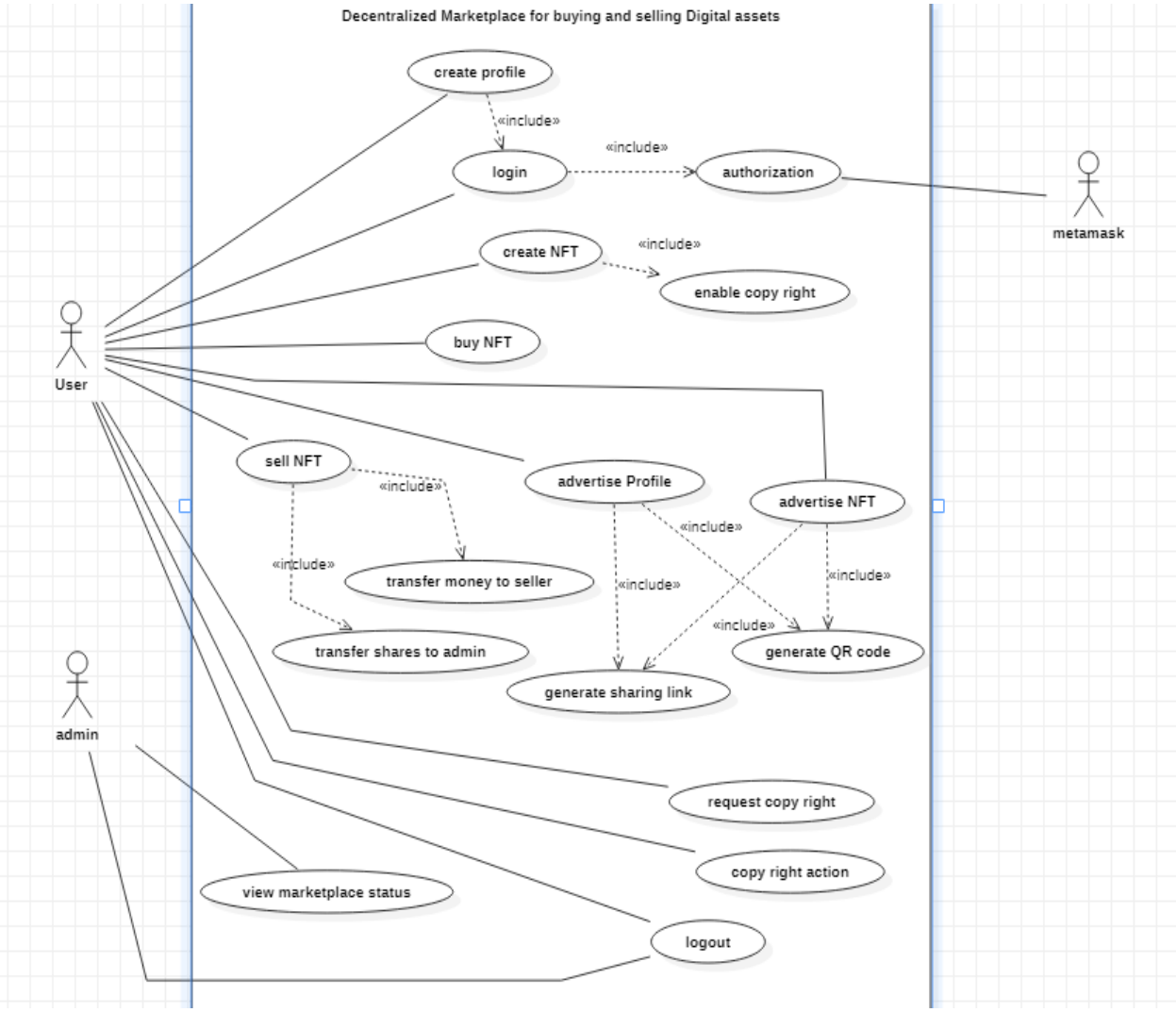
System overview

To make the production, trade, and distribution of non-fungible tokens (NFTs) easier, a web3.0 decentralized marketplace initiative is being suggested. The technology allows users to create profiles using MetaMask and their email addresses. It offers users a platform for producing NFTs using their own digital assets, such as photographs, brief video clips, audio samples, and text.

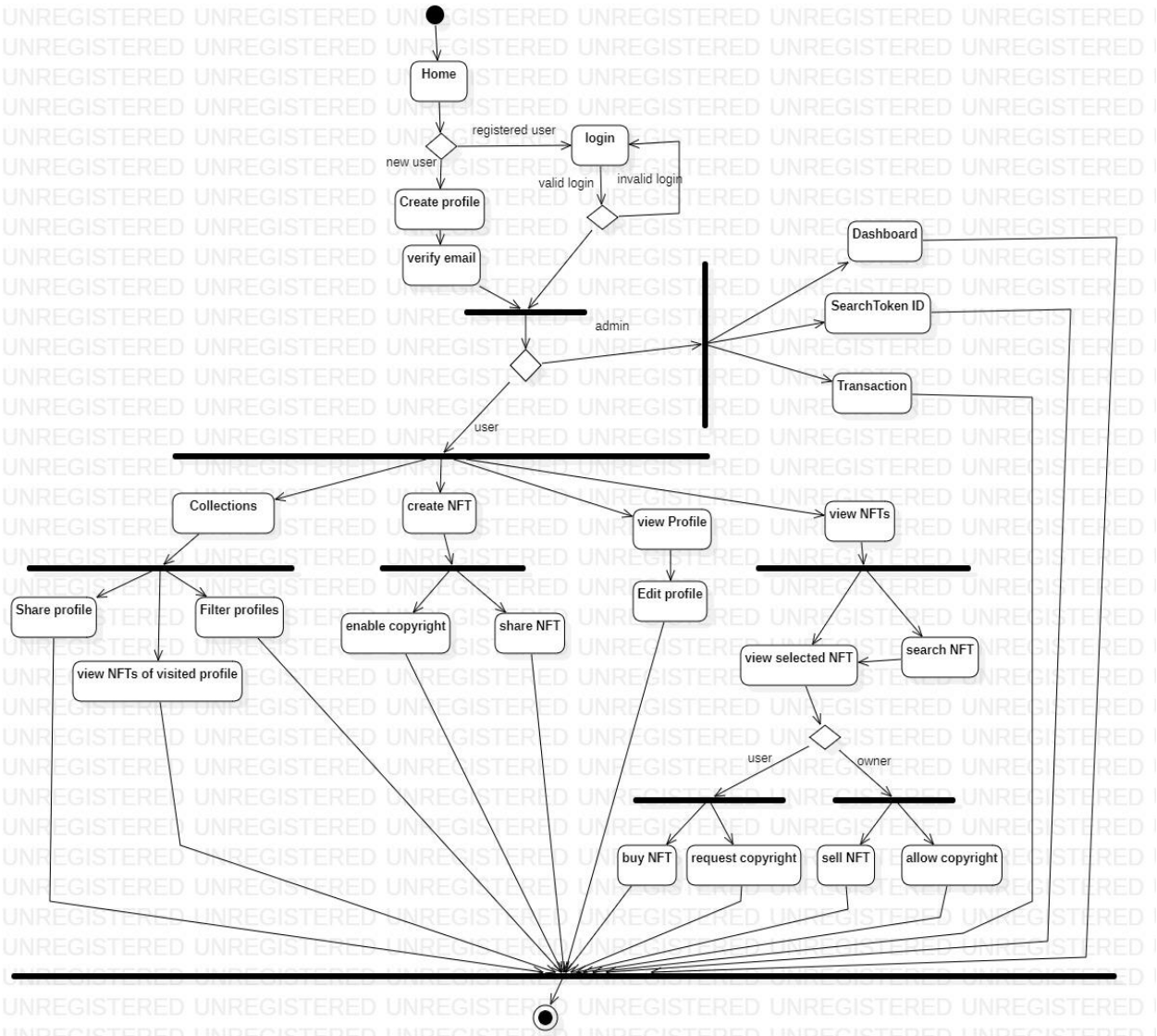
Design models [along with descriptions]

The applicable models may include:

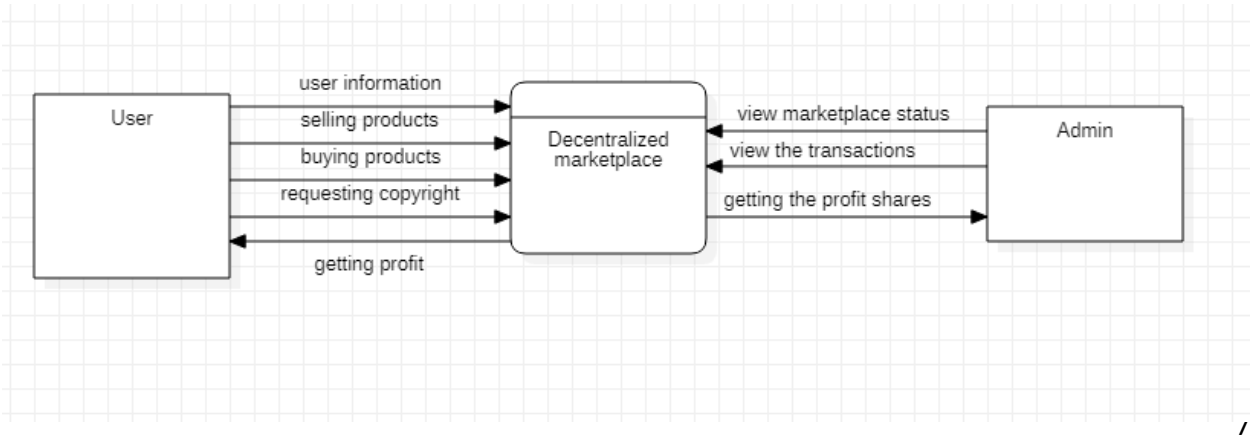
Use case Diagram:



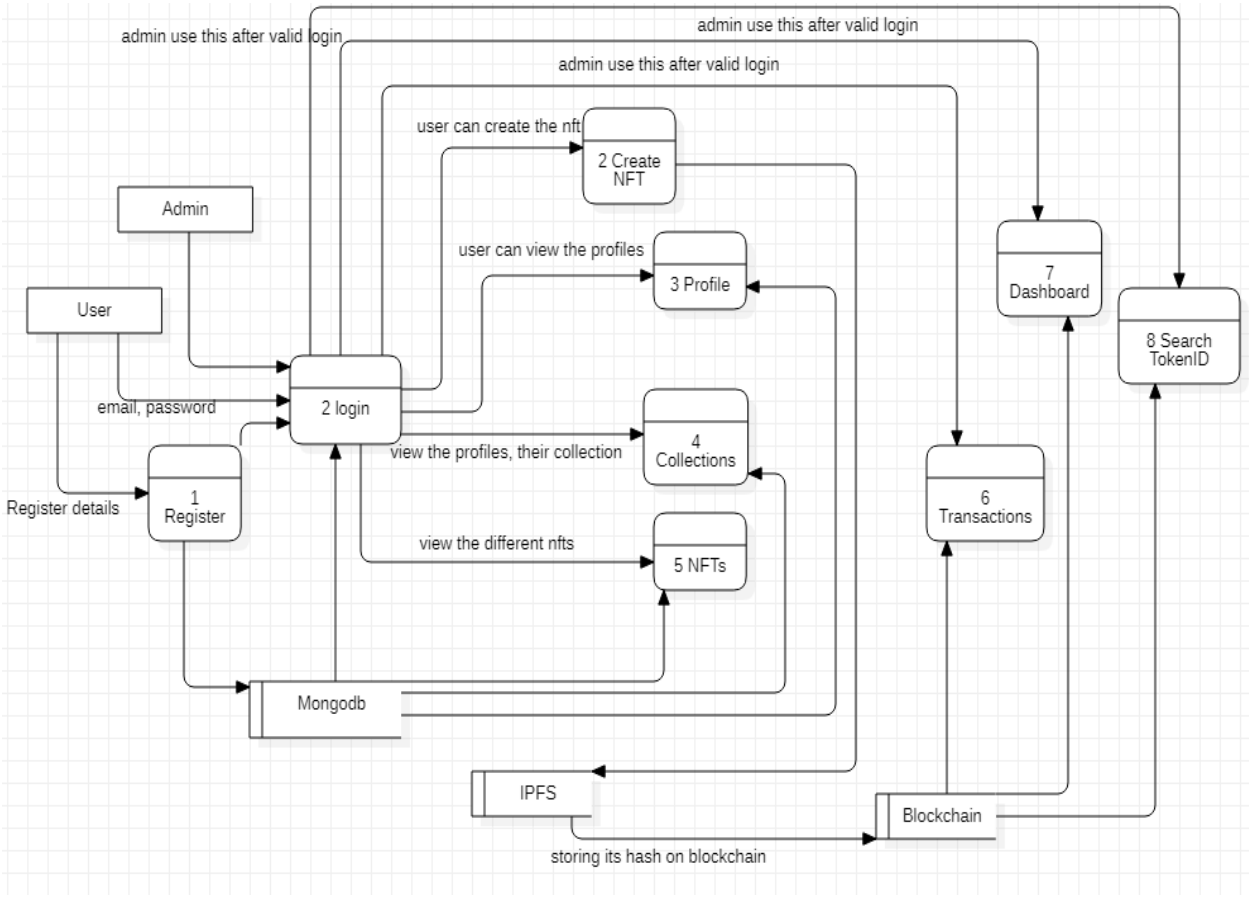
Activity Diagram:



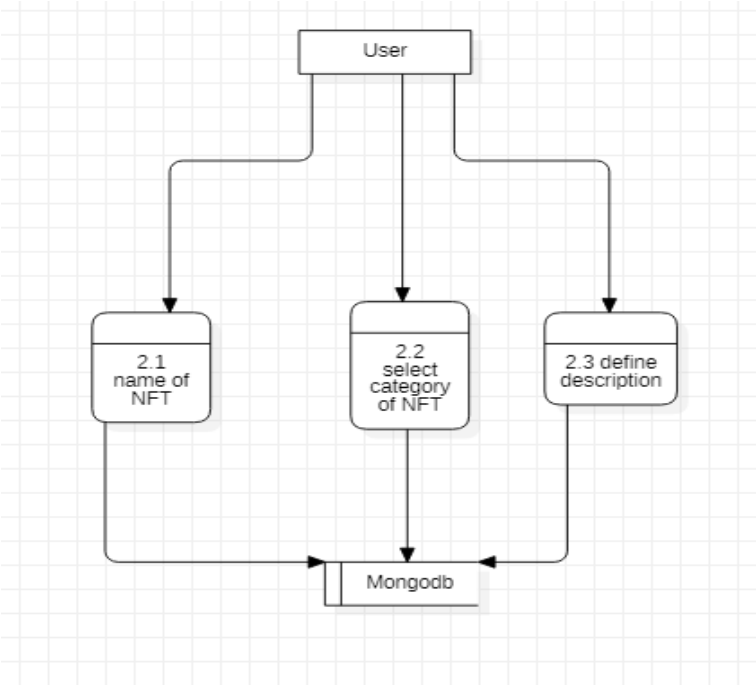
Data Flow Diagram (DFD):
Level-0



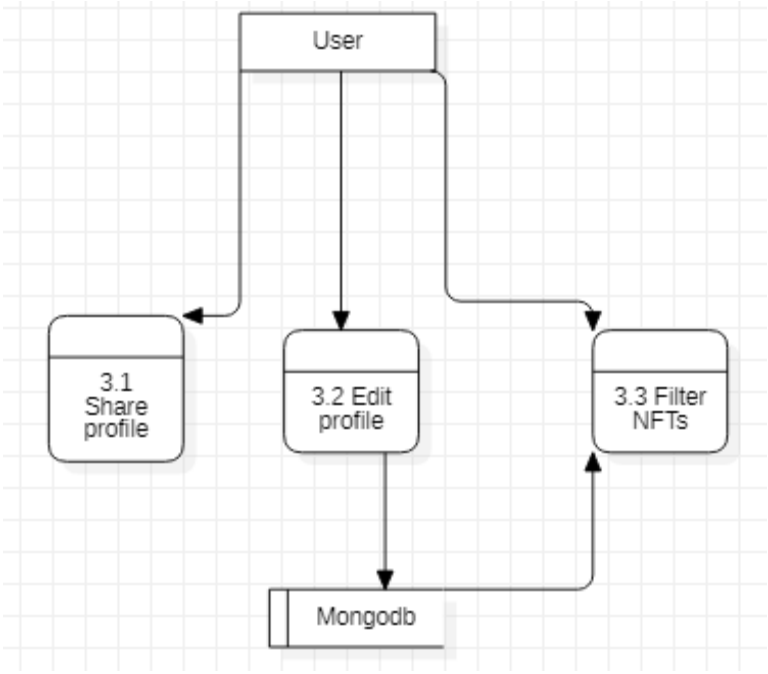
Level-1



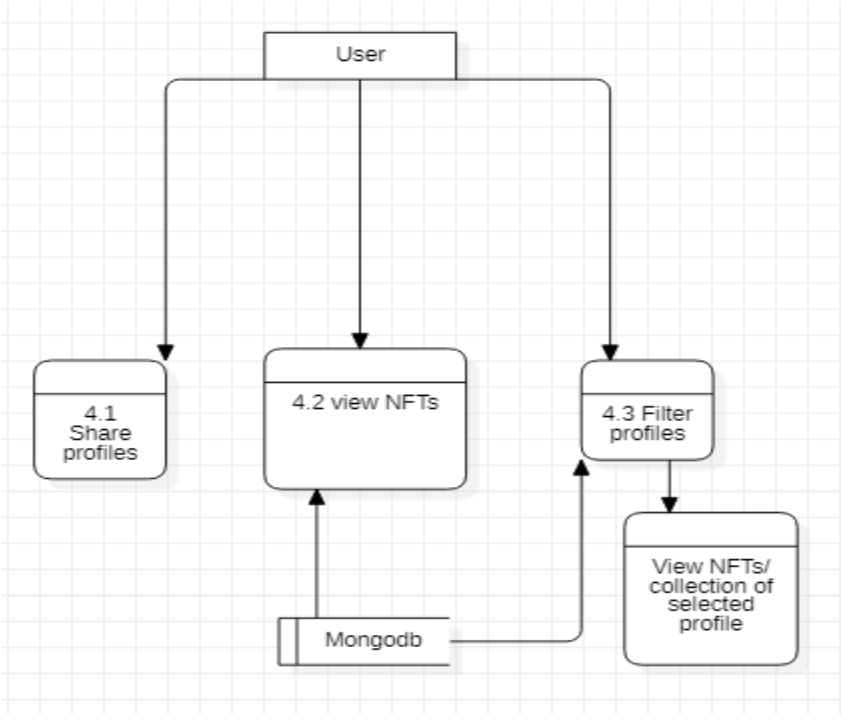
Level-2
2 Create NFT



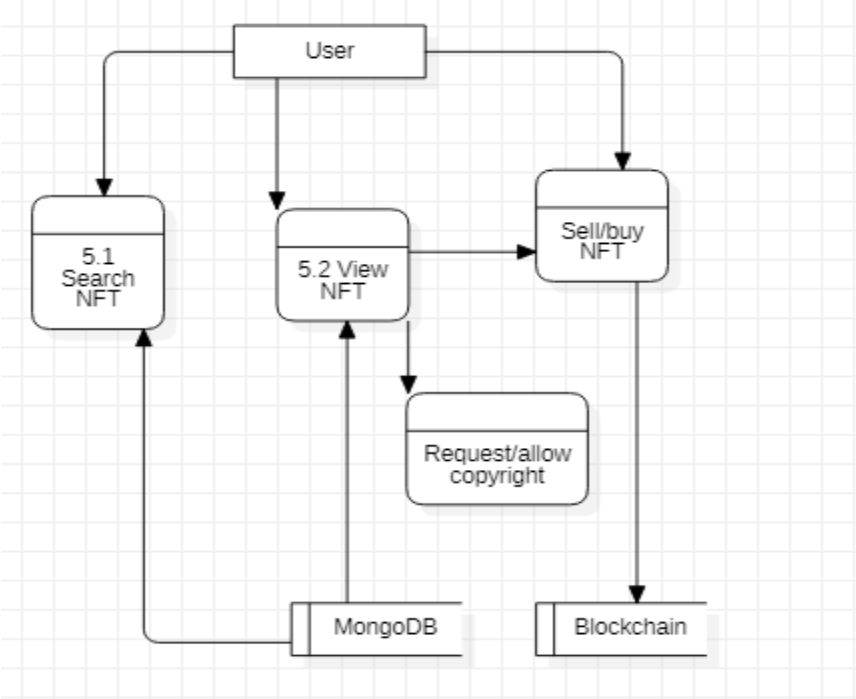
3 Profile



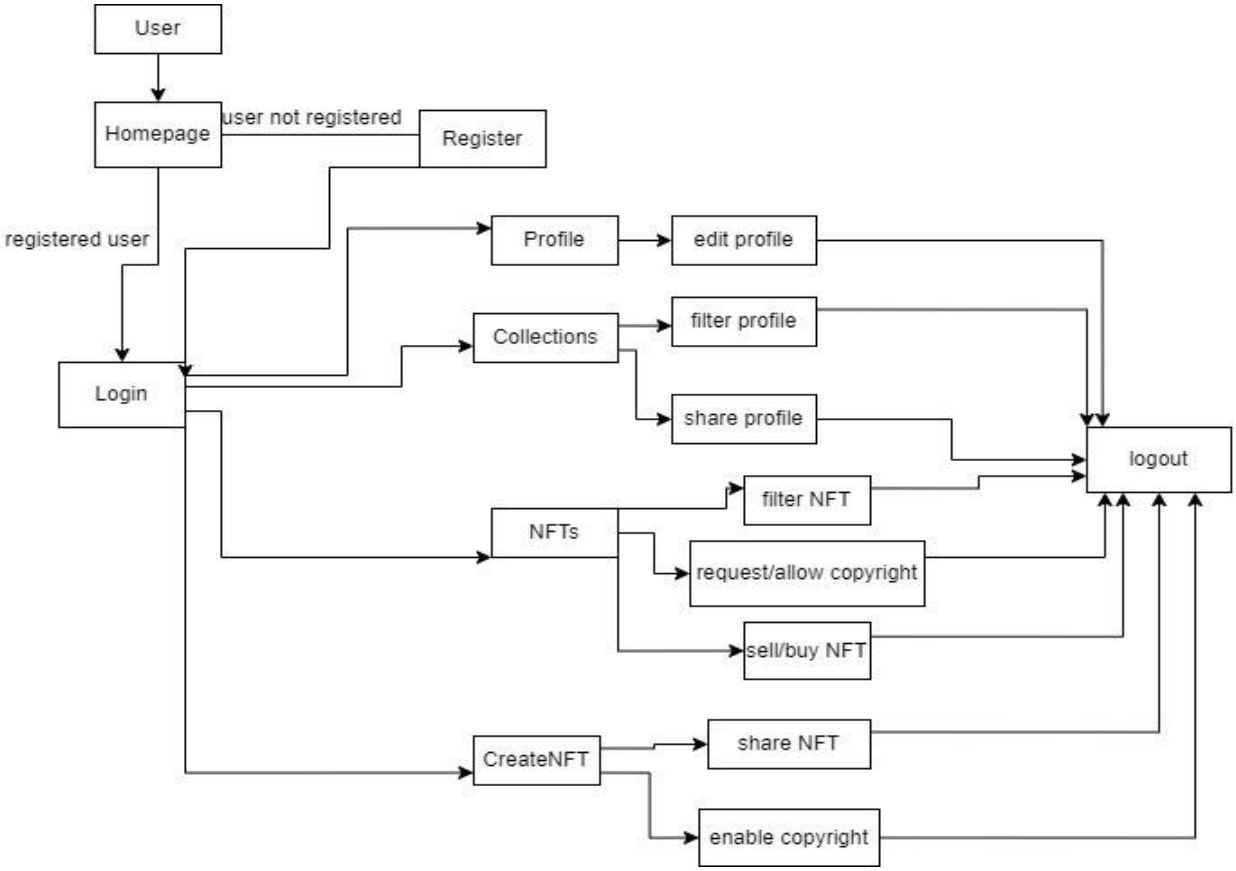
4 Collections



5 NFTs

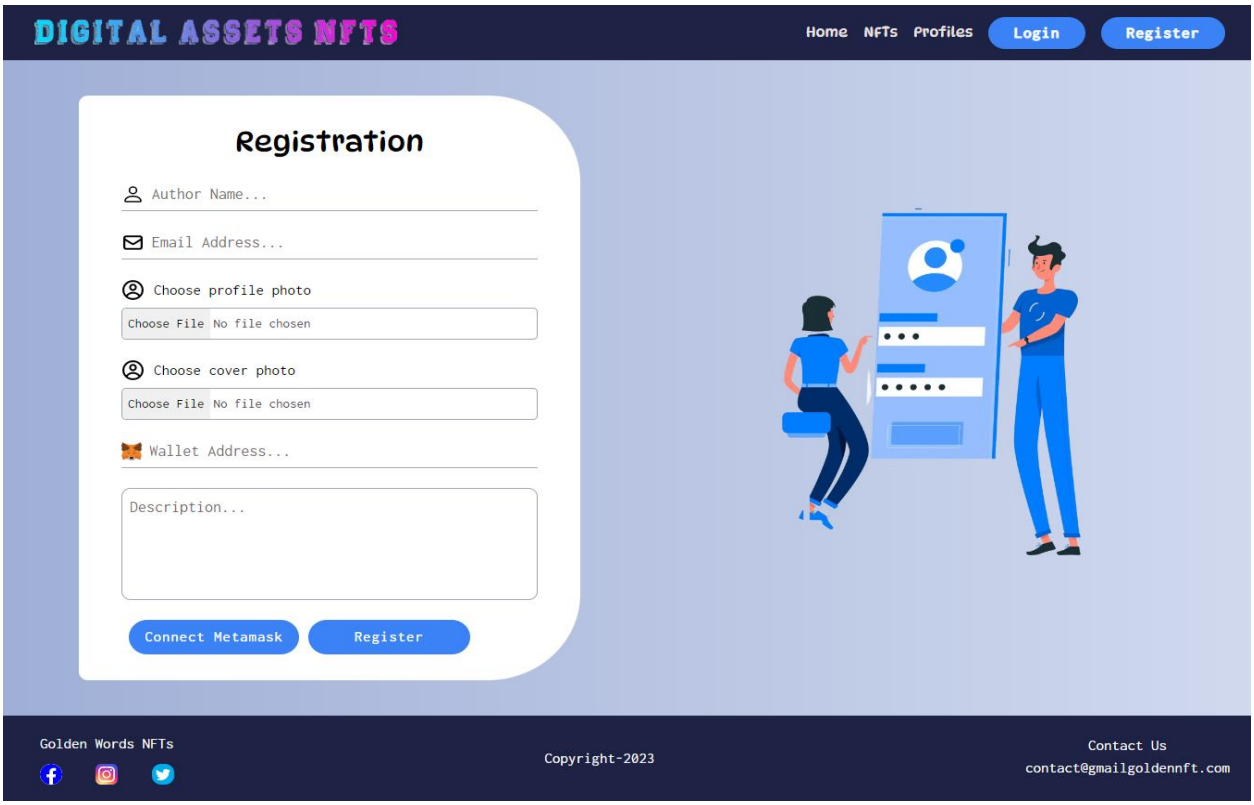


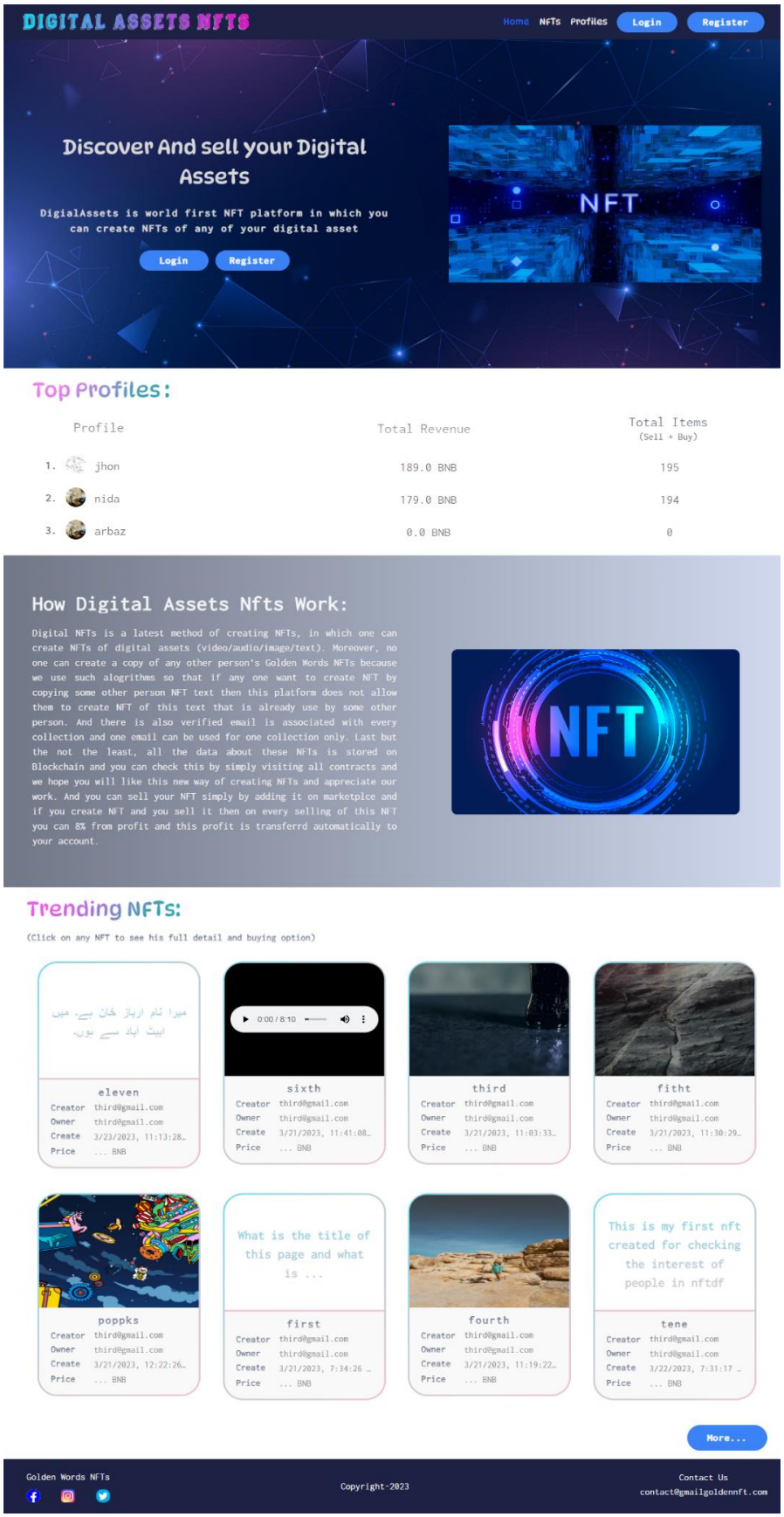
Business Context Diagram:



Human interface design

Screen images




DIGITAL ASSETS NFTS
Home
NFTs
Profiles
Login
Register
Discover And sell your Digital Assets
DigialAssets is world first NFT platform in which you can create NFTs of any of your digital asset
Login
Register
NFT
Top Profiles:
Profile
Total Revenue
Total Items
(Sell + Buy)
1. jhon 189.0 BNB 195
2. nida 179.0 BNB 194
3. arbaz 0.0 BNB 0
How Digital Assets Nfts Work:
Digital NFTs is a latest method of creating NFTs, in which one can create NFTs of digital assets (video/audio/image/text). Moreover, no one can create a copy of any other person's Golden Words NFTs because we use such alogrithms so that if any one want to create NFT by copying some other person NFT text then this platform does not allow them to create NFT of this text that is already use by some other person. And there is also verified email is associated with every collection and one email can be used for one collection only. Last but the not the least, all the data about these NFTs is stored on Blockchain and you can check this by simply visiting all contracts and we hope you will like this new way of creating NFTs and appreciate our work. And you can sell your NFT simply by adding it on marketplce and if you create NFT and you sell it then on every selling of this NFT you can 8% from profit and this profit is transferrd automatically to your account.
NFT
Trending NFTs:
(Click on any NFT to see his full detail and buying option)
eleven
sixth
third
fitht
poppks
first
fourth
tene
This is my first nft created for checking the interest of people in nftdf
What is the title of this page and what is ...
More...
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DIGITAL ASSETS NFTS

Home NFTs Profiles Login Register

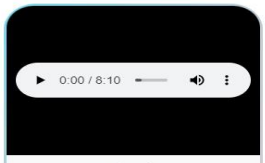
All NFTs

Search NFTs By filters

(Click on any NFT to see his full detail and buying option)

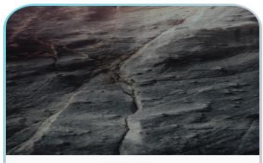
میرا نام ارباز خان ہے۔ میں ایبٹ آباد سے ہوں۔

eleven
Creator third@gmail.com
Owner third@gmail.com
Create 3/23/2023, 11:13:2…
Price ... BNB



sixth
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:41:0…
Price ... BNB

third
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:03:3…
Price ... BNB



fitht
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:30:2…
Price ... BNB

poppks
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 12:22:2…
Price ... BNB

What is the title of this page and what is ...

first
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 7:34:26…
Price ... BNB

fourth
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:19:2…
Price ... BNB

This is my first nft created for checking the interest of people in nftdf

tene
Creator third@gmail.com
Owner third@gmail.com
Create 3/22/2023, 7:31:17…
Price ... BNB

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Home NFTs Collections Login Register

All Collections

Search Collection by email

Times of Logger
by Roger
Volume 12567.56 USD Floor Price 2567.56 USD

Times of Logger
by Roger
Volume 12567.56 USD Floor Price 2567.56 USD

Times of Logger
by Roger
Volume 12567.56 USD Floor Price 2567.56 USD

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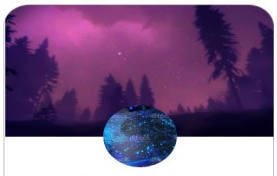

Times of Logger
by Roger
Volume 12567.56 USD Floor Price 2567.56 USD

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by Roger
Volume 12567.56 USD Floor Price 2567.56 USD

Times of Logger
by Roger
Volume 12567.56 USD Floor Price 2567.56 USD

< 1 2 3 ... >

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Home NFTs Profiles Create NFT Logout arbaz

NFT Detail

Name poppks

Creation Date 3/21/2023, 12:22:26 PM

Owner Detail

Email third@gmail.com

Address 0x976EA74026E726554dB657fA54763abd0C3a0aa9

Creator Detail

Email third@gmail.com

Address 0x976EA74026E726554dB657fA54763abd0C3a0aa9

Share Sell Now

Description:

afasdafasdfadfa

Request Copyrights

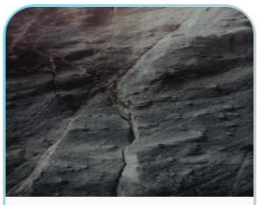
Latest Transactions About This NFT:

OOPS! Nothing to show...

More Nfts Of Owner:

third

Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:03:3…
Price ... BNB



fitht

Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:30:2…
Price ... BNB

What is the title of this page and what is ...

first

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Owner third@gmail.com
Create 3/21/2023, 7:34:26…
Price ... BNB

fourth

Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:19:2…
Price ... BNB

View Profile

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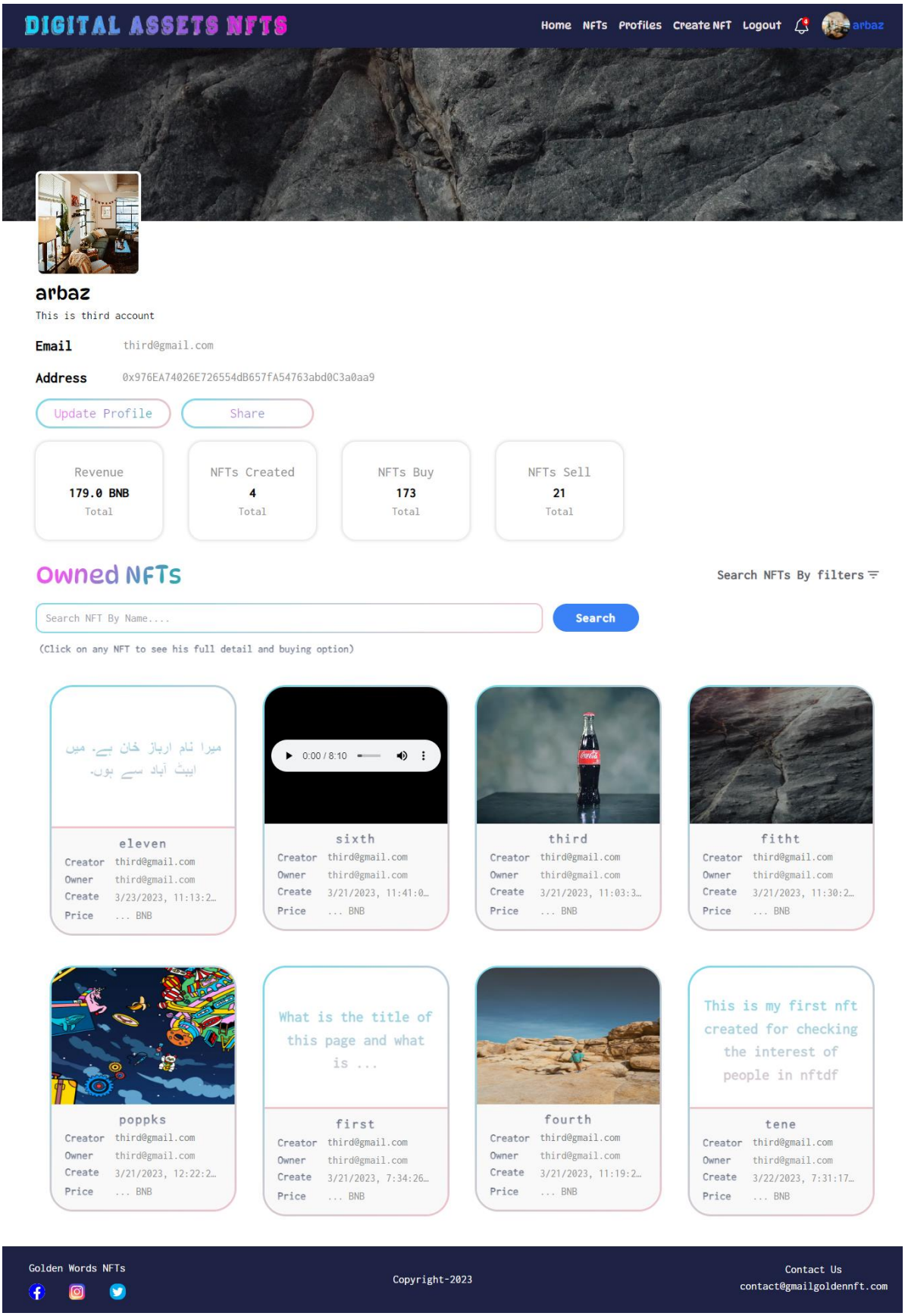
DIGITAL ASSETS NFTS
Home NFTs Profiles Create NFT Logout arbaz
arbaz
This is third account
Email third@gmail.com
Address 0x976EA74026E726554dB657fA54763abd0C3a0aa9
Update Profile
Share
Revenue 179.0 BNB Total
NFTs Created 4 Total
NFTs Buy 173 Total
NFTs Sell 21 Total
Owned NFTs
Search NFTs By filters
Search NFT By Name....
Search
(Click on any NFT to see his full detail and buying option)
میرا نام ارباز خان ہے۔ میں ایبٹ آباد سے ہوں۔
eleven
Creator third@gmail.com
Owner third@gmail.com
Create 3/23/2023, 11:13:2…
Price ... BNB
0:00 / 8:10
sixth
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:41:0…
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third
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:03:3…
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fitht
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Owner third@gmail.com
Create 3/21/2023, 11:30:2…
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Create 3/21/2023, 12:22:2…
Price ... BNB
What is the title of this page and what is ...
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Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 7:34:26…
Price ... BNB
fourth
Creator third@gmail.com
Owner third@gmail.com
Create 3/21/2023, 11:19:2…
Price ... BNB
This is my first nft created for checking the interest of people in nftdf
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Creator third@gmail.com
Owner third@gmail.com
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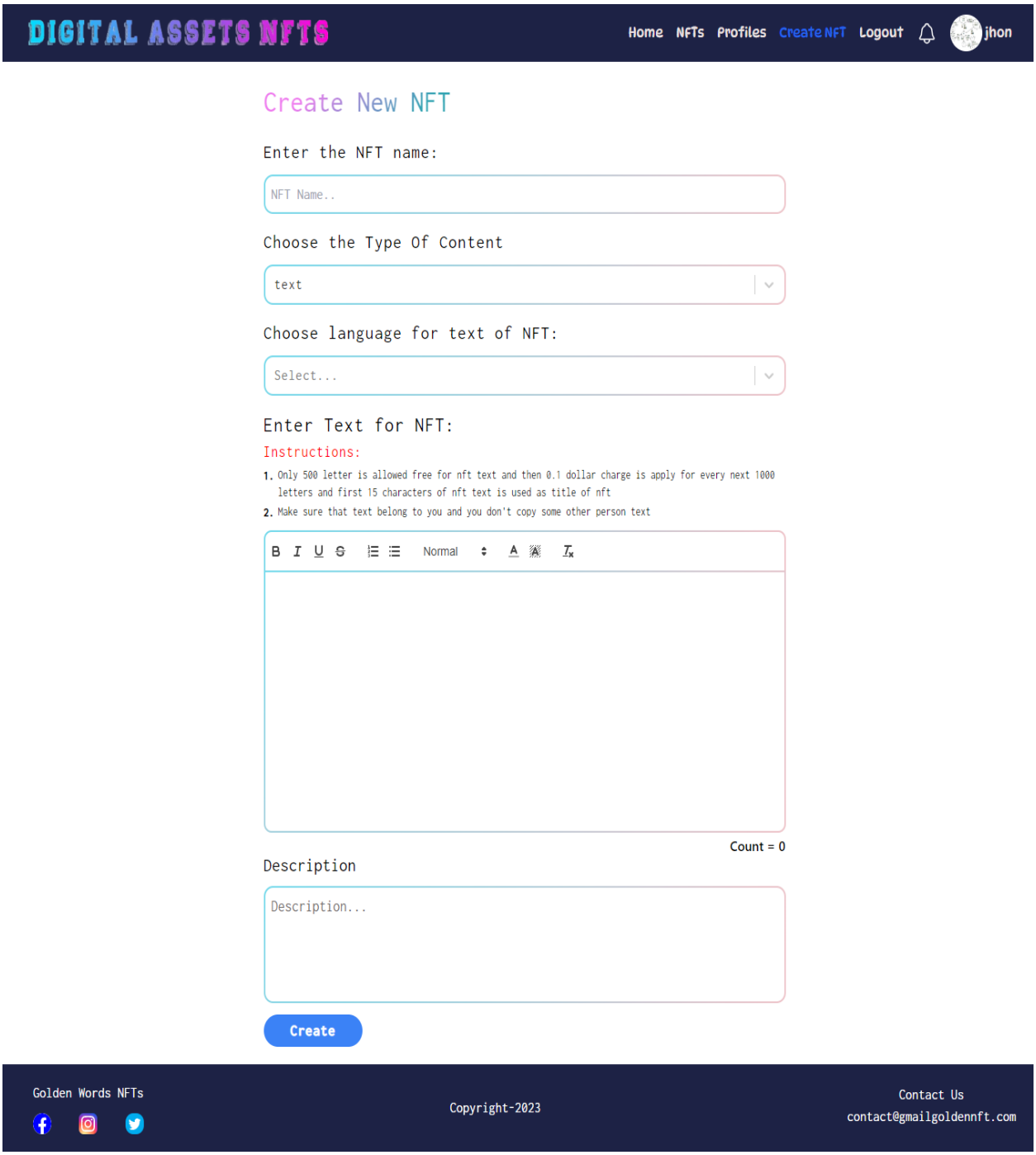
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Home
NFTs
Profiles
Create NFT
Logout
jhon
Create New NFT
Enter the NFT name:
NFT Name..
Choose the Type Of Content
text
Choose language for text of NFT:
Select...
Enter Text for NFT:
Instructions:
1. Only 500 letter is allowed free for nft text and then 0.1 dollar charge is apply for every next 1000 letters and first 15 characters of nft text is used as title of nft
2. Make sure that text belong to you and you don't copy some other person text
Normal
Count = 0
Description
Description...
Create
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Appendix I

- How to design using UML (OOP): For guidance please follow the instructions mentioned in the link: http://agilemodeling.com/artifacts/

- Data flow diagrams: For guidance please follow the instructions mentioned in the link and book:
  - http://www.agilemodeling.com/artifacts/dataFlowDiagram.htm
  - Software Engineering –A Practitioner's approach by Roger Pressman
- Architecture diagram: For guidance please follow the instructions mentioned in the link and book:
  - Ian Sommerville – Software Engineering 9th Edition– Chapter 6