Lesson 16 - IPFS

Using The IPFS

- Hosting and Co-Hosting files with IPFS
- Running a node
- Connecting to a local node
- Uploading files
- Downloading files
- File hashes

References

https://docs.ipfs.io/

https://docs.ipfs.io/how-to/command-line-quick-start/

Integrating IPFS in a NodeJS Server

- Handling file data over http
- Large files
- Implementing size limits and file type filters in the controller
- Mocking a database with a JSON file
    - Dealing with file systems
    - Writing records
    - Reading records

References

https://docs.nestjs.com/techniques/file-upload

https://www.npmjs.com/package/node-json-db

https://nft.storage/

Homework

- Read the references
- Experiment with IPFS with other files and folders

Weekend project

- Build a web server and API for providing the features using the RESTful architecture
- Run a local node of IPFS
- Upload 10 images to this node

- Create a JSON and build metadata descriptions for 10 NFTs, each using one unique image
- Make a GET method in the API to get the metadata by id
- Deploy a NFT Collection and mint 10 NFTs, and assign the API endpoint to the token URI
- Integrate this NFT Collection contract and APIs in a frontend application to display NFTs metadata and images
- (Bonus) provide wallet functions in the frontend to buy, transfer, allow, transfer from and burn NFTs