

Course Assignment for Blockchain Beginner

| Project Website is developed using Kapwing, Tailwind, HTML, Github and Netlify |

Mark Bark Park (extension of Lab 5)

- Pet shop with payable function for the adoption fee of 0.1 ether
- Development suite: Solidity, JS, HTML, Truffle, Ganache

<https://github.com/markvelous/markbarkpark>

localhost:7545

Botapp (extension of Lab 4)

- Deactivate minting button after the last NFT has been minted
- Enabled click outside of modals to clear screen or interrupt transactions
- Improved the app design & handling of some errors
- Installed elevations into Tailwind to improve visual impact of images
- Added hero patterns svg to spruce up background
- Moved mint button up and used hover with contrasting colour for better UX
- Adjusted settings to optimise look-and-feel for responsiveness on different devices
- Added react-truncate to prevent long owner address from overflowing
- Added ERC721 contract for regenerating tokens
- Development suite: Solidity, Hardhat, React JS, Tailwind

<https://github.com/markvelous/botdapp>

<https://botdapp.netlify.app/>

Botdapp2 (Agnostic NFT Minter)

- Mint any number of NFTs with URL, name and CID provided by the minter
- NFT is made immutable with Rinkeby smart contract and Pinata IPFS
- Development suite: Solidity, Hardhat, React JS, Tailwind

Rinkeby Etherscan Contract:

<https://rinkeby.etherscan.io/address/0x9049a2C93E7cf4d5aaF2baA9e1f404a0d766de1F>

<https://github.com/markvelous/botdapp2>

<https://botdapp2.netlify.app/>

Botdapp3 (Unique Robohash Minter)

- Generate and mint robohash NFTs on the fly
- Added auto-minting of bots using random strings
- Prevented ID repetition (bot name as CID)
- Added dynamic url using <https://robohash.org/{bot}?size=150x150>
- Added truncation to prevent text-overflow
- Reconfigured setup to deploy contract on Rinkeby instead of Ganache
- Development suite: Solidity, React JS, Truffle, Ganache

Rinkeby Etherscan Contract:

<https://rinkeby.etherscan.io/address/0xB7d67fa0B552105c3Bcc7e15374Ea26B67A3b5A6>

<https://github.com/markvelous/botdapp3>

<https://markobots.netlify.app/>

Brief for Course Assignment

Implement at least one of the ideas below to pass the beginner course. You need to submit:

- Github URL
- Netlify URL

Improving design of Dapp

Do you think the current design for the app is ugly? Me too! Try making the design better.

Sending Robots from the Dapp

Don't you wish that your users never leave your application? How about letting them do more within your application. Try adding a function that allow owners of the Robots to send their robots to someone else within the application!

Support multiple Robot contracts

User has been growing and you are thinking about expanding businesses? How about we transform this little storefront to an entire marketplace? Consider allowing users to interact with multiple contracts to buy not just Robots from you but also other NFTs from other NFT creators!

Handling errors & edge cases

Are you more concerned about polishing the user experience before expanding to more feature scope? Perhaps you've noticed that if you were to cancel the transaction midway, the modal never goes away? Perhaps you've noticed that when a transaction happen while you're on the page the owner isn't updated live? Perhaps you've noticed that the application crashes when the 6th robot is bought? Fix them!

More Robots

Right now you've got 5 robots for sale. Could you think of a way to quickly generate thousands of robots easily? Or even infinitely many robots, as long as people can afford to pay? Or even in a way that even you do not know how the robots look like until it's being created?

JED options

- Convert the Pet Shop (Lab 5) into an e-commerce website (to accept ETH/token into transactions)
- Totally different implementations, with DAPP (web-based) and smart contract involving sending transactions and reading the state of the contracts