

## Course Assignment for Blockchain Beginner

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

### Mark Bark Park (extension of Lab 5 tutorial)

- 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](http://localhost:7545)

### Botapp (extension of Lab 4 tutorial)

- 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
- Enabled click outside of the modal to clear screen or interrupt transactions
- Adjusted settings to optimise look-and-feel for responsiveness on different devices
- Added truncate function to prevent long owner address from overflowing
- Development suite: Solidity, Hardhat, React JS, Tailwind

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

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

### Botdapp2 (Agnostic NFT Minter)

- Minting of any number of robots (or digital assets) with URL, name and CID provided by the minter
- NFT is registered in 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 Mass Minter)

- Generate and mint robohash NFTs on the fly
- Prevented ID repetition (bot name)
- 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