

# Building Scalable Full Stack Apps on Ethereum with **Polygon**



This is the codebase to go along with the blog post Building a Full Stack NFT Marketplace on Ethereum with Polygon

## Running this project

**Gitpod** To deploy this project to Gitpod, follow these steps:

1. Click this link to deploy



2. Import the RPC address given to you by GitPod into your MetaMask wallet

This endpoint will look something like this:

```
1 https://8545-copper-swordtail-j1mvhxv3.ws-eu18.gitpod.io/
```

The chain ID should be 1337. If you have a localhost rpc set up, you may need to overwrite it.

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< Networks

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Network Name

Gitpod

New RPC URL

https://8545-red-koi-h70pogd0.ws-us10.0

Chain ID ⓘ

1337

Currency Symbol (optional)

ETH

Block Explorer URL (optional)

Cancel

Save

**Local setup** To run this project locally, follow these steps.

1. Clone the project locally, change into the directory, and install the dependencies:

```
1 git clone https://github.com/dabit3/polygon-ethereum-nextjs-marketplace
2 .git
3 cd polygon-ethereum-nextjs-marketplace
4
5 # install using NPM or Yarn
6 npm install
7
8 # or
9
10 yarn
```

2. Start the local Hardhat node

```
1 npx hardhat node
```

3. With the network running, deploy the contracts to the local network in a separate terminal window

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```
1 npx hardhat run scripts/deploy.js --network localhost
```

#### 4. Start the app

```
1 npm run dev
```

## Configuration

To deploy to Polygon test or main networks, update the configurations located in **hardhat.config.js** to use a private key and, optionally, deploy to a private RPC like Infura.

```
1 require("@nomiclabs/hardhat-waffle");
2 const fs = require('fs');
3 const privateKey = fs.readFileSync(".secret").toString().trim() || "
  01234567890123456789";
4
5 // infuraId is optional if you are using Infura RPC
6 const infuraId = fs.readFileSync(".infuraId").toString().trim() || "";
7
8 module.exports = {
9   defaultNetwork: "hardhat",
10  networks: {
11    hardhat: {
12      chainId: 1337
13    },
14    mumbai: {
15      // Infura
16      // url: `https://polygon-mumbai.infura.io/v3/${infuraId}`
17      url: "https://rpc-mumbai.matic.today",
18      accounts: [privateKey]
19    },
20    matic: {
21      // Infura
22      // url: `https://polygon-mainnet.infura.io/v3/${infuraId}`,
23      url: "https://rpc-mainnet.maticvigil.com",
24      accounts: [privateKey]
25    }
26  },
27  solidity: {
28    version: "0.8.4",
29    settings: {
30      optimizer: {
31        enabled: true,
32        runs: 200
33      }
34    }
35  }
36 };
```

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If using Infura, update **.infuraid** with your Infura project ID.