

Information Technologies for Industrial Engineers

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Decentralized Application (DApp)

Demo

<https://nr-dapp-67.netlify.app/>

What you need

- Alchemy API key
- Alchemy URL
- Addresses
 - Account address (from MetaMask)
 - Secret contract address
 - ERC20 (token) contract address
 - ERC721 (NFT) contract address
- Token Symbol

What you need

- ABIs
 - Secret contract address
 - ERC20 (token) contract address
 - ERC721 (NFT) contract address

Setup

- `npm create vite@latest`
- ...
- ...
- `npm install wagmi viem@2.x @tanstack/react-query`

.env

```
VITE_ALCHEMY_KEY=...  
VITE_ALCHEMY_URL=...  
VITE_MY_ACCOUNT_ADDRESS=...  
VITE_SECRET_CONTRACT_ADDRESS=...  
VITE_TOKEN_CONTRACT_ADDRESS=...  
VITE_TOKEN_SYMBOL=...  
VITE_NFT_CONTRACT_ADDRESS=...
```

./src/env.ts

```
export const ALCHEMY_URL = import.meta.env.VITE_ALCHEMY_URL;
export const ALCHEMY_KEY = import.meta.env.VITE_ALCHEMY_KEY;
export const MY_ACCOUNT_ADDRESS = import.meta.env.VITE_MY_ACCOUNT_ADDRESS;
export const SECRET_CONTRACT_ADDRESS = import.meta.env
  .VITE_SECRET_CONTRACT_ADDRESS;
export const TOKEN_CONTRACT_ADDRESS = import.meta.env
  .VITE_TOKEN_CONTRACT_ADDRESS;
export const NFT_CONTRACT_ADDRESS = import.meta.env.VITE_NFT_CONTRACT_ADDRESS;
export const TOKEN_SYMBOL = import.meta.env.VITE_TOKEN_SYMBOL;

if (
  !ALCHEMY_URL ||
  !ALCHEMY_KEY ||
  !MY_ACCOUNT_ADDRESS ||
  !SECRET_CONTRACT_ADDRESS ||
  !TOKEN_CONTRACT_ADDRESS ||
  !NFT_CONTRACT_ADDRESS ||
  !TOKEN_SYMBOL
) {
  throw new Error("Please set env variables correctly.");
}
```


./src/main.tsx

```
import { QueryClient, QueryClientProvider } from "@tanstack/react-query";
import React from "react";
import ReactDOM from "react-dom/client";
import { createConfig, http, WagmiProvider } from "wagmi";
import { sepolia } from "wagmi/chains";
import App from "./App.tsx";
import { ALCHEMY_KEY, ALCHEMY_URL } from "./env.ts";
import "./index.css";

const queryClient = new QueryClient();

const config = createConfig({
  chains: [sepolia],
  transports: {
    [sepolia.id]: http(ALCHEMY_URL, {
      name: "Alchemy HTTP Provider",
      key: ALCHEMY_KEY,
    }),
  },
});

ReactDOM.createRoot(document.getElementById("root")!).render(
  <React.StrictMode>
    <WagmiProvider config={config}>
      <QueryClientProvider client={queryClient}>
        <App />
      </QueryClientProvider>
    </WagmiProvider>
  </React.StrictMode>
);
```

./src/abi.ts

```
export const secretABI = [  
  // ...  
] as const;  
  
export const tokenABI = [  
  // ...  
] as const;  
  
export const NFTABI = [  
  // ...  
] as const;
```

```
./src/App.tsx
```

<https://gist.github.com/nnnpoo/47e64662f6667ca1d0d12f4ad359af43>