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Crypto

Student

Internship

Week 5

# Tasks

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## Connect ERC20 token with the UI

This week, we are going to connect ERC20 contract with our explorer blockchain UI.

Your task is to implement the following functionalities of the application focusing on improving existing frontend application:

### Login with metamask

Replace existing login with the button "Login with Metamask". Clicking on the button should connect the application with the Metamask chrome extension. Connecting with metamask will allow you to use web3.js to communicate with ERC20 smart contract deployed on ganache or public testnet.

You can use Infura (<https://infura.io/>) as a blockchain provider.

### Explore

Update explore screen so that it communicates with ERC20 contract. Exploring should show how many tokens the user has.

### Mint

Update the minting functionality so that it mints ERC20 tokens. It will be required to create a public mint method on ERC20 contract since minting is not part of the ERC20 public interface.

### Transfer

Update the transfer functionality so that it transfers ERC20 tokens from one address to the other using the contract code.

### Transactions

There is no need to use local transactions any more. All transactions will be on the blockchain now.

## Deploy ERC20 contract to public testnet

Deploy your contract to Rinkeby or Ropsten testnet so that the application hosted on Netlify or Vercel can communicate with the blockchain.

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Good luck!