



Hello and welcome!

Your mission, should you choose to accept it, is to build a simple decentralized application that allows users to stake their tokens. This dApp needs to have a blockchain event listener to easily allow users to call up an API to see how many tokens they have staked, and how much they've earned in rewards.

Product Requirements:

1. Create an *ERC20* token with 18 decimal places;
1. Implement a staking functionality on Ethereum blockchain that allows users to send their tokens to stake and earn rewards. The rewarding system can be very simple for the sake of this assignment. Users should be able to claim their staking rewards after the minimal staking period has passed;
2. Have a backend service that aggregates the event data coming from the contract(s);
3. Have the service expose the data using GraphQL:
 - a. Query `stakedTokens(publicAddress: String)` -> Returns the holder's staked tokens;
 - b. Query `stakingRewards(publicAddress: String)` -> Returns the user's rewards from staking;
 - c. Query `usersData` -> Returns the staked tokens and rewards of all users.

User interface: You may develop a user interface for this but it's fine if the user interactions are all coming from something like Remix or Truffle.

Note: Please follow Spring best practices and use Spring Data API

After completion, we will together do a code review of this followed by some [pair programming](#).

Best of luck! When you are done please contact Sasa Pesic at sasa@communitygaming.io to schedule a review session.