

CMPE 483 Blockchain Programming HW2

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1 Introduction

In this report, the documentation of the frontend tool that was created for the lottery contract will be explained. The contract itself was deployed to **Bloxberg** network and **React** library was used for creating the client frontend.

2 Design

The design of the project consists of 4 pages. These are:

- Home Page
- My tickets
- Statistics
- Balance

2.1 Home Page

The home page represents general statistics about current lottery

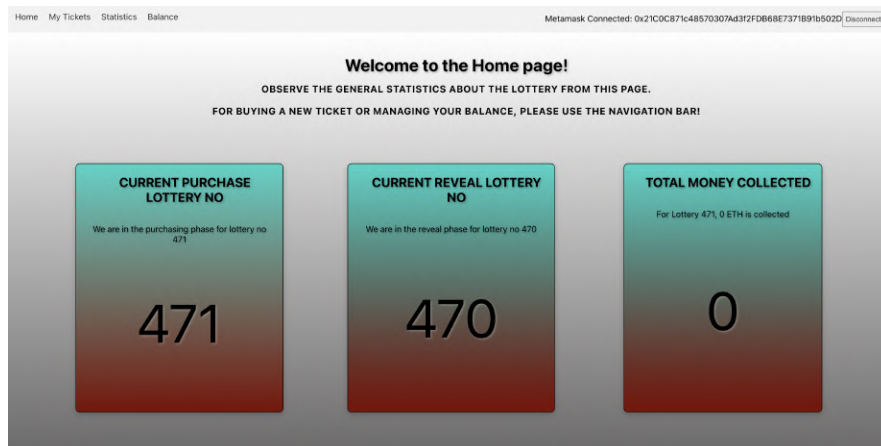


Figure 1: Home Page

2.2 My tickets

Users can see their tickets and buy a new ticket by using this panel

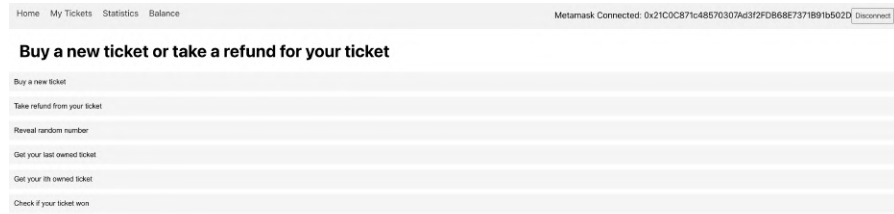


Figure 2: My tickets page

2.3 Statistics

Users can observe general statistics such as collected money with respect to lottery number



Figure 3: Statistics page

2.4 Balance

Users can manage their balances by using this panel. They can deposit and withdraw money from this page.



Figure 4: Balance page

3 How to use

In this part, short explanation with corresponding screenshots will be given

3.1 Deposit ether

In this function, we are transferring **2 finney** from our wallet to contract so that we can make some operations by using this balance.

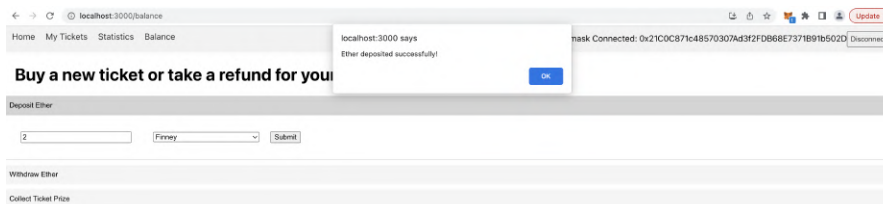


Figure 5: Deposit ether function

3.2 Buy a new ticket

For the initial state, on the home page we observe the total collected money is 0 which means there is not any sold ticket for the current lottery:

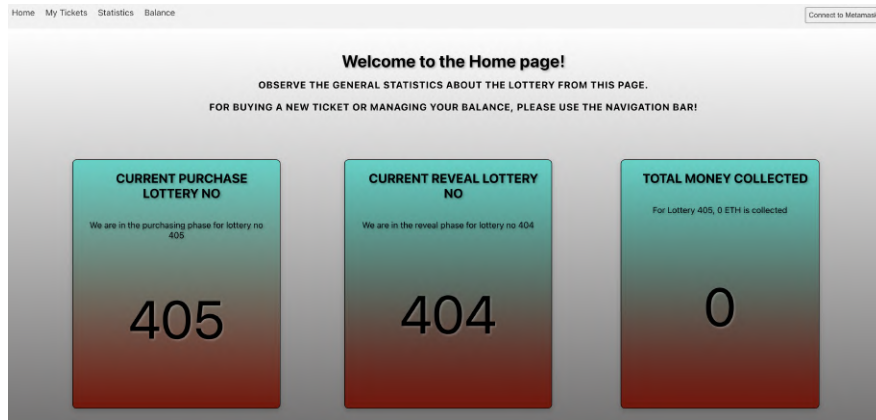


Figure 6: Initial state of home page

Then we decide to buy a new ticket by using **My Tickets** page on the navigation bar:

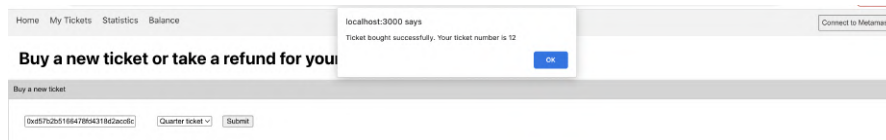


Figure 7: Buy a new ticket page

Then you can observe the alert message declaring the operation was successful. Now for the current lottery number, we can check our tickets by using

- Get your last owned ticket

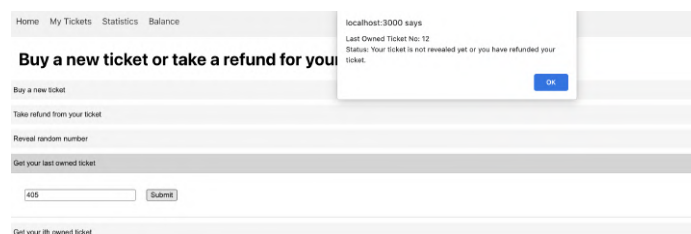


Figure 8: Get your last owned ticket function

- Get your i^{th} owned ticket

Figure 9: Get your i^{th} owned ticket function

We can also observe the home page's widgets. The total collected money is 0.002 now since we have bought a quarter ticket.

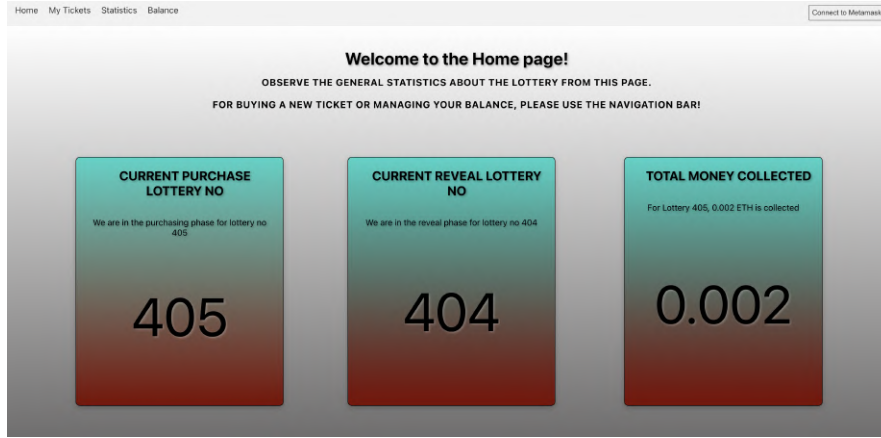


Figure 10: Home Page after buying ticket

3.3 Reveal a ticket number

After the necessary time has been passed for the new slot then we can reveal our ticket by using our ticket number and corresponding random number:

Figure 11: Reveal ticket function

3.4 After Reveal Stage

After we have revealed our ticket then we can check whether our ticket has won any prize or not from the lottery by using the **Check if your ticket won** function:

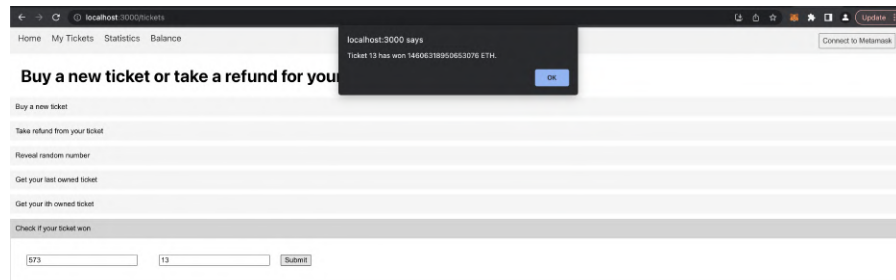


Figure 12: Check if ticket has won