CmpE 483   Project – 2

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Deploy:

In this phase of the project, we created a web application for the lottery. Initially we deployed the smart contracts to "Bloxberg" chain. We used "Injected web3" environment. We had 3 contracts:

Lottery.sol = 0xbaf396822D0DF1026f5a083DeF81F92bC8417ead

User.sol = 0x559e3DE36777b88b8b3B042c14e1Dc594C4e5af9

Tl.sol = 0x559e3DE36777b88b8b3B042c14e1Dc594C4e5af9

Application:

After getting addresses of these contracts, we implemented a html-based application. We used a javascript file which contains functions to reach deployed lottery and call the functions in smart contracts.

We implemented all the functions described in the first project. We also tested it with test script. In the end, we have 17 functional buttons in our interface:

Deposit Tl = You can give tl to your balance in lottery so that you can buy a ticket

Withdraw Tl = You can draw tl from your lottery balance to your wallet.

Buy ticket = You can buy ticket with the hash of random number.

Collect ticket refund = If you did not reveal your ticket, you can take refund to your balance.

Reveal random number = You can reveal your random number with ticket number.

Get last owned ticket = You should give lottery number to get last owned ticket in this lottery.

Get I'th owned ticket = You should give lottery number and ticket order to get ticket number.

Check if ticket won = You can check your ticket number.

Collect ticket prize = You can get your prize with ticket number.

Get total lottery money collected = You can see the amount of sold tickets in lottery.

Get lottery no = You can see the number of current lottery.

Get tl balance = You can get balance in your wallet.

Mint tl = You can give tl to your lottery balance.

Hash random number = You can get a hash of given number.

Welcome to the Lottery
Trust your "GUT" feeling

Main functionalities

Deposit TL		**Withdraw TL**

```
100
```
Tx confirmed

```
100
```
Tx confirmed

Buy Ticket

```
0x59c9e5988a0633f1775330ad0c427c18579
d6df4c077786ae7f040c830958815
```
Tx sending

Collect Ticket Refund		**Reveal Random Number**

```
11
```
Tx sending

```
22
```
```
1
```
Error occurred

Get Last Owned Ticket No

```
85
```
Ticket no: 11

Status: REFUNDED

Get I'th Owned Ticket No		**Check If Ticket Won**

```
4
```
```
85
```
Ticket no: 8

Status: WINNER

```
8
```
You won 49 TL.

Collect Ticket Prize

```
8
```
0 TL

Get I'th Winning Ticket

1

85

[object Object]

Get Lottery No

1654775576

581

Get Total Lottery Money Collected

85

70

Helper buttons

Get TL Balance

Mint TL

Allow Contract To Transfer Money

The balance is: 800 TL

100

Tx confirmed

1000

Tx confirmed

Hash Random Number

Get current unix time in week

483

0x59c9e5988a0633f1775330ad0c427c18579d6df4c077786ae7f040c830958815

1654775576