# **CMPE 483 BLOCKCHAIN PROGRAMMING**

**HOMEWORK 1**

**LOTTERY SYSTEM**

1. **Task Achievement Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task Achievement Table** | **Yes** | **Partially** | **No** |
| I have prepared documentation with at least 6 pages. | **x** |  |  |
| I have provided average gas usages for the interface functions. | **x** |  |  |
| I have provided comments in my code. | **x** |  |  |
| I have developed test scripts, performed tests and submitted test scripts as well documented test results. | **x** |  |  |
| I have developed smart contract Solidity code and submitted it. | **x** |  |  |
| Function depositTL is implemented and works. | **x** |  |  |
| Function withdrawTL is implemented and works. | **x** |  |  |
| Function buyTicket is implemented and works. | **x** |  |  |
| Function collectTicketRefund is implemented and works. | **x** |  |  |
| Function revealRndNumber is implemented and works. | **x** |  |  |
| Function getLastOwnedTicketNo is implemented and works. | **x** |  |  |
| Function getIthOwnedTicketNo is implemented and works. | **x** |  |  |
| Function checkIfTicketWon is implemented and works. | **x** |  |  |
| Function collectTicketPrize is implemented and works. | **x** |  |  |
| Function getIthWinningTicket is implemented and works. | **x** |  |  |
| Function getLotteryNo is implemented and works. | **x** |  |  |
| Function getTotalLotteryMoneyCollected is implemented and works. | **x** |  |  |
| I have tested my smart contract with 5 addresses and documented the results of these tests. | **x** |  |  |
| I have tested my smart contract with 10 addresses and documented the results of these tests. | **x** |  |  |
| I have tested my smart contract with 100 addresses and documented the results of these tests. | **x** |  |  |
| I have tested my smart contract with 200 addresses and documented the results of these tests. | **x** |  |  |
| I have tested my smart contract with more than 200 addresses and documented the results of these tests. | **x** |  |  |

1. **Introduction**
2. **Description of the Problem**
3. **Implementation**
4. **Average Gas Usages of the Functions**
5. **Testing**
6. **Conclusion**

**Birimiz 3-4-5 birimiz gerisini alsin bence**

**implementationda fonksiyonlari ve icindeki logicleri aciklariz**

**testlerde de testlerin naptigini ve dogrulugunu nasil test ettigimiz**