

**CMPE 483 Sp. Top. in CMPE Blockchain Programming**  
**Fall 2024, Homework 2** (due Dec 29)  
(The project can be done in groups of at most three students)

Build a web based user interface for the Lottery project that you have developed in Homework 1.

Please note:

1. You should have a complete project that runs on the Bloxberg or Ava, or Sepolia test networks. Anyone having a metamask account should be able to use the web browser interface to interact with your lottery smart contract.
2. Your project should implement an upgradable smart contract using the diamond pattern (EIP-2535 standard).
3. Your project should be developed using the Hardhat development platform and ethers.js libraries. You should also have scripts for contract (diamond, facets, libraries etc.) deployment and for testing (for testing you should employ Chai assertions).

Note: You should perform a demonstration of your project to me. An online survey will be sent in order to schedule demo dates and times for each group during the finals.