Albert Zhang ZKU Background Assignment

What is a smart contract? How are they deployed? You should be able to describe how a smart contract is deployed and the necessary steps.

What is gas? Why is gas optimization such a big focus when building smart contracts?

What is a hash? Why do people use hashing to hide information?

How would you prove to a colorblind person that two different colored objects are actually of different colors?

B. You sure you’re solid with Solidity?

Program a super simple “Hello World” smart contract: write a storeNumber function to store an unsigned integer and then a retrieveNumber function to retrieve it. Clearly comment your code. Once completed, deploy the smart contract on remix. Push the .sol file to Github or Gist and include a screenshot of the Remix UI once deployed in your final submission pdf.

Text

Description automatically generated

Suppose we want to limit the voting period of each Ballot contract to 5 minutes. To do so, implement the following: Add a state variable startTime to record the voting start time. Create a modifier voteEnded that will check if the voting period is over. Use that modifier in the vote function to forbid voting and revert the transaction after the deadline.

Deploy your amended script and test the newly implemented functionality in part 3. Submit (1) your amended version of the contract on Github or Gist and (2) screenshots showing the time of contract deployment as well as the transaction being reverted once past the voting period.