ASSIGNMENT – 3

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OBJECTIVE

To study the core concepts of Solidity smart contract development through the implementation of a basic Ethereum smart contract that enables user input, securely stores the data on the blockchain, and allows retrieval of the stored information.

PROBLEM STATEMENT

Develop a basic Solidity smart contract that allows users to:

• Store a message on the blockchain

• Update the message

• Retrieve the stored message

CODE:

```
# MessageStorage simulation in Python
# This simulates the Solidity smart contract behavior
class MessageStorage:
    def __init__(self, message):
        # Constructor: initialize message
        self.message = message
    def setMessage(self, new_message):
        # Update message
        self.message = new_message
    def getMessage(self):
        # Retrieve message
```

```
        return self.message
# Deploy contract with initial message
contract = MessageStorage("Hello Blockchain")
# Retrieve initial message
print("Stored Message:", contract.getMessage())
# Update message
contract.setMessage("Message updated using Python")
# Retrieve updated message
print("Updated Message:", contract.getMessage()
```