NAAN MUDHALVAN – BLOCKCHAIN

ASSIGNMENT-1

TEAM ID: NM2023TMID09540

TEAM LEAD: KUMARAN K

TEAM MEMBER 1: KEERTHIKA B

TEAM MEMBER 2: HARSHAVARDHINI M

TEAM MEMBER 3: TAMILSELVI R

QUESTION:

Display a zone name as an output. Deploy the code by using remix platform.

Solution:

Source code:

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract MyContract {
    function getZoneName() public pure returns (string memory) {
        return "Zone - 4";
    }
}
```

Code explanation:

1. **// SPDX-License-Identifier: MIT:** This is a comment at the beginning of the contract, indicating the license under which the code is released. In this case, it specifies the MIT license, which is a permissive open-source license.

2. **pragma solidity ^0.8.0;:** This line specifies the Solidity compiler version to be used for compiling the contract. The caret (^) symbol (^0.8.0) indicates that any compiler version from 0.8.0 up to, but not including, 0.9.0 is acceptable. This
ensures that the code is compiled with a compatible compiler version.

3. **contract MyContract { ... }:** This defines a smart contract named `MyContract`. In Solidity, a contract is a fundamental building block of Ethereum-based applications.

4. **function getZoneName() public pure returns (string memory) { ... }:** This is a function within the `MyContract` contract. Let's break down the function:

- **function getZoneName():** This declares a function named `getZoneName`. It's a publicly accessible function, meaning it can be called from outside the contract.

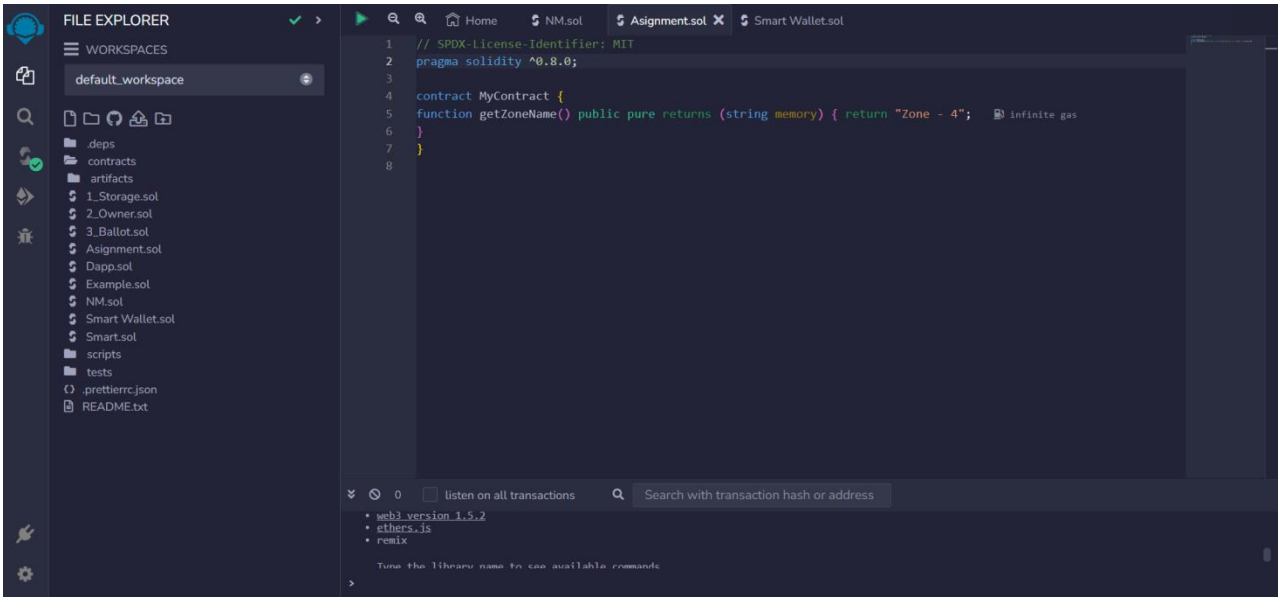
- **public:** This is a visibility specifier, indicating that the function is accessible from outside the contract. It can be called by anyone who interacts with the contract.

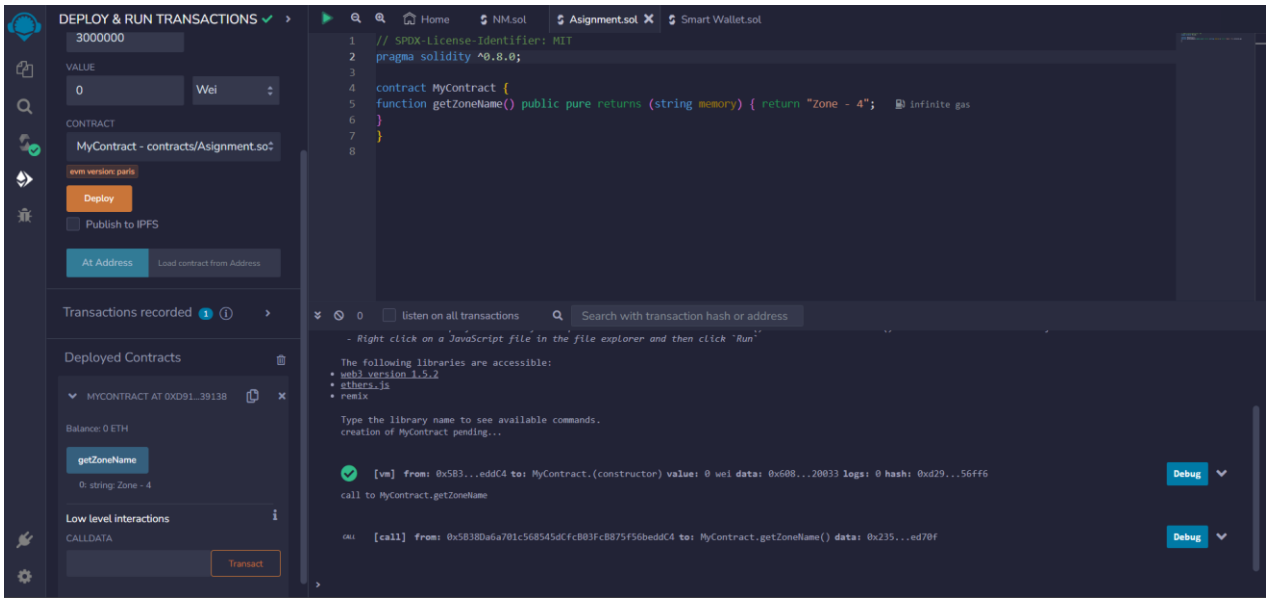
- **pure:** This is a function state mutability specifier. A `pure` function indicates that it doesn't modify the contract's state. It's used for functions that perform computations but don't change any data in the contract. In this case, the function simply returns a value and doesn't modify any contract state.

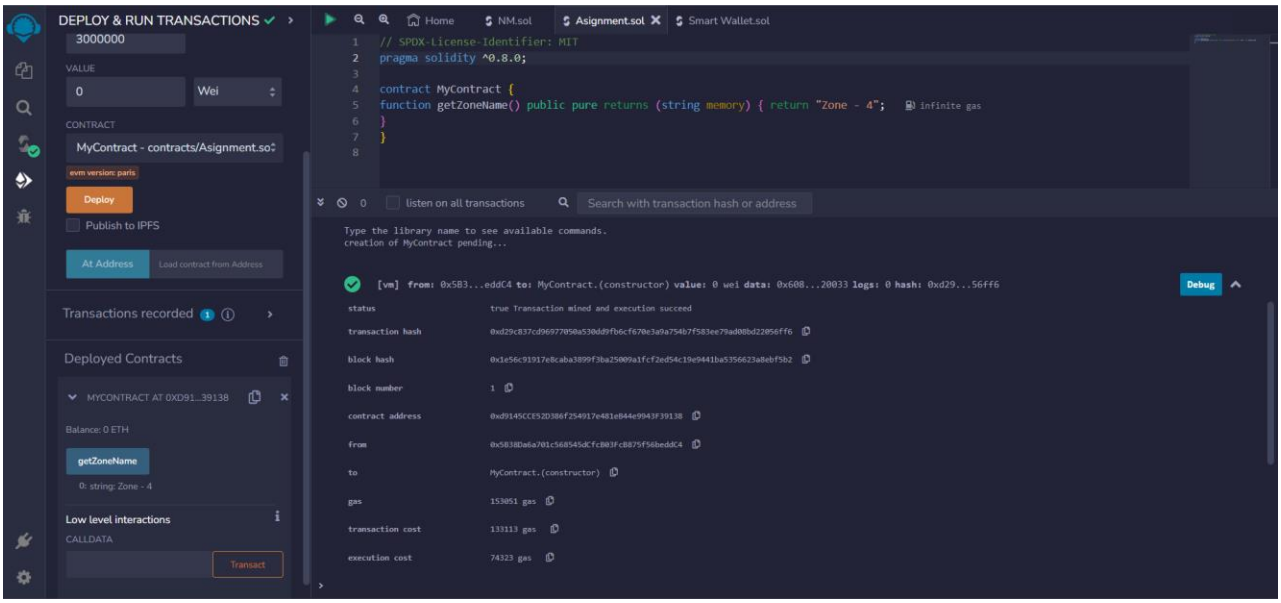
- **returns (string memory):** This specifies the return type of the function. The function returns a dynamic string stored in memory. Solidity functions can return different data types, and in this case, it's returning a string.

- **{ return "Zone - 4"; }:** This is the body of the function. It simply returns the string "Zone - 4."

Screenshots:






DEPLOY & RUN TRANSACTIONS
3000000
VALUE
0
Wei
CONTRACT
MyContract - contracts/Asignment.so
evm version: paris
Deploy
Publish to IPFS
At Address
Load contract from Address
Transactions recorded
Deployed Contracts
MYCONTRACT AT 0XD91...39138
Balance: 0 ETH
getZoneName
0: string: Zone - 4
Low level interactions
CALLDATA
Transact
Home
NM.sol
Asignment.sol
Smart Wallet.sol
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;
contract MyContract {
function getZoneName() public pure returns (string memory) { return "Zone - 4";
infinite gas
}
}
listen on all transactions
Search with transaction hash or address
Type the library name to see available commands.
creation of MyContract pending...
[vm] from: 0x5B3...eddC4 to: MyContract.(constructor) value: 0 wei data: 0x608...20033 logs: 0 hash: 0xd29...56ff6
Debug
status
true Transaction mined and execution succeed
transaction hash
0xd29c837cd06977050a530dd9fb6cf670e3a9a754b7f583ee79ad08bd22056ff6
block hash
0x1e56c91917e8caba3899f3ba25009a1fcf2ed54c19e9441ba5356623a8ebf5b2
block number
1
contract address
0xd9145CCE52D386f254917e481eB44e9943F39138
from
0x5B38Da6a701c568545dCfcB03FcB875f56beddC4
to
MyContract.(constructor)
gas
153051 gas
transaction cost
133113 gas
execution cost
74323 gas

****