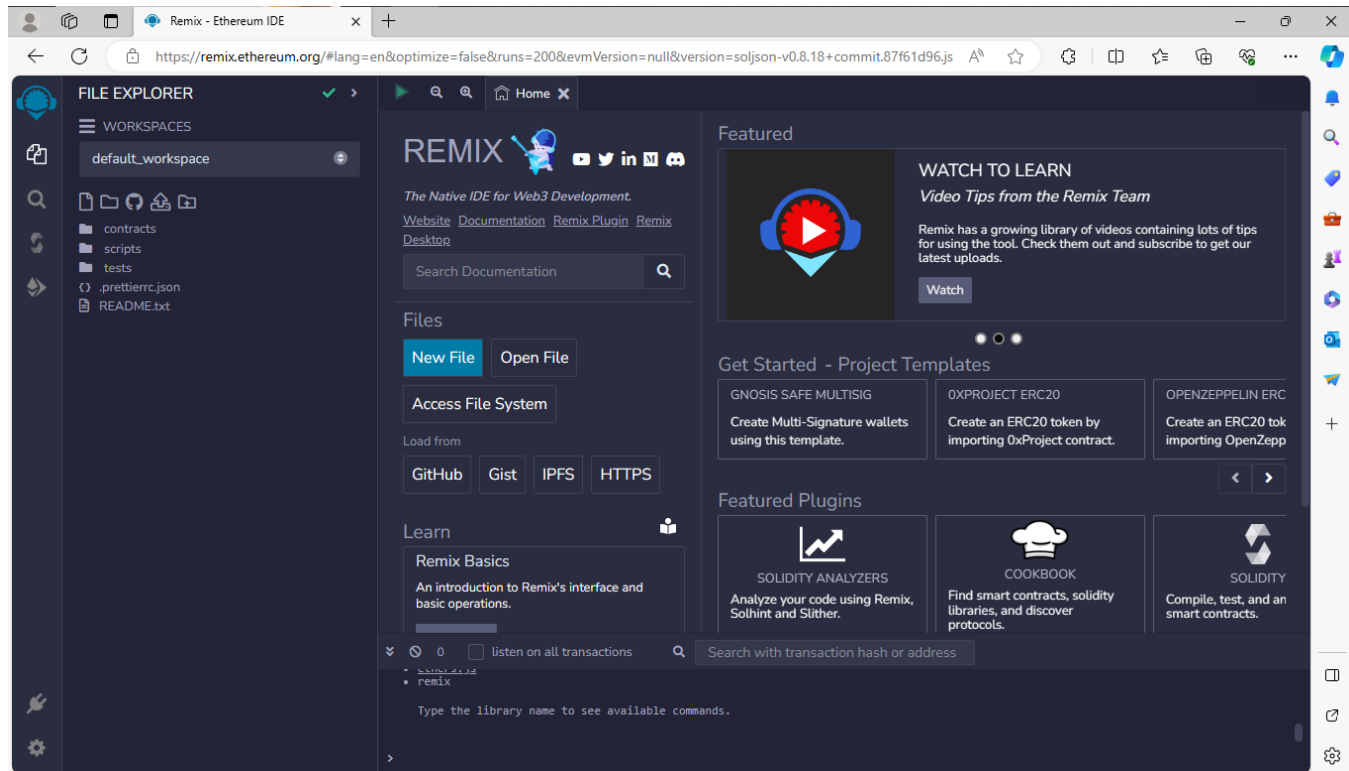


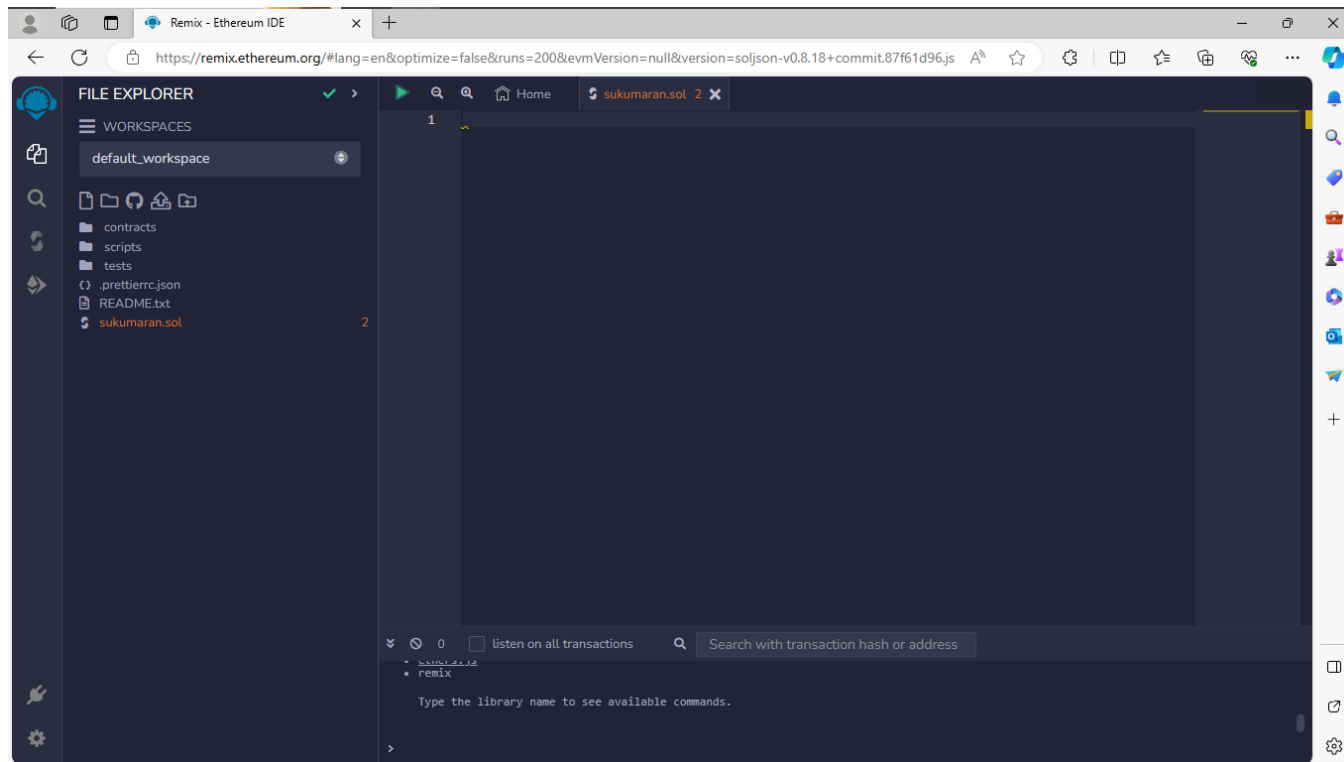
Blockchain Technology

Assignment-01

1. Open Remix Platform



2. Creating a new file



3. Program to return a string

The screenshot displays the Remix Ethereum IDE interface. The main editor shows a Solidity file named `sukumaran.sol` with the following code:

```
1 // SPDX-License-Identifier: MIT
2 pragma solidity ^0.8.0;
3
4 contract ZoneString {
5     function getZone() public pure returns (string memory) { Infinite gas
6         return "Hello zone 10";
7     }
8 }
```

The left sidebar contains the **SOLIDITY COMPILER** panel. It shows the compiler version as `0.8.18+commit.87f61d96`. There are checkboxes for `Auto compile` and `Hide warnings`. Under **Advanced Configurations**, there are buttons for `Compile sukumaran.sol` and `Compile and Run script`. The **CONTRACT** section shows `ZoneString (sukumaran.sol)` with buttons for `Publish on Ipfs`, `Publish on Swarm`, and `Compilation Details`. At the bottom of the sidebar are `ABI` and `Bytecode` tabs.

At the bottom of the IDE, there is a console area with a search bar and a list of transactions. The first transaction is labeled `remix` and contains the text: `Type the library name to see available commands.`

4. ABI

```
[
  {
    "inputs": [],
    "name": "getZone",
    "outputs": [
      {
        "internalType": "string",
        "name": "",
        "type": "string"
      }
    ],
    "stateMutability": "pure",
    "type": "function"
  }
]
```

Byte Code

```
608060405234801561001057600080fd5b50610173806100206
000396000f3fe608060405234801561001057600080fd5b50600
4361061002b5760003560e01c8063f9095eb714610030575b60
0080fd5b61003861004e565b604051610045919061011b565b6
0405180910390f35b60606040518060400160405280600d8152
6020017f48656c6c6f207a6f6e652031300000000000000000
0000000000000000000000815250905090565b600081519050919
050565b600082825260208201905092915050565b60005b8381
10156100c55780820151818401526020810190506100aa565b6
0008484015250505050565b6000601f19601f83011690509190
50565b60006100ed8261008b565b6100f78185610096565b935
06101078185602086016100a7565b610110816100d1565b8401
91505092915050565b600060208201905081810360008301526
1013581846100e2565b90509291505056fea264697066735822
1220b68e0f65fbf81e40f0f8b38f21ea66bc2abc9e47e2ffb4476d
3ea2b091f9b1e264736f6c63430008120033
```

5. Deployment

The screenshot displays the Remix Ethereum IDE interface. The left sidebar contains the 'DEPLOY & RUN TRANSACTIONS' panel, which is currently active. It shows the environment set to 'Remix VM (Shanghai)', the account '0x5B3...eddC4 (99.999999%)', and the gas limit set to '3000000'. The value is set to '0' in 'Wei'. The contract selected is 'ZoneString - sukumaran.sol'. The 'Deploy' button is highlighted in orange. Below the deployment settings, there is a section for 'Transactions recorded' and 'Deployed Contracts'. The 'Deployed Contracts' section shows a single contract named 'ZONESTRING AT 0xD91...3913B'.

The main editor area displays the Solidity code for the 'ZoneString' contract:

```
1 // SPDX-License-Identifier: MIT
2 pragma solidity ^0.8.0;
3
4 contract ZoneString {
5     function getZone() public pure returns (string memory) { infinite gas
6         return "Hello zone 10";
7     }
8 }
```

The bottom status bar shows the execution results of the deployment:

```
[vm] from: 0x5B3...eddC4 to: ZoneString.(constructor) value: 0 wei data: 0x608...20033 logs: 0
hash: 0x751...089f5
```

A 'Debug' button is visible next to the execution results.