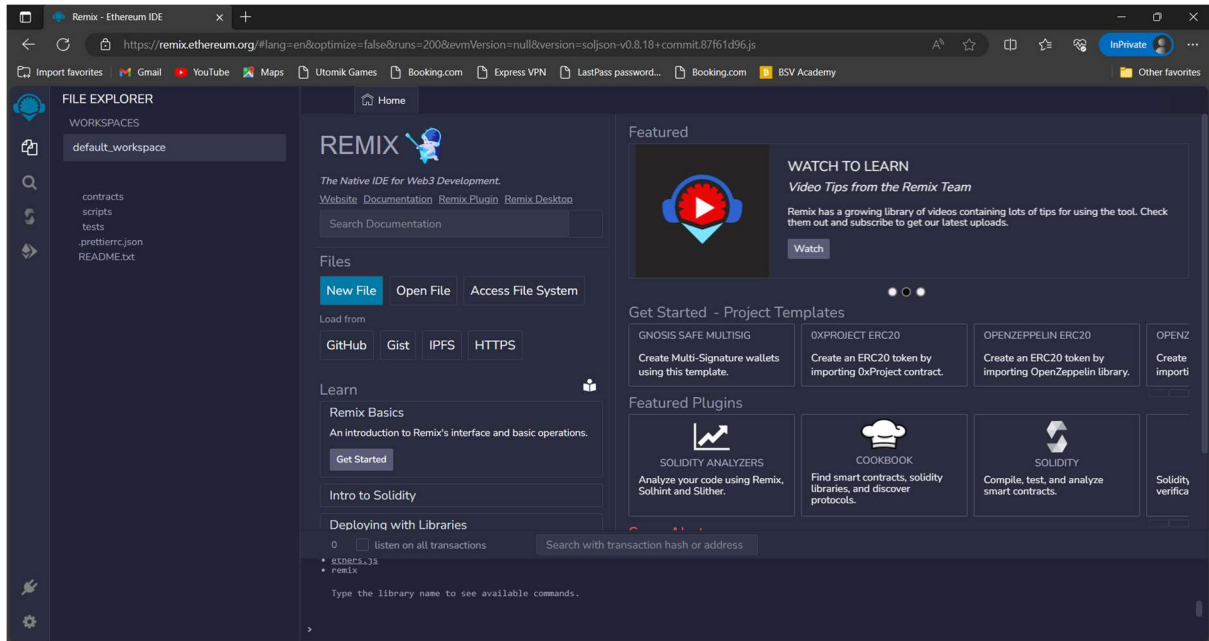


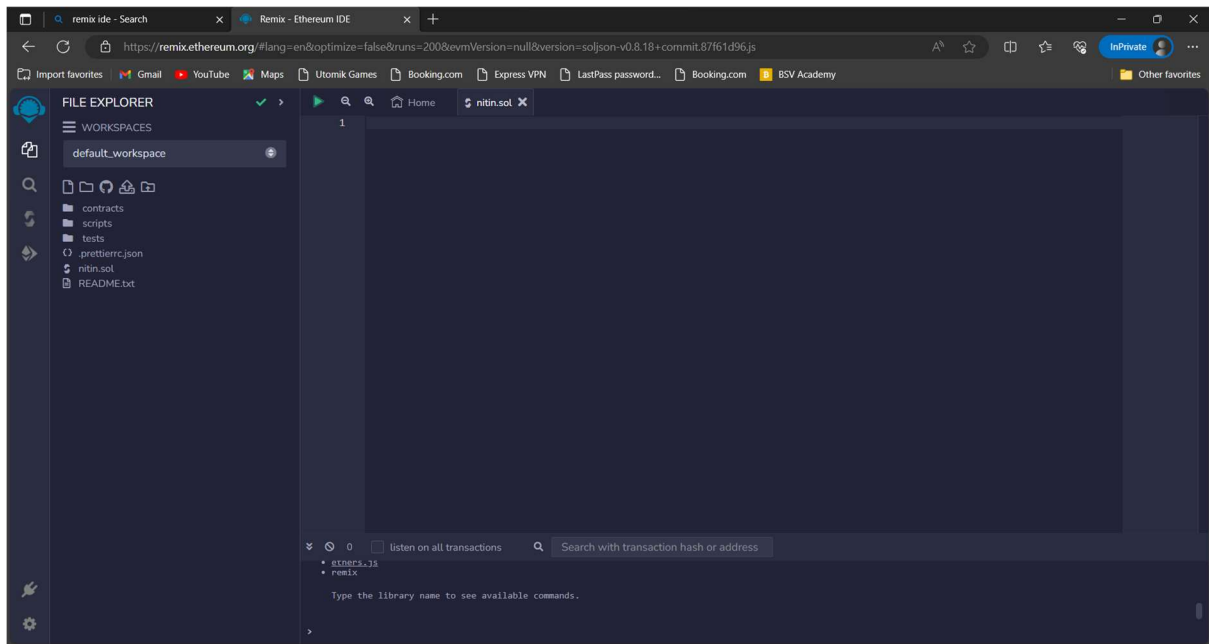
Blockchain Technology

Assignment-01

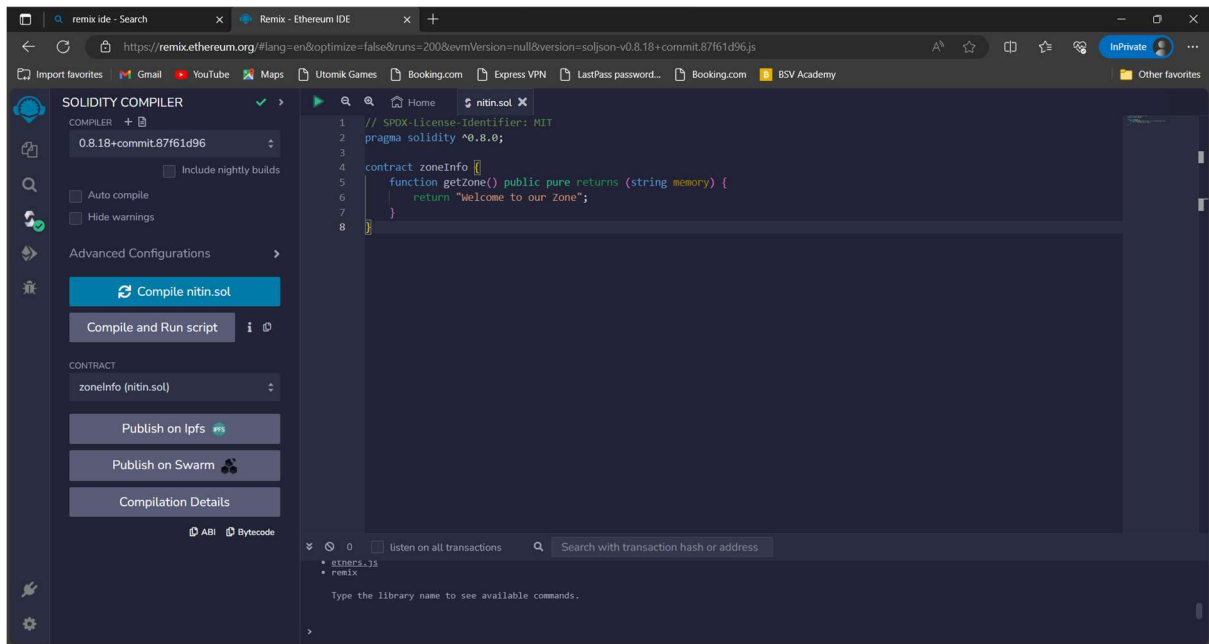
1. Open Remix Platform



2. Creating a new file



3. Program to return a string



The screenshot displays the Remix Ethereum IDE interface. The left sidebar contains the 'SOLIDITY COMPILER' panel, which is set to version '0.8.18+commit.87f61d96'. Below the compiler settings, there are buttons for 'Compile nitin.sol', 'Compile and Run script', 'Publish on Ipfs', 'Publish on Swarm', and 'Compilation Details'. The main editor area shows a Solidity script named 'nitin.sol' with the following code:

```
1 // SPDX-License-Identifier: MIT
2 pragma solidity ^0.8.0;
3
4 contract zoneInfo {
5     function getzone() public pure returns (string memory) {
6         return "Welcome to our Zone";
7     }
8 }
```

The bottom panel shows the 'ABI' and 'Bytecode' tabs, with the 'ABI' tab selected. It displays the ABI for the 'zoneInfo' contract, showing a single function 'getzone()' with a return type of 'string'.

4. ABI

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

Byte Code

```
608060405234801561001057600080fd5b50610173806100206000396000f3fe
608060405234801561001057600080fd5b506004361061002b5760003560e01c
8063f9095eb714610030575b600080fd5b61003861004e565b60405161004591
9061011b565b60405180910390f35b606060405180604001604052806013815
26020017f57656c636f6d6520746f206f7572205a6f6e650000000000000000
00000000815250905090565b600081519050919050565b60008282526020820
1905092915050565b60005b838110156100c557808201518184015260208101
90506100aa565b60008484015250505050565b6000601f19601f830116905091
9050565b60006100ed8261008b565b6100f78185610096565b9350610107818
5602086016100a7565b610110816100d1565b840191505092915050565b6000
602082019050818103600083015261013581846100e2565b90509291505056fe
a2646970667358221220b00f02e8038e655d687bd56d2e304deb5564d2b6d6bf
ba3be59e637fa02d221564736f6c63430008120033
```

5. Deployment

The screenshot displays the Remix Ethereum IDE interface. The top browser window shows the URL `https://remix.ethereum.org/#lang=en&optimize=false&runs=200&evmVersion=null&version=soljson-v0.8.18+commit.87f61d96.js`. The left sidebar contains the 'DEPLOY & RUN TRANSACTIONS' panel, which includes a 'VALUE' field set to '0', a 'CONTRACT' dropdown showing 'zoneInfo - nitin.sol', and a 'Deploy' button. Below this, there are options for 'Publish to IPFS' and 'At Address'. The 'Transactions recorded' section shows one transaction. The 'Deployed Contracts' section lists a contract named 'ZONEINFO AT 0xD91...39138 (ME)' with a balance of 0 ETH and a 'getZone' button. The 'Low level interactions' section shows a 'CALLDATA' field and a 'Transact' button. The main editor area displays the Solidity code for the 'zoneInfo' contract:

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

The bottom panel shows the 'Debug' console with a log entry: `[call] from: 0x58380a6a701c56854dCfcB83fcB875f56beddC4 to: zoneInfo.getZone() data: 0xf90...95eb7`.