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Assignment No. 5: Solidity (Part 1)

Execute the following code in remix ide (<https://remix.ethereum.org/>)

```
// SPDX-License-Identifier: GPL-3.0

pragma solidity >= 0.6.0 < 0.9.0;

/**
 * @title Storage
 * @dev Store & retrieve value in a variable
 * @custom:dev-run-script contracts/test3.sol
 */

contract Identity {
    string name;
    uint age;
    uint roll_no;
    string enr1_no;

    constructor(){
        name = "Joshoua Simon";
        age = 21;
        roll_no = 2205011;
        enr1_no = "MITU20BTIT0029";
    }

    function getName() view public returns(string memory, uint, uint, string memory){
        return(
            name,
            age,
            roll_no,
            enr1_no
        );
    }

    function setAge() public {
        age=age+1;
    }
}
```

Output:

The screenshot displays the Remix Ethereum IDE interface. On the left, the 'DEPLOY & RUN TRANSACTIONS' sidebar shows the contract 'Identity' at address 0xD2A...FD005. It includes buttons for 'Deploy', 'Publish to IPFS', and 'At Address'. Below this, the 'Deployed Contracts' section shows the contract's balance (0 ETH) and two buttons: 'setAge' and 'getName'. The 'Low level interactions' section at the bottom shows the 'CALLDATA' field and a 'Transact' button. The main editor displays the Solidity code for the 'Identity' contract, which includes a constructor and two functions: 'getName' and 'setAge'.

```
7  * @dev Store & retrieve value in a variable
8  * @custom:dev-run-script contracts/test3.sol
9  */
10
11 contract Identity {
12     string name;
13     uint age;
14     uint roll_no;
15     string enr1_no;
16
17     constructor() { Infinite gas 187200 gas
18         name = "Jay Umap";
19         age = 21;
20         roll_no = 2205010;
21         enr1_no = "MITU20BTIT0029";
22     }
23
24     function getName() view public returns(string memory, uint, uint, string memory) { Infinite gas
25         return(
26             name,
27             age,
28             roll_no,
29             enr1_no
30         );
31     }
32
33     function setAge() public { Infinite gas
34         age=age+1;
35     }
36 }
```

This close-up view of the 'Deployed Contracts' section shows the contract 'IDENTITY AT 0XD2A...FD005 (MEI)'. It displays the contract's balance as '0 ETH'. Below the balance, there are two buttons: 'setAge' (orange) and 'getName' (blue). Underneath these buttons, the state variables are listed: '0: string: Jay Umap', '1: uint256: 24', '2: uint256: 2205010', and '3: string: MITU20BTIT0029'. At the bottom, the 'Low level interactions' section is visible, showing the 'CALLDATA' field and a 'Transact' button.