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//Student Name : Abhang Rushikesh
//Roll No : BEA-30
// SPDX-License-Identifier: GPL-3.0 pragma
solidity ^0.8.16;

contract StudentContract
{
    struct Student
    {
        uint stud_id;
        string name;
        uint marks;
    }
    Student[5] s;
    uint cnt = 0;
    constructor()
    {
        for(uint i=0;i<5;i++)
        {
            s[i].stud_id = 0;
            s[i].name = "";
            s[i].marks = 0;
        }
    }
    function getData(uint id) public view returns(string memory,uint)
    {
        /* Calling a revert statement implies an exception is thrown,
        the unused gas is returned and the state reverts to its original state.
        */
        if(id > cnt)
            revert("Invalid STUDENT ID");
        else
        {
            for(uint i=0;i<5;i++)
            {
                if(s[i].stud_id == id)
                    return (s[i].name,s[i].marks);
            }
        }
    }
    function setData(string calldata nm,uint mk) public returns(string memory)
    {
        /* Calling a revert statement implies an exception is thrown,
        the unused gas is returned and the state reverts to its original state.
        */
        if(cnt > 5)
            revert("ARRAY IS FULL");
        else
        {
            cnt += 1;
            s[cnt-1].stud_id = cnt;
            s[cnt-1].name = nm;
            s[cnt-1].marks = mk;
        }
    }
    function search(uint id) public view returns(string memory,uint)
    {

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the unused gas is returned and the state reverts to its original state.
*/
        if(id > cnt)
            revert("Invalid STUDENT ID");
else
    {
        for(uint i=0;i<5;i++)
        {
            if(s[i].stud_id == id)
            {
                return (s[i].name,s[i].marks);
            }
        }
    }
}

// This function is called for all messages sent to
// this contract, except plain Ether transfers
// Any call with non-empty calldata to this contract will execute
// the fallback function (even if Ether is sent along with the call)
fallback() external payable
{

}
}

```