FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Computer Engineering

1. Course , Subject & Experiment Details

Academic Year	**2022-23**	**Estimated Time**	**02 - Hours**
Course & Semester	**B.E. (CMPN)- Sem VII**	**Subject Name & Code**	**BCT - (CSDC7022)**
Chapter No.	**03**	**Chapter Title**	**Programming for Blockchain**

Practical No:	**4**
Title:	Auction for fundraising using Solidity
Date of Performance:	**29/08/2022**
Date of Submission:	**05/09/2022**
Roll No:	**8953**
Name of the Student:	**Brendan Lucas**

Evaluation:

Sr. No	Rubric	Grade
1	On time submission Or completion (2)	
2	Preparedness(2)	
3	Skill (4)	
4	Output (2)	

Signature of the Teacher:

Date:

Code:

```
// SPDX-License-Identifier: GPL-3.0
pragma solidity ^0.8.7;

contract AUC{
    mapping(uint => uint) public token_map;
    mapping(uint => mapping(uint => uint)) public item_token;
    mapping(uint => uint) public item_owner;
    uint public nun;
    constructor () {
        token_map[0]=5;
        token_map[1]=5;
        token_map[2]=5;
        token_map[3]=5;
        token_map[4]=5;

        item_token[0][0] = 0;
        item_token[1][0] = 0;
        item_token[2][0] = 0;
        item_token[3][0] = 0;
        item_token[4][0] = 0;
        item_token[0][1] = 0;
        item_token[1][1] = 0;
        item_token[2][1] = 0;
        item_token[3][1] = 0;
        item_token[4][1] = 0;
        item_token[0][2] = 0;
        item_token[1][2] = 0;
        item_token[2][2] = 0;
        item_token[3][2] = 0;
        item_token[4][2] = 0;

        item_owner[0]=0;
        item_owner[1]=0;
        item_owner[2]=0;

    }


    function auction(uint _bidder,uint _bid,uint _item) public {
        if(token_map[_bidder]>=_bid)
```

```
        {
            token_map[_bidder] -=_bid;
            item_token[_bidder][_item] += _bid;
        }
        else{
            revert("Not Sufficient Tokens");
        }
    }

    function select_winner(uint _item) public {
        nun = block.timestamp%4+1;
        if(item_token[nun][_item]>0)
        {
            item_owner[_item] = nun;
        }
        else{
            revert();
        }
    }
}
```

Output