

## ASSIGNMENT TEAM LEAD

### SOLIDITY CODE

```
// SPDX-License-Identifier: MIT
```

```
pragma solidity ^0.8.0;
```

```
contract BookRegistry {
```

```
    address public owner;
```

```
    constructor() {
```

```
        owner = msg.sender;
```

```
    }
```

```
    modifier onlyOwner() {
```

```
        require(msg.sender == owner, "Only the owner can perform this action");
```

```
        _;
```

```
    }
```

```
    struct Book {
```

```
        string title;
```

```
        string author;
```

```
        address currentOwner;
```

```
    }
```

```
    mapping(uint256 => Book) public books;
```

```
    uint256 public bookCount;
```

```

event BookAdded(uint256 indexed bookId, string title, string author, address indexed owner);

event OwnershipTransferred(uint256 indexed bookId, address indexed previousOwner, address
indexed newOwner);


function addBook(uint256 registration, string memory _title, string memory _author) external
onlyOwner {

    books[registration] = Book(_title, _author, owner);

    bookCount++;

    emit BookAdded(registration, _title, _author, owner);
}


function transferOwnership(uint256 registrationId, address _newOwner) external {

    require(_newOwner != address(0), "Invalid address");

    require(_newOwner != books[registrationId].currentOwner, "The new owner is the same as the
current owner");

    require(msg.sender == books[registrationId].currentOwner, "Only the current owner can transfer
ownership");

    address previousOwner = books[registrationId].currentOwner;

    books[registrationId].currentOwner = _newOwner;

    emit OwnershipTransferred(registrationId, previousOwner, _newOwner);
}

```

```
function getBookDetails(uint256 registrationId) external view returns (string memory, string memory, address) {
```

```
    Book memory book = books[registrationId];
```

```
    return (book.title, book.author, book.currentOwner);
```

```
}
```

```
}
```

#### ABI CODE:

```
[
```

```
    {
```

```
        "inputs": [],
```

```
        "stateMutability": "nonpayable",
```

```
        "type": "constructor"
```

```
    },
```

```
    {
```

```
        "anonymous": false,
```

```
        "inputs": [
```

```
            {
```

```
                "indexed": true,
```

```
                "internalType": "uint256",
```

```
                "name": "bookId",
```

```
                "type": "uint256"
```

```
            },
```

```
            {
```

```
                "indexed": false,
```

```
        "internalType": "string",
        "name": "title",
        "type": "string"
    },
    {
        "indexed": false,
        "internalType": "string",
        "name": "author",
        "type": "string"
    },
    {
        "indexed": true,
        "internalType": "address",
        "name": "owner",
        "type": "address"
    }
],
"name": "BookAdded",
"type": "event"
},
{
    "anonymous": false,
    "inputs": [
        {
            "indexed": true,
```

```
        "internalType": "uint256",
        "name": "bookId",
        "type": "uint256"
    },
    {
        "indexed": true,
        "internalType": "address",
        "name": "previousOwner",
        "type": "address"
    },
    {
        "indexed": true,
        "internalType": "address",
        "name": "newOwner",
        "type": "address"
    }
],
"name": "OwnershipTransferred",
"type": "event"
},
{
    "inputs": [
        {
            "internalType": "uint256",
            "name": "registration",
```

```
        "type": "uint256"
      },
      {
        "internalType": "string",
        "name": "_title",
        "type": "string"
      },
      {
        "internalType": "string",
        "name": "_author",
        "type": "string"
      }
    ],
    "name": "addBook",
    "outputs": [],
    "stateMutability": "nonpayable",
    "type": "function"
  },
  {
    "inputs": [],
    "name": "bookCount",
    "outputs": [
      {
        "internalType": "uint256",
        "name": "",
```

```
        "type": "uint256"
    }
],
"stateMutability": "view",
"type": "function"
},
{
    "inputs": [
        {
            "internalType": "uint256",
            "name": "",
            "type": "uint256"
        }
    ],
    "name": "books",
    "outputs": [
        {
            "internalType": "string",
            "name": "title",
            "type": "string"
        },
        {
            "internalType": "string",
            "name": "author",
            "type": "string"
        }
    ]
}
```

```
        },
        {
            "internalType": "address",
            "name": "currentOwner",
            "type": "address"
        }
    ],
    "stateMutability": "view",
    "type": "function"
},
{
    "inputs": [
        {
            "internalType": "uint256",
            "name": "registrationId",
            "type": "uint256"
        }
    ],
    "name": "getBookDetails",
    "outputs": [
        {
            "internalType": "string",
            "name": "",
            "type": "string"
        },
    ],
```



```
        {
            "internalType": "string",
            "name": "",
            "type": "string"
        },
        {
            "internalType": "address",
            "name": "",
            "type": "address"
        }
    ],
    "stateMutability": "view",
    "type": "function"
},
{
    "inputs": [],
    "name": "owner",
    "outputs": [
        {
            "internalType": "address",
            "name": "",
            "type": "address"
        }
    ],
    "stateMutability": "view",
```

```

        "type": "function"
    },
    {
        "inputs": [
            {
                "internalType": "uint256",
                "name": "registrationId",
                "type": "uint256"
            },
            {
                "internalType": "address",
                "name": "_newOwner",
                "type": "address"
            }
        ],
        "name": "transferOwnership",
        "outputs": [],
        "stateMutability": "nonpayable",
        "type": "function"
    }
]

```

#### Byte Code:

```

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```

[illegible]

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