

Name: Divya Mahur

Roll no: 18BCE106

Subject: BCT Practical 5

Title: Smart Contract for toll tax

CODE

```
// Solidity program to count number of values in a mapping
pragma solidity >=0.4.22;

contract road_tax {

    // Defining structure

    struct owner {

        // Declaring different

        // structure elements

        string name;

        string phone_no;

        int total_tax;

        int256 total_amount;

    }

    owner o1;

    function initialize () public {

        o1.name="Divya"; o1.phone_no="9876"; o1.total_tax=0;
        o1.total_amount=1000; }

    //Function adding values to the mapping

    function add_tax_user1(int x) public {

        if(o1.total_amount>x)

        {

            o1.total_amount = o1.total_amount - x;
```

```

}

else

o1.total_tax=o1.total_tax + x;

}

// Function to retrieve
// values from the mapping

function get_tax() view public returns (int) {

return o1.total_tax;

}

function get_amount() view public returns (int) {

return o1.total_amount;

}

}

```

The screenshot displays the Remix IDE interface. On the left, the 'DEPLOY & RUN TRANSACTIONS' sidebar is visible, showing the environment set to 'Injected Web3', the account '0xaB5...dD7C7 (0.9991917)', and the gas limit '3000000'. The contract 'road_tax - Prac5.sol' is selected for deployment. The main editor shows the Solidity source code for 'Prac5.sol', which includes a pragma statement, a struct definition, and functions for initializing, adding tax, and retrieving values. The bottom status bar indicates the current block and transaction details.

```

1 // Solidity program to
2 // count number of
3 // values in a mapping
4 pragma solidity >=0.4.22;
5 contract road_tax {
6 // Defining structure
7 struct owner {
8 // Declaring different
9 // structure elements
10 string name;
11 string phone_no;
12 int total_tax;
13 int256 total_amount;
14 }
15 owner o1;
16 function initialize() public {
17 o1.name="Divya"; o1.phone_no="9876"; o1.total_tax=0; o1.total_amount=1000; }
18 //function adding values to the mapping
19 function add_tax_user1(int x) public {
20 if(o1.total_amount>x)
21 {
22 o1.total_amount = o1.total_amount - x;
23 }
24 else
25 o1.total_tax=o1.total_tax + x;
26 }
27 // Function to retrieve
28 // values from the mapping
29 function get_tax() view public returns (int) {
30 return o1.total_tax;
31 }
32 function get_amount() view public returns (int) {
33 return o1.total_amount;
34 }
35 }

```

At the bottom, the status bar shows: [block: txIndex:] from: 0xaB5...dD7C7 to: road_tax.(constructor) value: 0 wei data: 0x608...70033 logs: 0 hash: [Debug]

