# Blockchain Projects (Mini)

## 1. Simple Bank

Format to write the code:

S1 - pragma
S2 - contract
S3 - Struct
S4 - Mapping
S5 - Events
S6 - Modifiers
S7 - Functions

## Code:

### S1 - Pragma {starting}

```
pragma solidity >= 0.8.19;
```

0.8.19 : version of the solidity

### S2 - Contract and S3 - Struct

```
contract Bank {
    struct Account {
        address owner;    // by whom the Account will be identified
        uint256 balance;  // what is the balance in acc
        uint256 AccTime   // when was the account created
    }
}
```

### S4 - Mapping

```
mapping (address => Account) public LaximchitFund;
```

The address is the key
Account stores (owner, balance, time)

∴ according to what us address is that maps to the Account details of uss.

## S5- Events

event balanceAdded

It is called when an Account is created with some minimum balance deposit.

event WithdrawalDone

It is called when balance present in the Account is withdrawn

## S6- Modifies

minimum ()

It ensures that any deposit is made to the Account is more than or equal to 1 and not less than 1.

## S7- Functions

1. AccCreated ()

To create the account by taking address as the owner, value entered as initial deposit to the bank to be the balance of the Account (msg.value) and also stores time by block.timestamp.

2. Deposit ()

To deposit the value taken from msg.sender to be added in the balance.

3. Withdraw ()

new var, amount = msg.value
requires balance to be greater than amount, the amount is deducted from the balance, and balance is updated.