

Project report

Candidate Name: Umang Shrestha

Step 1 : Deployment of the smart contract to Ganache blockchain

✓ [block:1 txIndex:0] from: 0xF4f...D9c43 to: BankKYC.(constructor) value: 0 wei data: 0x608...70033 logs: 0 hash: 0x034...4217a

Debug

⬆

status

true Transaction mined and execution succeed

transaction hash

0x01b94167251ece633162e51c2ef390d677104849c8896b549b4cf567907f656b

from

0xF4f7F159CC74af11415bfBeCe1E278D56eeD9c43

to

BankKYC.(constructor)

gas

1582099 gas

transaction cost

1582099 gas

input

0x608...70033

decoded input

{}

decoded output

-

logs

[]

val

0 wei

CURRENT BLOCK1

GAS PRICE2000000000

GAS LIMIT6721975

HARDFORKMUIRGLACIER

NETWORK ID5777

RPC SERVERHTTP://127.0.0.1:3545

MINING STATUSAUTOMINING

WORKSPACEQUICKSTART

SAVE

SWITCH

⚙

TX HASH

0x01b94167251ece633162e51c2ef390d677104849c8896b549b4cf567907f656b

FROM ADDRESS

0xF4f7F159CC74af11415bfBeCe1E278D56eeD9c43

CREATED CONTRACT ADDRESS

0xc0ae1d1A81aBA768C5085FA273dbf2d8661b5294

GAS USED

1582099

VALUE

0

CONTRACT CREATION

Step 2 : Add new Bank to KYC contract

addNewBankToKYCContract

⬆

bankName:

Yes bank

add:

0x776e8881ee0A6b7F545fCfa08747b24B162d666c

📄

transact

✓

[block:2 txIndex:0] data: 0x246...

status

transaction hash

from

to

gas

transaction cost

input

decoded input

decoded output

logs

val

If checked Remix will listen on all transactions mined in the current environment and not only transactions created by you

0x27641a1fa78854b75fdae46199f4776f58315dde44d4ed1d2e6429e33cc386f2

0xF47F7159CC74af11415bfBeCe1E278D56eeD9c43

BankKYC.addNewBankToKYCContract(string,address) 0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

74315 gas

72836 gas

0x246...0000

{
 "string bankName": "Yes bank",
 "address add": "0x776e8881ee0A6b7F545fCfa08747b24B162d666c"
}

-

[]

0 wei

Debug

CURRENT BLOCK2GAS PRICE2000000000GAS LIMIT6721975HARDFORKMURGLACIERNETWORK ID5777RPC SERVERHTTP://127.0.0.1:3545MINING STATUSAUTOMININGWORKSPACE QUICKSTARTSAVESWITCH

TX HASH

0x27641a1fa78854b75fdae46199f4776f58315dde44d4ed1d2e6429e33cc386f2

FROM ADDRESS

0xF47F7159CC74af11415bfBeCe1E278D56eeD9c43

TO CONTRACT ADDRESS

0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED

72836

VALUE

0

CONTRACT CALL

Step 3 : Allow Bank to do KYC

allowBankToDoKYC

add: 0x776e8881ee0A6b7F545fCfa08747b24B162d666c

transact

✓

[block:3 txIndex:0] from: 0xF4f...D9c43 to: BankKYC.allowBankToDoKYC(address) 0xc0a...b5294 value: 0 wei data: 0xc98...d666c logs: 0 hash: 0xa94...8a3c9

status

transaction hash

from

to

gas

transaction cost

input

decoded input

decoded output

logs

val

true Transaction mined and execution succeed

0x77cef3b5e390631dd1e0f61d2154a037badded6a38afe9b647d106aa38bbcd7d

0xF47F7159CC74af11415bfBeCe1E278D56eeD9c43

BankKYC.allowBankToDoKYC(address) 0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

27168 gas

25873 gas

0xc98...d666c

{
 "address add": "0x776e8881ee0A6b7F545fCfa08747b24B162d666c"
}

-

[]

0 wei

Debug

CURRENT BLOCK3GAS PRICE2000000000GAS LIMIT6721975HARDFORKMURGLACIERNETWORK ID5777RPC SERVERHTTP://127.0.0.1:3545MINING STATUSAUTOMININGWORKSPACE QUICKSTARTSAVESWITCH

TX HASH

0x77cef3b5e390631dd1e0f61d2154a037badded6a38afe9b647d106aa38bbcd7d

FROM ADDRESS

0xF47F7159CC74af11415bfBeCe1E278D56eeD9c43

TO CONTRACT ADDRESS

0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED

25873

VALUE


0

CONTRACT CALL

Step 4 : Block bank to do KYC

blockBankToDoKYC

add:

 transact

✓

[block:4 txIndex:0] from: 0xF4f...D9c43 to: BankKYC.blockBankToDoKYC(address) 0xc0a...b5294 value: 0 wei data: 0x184...d666c logs: 0 hash: 0x7b9...ee178

Debug

status

true Transaction mined and execution succeed

transaction hash

0x40fd6aa84005a40169725e2255bdcef5c010d84085cb18a8ae9c2b223e8b1920

from

0xF4f7F159CC74af11415bfBeCe1E278D56eeD9c43

to

BankKYC.blockBankToDoKYC(address) 0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

gas

30008 gas

transaction cost

30008 gas

input

0x184...d666c

decoded input

{
 "address add": "0x776e8881ee0A6b7F545fCfa08747b24B162d666c"
}

decoded output

-

logs

[]

val

0 wei

CURRENT BLOCK 4

Gas Price 2000000000

Gas Limit 0721973

Hardfork MUIRGLACIER

Network ID 5777

RPC URLS HTTP://127.0.0.1:3545

Mining Status AUTOMINING

Workspace QUICKSTART

SAVE

SWITCH

⚙

TX HASH

0x40fd6aa84005a48169725e2255bdcef5c010d84085cb18a8ae9c2b223e8b1920

CONTRACT CALL

FROM ADDRESS

0xF4f7F159CC74af11415bfBeCe1E278D56eeD9c43

TO CONTRACT ADDRESS

0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED

30008


VALUE

0

Step 5 : Block Bank to add new customer

blockBankToAddNewCustomers

add:

 transact

[block:5 txIndex:0] from: 0xF4f...D9c43 to: BankKYC.blockBankToAddNewCustomers(address) 0xc0a...b5294 value: 0 wei data: 0x6b8...d666c logs: 0 hash: 0xa02...a8a7b

Debug

status

true Transaction mined and execution succeed

transaction hash

0xa888f5953b976212eca7229cb952aada87c339def32c16e6c8d3d9ae5b40b0e9

from

0xF4f7F159CC74af11415bf8eCe1E278D56eeD9c43

to

BankKYC.blockBankToAddNewCustomers(address) 0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

gas

31028 gas

transaction cost

31028 gas

input

0x6b8...d666c

decoded input

{

"address add": "0x776e8881ee0A6b7F545fCfa08747b24B162d666c"

}

decoded output

-

logs

[]

val

0 wei

CURRENT BLOCK

5

GAS PRICE

20000000000

GAS LIMIT

6721975

HUB/ROLE

MURRLACHIER

NETWORK ID

5777

RPC URL(S)

HTTP://127.0.0.1:3545

MINING STATUS

AUTOMINING

WORLD/SPACE

QUICKSTART

SAVE

SWITCH

TX HASH

0xa888f5953b976212eca7229cb952aada87c339def32c16e6c8d3d9ae5b40b0e9

FROM ADDRESS

0xF4f7F159CC74af11415bf8eCe1E278D56eeD9c43

TO CONTRACT ADDRESS

0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED

31028

VALUE

0

CONTRACT CALL

Step 6 : Allow Bank to add new customer

allowBankToAddNewCustomers

add:

0x776e8881ee0A6b7F545fCfa08747b24B162d666c

transact

[block:6 txIndex:0] from: 0xF4f...D9c43 to: BankKYC.allowBankToAddNewCustomers(address) 0xc0a...b5294 value: 0 wei data: 0xf26...d666c logs: 0 hash: 0xa14...3a41b

Debug

status

true Transaction mined and execution succeed

transaction hash

0xe2b2dba16b9a3bd03b95191f76287268a9d6168f5d58af104c4ad8e70aa4d353

from

0xF4f7F159CC74af11415bf8eCe1E278D56eeD9c43

to

BankKYC.allowBankToAddNewCustomers(address) 0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

gas

31097 gas

transaction cost

31097 gas

input

0xf26...d666c

decoded input

{

"address add": "0x776e8881ee0A6b7F545fCfa08747b24B162d666c"

}

decoded output

-

logs

[]

val

0 wei

CURRENT BLOCK

6

GAS PRICE

20000000000

GAS LIMIT

6721975

HUB/ROLE

MURRLACHIER

NETWORK ID

5777

RPC URL(S)

HTTP://127.0.0.1:3545

MINING STATUS

AUTOMINING

WORLD/SPACE

QUICKSTART

SAVE

SWITCH

TX HASH

0xe2b2dba16b9a3bd03b95191f76287268a9d6168f5d58af104c4ad8e70aa4d353

FROM ADDRESS

0xF4f7F159CC74af11415bf8eCe1E278D56eeD9c43

TO CONTRACT ADDRESS

0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED

31097

VALUE

0

CONTRACT CALL

Step 7 : Add new customer to bank

addNewCustomerToBank

custName:

Umang

custData:

Customer 001

transact

✓

[block:7 txIndex:0] from: 0x776...d666c to: BankKYC.addNewCustomerToBank(string,string) 0xc0a...b5294 value: 0 wei data: 0x284...00000 logs: 0 hash: 0x5b5...72153

Debug

status

true Transaction mined and execution succeed

transaction hash

0xb85263d7194ece017466b7da8c425f6a66741b5d58d8353689b2b068837600e7

from

0x776e8881ee0A6b7F545fCfa08747b24B162d666c

to

BankKYC.addNewCustomerToBank(string,string) 0xc0aeld1A81aBA768C50B5fA273dbf2d8661b5294

gas

93370 gas

transaction cost

91891 gas

input

0x284...00000

decoded input

"string custName": "Umang",

"string custData": "Customer 001"

decoded output

-

logs

[]

val

0 wei

CURRENT BLOCK 7

GAS PRICE 2000000000

GAS LIMIT 6721975

HARDFORK MURGLACIER

NETWORK ID 5777

RPC SERVER HTTP://127.0.0.1:3545

MINING STATUS AUTOMINING

WORKSPACE QUICKSTART

SAVE

SWITCH

TX HASH

0xb85263d7194ece017466b7da8c425f6a66741b5d58d8353689b2b068837600e7

FROM ADDRESS

0x776e8881ee0A6b7F545fCfa08747b24B162d666c

TO CONTRACT ADDRESS

0xc0aeld1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED 91891

VALUE 0

CONTRACT CALL

Step 8: Allow bank to do KYC

Allowing previously blocked Yes bank from performing KYC

✓

[block:8 txIndex:0] from: 0xF4f...D9c43 to: BankKYC.allowBankToDoKYC(address) 0xc0a...b5294 value: 0 wei data: 0xc98...d666c Logs: 0 hash: 0x7b6...7e985

Debug

status

true Transaction mined and execution succeed

transaction hash

0xd73bcdcf57a6d67aaef0eb0548534400472cfdc5246b44a8d4a937e64bbdb3af

from

0xF4f7F159CC74af11415bf8cCe1E278056eeD9c43

to

BankKYC.allowBankToDoKYC(address) 0xc0aeld1A81aBA768C50B5fA273dbf2d8661b5294

gas

30073 gas

transaction cost

30073 gas

input

0xc98...d666c

decoded input

"address add": "0x776e8881ee0A6b7F545fCfa08747b24B162d666c"

decoded output

-

logs

[]

val


0 wei

Step 9 : Add new customer request for KYC


addNewCustomerRequestForKYC

custName:

Umang



transact



[block:9 txIndex:0] from: 0x776...d666c to: BankKYC.addNewCustomerRequestForKYC(string) 0xc0a...b5294 value: 0 wei data: 0x211...00000 logs: 0 hash: 0xb46...3600f

Debug

^

status

true Transaction mined and execution succeed

transaction hash

0x60f839dd2ffeda42175f2e199602cc3cf500467665f731e9d08b6366a443cf84

from

0x776e8881ee0A6b7F545fCfa08747b24B162d666c

to

BankKYC.addNewCustomerRequestForKYC(string) 0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

gas

51165 gas

transaction cost

51165 gas

input

0x211...00000

decoded input

{

"string custName": "Umang"

}

decoded output

-

logs

[]

val

0 wei

CURRENT BLOCK

9

GAS PRICE

2000000000

GAS LIMIT

6721975

HARDFORK

MUIRGLACIER

NETWORK ID

5777

RPC SERVER

HTTP://127.0.0.1:3545

MINING STATUS

AUTOMINING

WORKSPACE QUICKSTART

SAVE

SWITCH

⚙️

TX HASH

0x60f839dd2ffeda42175f2e199602cc3cf500467665f731e9d08b6366a443cf84

CONTRACT CALL

FROM ADDRESS

0x776e8881ee0A6b7F545fCfa08747b24B162d666c

TO CONTRACT ADDRESS

0xc0ae1d1A81aBA768C50B5fA273dbf2d8661b5294

GAS USED

51165

VALUE


0

Step 10 : View customer data

viewCustomerData

custName:

Umang



call

0: string: Customer 001


1: bool: true

```
CALL [call] from: 0x776e8881ee0A6b7F545fCfa08747b24B162d666c to: BankKYC.viewCustomerData(string) data: 0x4a6...00000
from 0x776e8881ee0A6b7F545fCfa08747b24B162d666c
to BankKYC.viewCustomerData(string) 0xc0aeld1A81aBA768C50B5fA273dbf2d8661b5294
input 0x4a6...00000
decoded input {
  "string custName": "Umang"
}
decoded output {
  "0": "string: Customer 001",
  "1": "bool: true"
}
logs []
```

Step 11 : Get Customer KYC status

getCustomerKycStatus

custName:



0: bool: true

```
CALL [call] from: 0x776e8881ee0A6b7F545fCfa08747b24B162d666c to: BankKYC.getCustomerKycStatus(string) data: 0x761...00000
from 0x776e8881ee0A6b7F545fCfa08747b24B162d666c
to BankKYC.getCustomerKycStatus(string) 0xc0aeld1A81aBA768C50B5fA273dbf2d8661b5294
input 0x761...00000
decoded input {
  "string custName": "Umang"
}
decoded output {
  "0": "bool: true"
}
logs []
```