

# FAST UNIVERSITY



**BLOCKCHAIN**

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**Task: Modify given contract and deploy it on Ganache using truffle and perform transaction, thus so it can be viewed on Ganache logs**

## SETTING UP CONTRACT AND DEPLOYMENT:

```
Windows PowerShell
PS D:\university\semester 7\block chain\quiz\vending-machine> truffle migrate --reset --network development

Compiling your contracts...
=====
> Compiling .\contracts\VendingMachine.sol
> Artifacts written to D:\university\semester 7\block chain\quiz\vending-machine\build\contracts
> Compiled successfully using:
   - solc: 0.8.11+commit.d7f03943.Emscripten.clang

Starting migrations...
=====
> Network name:    'development'
> Network id:     5777
> Block gas limit: 6721975 (0x6691b7)

2_deploy_vending_machine.js
=====

Deploying 'VendingMachine'
-----
> transaction hash: 0xeb211b3a064f7f997d006e7949890ac793d9dd7a5c01b214cfedc69cb769dc48
> Blocks: 0        Seconds: 0
> contract address: 0xD29fcCa86b1C248Bac34F88F4ed8018Ae4d79F3c
> block number:    1
> block timestamp: 1732524118
> account:         0xE03100655f1cc27381E029245D25a47c1304f1eF
> balance:         99.997646534875
> gas used:        697323 (0xaa3eb)
> gas price:       3.375 gwei
> value sent:      0 ETH
> total cost:      0.002353465125 ETH

> Saving artifacts
-----
> Total cost:      0.002353465125 ETH

Summary
=====
> Total deployments: 1

20°C
Haze
Search
1:43 PM
11/25/2024
```

## INITIAL BALANCE CHECK:

```
truffle(development)> instance.address
'0xD29fcCa86b1C248Bac34F88F4ed8018Ae4d79F3c'
truffle(development)> await instance.owner()
'0xE03100655f1cc27381E029245D25a47c1304f1eF'
truffle(development)> let balance = await instance.getVendingMachineBalance()
undefined
truffle(development)> balance.toString()
'100'
truffle(development)> let price = await instance.donutPrice()
undefined
truffle(development)> web3.utils.fromWei(price, 'ether')
'2'
truffle(development)> let owner = await instance.owner()
undefined
truffle(development)>
```

**Test Price Change Function:(Changing price using modified contract code)**

Here we can view if our transaction is successful or not by seeing whether the block was mined or not.(block 1 was mined when we setted up everything).



## Using truffle command line



**Below we are testing the restocking of vending machine transaction(part of the original contract)**

[illegible]

Here we can view our block was mined when the transaction was successful.

[illegible]

**Insufficient balance:** here we tested what if we purchase beyond our limit, and we got an error.

And the block was not mined...

[illegible]

Here is the VENDING MACHINE contract viewed in GANACHE.

[illegible]

Here we can view all the blocks that were mine and their gas price.

CURRENT BLOCK

GAS PRICE

GAS LIMIT

HARDFORK

NETWORK ID

RPC SERVER

MINING STATUS

WORKSPACE

SMELLY-DISEASE

SWITCH

4

20000000000

6721975

MERGE

5777

HTTP://127.0.0.1:7545

AUTOMINING

TX HASH

0x9b3c030a52951783082977a10b61ad2ca5c10b660300f92699d3065c357876e1

FROM ADDRESS

0xE03100655f1cc27381E029245D25a47c1304f1eF

TO CONTRACT ADDRESS

VendingMachine

GAS USED

29087

VALUE

0

CONTRACT CALL

TX HASH

0xef83951ec8237c37a8b037ce5663a48ec2148dc467ac3a9f533dfb12c8c23750

FROM ADDRESS

0x38Ec9b402F95eD5c54366c0F56b47BA85b19c271

TO CONTRACT ADDRESS

VendingMachine

GAS USED

51916

VALUE

6000000000000000000

CONTRACT CALL

TX HASH

0x290e64142b4e403032a18c4ecdd4a75791df9edf33bc05558db223b8befd62f3

FROM ADDRESS

0xE03100655f1cc27381E029245D25a47c1304f1eF

TO CONTRACT ADDRESS

VendingMachine

GAS USED

28875

VALUE

0

CONTRACT CALL

TX HASH

0xeb211b3a064f7f997d006e7949890ac793d9dd7a5c01b214cfedc69cb769dc48

FROM ADDRESS

0xE03100655f1cc27381E029245D25a47c1304f1eF

CREATED CONTRACT ADDRESS

0xD29fcCa86b1C248Bac34F88F4ed8018Ae4d79F3c

GAS USED

697323

VALUE

0

CONTRACT CREATION

Here we can see that total number of blocks that were mined for Vending machine contract of ours.