

TIC-BLK4

Etape 2

“Deploy and interact with your smart contrat in your Private Network”

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## Ecriture et compilation du smart contract:

The screenshot shows the Remix IDE interface. On the left, the 'SOLIDITY COMPILER' panel is active, displaying the compiler version '0.5.12+commit.7709ece' and the language 'Solidity'. The 'Contract' dropdown shows 'financialContract (financi'. Below this, there are buttons for 'Publish on Swarm', 'Publish on Ipfs', and 'Compilation Details'. The main editor area displays the Solidity code for 'financialContract.sol':

```
1 pragma solidity >=0.4.22 <0.6.0;
2
3 contract financialContract {
4     uint balance= 15;
5
6     function setValue(uint value) public {
7         balance = value;
8     }
9
10    function getValue() public view returns(uint){
11        return (balance);
12    }
13
14    function deposit(uint newDeposit) public {
15        balance = balance + newDeposit;
16    }
17 }
```

At the bottom, the 'Execution' panel shows a transaction log with a single entry: '[call] from:0xCA35b7d915458EF540aDe066dfe2F448Ffa733c to:financialContract.getValue() data:0x209...65255'. The execution cost is 391 gas.

## Déploiement et utilisation du smart contract:

The screenshot shows the Remix IDE interface with the 'DEPLOY & RUN TRANSACTIONS' panel active on the left. The 'Environment' is set to 'JavaScript VM'. The 'Account' is '0xCA3...a733c (99.9995 ETH)'. The 'Gas limit' is '3000000'. The 'Value' is '0 wei'. The 'Contract' dropdown shows 'financialContract - browser/financia'. The 'Deploy' button is highlighted. Below this, there are buttons for 'At Address' and 'Load contract from Address'. The 'Transactions recorded' section shows one transaction. The 'Deployed Contracts' section shows the 'financialContract' at address '0x692...7783A (memory)'. Below this, there are buttons for 'deposit', 'setValue', and 'getValue'. The 'deposit' button is highlighted, and the 'Value' field is set to '10'. The 'setValue' button is highlighted, and the 'Value' field is set to '45'. The 'getValue' button is highlighted, and the 'Value' field is set to '0: uint256: 55'. The main editor area displays the same Solidity code as in the previous screenshot. At the bottom, the 'Execution' panel shows a transaction log with a single entry: '[call] from:0xCA35b7d915458EF540aDe066dfe2F448Ffa733c to:financialContract.getValue() data:0x209...65255'. The execution cost is 391 gas.

DEPLOY & RUN TRANSACTIONS

EnvironmentJavaScript VM

Account0xd08...92148 (98.999%)

Gas limit3000000

Value0ether

FinancialContract - browser/financi

Deploy

or

At AddressLoad contract from Address

Transactions recorded: 68

Deployed Contracts

FinancialContract at 0x5fc...6A45a [mem]

deposit1200

receiveDeposit

setValue12

getBalance

0: uint256: 1000000000000000000

getValue

0: uint256: 1212

financialContract.sol

ballot.sol

1pragma solidity >=0.4.22 <0.6.0;

2contract FinancialContract {

3uint balance = 1500;

4

5

6constructor() payable public {

7

8}

9

10

11function receiveDeposit() payable public {

12}

13

14function setValue(uint value) public {

15balance = value;

16}

17

18function getValue() public view returns(uint){

19return (balance);

20}

21

22function deposit(uint newDeposit) public {

23balance = balance + newDeposit;

24}

25

26function getBalance() public view returns(uint){

27return (address(this).balance);

28}

29}

FinancialContract

Search with transaction hash or address

0listen on network

Debug

[call] from:0xd0870fa1b7c4700f2b07f44238821c26f7392148 to:FinancialContract.getValue() data:0x209...65255

Lancement de ganache:

ACCOUNTS

BLOCKS

TRANSACTIONS

CONTRACTS

EVENTS

LOGS

SEARCH FOR BLOCK NUMBERS OR TX HASHES

CURRENT BLOCK0

GAS PRICE2000000000

GAS LIMIT6721975

HARDFORKPETERSBURG

NETWORK ID5777

RPC SERVERHTTP://0.0.0.0:8545

MINING STATUSAUTOMINING

WORKSPACETEST\_SIMOES\_T

SWITCH

MNEMONIC

hidden hybrid brand embrace edge measure gold taste later scorpion attract mesh

HD PATH

m/44'/60'/0'/0/account\_index

ADDRESS	0x812C52a49653CE1Eb84E35a6Cf90f8e5Fea73CC2	BALANCE	100.00	ETH	TX COUNT	0	INDEX	0	
ADDRESS	0x89C8926060A9D859f147fFaD8a3df72B9ceb2110	BALANCE	100.00	ETH	TX COUNT	0	INDEX	1	
ADDRESS	0x4B70F3CE39D87BDeca17AE1dBc765E6c3EC8738c	BALANCE	100.00	ETH	TX COUNT	0	INDEX	2	
ADDRESS	0x8A4da758BB8e480d96dE70d91bb8090fDeaB75bB	BALANCE	100.00	ETH	TX COUNT	0	INDEX	3	
ADDRESS	0xF041109A9cFd766da213833cee90b82C89B060a1	BALANCE	100.00	ETH	TX COUNT	0	INDEX	4	
ADDRESS	0x57E4C1dC2e898B78fc899ce6dC52f0894322EE5D	BALANCE	100.00	ETH	TX COUNT	0	INDEX	5	
ADDRESS	0x3236Dc2571d0c66A667C8e9F007E0a4EBE8208E5	BALANCE	100.00	ETH	TX COUNT	0	INDEX	6	
ADDRESS	0x36641CfC56107B7F9525AEfe16625cd21E39E56c	BALANCE	100.00	ETH	TX COUNT	0	INDEX	7	
ADDRESS	0x05C0215eeaC62F68eDB33b3a948aa34c8FAdE229	BALANCE	100.00	ETH	TX COUNT	0	INDEX	8	
ADDRESS	0x835B822bac6822c23a815872C99B97aCB3b023a6	BALANCE	100.00	ETH	TX COUNT	0	INDEX	9	

## Import du serveur RPC de Ganache à MyEtherWallet:

### Set Up Your Custom Node

[Instructions can be found here](#)

**Node Name**

Private ETH Node

**URL**

http://127.0.0.1

**Port**


7545


☐ HTTP Basic access authentication

☒ ETH ☐ ETC ☐ Ropsten ☐ Kovan ☐ Rinkeby ☐ Custom

Cancel Save & Use Custom Node

## Déploiement du smart contract sur MyEtherWallet:

 MyEtherWallet

3.40.0 English  Network Private ETH Node:eth (Custom)

[New Wallet](#) [Send Ether & Tokens](#) [Swap](#) [Send Offline](#) [Contracts](#) [ENS](#) [DomainSale](#) [Check TX Status](#) [View Wallet Info](#) [Help](#)

### Interact with Contract or Deploy Contract

**Byte Code**

```
60200191505060405180910390f35b3480156100d757600080fd5b50610104600480360208110156100ee57600080fd5b810190808035906020019092919050505061020556b005b34801561011257600080fd5b5061013f6004803602081101561012957600080fd5b81019080803590602001909291905050506102a956b005b34801561014d57600080fd5b506101566102b356b004051808273fffffffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffffffffff16815260200191505060405180910390f35b3480156101a457600080fd5b506101d1600480360208110156101bb57600080fd5b81019080803590602001909291905050506102d556b005b6101db6102eb56b005b60003073fffffffffffffffffffffffffffffffffffffffff163190509056b000805490509056b3373fffffffffffffffffffffffffffffffffffffffffd5b3373fffffffffffffffffffffffffffffffffffffffff166108fc829081150290604051600060405180830381858888f193505050501580156102a5573d6000803e3d6000fd5b505056b00600819055505056b000600160009054906101000a900473fffffffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffffffffff1690509056b006005401600081905550
```

**Gas Limit**


311308



Sign Transaction

MyEtherWallet.com does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions. Protect your keys & always check that you are on correct URL. [You are responsible for your security.](#)


You can support us by supporting our blockchain family.

Try our new version here: <https://www.myetherwallet.com/>  
Read more about it in our [Medium post](#)

 MyEtherWallet

3.40.0 English  Gas Price: 41 Gwei  Network Private ETH Node:eth (Custom)

The network is really full right now. Check Eth Gas Station for gas price to use.

New Wallet Send Ether & Tokens  Swap Send Offline Contracts ENS DomainSale Check TX Status View Wallet Info Help

### Interact with Contract or Deploy Contract

#### Byte Code

```
5260200191505060405180910390f35b3480156100d757600080fd5b50610104600480360208110156100ee57600080fd5b8101908080359060200190929190505050610205565b005b34801561011257600080fd5b5061013f6004803603602081101561012957600080fd5b81019080803590602001909291905050506102a9565b005b34801561014d57600080fd5b506101566102b3565b604051808273ffffffffffffffffffffffffffffffffffffffff1673ffffffffffffffffffffffffffffffffffffffff16815260200191505060405180910390f35b3480156101a457600080fd5b506101d1600480360360208110156101bb57600080fd5b81019080803590602001909291905050506102dd565b005b6101db6102eb565b60003073ffffffffffffffffffffffffffffffffffffffff1631905090565b60008054905090565b3737ffffffffffffffffffffffffffffffffffffffff1616461025f57600080fd5b3737ffffffffffffffffffffffffffffffffffffffff166108fc82908115029060405160006040518083038185888f193505050501580156102a5573d6000803e3d6000fd5b5050565b8060008190555050565b60060016000905490610100a900473ffffffffffffffffffffffffffffffffffffffff16905090565b80600054016000819055
```

#### Gas Limit

311308

Sign Transaction

#### Raw Transaction

```
{"nonce":"0x00","gasPrice":"0x098bca5a00","gasLimit":"0x04c00c","to":"","value":"0x00","data":"0x6080604052600f6000553360016000610100a81548173fffffffffffffffffffffffffffffffffffffffff021916908373fffffffffffffffffffffffffffffffffffffffff1602179055061032280610059600
```

#### Signed Transaction

```
0xf903ce8085098bca5a008304c00c8080b9037b6080604052600f6000553360016000610100a81548173fffffffffffffffffffffffffffffffffffffffff021916908373fffffffffffffffffffffffffffffffffffffffff16021790550610322806100596000396000f3fe6080604052600436106100705760003560e01c80635524
```

Deploy Contract

Warning!

You are about to **deploy** a contract.  
It will be deployed on the following network: **ETH**.  
The **ETH** node you are sending through is provided by **Custom**.  
**Are you sure you want to do this?**

No, get me out of here!

Yes, I am sure! Make transaction.

#### Byte Code

```
205565b005b34801561011257600080fd5b506101566102b3565b604051808273ffffffffffffffffffffffffffffffffffffffff1673ffffffffffffffffffffffffffffffffffffffff16815260200191505060405180910390f35b3480156101a457600080fd5b506101d1600480360360208110156101bb57600080fd5b81019080803590602001909291905050506102dd565b005b6101db6102eb565b60003073ffffffffffffffffffffffffffffffffffffffff1631905090565b60008054905090565b3737ffffffffffffffffffffffffffffffffffffffff1616461025f57600080fd5b3737ffffffffffffffffffffffffffffffffffffffff166108fc82908115029060405160006040518083038185888f193505050501580156102a5573d6000803e3d6000fd5b5050565b8060008190555050565b60060016000905490610100a900473ffffffffffffffffffffffffffffffffffffffff16905090565b80600054016000819055
```

#### Gas Limit

311308

Sign Transaction

#### Raw Transaction

```
{"nonce":"0x00","gasPrice":"0x098bca5a00","gasLimit":"0x04c00c","to":"","value":"0x00","data":"0x6080604052600f6000553360016000610100a81548173fffffffffffffffffffffffffffffffffffffffff021916908373fffffffffffffffffffffffffffffffffffffffff1602179055061032280610059600
```

#### Signed Transaction

```
0xf903ce8085098bca5a008304c00c8080b9037b6080604052600f6000553360016000610100a81548173fffffffffffffffffffffffffffffffffffffffff021916908373fffffffffffffffffffffffffffffffffffffffff16021790550610322806100596000396000f3fe6080604052600436106100705760003560e01c80635524
```

Deploy Contract

ACCOUNTS

BLOCKS

TRANSACTIONS

CONTRACTS

EVENTS

LOGS

CURRENT BLOCK1

GAS PRICE2000000000

GAS LIMIT6721975

HARDFORKPETERSBURG

NETWORK ID5777

RPC SERVERHTTP://0.0.0.0:7545

MINING STATUSAUTOMINING

WORKSPACETEST\_SIMOES.T

SEARCH FOR BLOCK NUMBERS OR TX HASHES

SWITCH

MNEMONIC

hidden hybrid brand embrace edge measure gold taste later scorpion attract mesh

HD PATH

m/44'/60'/0'/0/account\_index

ADDRESS 0x812C52a49653CE1Eb84E35a6Cf90f8e5Fea73CC2	BALANCE 99.99 ETH	TX COUNT 1	INDEX 0	
ADDRESS 0x89C8926060A9D859f147fFaD8a3df72B9ceb2110	BALANCE 100.00 ETH	TX COUNT 0	INDEX 1	
ADDRESS 0x4B70F3CE39D87BDeca17AE1dBc765E6c3EC8738c	BALANCE 100.00 ETH	TX COUNT 0	INDEX 2	
ADDRESS 0x8A4da758BB8e480d96dE70d91bb8090fDeaB75bB	BALANCE 100.00 ETH	TX COUNT 0	INDEX 3	
ADDRESS 0xF041109A9cFd766da213833cee90b82C89B060a1	BALANCE 100.00 ETH	TX COUNT 0	INDEX 4	
ADDRESS 0x57E4C1dC2e898B78fc899ce6dC52f0894322EE5D	BALANCE 100.00 ETH	TX COUNT 0	INDEX 5	
ADDRESS 0x3236Dc2571d0c66A667C8e9F007E0a4EBE8208E5	BALANCE 100.00 ETH	TX COUNT 0	INDEX 6	
ADDRESS 0x36641CfC56107B7F9525AEfe16625cd21E39E56c	BALANCE 100.00 ETH	TX COUNT 0	INDEX 7	
ADDRESS 0x05C0215eeaC62F68eDB33b3a948aa34c8FAde229	BALANCE 100.00 ETH	TX COUNT 0	INDEX 8	
ADDRESS 0x835B822bac6822c23a815872C99B97aCB3b023a6	BALANCE 100.00 ETH	TX COUNT 0	INDEX 9	

## Interaction avec le smart contract sur MyEtherWallet:

### Interact with Contract or [Deploy Contract](#)

Contract Address

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

Select Existing Contract

Select a contract...

ABI / JSON Interface

```
[
  {
    "inputs": [],
    "payable": true,
    "stateMutability": "payable",
    "type": "constructor"
  }
]
```

Access

MyEtherWallet.com does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions. Protect your keys & always check that you are on correct URL. [You are responsible for your security.](#)

### MyEtherWallet

Free, open-source, client-side interface for generating Ethereum wallets & more. Interact with the Ethereum blockchain easily & securely. Double-check the URL (myetherwallet.com) before unlocking your wallet.

Knowledge Base  
Disclaimer

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MyEtherWallet Team  
Email support: [support@myetherwallet.com](mailto:support@myetherwallet.com)  
Unit Converters & ENS Debugging  
Sign Message  
[kvhnuke.github.io/etherwallet](https://kvhnuke.github.io/etherwallet)  
Github: [Current Site & CX](#)  
[Github: Latest Release](#)

## Interact with Contract or [Deploy Contract](#)

### Contract Address

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6



### Select Existing Contract

Select a contract...

### ABI / JSON Interface

```
[
  {
    "inputs": [],
    "payable": true,
    "stateMutability": "payable",
    "type": "constructor"
  }
]
```

Access

### Read / Write Contract

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

Select a function

MyEtherWallet.com does not hold your keys for you. We cannot access accounts, recover keys, reset passwords, nor reverse transactions. Protect your keys & always check that you are on correct URL. [You are responsible for your security.](#)

## Interact with Contract or [Deploy Contract](#)

### Contract Address

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6



### Select Existing Contract

Select a contract...

### ABI / JSON Interface

```
[
  {
    "inputs": [],
    "payable": true,
    "stateMutability": "payable",
    "type": "constructor"
  }
]
```

Access

### Read / Write Contract

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

getOwner

deposit  
getBalance  
getOwner  
getValue  
receiveDeposit  
setValue  
withdraw

0x1eb84e35a6cf90f8e5fea73cc2



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ACCOUNTS

BLOCKS

TRANSACTIONS

CONTRACTS

EVENTS

LOGS

SEARCH FOR BLOCK NUMBERS OR TX HASHES

SWITCH

CURRENT BLOCK  
16

GAS PRICE  
20000000000

GAS LIMIT  
6721975

HARDFORK  
PETERSBURG

NETWORK ID  
5777

RPC SERVER  
HTTP://0.0.0.0:7545

MINING STATUS  
AUTOMINING

WORKSPACE  
TEST\_SIMOES\_T

TX HASH  
0x59b064d3813bbf69d3955b2d4d1144648587beb950e1a681d5f92bea855f890

FROM ADDRESS  
0x812C52a49653CE1Eb84E35a6CF90f8e5Fea73CC2

TO CONTRACT ADDRESS  
0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

GAS USED  
30900

VALUE  
0

CONTRACT CALL

TX HASH  
0x2af2b0ef82b4fee67271d5a1cc49c92c4e32cf8262d60f54218e0666026106e7

FROM ADDRESS  
0x812C52a49653CE1Eb84E35a6CF90f8e5Fea73CC2

TO CONTRACT ADDRESS  
0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

GAS USED  
21632

VALUE  
1000000000000000000

CONTRACT CALL

TX HASH  
0xd4e915fb1c59d45f6be25d5e48372c1238b9ed97f1c7cb3597457f7407911767

FROM ADDRESS  
0x812C52a49653CE1Eb84E35a6CF90f8e5Fea73CC2

TO CONTRACT ADDRESS  
0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

GAS USED  
21587

VALUE  
1000000000000000000

CONTRACT CALL

TX HASH  
0xf8bf893da0f26416663f609e4bf29815e80b48a9262a1b5e57cda346ca04c85a

FROM ADDRESS  
0x812C52a49653CE1Eb84E35a6CF90f8e5Fea73CC2

TO CONTRACT ADDRESS  
0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

GAS USED  
26706

VALUE  
0

CONTRACT CALL

TX HASH  
0x1ae9c1f75ff0e46ce98e19ed3c32cb85a341b4deacd39a1853fd0cc4f052d0805

FROM ADDRESS  
0x812C52a49653CE1Eb84E35a6CF90f8e5Fea73CC2

TO CONTRACT ADDRESS  
0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

GAS USED  
26706

VALUE  
0

CONTRACT CALL

TX HASH  
0x378fb3d4ff1c51d802630f6a1ce14e4d2f73809e3e3856455438a48ea3ba0a0

FROM ADDRESS  
0x812C52a49653CE1Eb84E35a6CF90f8e5Fea73CC2

TO CONTRACT ADDRESS  
0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

GAS USED  
21587

VALUE  
1000000000000000000

CONTRACT CALL

TX HASH  
0xa03c361a176b7e03a2ce21dab4980821fcac5818ca690d1c7ecb41d9876c9345

New WalletSend Ether & TokensSwapSend OfflineContractsENSDomainSaleCheck TX StatusView Wallet InfoHelp

Interact with Contract or Deploy Contract

Contract Address

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

Select Existing Contract

Select a contract...

ABI / JSON Interface

[{"inputs": [], "payable": true, "stateMutability": "payable", "type": "constructor"}]

Access

Read / Write Contract

0xb6E2170c8eCf7a4Dc0FA4358d9D44898eC562df6

withdraw

funds

uint256

120

WRITE