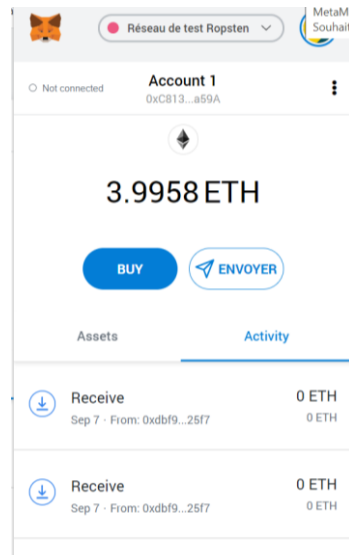


## TP 2 : Smart Contract

### 1. Prise en main des outils Remix et Metamask

#### Question c :

Lien : <https://ropsten.etherscan.io/address/0xc8134fa8c874359e9aa8ecd005af6a409446a59a>



#### Question e : Détails de la transaction générée :

Lien :

<https://ropsten.etherscan.io/tx/0x41ee8a66b17ac6e4798fa7475d6ce57e4f16fd77b9978891760707660a56dc82>

Overview	State
[ This is a Ropsten <b>Testnet</b> transaction only ]	
Transaction Hash:	0x41ee8a66b17ac6e4798fa7475d6ce57e4f16fd77b9978891760707660a56dc82
Status:	Success
Block:	8636027 15 Block Confirmations
Timestamp:	2 mins ago (Sep-07-2020 08:18:08 AM +UTC)
From:	0x78c115f1c8b7d0804fbd3cf7995b030c512ee78
To:	0xc8134fa8c874359e9aa8ecd005af6a409446a59a
Value:	5 Ether (\$0.00)
Transaction Fee:	0.000105 Ether (\$0.000000)
Gas Limit:	400,000
Gas Used by Transaction:	21,000 (5.25%)
Gas Price:	0.000000005 Ether (5 Gwei)
Nonce	7137
Input Data:	0x

**Question f :** Numéro de bloc : 8636027 et détails de la transaction

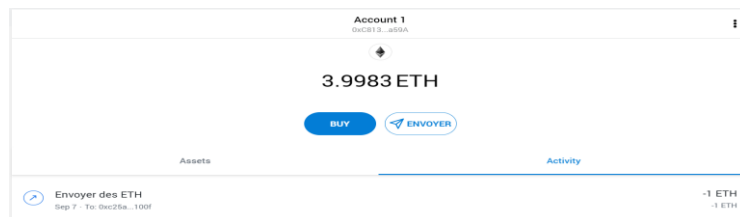
**Lien :** <https://ropsten.etherscan.io/block/8636027>

⑦ Block Height:	8636027 < >
⑦ Timestamp:	⌚ 5 mins ago (Sep-07-2020 08:18:08 AM +UTC)
⑦ Transactions:	4 transactions and 0 contract internal transaction in this block
⑦ Mined by:	0xd34912efb0e7fedaedb9390990d7ef623e01f4fa in 7 secs
⑦ Block Reward:	2.001029569 Ether (2 + 0.001029569)
⑦ Uncles Reward:	0
⑦ Difficulty:	551,468,744
⑦ Total Difficulty:	31,436,511,480,524,659
⑦ Size:	1,091 bytes
⑦ Gas Used:	106,750 (1.34%)
⑦ Gas Limit:	7,961,013
⑦ Extra Data:	poolin.com (Hex:0x706f6fc696e2e636f6d)
⑦ Hash:	0x239592f999df63f228b29b63f0cf2015afd6985a2f3ea2c8372ea1bff76c0a2c
⑦ Parent Hash:	0x5344b28dc963cfcc7a50fec01a8f22089b6ee0b2a12865fd3cc14cac8b9a4cb1
⑦ Sha3Uncles:	0x1dcc4de8dec75d7aab85b567b6ccd41ad312451b948a7413f0a142fd40d49347
⑦ StateRoot:	0xe81dce0bb090869d2b9a63ad8e0f3c38b4bb0575024ad7ad86bcda11cf0c633
⑦ Nonce:	0x5ae6135003750593

**Question g :** envoi d'Ether à l'adresse 0xc25a95A1D4a59A0E56f188f9C966A3Dad518100 :

**Lien :**

<https://ropsten.etherscan.io/tx/0x63acb85fd8e9fa2e54b800768199b7e34e8491b45a0772b1f1c48391a826233f>



## Seegobin Emma A2 IR

[ This is a Ropsten **Testnet** transaction only ]

⑦ Transaction Hash:	0x63acb85fd8e9fa2e54b800768199b7e34e8491b45a0772b1f1c48391a826233f <a href="#">🔗</a>
⑦ Status:	✔ Success
⑦ Block:	8636080 <a href="#">4105 Block Confirmations</a>
⑦ Timestamp:	⌚ 10 hrs 13 mins ago (Sep-07-2020 08:25:51 AM +UTC)
⑦ From:	0xc8134fa8c874359e9aa8ecd005af6a409446a59a <a href="#">🔗</a>
⑦ To:	0xc25a95a1d4a59a0e56f188f9c966a3dad518100f <a href="#">🔗</a>
⑦ Value:	1 Ether (\$0.00)
⑦ Transaction Fee:	0.001701 Ether (\$0.000000)
⑦ Gas Limit:	21,000
⑦ Gas Used by Transaction:	21,000 (100%)
⑦ Gas Price:	0.000000081 Ether (81 Gwei)
⑦ Nonce <a href="#">Position</a>	0 <a href="#">4</a>
⑦ Input Data:	0x

**Question k :** Cf. fichier ABI.txt et ByteCode.txt sur GitHub

**Lien :** [https://github.com/Emma-Seegobin/TP\\_Election](https://github.com/Emma-Seegobin/TP_Election)

**Question i :** Déploiement

**Lien :**

<https://ropsten.etherscan.io/tx/0x26bf5bad89a9fc47462f4d94545b2e834eef9f18834c601eadc2ee5fb0985743>

MetaMask Notification

Réseau de test Ropsten

Account 1 → Nouveau contrat

DÉPLOIEMENT DE CONTRAT

0

DETAILS

DATA

EDIT

GAS FEE

0.00083

Aucun taux de conversion disponible

AMOUNT + GAS FEE

TOTAL

0.00083

Aucun taux de conversion disponible

Rejeter

Confirmer

## Seegobin Emma A2 IR

### Détails de la transaction :

Transaction Hash:	0x26bf5bad89a9fc47462f4d94545b2e834eef9f18834c601eadc2ee5fb0985743
Status:	Success
Block:	8636304 3938 Block Confirmations
Timestamp:	9 hrs 52 mins ago (Sep-07-2020 08:55:17 AM +UTC)
From:	0xc8134fa8c874359e9aa8ecd005af6a409446a59a
To:	[Contract 0xb07d041525032bebeda7f3cd0f5f07cdbe052489 Created]
Value:	0 Ether (\$0.00)
Transaction Fee:	0.000829809 Ether (\$0.000000)
Gas Limit:	553,206
Gas Used by Transaction:	553,206 (100%)
Gas Price:	0.0000000015 Ether (1.5 Gwei)
Nonce	Position 1 6
Input Data:	05c1ef587b462b939609625b684b1660405160405180910390a250565b60035481565b6002602052806000526040600020600091509050806000015490806001018054600181600116156101000203166002900480601f0160208091040260200160405190810160405280929190818152602001828054600181600116156101000203166002900480156104e75780601f106104bc576101008083540402835291602001916104e7565b820191906000526020600020905b8154815290600101906020018083116104ca57829003601f168201915b50505050908060020154905083565b6003600081548092919060010191905055906040518060600160405280600354815260200182815260200160008152506002600060035481526020019081526020016000206000

**Question m:** Les frais ne sont pas identiques, car ça dépend du réseau et du nombre de personne réalisant des transactions.

Overview	State
[ This is a Ropsten Testnet transaction only ]	
Transaction Hash:	0x26bf5bad89a9fc47462f4d94545b2e834eef9f18834c601eadc2ee5fb0985743
Status:	Success
Block:	8636304 41 Block Confirmations
Timestamp:	5 mins ago (Sep-07-2020 08:55:17 AM +UTC)
From:	0xc8134fa8c874359e9aa8ecd005af6a409446a59a
To:	[Contract 0xb07d041525032bebeda7f3cd0f5f07cdbe052489 Created]
Value:	0 Ether (\$0.00)
Transaction Fee:	0.000829809 Ether (\$0.000000)
Click to see More	

L'adresse public du smart contract est : [0xb07d041525032bebeda7f3cd0f5f07cdbe052489](https://ropsten.etherscan.io/address/0xb07d041525032bebeda7f3cd0f5f07cdbe052489)

```
candidates 1
0: uint256: id 1
1: string: name seegobin
2: uint256: voteCount 0
```

### Question q :

Lien :

<https://ropsten.etherscan.io/tx/0x11f2dadd4ec55f7ca418bddb28781c7432b61e02f3dabf49053137e71a1dbc5b>

**Overview** State

[ This is a Ropsten **Testnet** transaction only ]

Transaction Hash:	0x11f2dadd4ec55f7ca418bddb28781c7432b61e02f3dabf49053137e71a1dbc5b
Status:	Success
Block:	8636539 45 Block Confirmations
Timestamp:	6 mins ago (Sep-07-2020 09:24:04 AM +UTC)
From:	0xc8134fa8c874359e9aa8ecd005af6a409446a59a
To:	Contract 0xb07d041525032bebeda7f3cd0f5f07cdbe052489
Value:	0 Ether (\$0.00)
Transaction Fee:	0.000107487 Ether (\$0.000000)
Gas Limit:	73,141
Gas Used by Transaction:	71,658 (97.97%)
Gas Price:	0.0000000015 Ether (1.5 Gwei)
Nonce	3 0
Input Data:	<div>Function: addCandidate(string name) *** MethodID: 0x462e91ec [0]: 0020 [1]: 0004 [2]: 656d6d6100 View Input As</div>

### Question r :

Détails : Le second contact « emma » a été ajouté sous l'id 2, il ne possède aucun vote.

candidates

"2"

0: uint256: id 2  
1: string: name emma  
2: uint256: voteCount 0

**Question s :** L'adresse du propriétaire du contrat est :  
0xc8134fa8c874359e9aa8ecd005af6a409446a59a

**Question t :**

**Lien :**

<https://ropsten.etherscan.io/tx/0xbd7aa91c4a26560003a57c03980e9a8cacc4cc564fb5b4c062abbce6bb896e08>

Transaction Hash:	0xbd7aa91c4a26560003a57c03980e9a8cacc4cc564fb5b4c062abbce6bb896e08
Status:	Success
Block:	8636637 2 Block Confirmations
Timestamp:	20 secs ago (Sep-07-2020 09:36:39 AM +UTC)
From:	0xc8134fa8c874359e9aa8ecd005af6a409446a59a
To:	Contract 0xb07d041525032bebeda7f3cd0f5f07cdbe052489
Value:	0 Ether (\$0.00)
Transaction Fee:	0.0000994005 Ether (\$0.000000)
Gas Limit:	66,267
Gas Used by Transaction:	66,267 (100%)
Gas Price:	0.0000000015 Ether (1.5 Gwei)
Nonce	4
Input Data:	<div>Function: vote(uint256 proposal) ***</div> <div>MethodID: 0x0121b93f</div> <div>[0]: 0001</div> <div>View Input As</div>

**Question u :** Il y a eu un vote. Il a donc bien été pris en compte.

candidates

"1"

0: uint256: id 1

1: string: name seegobin

2: uint256: voteCount 1

Seegobin Emma A2 IR

### Question v :

Mon vote vers le smart contract : [0x8c330951db5119ed0ff928ab7fd4c651b0becc34](https://ropsten.etherscan.io/tx/0x8c330951db5119ed0ff928ab7fd4c651b0becc34)

Lien :

<https://ropsten.etherscan.io/tx/0x4bd8c25f6ef0e9b5c4f8ab7ac35527ada47ec7a5cb502cc5b614abae-dab18292>

**Overview** Logs (1) State

[ This is a Ropsten **Testnet** transaction only ]

Transaction Hash:

0x4bd8c25f6ef0e9b5c4f8ab7ac35527ada47ec7a5cb502cc5b614abae-dab18292

Status:

Success

Block:

8636864 4 Block Confirmations

Timestamp:

40 secs ago (Sep-07-2020 10:05:02 AM +UTC)

From:

0xc8134fa8c874359e9aa8ecd005af6a409446a59a

To:

Contract 0x8c330951db5119ed0ff928ab7fd4c651b0becc34

Value:

0 Ether (\$0.00)

Transaction Fee:

0.0000994005 Ether (\$0.000000)

[Click to see More](#)

Transaction réalisée :

Transactions Contract Events							
Latest 5 from a total of 5 transactions							
Txn Hash	Block	Age	From	To	Value	[Txn Fee]	
0x4bd8c25f6ef0e9b5c4...	8636864	46 secs ago	0xc8134fa8c874359e9...	IN 0x8c330951db5119ed0...	0 Ether	0.0000994005	

Transaction : vote fait par le camarade :

Clé camarade : 0xc447d09EE09ee8973d2e3D393495D42Fc771765d

Lien :

<https://ropsten.etherscan.io/tx/0x3272b91e100750fceac53fab50814be08e539c5a3cd6953ea5fa1b9de963e9dd>

Txn Hash	Block	Age	From	To	Value	[Txn Fee]	
0x3272b91e100750fce...	8636755	23 mins ago	0xc447d09ee09ee8973...	OUT 0xb07d041525032bebe...	0 Ether	0.00007691	



