

Blockchain Technology for Business
Assignment #3

1) Truffle Compilation:

```
C:\Users\Muskan Ahmed>cd CyberLawRegistry-Truffle

C:\Users\Muskan Ahmed\CyberLawRegistry-Truffle>truffle compile

Compiling your contracts...
=====
> Compiling .\contracts\CyberLawRegistry.sol
> Artifacts written to C:\Users\Muskan Ahmed\CyberLawRegistry-Truffle\build\contracts
> Compiled successfully using:
   - solc: 0.8.0+commit.c7dfd78e.Emscripten.clang
```

2) Truffle Migration/Deployment:

```
C:\Users\Muskan Ahmed\CyberLawRegistry-Truffle>truffle migrate --reset --network development

Compiling your contracts...
=====
> Compiling .\contracts\CyberLawRegistry.sol
> Artifacts written to C:\Users\Muskan Ahmed\CyberLawRegistry-Truffle\build\contracts
> Compiled successfully using:
   - solc: 0.8.0+commit.c7dfd78e.Emscripten.clang

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

2_deploy_contract.js
=====

  Replacing 'CyberLawRegistry'
  =====
  > transaction hash:  0x7923c31dfae3e8ebfd0e1e8c815c35137b6e70531f75d5246ef025576d32bdbb
  > Blocks: 0         Seconds: 0
  > contract address: 0xc240d401B070BDf0E402580559B7c36Ec6eBF256
  > block number:     2
  > block timestamp:   1763819675
  > account:           0x32FE85c35b58A3595D704e5215C2D3422bEa63C4
  > balance:           99.993847214033318656
  > gas used:           922368 (0xe1300)
  > gas price:         3.295641183 gwei
  > value sent:        0 ETH
  > total cost:        0.003039793966681344 ETH

  > Saving artifacts
  =====
  > Total cost:        0.003039793966681344 ETH

Summary
=====
> Total deployments:  1
> Final cost:         0.003039793966681344 ETH
```

3) Ganache – Accounts Tab:

Ganache									
ACCOUNTS									
CURRENT BLOCK	TOTAL PRICE	BALANCE	TRANSACTIONS	NETWORK ID	RPC URL	MINING STATUS	SEARCH FOR BLOCK NUMBERS OR TX HASHES		
2	20000000000	671975	MERGE	5777	HTTP://127.0.0.1:7545	AUTOMINING	MINING QUICKSTART	SAVE	SWITCH
MNEMONIC: test word spice license suffer gorilla float shaft endorse citizen alarm response HD PATH: m/44'/60'/0'/baccount_index									
ADDRESS	BALANCE	TX COUNT	INDEX						
0x32FE85c35b58A3595D784e5215C2D3422bEa63C4	99.99 ETH	2	0						
ADDRESS	BALANCE	TX COUNT	INDEX						
0xEcd5a63cB695A0C4c4278858f2FD2f58E6A89314	100.00 ETH	0	1						
ADDRESS	BALANCE	TX COUNT	INDEX						
0x7a97Ed1Af8106696F4b2b501C6a772C99b637078	100.00 ETH	0	2						
ADDRESS	BALANCE	TX COUNT	INDEX						
0x9baA4FC9d1C3dd9BAF8102F6811608CE0063356	100.00 ETH	0	3						
ADDRESS	BALANCE	TX COUNT	INDEX						
0x7A3F712117e823aC3Ec9F353669FCA2e4AF9F62	100.00 ETH	0	4						
ADDRESS	BALANCE	TX COUNT	INDEX						
0xF8F0dF0d614f302493Ed2078A9673a5b7447009	100.00 ETH	0	5						
ADDRESS	BALANCE	TX COUNT	INDEX						
0xa19E8DD1C878DF0e416dd324F6E6762552e9876	100.00 ETH	0	6						
ADDRESS	BALANCE	TX COUNT	INDEX						
0x5a23C1CeCFd838f2269CEFF8FB0dE80446b020F2	100.00 ETH	0	7						
ADDRESS	BALANCE	TX COUNT	INDEX						
0xD5AADa3fE88fF065a2c3cF6825929c3cb756512	100.00 ETH	0	8						
ADDRESS	BALANCE	TX COUNT	INDEX						
0x4AB55Fb4aE0EB0D54f8c2D89e32E28b43ff8e0C0	100.00 ETH	0	9						

4) Ganache – Blocks Tab:

Ganache									
BLOCKS									
CURRENT BLOCK	TOTAL PRICE	BALANCE	TRANSACTIONS	NETWORK ID	RPC URL	MINING STATUS	SEARCH FOR BLOCK NUMBERS OR TX HASHES		
8	20000000000	671975	MERGE	5777	HTTP://127.0.0.1:7545	AUTOMINING	MINING QUICKSTART	SAVE	SWITCH
BLOCK	MINED ON	DATA USED							
8	2025-11-22 19:18:04	171167	TRANSACTION						
BLOCK	MINED ON	DATA USED							
7	2025-11-22 19:18:36	171335	TRANSACTION						
BLOCK	MINED ON	DATA USED							
6	2025-11-22 19:18:14	171215	TRANSACTION						
BLOCK	MINED ON	DATA USED							
5	2025-11-22 19:18:49	171167	TRANSACTION						
BLOCK	MINED ON	DATA USED							
4	2025-11-22 19:18:57	171335	TRANSACTION						
BLOCK	MINED ON	DATA USED							
3	2025-11-22 19:07:42	227642	TRANSACTION						
BLOCK	MINED ON	DATA USED							
2	2025-11-22 18:54:35	922368	TRANSACTION						
BLOCK	MINED ON	DATA USED							
1	2025-11-22 18:34:12	922368	TRANSACTION						
BLOCK	MINED ON	DATA USED							
0	2025-11-15 12:43:57	0	NO TRANSACTIONS						

5) Ganache – Transactions Tab:

Genesis

ACCOUNTS

BLOCKS

TRANSACTIONS

CONTRACTS

EVENTS

LOGS

SEARCH FOR BLOCK NUMBERS OR TX HASHES

CURRENT BLOCK

2

GAS PRICE

20000000000

GAS LIMIT

6721975

HARDFORK

MERGE

NETWORK ID

5777

RPC SERVER

HTTP://127.0.0.1:7545

MINING STATUS

AUTOMINING

WORKSPACE QUICKSTART

SAVE

SWITCH

TX HASH

0x2ed709b17cf5915cfedefd48852d4b0f05ab8c4521a88556e39ebd1f3a571346

CONTRACT CALL

FROM ADDRESS

0x32FE85c35b58A3595D784e5215C2D3422bEa63C4

TO CONTRACT ADDRESS

0x40D61083F900D06418cA70800e550020A5E600

GAS USED

171323

VALUE

0

TX HASH

0xbcbab1ceae3a8f95e9546b2391a5c572b6feab90f9435d8e3594ce343a7e35c

CONTRACT CALL

FROM ADDRESS

0x32FE85c35b58A3595D784e5215C2D3422bEa63C4

TO CONTRACT ADDRESS

0x40D61083F900D06418cA70800e550020A5E600

GAS USED

227642

VALUE

0

TX HASH

0x7923c31dfae3e0ebfd0e1e8c815c35137b6e70531f75d5246ef025576d32bdbb

CONTRACT CREATION

FROM ADDRESS

0x32FE85c35b58A3595D784e5215C2D3422bEa63C4

CREATED CONTRACT ADDRESS

0xc240d401807F00DF0E402500590B736EC0e0BF256

GAS USED

922368

VALUE

0

TX HASH

0x31925783707f9f58c895aa9f1822f67c0933638321f7bee4a0585294d57d9ada

CONTRACT CREATION

FROM ADDRESS

0x32FE85c35b58A3595D784e5215C2D3422bEa63C4

CREATED CONTRACT ADDRESS

0x40D61083F900D06418cA70800e550020A5E600

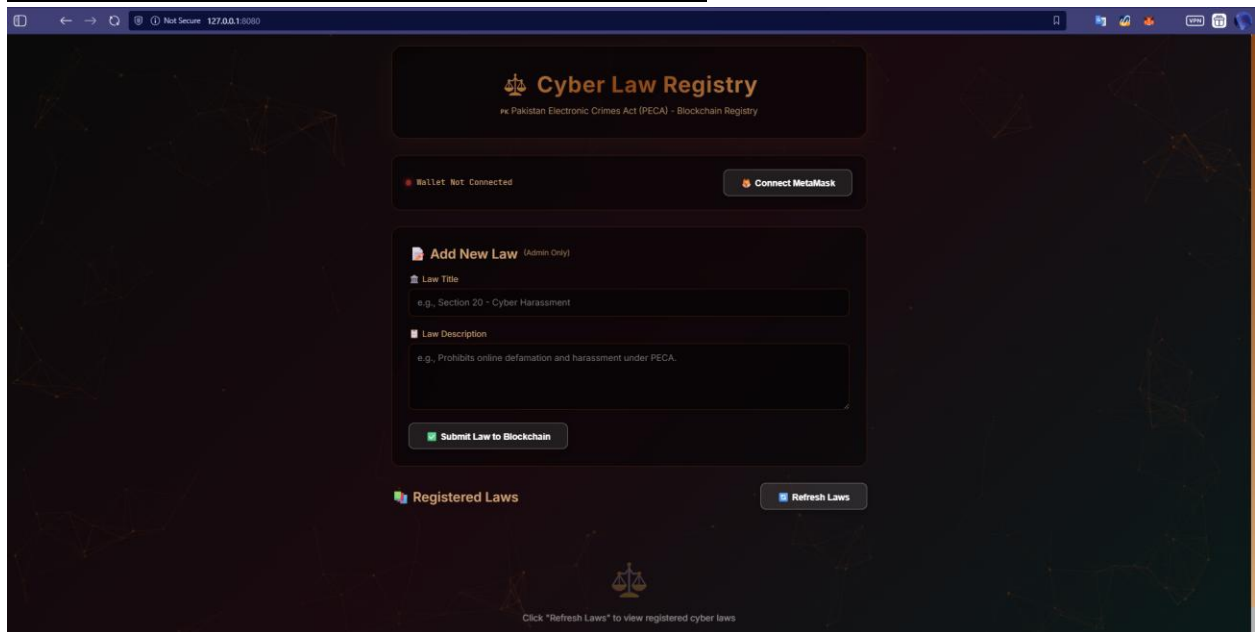
GAS USED

922368

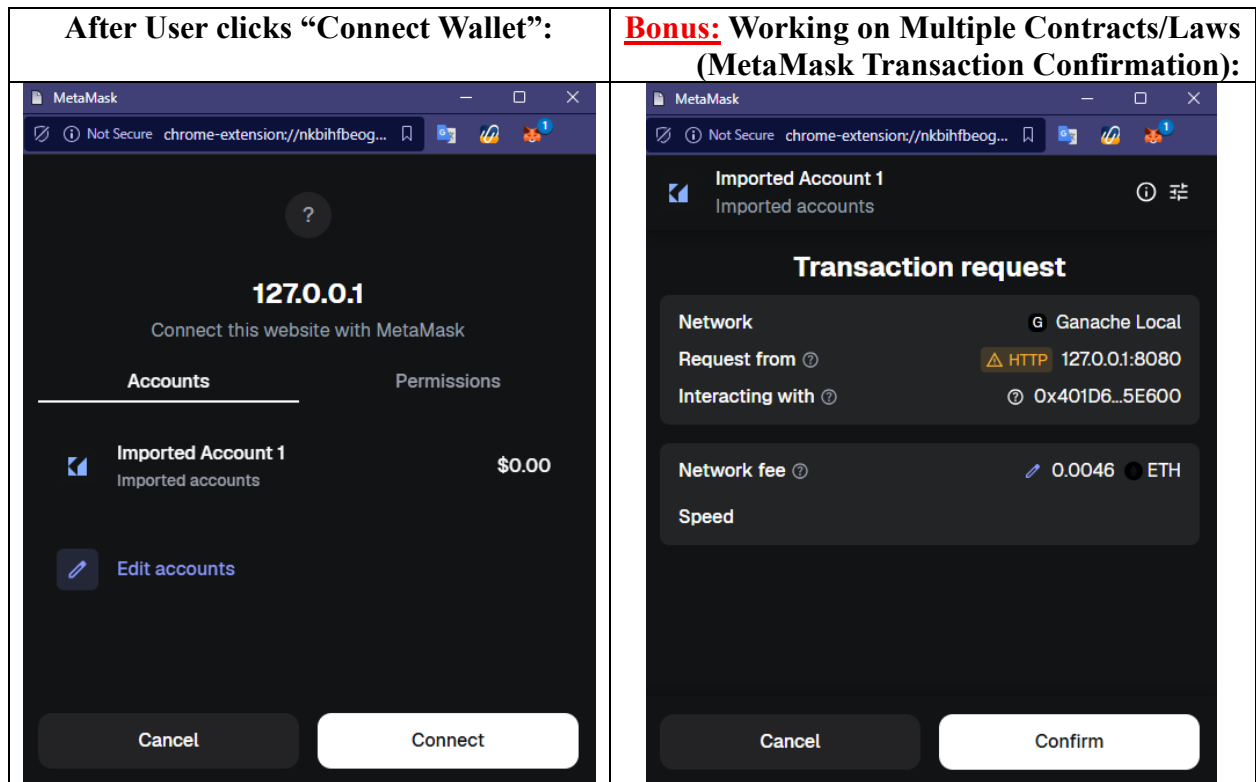
VALUE

0

6) Frontend – Without MetaMask Wallet Connection:

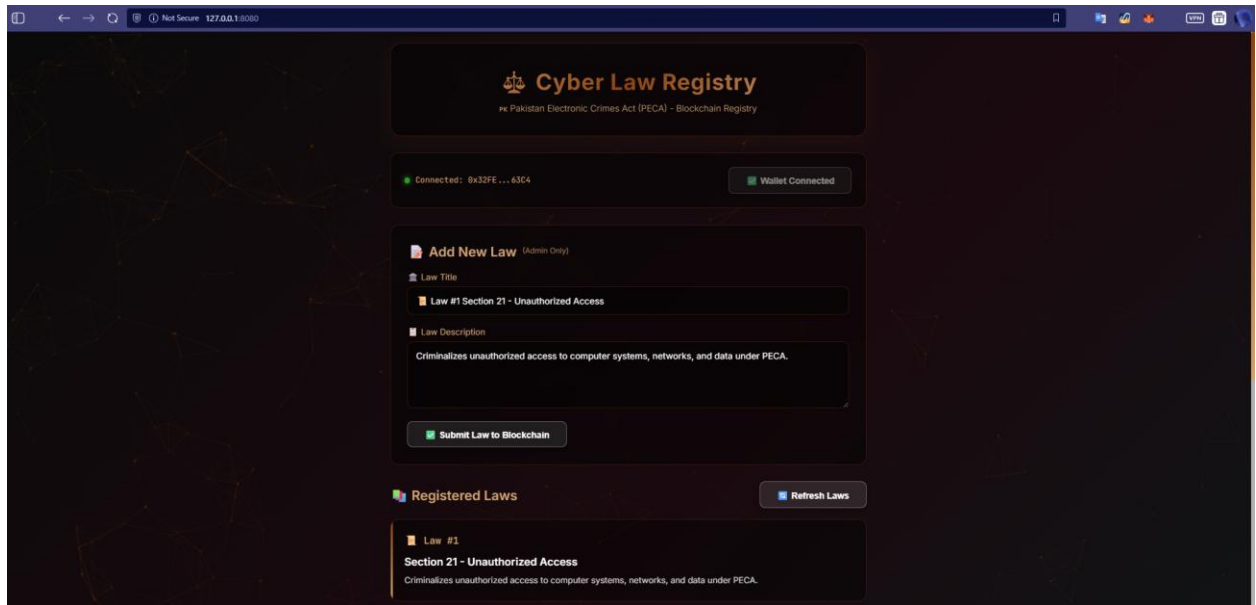


After User clicks “Connect Wallet”:



Bonus: Working on Multiple Contracts/Laws (MetaMask Transaction Confirmation):

7) Frontend – Connected & Adding Laws:



8) **Bonus:** After User selects “Refresh Laws”, all Registered Laws are shown:

