## ECO5073S-Fintech & Cryptocurrencies

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Git link: https://github.com/Mukandangalo/Crypto-Tutotials

#### Practical 2

### 1. Generating an account

```
TERMINAL PROBLEMS OUTPUT PORTS DEBUG CONSOLE
  PS C:\Users\mmbkhu001\Documents\MPHIL\Crypto\tut a1> & C:\Users\mmbkhu001/AppData/Local/Microsoft/WindowsApps/python3.11.exe c:\Users/mmbkhu001/Documents
• /MPHIL/Crypto/tuts/generate_account.py
My private key is: 6WJ60kVRX6DJ2eL6t033Rd/vr7P0U9y4iQGP7qmpov2FH5/Q9Ep3EHxDH3Lazfp6L450Cbj6QhX1SmxOVHCBug==
  My public address is: QUOS7UHUJJ3RA7CDD5ZNVTP2PIXY45AJXD5EEFPVJJWE4VDQQG5H2OF2EI
My Mnemonic phrase is: frog trumpet outdoor begin salt gym soft tissue palm replace winner violin text typical pitch fault breeze cheap liar trophy fati
  gue price unfair abstract venue
The address is valid!
```

## 2. Transferring funds

```
PS C:\Users\mmbkhu001\Documents\MPHIL\Crypto\tut a1> & C:\Users\mmbkhu001/AppData/Local/Microsoft\WindowsApps/python3.11.exe c:\Users\mmbkhu001/Documents \MPHIL\Crypto\vac/transaction_api.py
Address: FR53DWWJJICTZTK24Q44FCRBMPUQ2R3BXURDWJMLPC655SOCVPDVLVLU
Successfully submitted transaction with txID: NSUKHXFHOHSLSL527E5VZRT6QTO5HHZPQ7VWHNMMX4S73P3VUPRQ
   Successfully submitted transaction with txID: NSUKHXFHOHSLSL527ESVZRT6QT05HHZPQ7VWHWMPX4S73P3VUPRQ
Transaction information: {
  "confirmed-round": 41029431,
  "pool-error": "",
  "txn": {
    "sig": "C9FIPVrF3UGGZSocVp0A1j09/QvtNy0ArWXX/mrrLd8pHDeYb0CPRY6t/GkIviU8oWG3Nt/MgC8gEWV2QtT6BQ==",
    "txn": {
        "amt": 1000000,
        "Cs": 1000000,
                                     "amt": 1000000,
"fo": 41029429,
"gen": "testnet-v1.0",
"gh": "ScolGKSzyFIIEPITTXCByw9x8FmnrCDexi9/cOUJOII=",
"lv": 41030429,
"note": "TXkgbG99hBiBiYwXhbmNl",
"rcv": "FRS35DWHJIJCTZTKZ4Q44FCRBNPUQZR3BXURDMH3MLPC655SOCVPDVLVLU",
"snd": "FRS35DWHJIJCTZTKZ4Q44FCRBNPUQZR3BXURDMH3MLPC655SOCVPDVLVLU",
                                      "type": "pay"
               }
    Decoded note: b'My loan balance'
```

# 3. Creating NFT

```
PS C:\Users\mmbkhu001\Documents\MPHIL\Crypto\tut a1> & C:/Users/mmbkhu001/AppData/Local/Hicrosoft/WindowsApps/python3.11.exe "c:/Users/mmbkhu001/Document
  s/MPHIL/Crypto/Assignment 1/tutorials/create_nft-1 (1).py"
Address: 5J3AWRJOJKUQCZ7UILQJSEGJ2U4SI27MHHY3VTDRUFQY5JYINF4UMONH2Y
  Sent asset create transaction with txid: TC5RRSLCEG2I6SFB6EOKIS3GM775OTA4QUCIMMR67UPZRRTQ3UFA Result confirmed in round: 41029553
  Asset ID created: 682200640
Asset Name: Digital Dollar
  Asset params: ['clawback', 'creator', 'decimals', 'default-frozen', 'freeze', 'manager', 'name', 'name-b64', 'reserve', 'total', 'unit-name' h64', 'un'l', 'url-b64']
Sent opt in transaction with txid: GOAHIE2K474WCX6PZRUB6QGEH4QGZMNE7RA53U67HR56UDEN7Q3Q
  Result confirmed in round: 41029555
Sent transfer transaction with txid: 32V42JTZW7ROBILMMLZCJTF5CXR40JHNL6066DH25CEJ77DYA2LQ
 Result confirmed in round: 41029558
PS C:\Users\mmbkhu001\Documents\MPHIL\Crypto\tut a1>
```