In [1]:
```
pip install bitcoinlib
```

```
Collecting bitcoinlib
  Downloading bitcoinlib-0.6.7-py3-none-any.whl (316 kB)
Requirement already satisfied: SQLAlchemy>=1.4.28 in c:\users\cathe\anaconda3\lib
\site-packages (from bitcoinlib) (1.4.32)
Requirement already satisfied: numpy>=1.21.0 in c:\users\cathe\anaconda3\lib\site-
packages (from bitcoinlib) (1.21.5)
Requirement already satisfied: pycryptodome>=3.14.1 in c:\users\cathe\anaconda3\li
b\site-packages (from bitcoinlib) (3.16.0)
Requirement already satisfied: requests>=2.25.0 in c:\users\cathe\anaconda3\lib\si
te-packages (from bitcoinlib) (2.27.1)
Collecting ecdsa>=0.17
  Downloading ecdsa-0.18.0-py2.py3-none-any.whl (142 kB)
Requirement already satisfied: six>=1.9.0 in c:\users\cathe\anaconda3\lib\site-pac
kages (from ecdsa>=0.17->bitcoinlib) (1.16.0)
Requirement already satisfied: charset-normalizer~=2.0.0 in c:\users\cathe\anacond
a3\lib\site-packages (from requests>=2.25.0->bitcoinlib) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\cathe\anaconda3\lib\site-p
ackages (from requests>=2.25.0->bitcoinlib) (3.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\cathe\anaconda3\l
ib\site-packages (from requests>=2.25.0->bitcoinlib) (1.26.9)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\cathe\anaconda3\lib
\site-packages (from requests>=2.25.0->bitcoinlib) (2021.10.8)
Requirement already satisfied: greenlet!=0.4.17 in c:\users\cathe\anaconda3\lib\si
te-packages (from SQLAlchemy>=1.4.28->bitcoinlib) (1.1.1)
Installing collected packages: ecdsa, bitcoinlib
Successfully installed bitcoinlib-0.6.7 ecdsa-0.18.0
Note: you may need to restart the kernel to use updated packages.
```

In [3]:
```python
# my key -dont rerun 1KqU77xhQSB1ycThmsNvpHT3EWjpQ47ed5
from bitcoinlib.wallets import Wallet
w=Wallet.create('Wallet1')
key1=w.get_key()
key1.address
```

Out[3]:
```
'1KqU77xhQSB1ycThmsNvpHT3EWjpQ47ed5'
```

In [4]:
```python
w.scan()
w.info()
```

```
=== WALLET ===
 ID                          1
 Name                        Wallet1
 Owner
 Scheme                      bip32
 Multisig                    False
 Witness type                legacy
 Main network                bitcoin
 Latest update               2023-01-05 16:33:47.138716

= Wallet Master Key =
 ID                          1
 Private                     True
 Depth                       0

- NETWORK: bitcoin -
- - Keys
    6 m/44'/0'/0'/0/0           1KqU77xhQSB1ycThmsNvpHT3EWjpQ47ed5           a
ddress index 0                    0.00000000 ฿
    7 m/44'/0'/0'/0/1           1EwFSNDmzWYE5YBaaR1CNXfcPNnaon4SGJ           a
ddress index 1                    0.00000000 ฿
    8 m/44'/0'/0'/0/2           1ARTB9bWiWSzvnhVKxfcJpfPK7EcF9QdvA           a
ddress index 2                    0.00000000 ฿
    9 m/44'/0'/0'/0/3           1KM1aQG8kcQKLSuVNBcvgNJYDLLvWoFub6           a
ddress index 3                    0.00000000 ฿
   10 m/44'/0'/0'/0/4           1BPeRBBkBk2dV4PDF3WiLjzw9qE9HwC9Ue           a
ddress index 4                    0.00000000 ฿
   12 m/44'/0'/0'/1/0           1E4MWQBBULXB6ABQJqga5XUFMhhLj9mcwq           a
ddress index 0                    0.00000000 ฿
   13 m/44'/0'/0'/1/1           1Dh9oaPYcYUGuCSfA1XdQgxiR2Fdd54jTu           a
ddress index 1                    0.00000000 ฿
   14 m/44'/0'/0'/1/2           15nuLTrYEKRNDaPcWN9u5aoLq3UfXXZKkA           a
ddress index 2                    0.00000000 ฿
   15 m/44'/0'/0'/1/3           1CRVjsbkwWntYczNXvo9Nx1VLjAZxybmu3           a
ddress index 3                    0.00000000 ฿
   16 m/44'/0'/0'/1/4           1PoWvrbx4L3EuPkJpdEoJrrGvxcDD474Bv           a
ddress index 4                    0.00000000 ฿

- - Transactions Account 0 (0)

= Balance Totals (includes unconfirmed) =
```

In [5]:
```python
#    1PBmsaavmtsKxyunLHfqNVCRaB2ojF5MZS
from bitcoinlib.wallets import Wallet
w2=Wallet.create('Wallet2')
key2=w2.get_key()
key2.address
```

Out[5]: '1PBmsaavmtsKxyunLHfqNVCRaB2ojF5MZS'

In [6]:
```python
w2.scan()
w2.info()
```

```
=== WALLET ===
 ID                          2
 Name                        Wallet2
 Owner
 Scheme                      bip32
 Multisig                    False
 Witness type                legacy
 Main network                bitcoin
 Latest update               2023-01-05 16:43:52.185901

= Wallet Master Key =
 ID                          17
 Private                     True
 Depth                       0

- NETWORK: bitcoin -
- - Keys
    22 m/44'/0'/0'/0/0           1PBmsaavmtsKxyunLHfqNVCRaB2ojF5MZS        a
ddress index 0                     0.00000000 ฿
    23 m/44'/0'/0'/0/1           1A7BVxeZNU4o3xfKaKSwNyvWLdpq2uqjGP        a
ddress index 1                     0.00000000 ฿
    24 m/44'/0'/0'/0/2           1PWm1PxCLQEaZjtMR3zVwRtZwsRWMkcKft        a
ddress index 2                     0.00000000 ฿
    25 m/44'/0'/0'/0/3           1Hnd16ER26od1MvuUh1VzxxaTZAsHPE2tt        a
ddress index 3                     0.00000000 ฿
    26 m/44'/0'/0'/0/4           1LxzDomSgsftFVaMRWXiYmfGpksfS8dUmU        a
ddress index 4                     0.00000000 ฿
    28 m/44'/0'/0'/1/0           1ETn22FZoacTfsR8CRApwfabvSeoP95pEj        a
ddress index 0                     0.00000000 ฿
    29 m/44'/0'/0'/1/1           1Mq74EMrRyJbaJGmFvn7FUQY7L7tN8Vbzi       a
ddress index 1                     0.00000000 ฿
    30 m/44'/0'/0'/1/2           1NSS2uSFeQ9egmfpXMmyQbkwJnYVYwFfSs       a
ddress index 2                     0.00000000 ฿
    31 m/44'/0'/0'/1/3           18mt3TdfRTP51FfbSh9QBhiaWvUUPBmqkr        a
ddress index 3                     0.00000000 ฿
    32 m/44'/0'/0'/1/4           18a8eL38c6LZSRzzWmi7Ysw3yAVJmjyF58        a
ddress index 4                     0.00000000 ฿

- - Transactions Account 0 (0)

= Balance Totals (includes unconfirmed) =
```

In [10]:
```python
t=w2.send_to('1KqU77xhQSB1ycThmsNvpHT3EWjpQ47ed5','0 BTC')
t.info
```

```
----------------------------------------------------------------------------
WalletError                               Traceback (most recent call last)
Input In [10], in <cell line: 1>()
----> 1 t=w2.send_to('1KqU77xhQSB1ycThmsNvpHT3EWjpQ47ed5','0 BTC')
      2 t.info

File ~\anaconda3\lib\site-packages\bitcoinlib\wallets.py:3936, in Wallet.send_to(s
elf, to_address, amount, input_key_id, account_id, network, fee, min_confirms, pri
v_keys, locktime, offline, number_of_change_outputs)
   3897 """
   3898 Create transaction and send it with default Service objects :func:`service
s.sendrawtransaction` method.
   3899
   (...)
   3932 :return WalletTransaction:
   3933 """
   3935 outputs = [(to address, amount)]
-> 3936 return self.send(outputs, input_key_id=input_key_id, account_id=account_i
d, network=network, fee=fee,
   3937                  min_confirms=min_confirms, priv_keys=priv_keys, locktime=
locktime, offline=offline,
   3938                  number_of_change_outputs=number_of_change_outputs)

File ~\anaconda3\lib\site-packages\bitcoinlib\wallets.py:3871, in Wallet.send(sel
f, output_arr, input_arr, input_key_id, account_id, network, fee, min_confirms, pr
iv_keys, max_utxos, locktime, offline, number_of_change_outputs)
   3867 if input_arr and max_utxos and len(input_arr) > max_utxos:
   3868     raise WalletError("Input array contains %d UTXO's but max_utxos=%d par
ameter specified" %
   3869                  (len(input_arr), max_utxos))
-> 3871 transaction = self.transaction_create(output_arr, input_arr, input_key_id,
account_id, network, fee,
   3872                                       min_confirms, max_utxos, locktime, n
umber_of_change_outputs)
   3873 transaction.sign(priv_keys)
   3874 # Calculate exact fees and update change output if necessary

File ~\anaconda3\lib\site-packages\bitcoinlib\wallets.py:3536, in Wallet.transacti
on_create(self, output_arr, input_arr, input_key_id, account_id, network, fee, min
_confirms, max_utxos, locktime, number_of_change_outputs, random_output_order)
   3534 amount_total_input = 0
   3535 if input_arr is None:
-> 3536     selected utxos = self.select_inputs(amount_total_output + fee_estimat
e, transaction.network.dust amount,
   3537                                         input_key_id, account_id, network,
min_confirms, max_utxos, False)
   3538     if not selected_utxos:
   3539         raise WalletError("Not enough unspent transaction outputs found")

File ~\anaconda3\lib\site-packages\bitcoinlib\wallets.py:3389, in Wallet.select_in
puts(self, amount, variance, input_key_id, account_id, network, min_confirms, max_
utxos, return_input_obj, skip_dust_amounts)
   3387 utxos = utxo_query.order_by(DbTransaction.confirmations.desc()).all()
   3388 if not utxos:
-> 3389     raise WalletError("Create transaction: No unspent transaction outputs
found or no key available for UTXO's")
   3391 # TODO: Find 1 or 2 UTXO's with exact amount +/- self.network.dust_amount
   3392
   3393 # Try to find one utxo with exact amount
   3394 one_utxo = utxo_query.filter(DbTransactionOutput.spent.is_(False),
   3395                              DbTransactionOutput.value >= amount,
   3396                              DbTransactionOutput.value <= amount + varianc
e).first()
```

WalletError: Create transaction: No unspent transaction outputs found or no key available for UTXO's

In [ ]:

WalletError: Create transaction: No unspent transaction outputs found or no key available for UTXO's

In [ ]: