In [ ]:
```
## Need to add your own Infura address. Can create account
## with free 100k API daily calls
```

In [ ]:
```
INFURA_ID = 'INSERT YOUR ID'
%set_env WEB3_INFURA_PROJECT_ID = INFURA_ID
from web3 import Web3
from web3.auto.infura import w3
w3 = Web3(Web3.HTTPProvider('INSERT YOUR ID'))
```

In [ ]:
```
from ens.auto import ns
from ens import ENS

provider = Web3.HTTPProvider('INSERT YOUR INFURE MAINNET ADDDRESS')
ns = ENS(provider)

w3.isConnected()
```

In [ ]:
```
## Create list of all possible 3-char addresses
## (excludes numbers which are also allowed)
```

In [ ]:
```
domains = []

i = 0
from string import ascii_lowercase
for x in ascii_lowercase:
    for y in ascii_lowercase:
        for z in ascii_lowercase:
            a=""
            a += x
            a += y
            a += z
            a += ".eth"
            domains.append(a)
```

In [ ]:
```
## Checking which addresses have owners
```

In [ ]:
```
ownerList = []
for i in range(0,len(domains)):
    ownerList.append(ns.owner(domains[i]))
```

In [ ]:
```
l = len(domains)
MatrixOwners = [[0 for x in range(2)] for y in range(l)]
```

In [ ]:
```
for i in range(len(domains)):
    MatrixOwners[i][0] = domains[i]
    if i < len(ownerList):
        MatrixOwners[i][1] = ownerList[i]
```

In [ ]:
```
## Output 2-column csv with domains & owners addresses
```

In [ ]:
```
dataframe_Owners= pandas.DataFrame(MatrixOwners)
```

In [ ]:
```
dataframe_Owners.to_csv("~/Desktop/ENS_3char_Domains_Owners.csv")
```