

Bin folder is should be added to the network folder

If the access is denied to the automation scripts,

Try

```
sudo chmod +x filename.sh
```

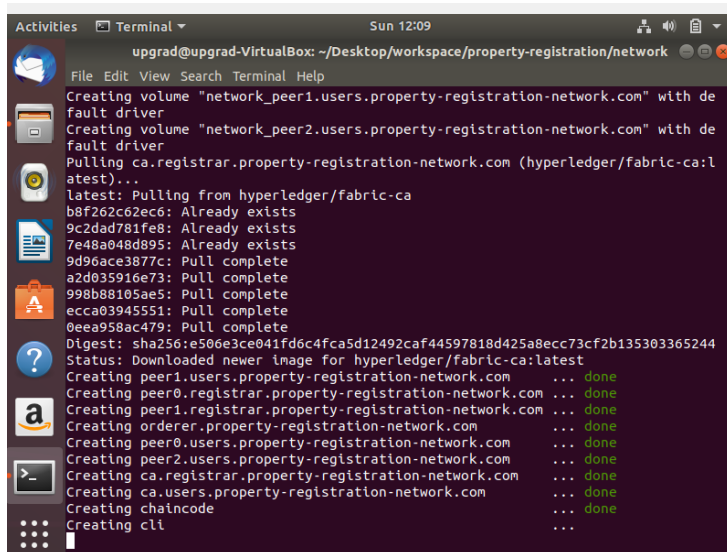
that will make the script executable

1)Start the process by generating certificates

```
./fabricNetwork.sh generate
```

2)Start the network by using

```
./fabricNetwork.sh up
```



```
upgrad@upgrad-VirtualBox: ~/Desktop/workspace/property-registration/network
File Edit View Search Terminal Help
Creating volume "network_peer1.users.property-registration-network.com" with de
fault driver
Creating volume "network_peer2.users.property-registration-network.com" with de
fault driver
Pulling ca.registrar.property-registration-network.com (hyperledger/fabric-ca:l
atest)...
latest: Pulling from hyperledger/fabric-ca
b8f262c62ec6: Already exists
9c2dad781fe8: Already exists
7e48a048d895: Already exists
9d96ace3877c: Pull complete
a2d035916e73: Pull complete
998b88105ae5: Pull complete
ecca03945551: Pull complete
0eea958ac479: Pull complete
Digest: sha256:e506e3ce041fd6c4fca5d12492caf44597818d425a8ecc73cf2b135303365244
Status: Downloaded newer image for hyperledger/fabric-ca:latest
Creating peer1.users.property-registration-network.com ... done
Creating peer0.registrar.property-registration-network.com ... done
Creating peer1.registrar.property-registration-network.com ... done
Creating orderer.property-registration-network.com ... done
Creating peer0.users.property-registration-network.com ... done
Creating peer2.users.property-registration-network.com ... done
Creating ca.registrar.property-registration-network.com ... done
Creating ca.users.property-registration-network.com ... done
Creating chaincode ... done
Creating cli ...
```

3)once all the containers are up and running, install the certificates by using

```
./fabricNetwork.sh install
```

```
Activities Terminal Sun 13:50
upgrad@upgrad-VirtualBox: ~/Desktop/workspace/property-registration/network

upgrad@upgrad-VirtualBox:~/Desktop/workspace/property-registration/network$ ./fabricNetwork.sh install
Installing chaincode for channel 'registrationchannel' with CLI timeout of '15'
seconds and CLI delay of '5' seconds and chaincode version '1.1'
Continue? [Y/n] Y
proceeding ...
LOCAL_VERSION=1.4.2
DOCKER_IMAGE_VERSION=1.4.4
===== WARNING =====
Local fabric binaries and docker images are
out of sync. This may cause problems.
=====

START

Deploying Chaincode On Property Registration Network

Channel name : registrationchannel
Installing chaincode on peer0.registrar.property-registration-network.com.com .
..
+ peer chaincode install -n propnet -v 1.1 -l node -p /opt/gopath/src/github.co
n/hyperledger/fabric/peer/chaincode/
```

```
Activities Terminal Sun 13:50
upgrad@upgrad-VirtualBox: ~/Desktop/workspace/property-registration/network

2020-01-05 08:03:49.342 UTC [chaincodeCmd] checkChaincodeCmdParams -> INFO 002
Using default vscc
2020-01-05 08:03:50.251 UTC [chaincodeCmd] install -> INFO 003 Installed remote
ly response:<status:200 payload:"OK" >
===== (propnet) Chaincode is installed on peer0.registrar =====
=====

Installing chaincode on peer1.registrar.property-registration-network.com.com .
..
+ peer chaincode install -n propnet -v 1.1 -l node -p /opt/gopath/src/github.co
n/hyperledger/fabric/peer/chaincode/
+ res=0
+ set +x
2020-01-05 08:03:50.884 UTC [chaincodeCmd] checkChaincodeCmdParams -> INFO 001
Using default vscc
2020-01-05 08:03:50.884 UTC [chaincodeCmd] checkChaincodeCmdParams -> INFO 002
Using default vscc
2020-01-05 08:03:50.961 UTC [chaincodeCmd] install -> INFO 003 Installed remote
ly response:<status:200 payload:"OK" >
===== (propnet) Chaincode is installed on peer1.registrar =====
=====

Installing chaincode on peer0.users.property-registration-network.com.com ...
+ peer chaincode install -n propnet -v 1.1 -l node -p /opt/gopath/src/github.co
n/hyperledger/fabric/peer/chaincode/
+ res=0
+ set +x
2020-01-05 08:03:51.317 UTC [chaincodeCmd] checkChaincodeCmdParams -> INFO 001
Using default vscc
```

4)if you get error while instantiating, do it manually by using the command

SSH into the CLI container

```
docker exec -it cli /bin/bash
```

Update the environmental variables;

```
CORE_PEER_LOCALMSPID="registrarMSP"
CORE_PEER_MSPCONFIGPATH=/opt/gopath/src/github.com/hyperledger/fabric/peer/crypto/peerOrganizations/registrar.property-registration-network.com/users/Admin@registrar.property-registration-network.com/msp
CORE_PEER_ADDRESS=peer0.registrar.property-registration-network.com:7051
```

Now instantiate using:

```
peer chaincode instantiate -o orderer.property-registration-network.com:7050 -C registrationchannel -n propnet -l node -v 1.1 -c '{"Args":["org.property-registration-network.propnet:instantiate"]}' -P "OR('registrarMSP.member')"
```

after running screen should look as follow



```
2019-09-24 10:33:20.475 UTC [chaincodeCmd] checkChaincodeCmdParams -> INFO 001 Using default escc
2019-09-24 10:33:20.477 UTC [chaincodeCmd] checkChaincodeCmdParams -> INFO 002 Using default vsc
root@14dae21a166b:/opt/gopath/src/github.com/hyperledger/fabric/peer#
```

5) now access the functions

Request new users: open a new terminal window and

```
docker exec it peer0.users.property-registration-network.com /bin/bash
```

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationchannel -n propnet -c '{"Args":["org.property-registration-network.propnet:requestNewUser","JohnSnow","connect@JohnSnow.com","8392399242","12345678911"]}'
```

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet:requestNewUser
","Joe Barnes","connect@JoeBarnes.com","8392399232","12345678910"]}'
```

approveNewUser:

Go to peer0 of registrar and invoke the approve user function by typing
open a new terminal window and

```
docker exec it peer0.registrar.property-registration-network.com /bin/bash
```

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: approveNewUser
","Joe Barnes","12345678910"]}'
```

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: approveNewUser
","JohnSnow","12345678911"]}'
```

rechargeAccount :

go to the peer0 of the user and invoke the **rechargeAccount** function by using

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: rechargeAccoun
t ","JohnSnow","12345678911","upg1000"]}'
```

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: rechargeAccount
","Joe Barnes","12345678910","upg1000"]}'
```

propertyRegistrationRequest :

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: propertyRegistrati
onRequest","10001","500","onSale","JohnSnow","12345678911","upg1000"]}'
```

approvePropertyRegistration:

to approve the property request again go back to the terminal with peer0 of registrar open and invoke the following function

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: approvePropertyR
egistration","10001"]}'
```

updateProperty:

go back to the user peer0 to invoke the update property function using

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: updateProperty",
"10001","JohnSnow","12345678911","onSale"]}'
```

purchaseProperty

can invoke this function using the user peer0

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: updateProperty",
"10001","Joe Barnes","12345678910"]}'
```

View user

Using this function for viewing a registered user can

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: viewUser","Joe
Barnes","12345678910"]}'
```

viewProperty

using this function for viewing approved property

```
peer chaincode invoke -o orderer.property-registration-network.com:7050 -C registrationc
hannel -n propnet -c '{"Args":["org.property-registration-network.propnet: viewProperty","1
0001"]}'
```

