Install the Chaincode

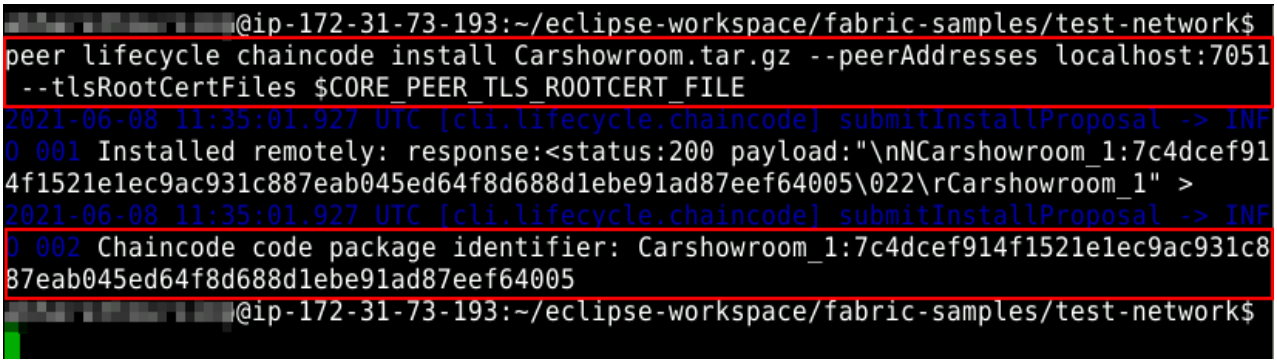
Steps to be followed:

1. Installing chaincode on Org1
2. Installing chaincode on Org2
3. Querying the installed chaincode on Org1 and Org2
4. Downloading the installed chaincode from the Org1

Step 1: Installing chaincode on Org1

1.1 Run the following command to install the chaincode on Org1:

peer lifecycle chaincode install Carshowroom.tar.gz --peerAddresses localhost:7051 --tlsRootCertFiles $CORE_PEER_TLS_ROOTCERT_FILE



> **NOTE:** In case of **Permission denied** error, use the following command: ***sudo chmod -R 777 .***
>
> If the installation is successful, the **Chaincode code package identifier** is shown in the output.

Step 2: Installing chaincode on Org2

2.1 Navigate to **fabric-samples/test-network** folder and create **lifecycle_setup_org2.sh** life using the following command:

nano lifecycle_setup_org2.sh

NOTE: Open another **Terminal** window to install **Org2**.

2.2 Write the following code in the lifecycle_setup.sh file and save it:

#!/bin/sh

export PATH=${PWD}/../bin:${PWD}:$PATH

export FABRIC_CFG_PATH=$PWD/../config/

 # Environment variables for Org2

export CORE_PEER_TLS_ENABLED=true

export CORE_PEER_LOCALMSPID="Org2MSP"

export CORE_PEER_TLS_ROOTCERT_FILE=${PWD}/organizations/peerOrganizations/org2.example.com/peers/peer0.org2.example.com/tls/ca.crt

export CORE_PEER_MSPCONFIGPATH=${PWD}/organizations/peerOrganizations/org2.example.com/users/Admin@org2.example.com/msp

export CORE_PEER_ADDRESS=localhost:9051

export ORDERER_CA=${PWD}/organizations/ordererOrganizations/example.com/orderers/orderer.example.com/msp/tlscacerts/tlsca.example.com-cert.pem

```
 GNU nano 2.5.3              File: lifecycle_setup_org2.sh                  Modified

#!/bin/sh

export PATH=${PWD}/../bin:${PWD}:$PATH

export FABRIC_CFG_PATH=$PWD/../config/


# Environment variables for Org2

export CORE_PEER_TLS_ENABLED=true

export CORE_PEER_LOCALMSPID="Org2MSP"

export CORE_PEER_TLS_ROOTCERT_FILE=${PWD}/organizations/peerOrganizations/org2.example.co$

export CORE_PEER_MSPCONFIGPATH=${PWD}/organizations/peerOrganizations/org2.example.com/us$

export CORE_PEER_ADDRESS=localhost:9051

export ORDERER_CA=${PWD}/organizations/ordererOrganizations/example.com/orderers/orderer.$

^G Get Help  ^O Write Out  ^W Where Is  ^K Cut Text  ^J Justify  ^C Cur Pos
^X Close     ^R Read File  ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line
```

2.3 To set up all required environment variables, go to the **fabric-samples/test-network** and run the **lifecycle_setup.sh** file using the command:

source ./lifecycle_setup_org2.sh

```
[redacted]@ip-172-31-73-193:~/eclipse-workspace/fabric-samples/test-network
$ nano lifecycle_setup_org2.sh .sh
[redacted]@ip-172-31-73-193:~/eclipse-workspace/fabric-samples/test-network$
source ./lifecycle_setup_org2.sh
[redacted]@ip-172-31-73-193:~/eclipse-workspace/fabric-samples/test-network$
```

2.4 The command to install your chaincode:

peer lifecycle chaincode install Carshowroom.tar.gz --peerAddresses localhost:9051 --tlsRootCertFiles $CORE_PEER_TLS_ROOTCERT_FILE

```
[redacted]@ip-172-31-73-193:~/eclipse-workspace/fabric-samples/test-network$
peer lifecycle chaincode install Carshowroom.tar.gz --peerAddresses localhost:9051
 --tlsRootCertFiles $CORE_PEER_TLS_ROOTCERT_FILE
2021-06-08 11:55:19.404 UTC [cli.lifecycle.chaincode] submitInstallProposal -> INF
O 001 Installed remotely: response:<status:200 payload:"\nNCarshowroom_1:7c4dcef91
4f1521e1ec9ac931c887eab045ed64f8d688d1ebe91ad87eef64005\022\rCarshowroom_1" >
2021-06-08 11:55:19.404 UTC [cli.lifecycle.chaincode] submitInstallProposal -> INF
O 002 Chaincode code package identifier: Carshowroom_1:7c4dcef914f1521e1ec9ac931c8
87eab045ed64f8d688d1ebe91ad87eef64005
[redacted]@ip-172-31-73-193:~/eclipse-workspace/fabric-samples/test-network$
```

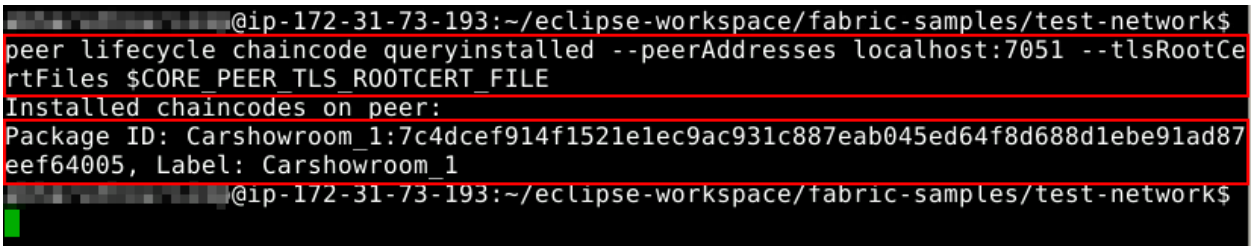
NOTE: In case of **Permission denied** error, use the following command: ***sudo chmod -R 777 .***

If the installation is successful, the **Chaincode code package identifier** is shown in the output.

Step 3: Querying the installed chaincode on Org1 and Org2

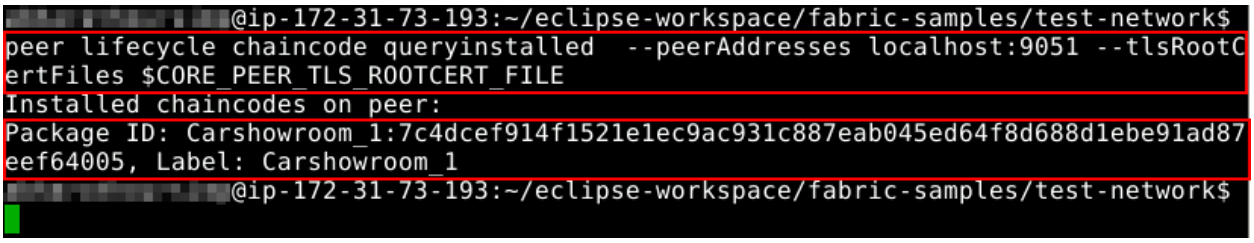
3.1 Run the following command to query the installed chaincode on org1:

peer lifecycle chaincode queryinstalled --peerAddresses localhost:7051 --tlsRootCertFiles $CORE_PEER_TLS_ROOTCERT_FILE



3.2 Run the following command to query the installed chaincode on Org2:

peer lifecycle chaincode queryinstalled --peerAddresses localhost:9051 --tlsRootCertFiles $CORE_PEER_TLS_ROOTCERT_FILE



Note: The chaincode **Package ID** will be the same for both Org1 and Org2 because the same package is installed. Copy the Package ID for the next step

Step 4: Downloading the installed chaincode from Org1

4.1 Replace the Package ID copied from Step 3.1 in the following command and run it:

peer lifecycle chaincode getinstalledpackage --package-id Carshowroom_1:7c4dcef914f1521e1ec9ac931c887eab045ed64f8d688d1ebe91ad87eef64005 --output-directory . --peerAddresses localhost:7051 --tlsRootCertFiles $CORE_PEER_TLS_ROOTCERT_FILE