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Class: LY IT Core

Assignment No. 1: Create Hyperledger Fabric Network

Create a file name Hyperledger.sh and write following code in it

```
sudo apt-get update
sudo apt-get install ca-certificates curl gnupg

sudo install -m 0755 -d /etc/apt/keyrings curl -fsSL
https://download.docker.com/linux/ubuntu/gpg | sudo gpg -- dearmor -o
/etc/apt/keyrings/docker.gpg sudo chmod a+r
/etc/apt/keyrings/docker.gpg

echo \
  "deb [arch="$(dpkg --print-architecture)" signed-
by=/etc/apt/keyrings/docker.gpg]
https://download.docker.com/linux/ubuntu \
  "$(. /etc/os-release && echo "$VERSION_CODENAME")" stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null


sudo apt-get update

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-
buildx-plugin docker-compose-plugin

sudo curl -L
"https://github.com/docker/compose/releases/download/1.29.2/docker-
compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose


sudo chmod +x /usr/local/bin/docker-compose

sudo docker-compose --version

sudo chmod 777 /var/run/docker.sock

curl -sSL https://bit.ly/2ysbOFE | bash -s -- 2.2.13 1.5.6
```
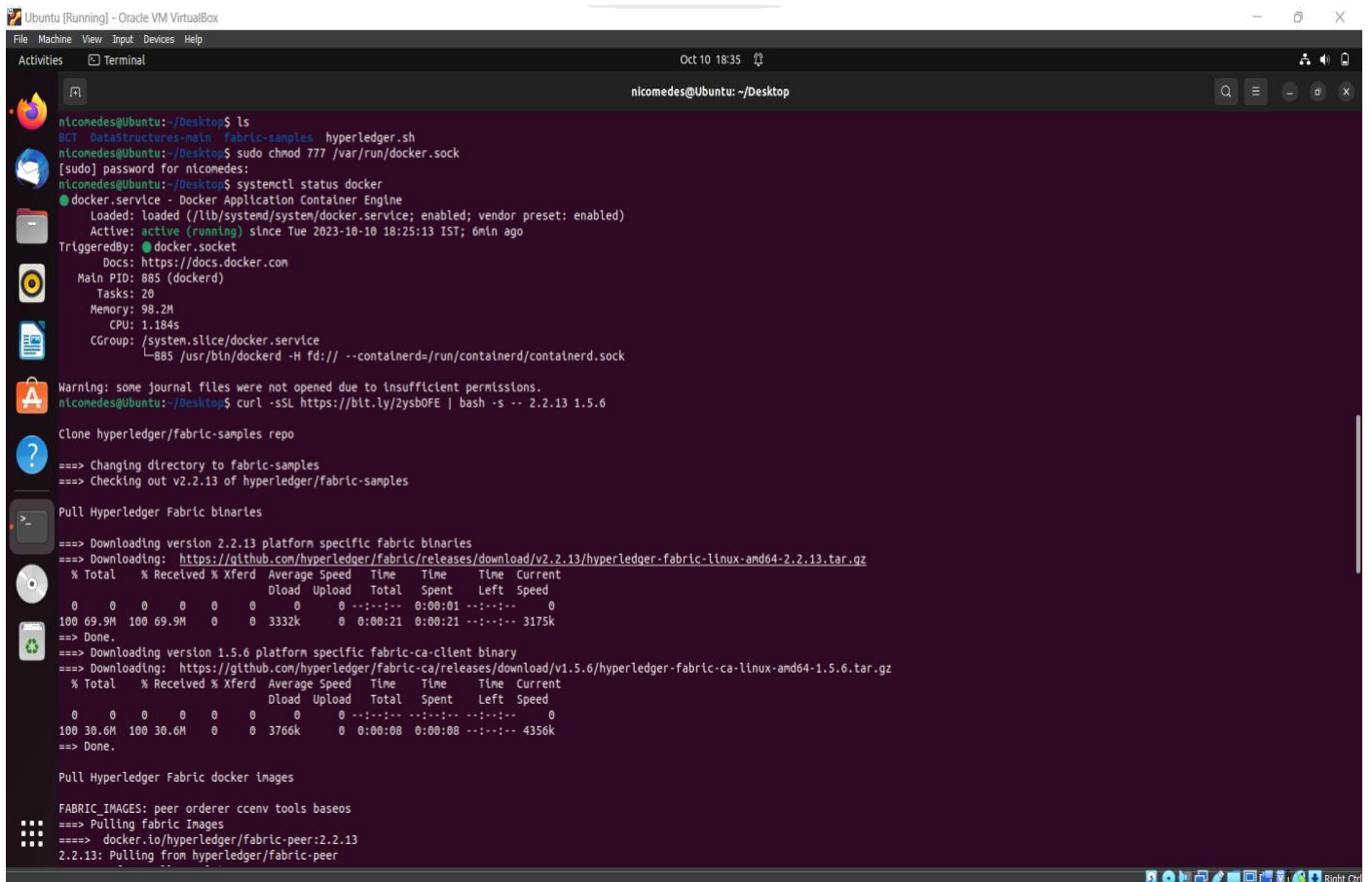
Open terminal in ubuntu and execute following commands

```
sudo chmod 777 /var/run/docker.sock

curl -sSL https://bit.ly/2ysbOFE | bash -s -- 2.2.13 1.5.6
```

```
7f9bcf943fa5: Already exists
9fd371fdf0be: Already exists
add974993529: Already exists
f834ffe3c7bc: Pull complete
51e80c1924a0: Pull complete
477df71212cd: Pull complete
Digest: sha256:d43712d9846cea109231add5aa56aaef7099c8d12d63c45b4c4bc7a40e5be0d5
Status: Downloaded newer image for hyperledger/fabric-tools:2.2.13
docker/hyperledger/fabric-tools:2.2.13
====> docker.io/hyperledger/fabric-baseos:2.2.13
2.2.13: Pulling from hyperledger/fabric-baseos
31e352740f53: Already exists
6789e237b8e1: Already exists
9997ed43508b: Pull complete
Digest: sha256:a7919958b1912e0cb160dfcae0951e961e33f80dbda7930cd834cdccf800a3a2
Status: Downloaded newer image for hyperledger/fabric-baseos:2.2.13
docker.io/hyperledger/fabric-baseos:2.2.13
===> Pulling fabric ca Image
====> docker.io/hyperledger/fabric-ca:1.5.6
1.5.6: Pulling from hyperledger/fabric-ca
Digest: sha256:c5c6dfa2d1d4cdee4d22dbfdd928506a9504931e53f60468e0efbad3773f9d30
Status: Image is up to date for hyperledger/fabric-ca:1.5.6
docker.io/hyperledger/fabric-ca:1.5.6
===> List out hyperledger docker images
hyperledger/fabric-tools     2.2      878e8666fcfc   2 months ago   385MB
hyperledger/fabric-tools     2.2.13   878e8666fcfc   2 months ago   385MB
hyperledger/fabric-tools     latest   878e8666fcfc   2 months ago   385MB
hyperledger/fabric-peer      2.2      addc52b52407   2 months ago   55.7MB
hyperledger/fabric-peer      2.2.13   addc52b52407   2 months ago   55.7MB
hyperledger/fabric-peer      latest   addc52b52407   2 months ago   55.7MB
hyperledger/fabric-orderer   2.2      71805c71c4fb   2 months ago   36.9MB
hyperledger/fabric-orderer   2.2.13   71805c71c4fb   2 months ago   36.9MB
hyperledger/fabric-orderer   latest   71805c71c4fb   2 months ago   36.9MB
hyperledger/fabric-ccenv     2.2      149cc8353c4b   2 months ago   499MB
hyperledger/fabric-ccenv     2.2.13   149cc8353c4b   2 months ago   499MB
hyperledger/fabric-ccenv     latest   149cc8353c4b   2 months ago   499MB
hyperledger/fabric-baseos    2.2      1d0c755f6a1e   2 months ago   8.49MB
hyperledger/fabric-baseos    2.2.13   1d0c755f6a1e   2 months ago   8.49MB
hyperledger/fabric-baseos    latest   1d0c755f6a1e   2 months ago   8.49MB
hyperledger/fabric-tools     2.2.12   7b5a7c6c16dd   4 months ago   385MB
hyperledger/fabric-peer      2.2.12   a0a206b0f43c   4 months ago   54MB
hyperledger/fabric-orderer   2.2.12   88c464bad593   4 months ago   35.2MB
hyperledger/fabric-ccenv     2.2.12   a4c010c07d9b   4 months ago   444MB
hyperledger/fabric-baseos    2.2.12   c4f8a3b482a2   4 months ago   6.8MB
hyperledger/fabric-ca        1.5      8446b174e2a9   6 months ago   209MB
hyperledger/fabric-ca        1.5.6    8446b174e2a9   6 months ago   209MB
hyperledger/fabric-ca        latest   8446b174e2a9   6 months ago   209MB
nicomedes@Ubuntu:~/Desktop$
```



```
===> Pulling fabric ca Image
====> docker.io/hyperledger/fabric-ca:1.5.6
1.5.6: Pulling from hyperledger/fabric-ca
Digest: sha256:c5c6dfa2d1d4cdee4d22dbfdd928506a9504931e53f60468e0efbad3773f9d30
Status: Image is up to date for hyperledger/fabric-ca:1.5.6
docker.io/hyperledger/fabric-ca:1.5.6
===> List out hyperledger docker images
hyperledger/fabric-tools     2.2      878e8666fcfc   2 months ago   385MB
hyperledger/fabric-tools     2.2.13   878e8666fcfc   2 months ago   385MB
hyperledger/fabric-tools     latest   878e8666fcfc   2 months ago   385MB
hyperledger/fabric-peer      2.2      addc52b52407   2 months ago   55.7MB
hyperledger/fabric-peer      2.2.13   addc52b52407   2 months ago   55.7MB
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hyperledger/fabric-orderer   2.2      71805c71c4fb   2 months ago   36.9MB
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hyperledger/fabric-orderer   latest   71805c71c4fb   2 months ago   36.9MB
hyperledger/fabric-ccenv     2.2      149cc8353c4b   2 months ago   499MB
hyperledger/fabric-ccenv     2.2.13   149cc8353c4b   2 months ago   499MB
hyperledger/fabric-ccenv     latest   149cc8353c4b   2 months ago   499MB
hyperledger/fabric-baseos    2.2      1d0c755f6a1e   2 months ago   8.49MB
hyperledger/fabric-baseos    2.2.13   1d0c755f6a1e   2 months ago   8.49MB
hyperledger/fabric-baseos    latest   1d0c755f6a1e   2 months ago   8.49MB
hyperledger/fabric-tools     2.2.12   7b5a7c6c16dd   4 months ago   385MB
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hyperledger/fabric-orderer   2.2.12   88c464bad593   4 months ago   35.2MB
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hyperledger/fabric-baseos    2.2.12   c4f8a3b482a2   4 months ago   6.8MB
hyperledger/fabric-ca        1.5      8446b174e2a9   6 months ago   209MB
hyperledger/fabric-ca        1.5.6    8446b174e2a9   6 months ago   209MB
hyperledger/fabric-ca        latest   8446b174e2a9   6 months ago   209MB
nicomedes@Ubuntu:~/Desktop$ ls
BCT  DataStructures-main  fabric-samples  hyperledger.sh
nicomedes@Ubuntu:~/Desktop$
```

Hyperledger fabric will be created and folder "fabric-samples" would be formed.