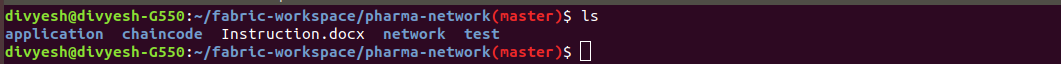
**Instructions for Capstone Project: Drug Counterfeiting**

**Initial Instruction:**

* Unzip folder named **pharma-net.zip** folder. (make sure unzip within proper fabric network workspace and proper directory, I have unzipped insider **pharma-network** directory) (Refer Figure 1.1)
* Project contain below folders
  + **application:** NodeJS application containing APIs
    - Make sure .sh files are executable (fabricNetwork.sh, scripts/bootstrap.sh, scripts/installChaincode.sh, scripts/updateChaincode.sh, scripts/utils.sh)

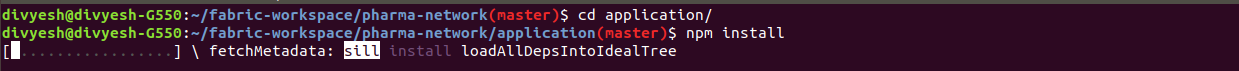
- *sudo chmod +x <file\_name>*

* + **chaincode:** NodeJS application containing chaincode
  + **network:** Blockchain network setup
  + **test:** Contains postman collections with API endpoints.

Figure 1.1: Directory structure

* Install dependencies for NodeJS Applications (application and chaincode)
  + My **Node Version: 8.9.0** and **npm version: 5.5.1**
  + Go inside **application** folder and run below command.

- *npm install*

Figure 1.2: Install dependencies for NodeJS API application

* + Go inside **chaincode** folder and run below command.
  + - *npm install*

*Figure 1.3: Install dependencies for NodeJS Chaincode application*

**Network Setup and Chaincode Installation:**

* Open Terminal 1 (T1)
* Go inside **network** folder (Figure 2.1)

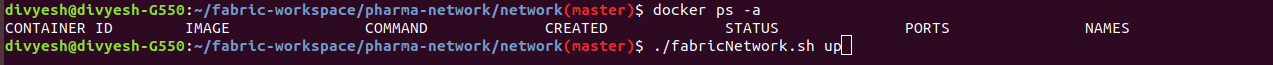
- *cd network*

Figure 2.1: Change directory

* Check no docker container service is running and start network; run below commands

- *docker ps -a*

* *- ./fabricNetwork.sh up*

Figure 2.2: Check docker container and start network

* Run below command to install chaincode.

- *./fabricNetwork.sh install -v 1.1*

**

* Once network is up and chaincode installed now its time to start node API application.

**Start Node Application:**

* Go inside **application** folder. Make sure node modules are installed.
* Run below command. It will ask for sudo password.

- *sudo node .*

* Now it’s time to check collection in postman.

**Execute Postman Collection:**

* From **test** folder import all collection like wallets, initiation, supply chain and history.
* Once collection imported you need to check them in below order
  + Wallet
  + Initiation
  + Supply Chain
  + History
* To execute wallet you have to add proper path of certificate and private key for each organization.
* For example: For manufacturer

**certificatePath** = /home/divyesh/fabric-workspace/pharma-network/network/crypto-config/peerOrganizations/manufacturer.pharma-network.com/users/Admin@manufacturer.pharma-network.com/msp/signcerts/Admin@manufacturer.pharma-network.com-cert.pem

**privateKeyPath** =/home/divyesh/fabric-workspace/pharma-network/network/crypto-config/peerOrganizations/manufacturer.pharma-network.com/users/Admin@manufacturer.pharma-network.com/msp/keystore/<key\_file>

Note: /home/divyesh/fabric-workspace/pharma-network/ is path where I have configured project; you need to use path where you have installed project

* Execute all APIs from wallet with different path for each organizations to register identity.
* Now step by step execure APIs from other collections in specified order like; Initiation, Supply Chain and History