HYPERLEDGER FABRIC 2.X PRE-REQUISITES

https://hyperledger-fabric.readthedocs.io/en/release-2.2/prereqs.html

Operating System: Ubuntu 16.04 or newer versions (Either local or Cloud Virtual Machine)

Install below mentioned prerequisite before setting up Hyperledger Fabric test network

Curl:

Step 1:

Install curl curl is used in command lines or scripts to transfer data.

```
sudo apt-get install curl
```

Git:

Step 2:

Install git Git is a version-control system for tracking changes in computer files and coordinating work on those files among multiple people. It is primarily used for source-code management in software development, but it can be used to keep track of changes in any set of files.

```
sudo apt-get install git
```

Docker CE:

Step 3:

Update the apt package index

```
sudo apt-get update
```

Step 4:

Install packages to allow apt to use a repository over HTTPS

```
sudo apt-get install \
    apt-transport-https \
    ca-certificates \
    curl \
    gnupg \
    lsb-release
```

Add Docker's official GPG key:

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg

Step 5:

Updates the apt package index

```
sudo apt-get update
```

Step 6:

Installs the latest version of Docker CE,

```
sudo apt install docker.io
```

Step 7:

Verifies the Docker CE version and installation

```
docker --version
```

To run docker without sudo (optional)

a. sudo groupadd docker

b. sudo gpasswd -a $USER docker

c. either do a 'newgrp docker' or log out and log in again

Step 8:

Verifies the Docker CE installation ◊ Verify that Docker CE is installed correctly by running the hello-world image.

```
sudo docker run hello-world
```

Step 9:

Downloads the latest version of Docker Compose ◊ Compose is a tool for defining and running multi-container Docker applications. With Compose, you use a YAML file to configure your application's services. Then, with a single command, you create and start all the services from your configuration.

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

Step 10:

Applies executable permissions to the binary

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

Step 11:

Tests the installation

```
docker-compose --version
```

Step 11.1

```
sudo usermod -aG docker $USER
```

Go programming language:

Step 12:

Download Go:

```
wget https://dl.google.com/go/go1.16.1.linux-amd64.tar.gz
```

Step 13:

Extract Go:

```
sudo tar -xvf go1.16.1.linux-amd64.tar.gz
```

Step 14:

Move Go folder to user path:

```
sudo mv go /usr/local
```

Step 15:

Set GO PATH:

```
sudo nano ~/.profile
```

Add below 3 paths at the end of the file.

Save file: Ctrl+x Yes enter

```
export GOROOT=/usr/local/go
export GOPATH=/home/local (ENTER_YOUR_USER_FOLDER_NAME)
export PATH=$PATH:/usr/local/go/bin:$GOPATH/bin
```

Step 16:

To make the changes effect:

```
source ~/.profile
```

Step 17:

Check go version and verify installation:

```
go version
```

Output:

```
go version go1.16.1 linux/amd64
```

Nodejs:

Step 18:

Install nodejs

```
curl -sL https://deb.nodesource.com/setup_12.x -o nodesource_setup.sh
```

nodesource_setup.sh will be downloaded to your local folder.

Run the script file:

```
sudo ./nodesource_setup.sh
```

```
sudo apt-get install -y nodejs
```

The above script will install nodejs & npm.

Run below command to install dependencies for fabcar nodesdk.

```
sudo apt-get install build-essential
```

Network setup:

https://hyperledger-fabric.readthedocs.io/en/release-2.2/test_network.html