**Creating a private Ethereum network;**

**Prerequsite**:

• Install Geth and Truffle

• A running private Ethereum chain

• A test account

**Geth installation (in ubuntu)**

**Step 1:**

sudo apt-get install software-properties-common

sudo add-apt-repository -y ppa:ethereum/ethereum

sudo apt-get update

sudo apt-get install ethereum

**Step 2:** after successful installation check Ethereum version using below command, it will list it’s version

geth version

**Running a private Blockchain using geth**

**Step1:** In terminal change directory to the place where init.json placed

**Step2:** execute below commands to initiate the chain from init.json, this will create the chain related file structure

geth --datadir ./datadir init init.json

**Steps 3:** execute below command to create the network with id 20190720, address 127.0.0.1 and port 2019

geth --datadir ./datadir --networkid 20190720 --rpc --rpcaddr 127.0.0.1 --rpcport 2019 console

**Steps 3:** Create new account (I got account id : "0x7db164ca786c7de87e238830b96b2bcc2908932d")

personal.newAccount('lishoy')

**Steps 4:** Unloack the account (we pass parameter 0, to unlock it for long time)

personal.unlockAccount(eth.accounts[0],'lishoy',0)

**Steps 5:** Start mining using below command

Miner.start()

**Truffle installation**

**Steps 1:** In another terminal execute below command

npm install -g truffle

**Steps 2:** After installation verify it by checking version

truffle version

**Steps 3:** create the folder KYC-SV and change to that directory

**Steps 4:** run below command to create trufflr file structure

truffle init

this will create contract , migrations, test and Truffle,js

**Steps 4:** copy KYC.sol file to the migration folder(already shared)

**Step 5:** create 2\_deploy\_migration.js (already shared)

**Step 6:** run below command to compile and connect to private network

truffle migrate

After successfully compiled and connected to the network, it will deploy the contracts to the network.

**Step 7:** Open truffle console using below command

truffle console

**Steps8:** on truffle console run below commands to create an instance of the KYC contract

KYC.deployed().then(function(instance){app = instance; })

**Step 9:** Now ready to run functions in the contract using the instance app. To run the addBank function execute below command

app.addBank('sbi','0x7db164Ca786c7de87E238830B96b2BCc2908932D','1111')

**Steps 10:** To add KYC request, run below command

app.addKYCRequest('lishoy','0x7db164Ca786c7de87E238830B96b2BCc2908932D')

**Steps 11:** To get Bank request, run below command

app.getBankRequest('0x7db164Ca786c7de87E238830B96b2BCc2908932D')

**Step 12:** To add customer, run below command

app.addCustomer(‘Lishoy’,’111’)

**Step 13:** To get customer data hash, run below command

app. viewCustomerData(‘Lishoy’,’’)









