

In Terminal1

we change directory path to where lab3 is (cd lab3)

we run the geth commands

```
>geth --datadir bkc_data init ~/lab3/genesis.json (creates a database that uses the genesis block)
```

```
>geth --datadir bkc_data --networkid 89992018 --bootnodes
```

```
enode://d3cd4e70fe7ad1dd7fb23539c53982e42816b4218cc370e8af13945f7b5e2b4a288f8b949dbdba6a998c9141266a0df61523de74490c91fc1e3d538b299bb8ab@128.230.208.73:30301 console 2>console.log
```

We get into the geth console

we add peer node using

```
>admin.addPeer("enode://d2547d500b1e982ac93a6ce1dbf34cff6545987740313373ccecb28e095c6ce4294e5cf4be2f002672d30fb717b8bd05e1a12163b24743b907bb7d2c37415928@[128.230.208.73]:30303")
```

We check for the connectivity

```
>admin.peers
```

We enable RPC using

```
>admin.startRPC()
```

We unlock our personal accounts

```
>personal.unlockAccounts(eth.accounts[0])
```

this will prompt for passphrase

In a separate terminal Terminal2

We install node.js using

```
>sudo apt install curl
```

```
>curl -sL https://deb.nodesource.com/setup_8.x | sudo bash -
```

```
>sudo apt install nodejs
```

Once we are connected to the Ethereum network (done in the previous terminal, Terminal1). We install the web3 module

```
>npm install web3@^0.20.0
```

Now we create a file SDFC_lab.js in our currently working directory lab3 folder and run the program

```
>nodejs SDFC_lab.js
```

which will prompt for username and password