

Nodejs and Npm

Check NPM version

```
npm -v
```

Check node version

```
node -v
```

Set NPM version to

```
npm install npm@5.5.1
```

Install and use node version

```
nvm install 8.9.0
```

```
nvm use 8.9.0
```

we need to downgrade or set the node and npm version to the one specified in the Prerequisites.

node 8.9.0
npm 5.5.1

node 12.22.11
npm 8.6.0

CouchDb

Install CouchDB

```
sudo apt update
```

```
sudo apt install -y couchdb
```

Verify the Installation

Edit host file:
gedit/etc/hosts

Log in to your Fauxton control panel at <http://127.0.0.1:5984/ utils/> with your user credentials and create a new database with CouchDB.

```
sudo apt update && upgrade
```

```
sudo apt-get install software-properties-common
```

```
curl -L https://couchdb.apache.org/repo/bintray-  
pubkey.asc | sudo apt-key add
```

```
sudo apt update
```

```
sudo apt install couchdb
```

Hyperledger Caliper

```
npm init -y
```

```
npm install --only=prod @hyperledger/caliper-cli@0.2.0
```

```
npx caliper benchmark run --caliper-workspace ./ --caliper-benchconfig  
benchmarks/benchmark.yaml --caliper-networkconfig networks/networkConfig.yaml
```

queryRecord

```
async queryRecord(ctx, recordNumber) {  
  const recordAsBytes = await ctx.stub.getState(recordNumber); // get the record from chaincode state  
  if (!recordAsBytes || recordAsBytes.length === 0) {  
    throw new Error(`${recordNumber} does not exist`);  
  }  
  console.log(recordAsBytes.toString());  
  return recordAsBytes.toString();  
}
```

createRecord

```
async createRecord(ctx, recordNumber, name, description) {  
  console.info('===== START : Create Record  
=====');  
  
  const record = {  
    docType: 'record',  
    name,  
    description  
  };  
  
  await ctx.stub.putState(recordNumber,  
Buffer.from(JSON.stringify(record)));  
  console.info('===== END : Create Record  
=====');  
}
```