1.检查有没有couchDB数据库

docker images

2.启动网络

将docker-compose-Couch.yaml文件放进home/yzw/hyfa/fabric-samples/chaincode-docker-devmode文件夹路径下；

执行命令目录：/home/yzw/hyfa/fabric-samples/chaincode-docker-devmode

执行命令：docker-compose -f docker-compose-CouchDB.yaml up -d

查看docker容器

执行命令：docker ps

输出结果：

73189e930d7e hyperledger/fabric-ccenv "/bin/bash -c 'sleep…" 8 seconds ago Up 6 seconds chaincode
8f5b88e1f788 hyperledger/fabric-tools "/bin/bash -c ./scri…" 8 seconds ago Up 7 seconds cli
b9f1134b4049 hyperledger/fabric-peer "peer node start --p…" 10 seconds ago Up 8 seconds 0.0.0.0:7051->7051/tcp, 0.0.0.0:7053->7053/tcp peer
47519128d738 hyperledger/fabric-couchdb "tini -- /docker-ent…" 12 seconds ago Up 9 seconds 4369/tcp, 9100/tcp, 0.0.0.0:5984->5984/tcp couchdb
2075314b8120 hyperledger/fabric-orderer "orderer" 12 seconds ago Up 10 seconds 0.0.0.0:7050->7050/tcp orderer

3.启动链码

编译链码程序,进入容器：docker exec -it chaincode bash

进入目录：

编译文件：go build (获得可执行程序)

进入容器路径：/opt/gopath/src/chaincode/testcdb

执行命令：CORE\_PEER\_ADDRESS=peer:7052 CORE\_CHAINCODE\_ID\_NAME=cdb:0 ./testcdb

输出结果：

2019-03-26 11:18:12.936 UTC [shim] SetupChaincodeLogging -> INFO 001 Chaincode log level not provided; defaulting to: INFO
2019-03-26 11:18:12.936 UTC [shim] SetupChaincodeLogging -> INFO 002 Chaincode (build level: ) starting up ...

进入cli 容器：docker exec -it cli bash

安装链码：peer chaincode install -n cdb -v 0 -p chaincodedev/chaincode/testcdb

实例化链码： peer chaincode instantiate -n cdb -v 0 -C myc -c '{"Args":["init"]}'

4.链码测试

初始化bill，执行命令：peer chaincode invoke -n cdb -C myc -c '{"Args":["billInit"]}'

根据持票人查询当前 ：peer chaincode query -n cdb -C myc -c '{"Args":["queryBills","AAAID"]}'

输出结果：

key:POC101,value{"BillDueDate":"20100110","BillInfoAmt":"1000","BillInfoID":"POC101","BillInfoType":"111","BillIsseDate":"20100101","DocType":"BillObj","HoldrAcct":"AAA","HoldrCmID":"AAAID","WaitEndorseAcct":"","WaitEnorseCmID":""};
key:POC102,value{"BillDueDate":"20100210","BillInfoAmt":"2000","BillInfoID":"POC102","BillInfoType":"111","BillIsseDate":"20100201","DocType":"BillObj","HoldrAcct":"AAA","HoldrCmID":"AAAID","WaitEndorseAcct":"BBB","WaitEnorseCmID":"BBBID"}

其他测试：peer chaincode query -n cdb -C myc -c '{"Args":["queryBills","BBBID"]}'

key:POC103,value{"BillDueDate":"20100310","BillInfoAmt":"2000","BillInfoID":"POC103","BillInfoType":"111","BillIsseDate":"20100301","DocType":"BillObj","HoldrAcct":"BBB","HoldrCmID":"BBBID","WaitEndorseAcct":"CCC","WaitEnorseCmID":"CCCID"}

其他测试：peer chaincode query -n cdb -C myc -c '{"Args":["queryBills","CCCID"]}'

key:POC104,value{"BillDueDate":"20100410","BillInfoAmt":"2000","BillInfoID":"POC104","BillInfoType":"111","BillIsseDate":"20100401","DocType":"BillObj","HoldrAcct":"CCC","HoldrCmID":"CCCID","WaitEndorseAcct":"BBB","WaitEnorseCmID":"BBBID"}

查询用户BBB的待背书的账单：peer chaincode query -n cdb -C myc -c '{"Args":["queryWaitBills","BBBID"]}'

key:POC102,value{"BillDueDate":"20100210","BillInfoAmt":"2000","BillInfoID":"POC102","BillInfoType":"111","BillIsseDate":"20100201","DocType":"BillObj","HoldrAcct":"AAA","HoldrCmID":"AAAID","WaitEndorseAcct":"BBB","WaitEnorseCmID":"BBBID"};
key:POC104,value{"BillDueDate":"20100410","BillInfoAmt":"2000","BillInfoID":"POC104","BillInfoType":"111","BillIsseDate":"20100401","DocType":"BillObj","HoldrAcct":"CCC","HoldrCmID":"CCCID","WaitEndorseAcct":"BBB","WaitEnorseCmID":"BBBID"}

其他测试：peer chaincode query -n cdb -C myc -c '{"Args":["queryWaitBills","AAAID"]}'

为空

其他测试：peer chaincode query -n cdb -C myc -c '{"Args":["queryWaitBills","CCC"]I}'

key:POC103,value{"BillDueDate":"20100310","BillInfoAmt":"2000","BillInfoID":"POC103","BillInfoType":"111","BillIsseDate":"20100301","DocType":"BillObj","HoldrAcct":"BBB","HoldrCmID":"BBBID","WaitEndorseAcct":"CCC","WaitEnorseCmID":"CCCID"}

出错：

Found map[string]interface{} value for peer.BCCSP

2019-03-26 12:41:50.074 UTC [viperutil] unmarshalJSON -> DEBU 002 Unmarshal JSON: value cannot be unmarshalled: invalid character 'S' looking for beginning of value

--->(应该是序列化时出的错)仔细检查queryString := fmt.Sprintf(**"{\"selector\"{\"DocType\":\"BillObj\",\"HoldrCmID\":\"%s\"}}"**,holdrCmID)