package main;

import java.sql.Connection;

import java.sql.SQLException;

import java.sql.Statement;

import javax.sql.XAConnection;

import javax.sql.XADataSource;

import javax.transaction.xa.XAException;

import javax.transaction.xa.XAResource;

import com.mysql.jdbc.jdbc2.optional.MysqlXADataSource;

import com.mysql.jdbc.jdbc2.optional.MysqlXid;

public class JTALab {

public static void main(String[] args) {

XADataSource xads1 = getMysqlXADS("jdbc:mysql://10.60.42.66/[database\_name1]", 3306, "[username1]",

"[password1]");

XADataSource xads2 = getMysqlXADS("jdbc:mysql://10.60.42.66/[database\_name2]", 3306, "[username2]",

"[password2]");

XAConnection xaconn1 = null, xaconn2 = null;

Connection conn1 = null, conn2 = null;

Statement stmt1 = null, stmt2 = null;

XAResource xares1 = null, xares2 = null;

MysqlXid xid1 = new MysqlXid(new byte[] { 0x01 }, new byte[] { 0x57 }, 0);

MysqlXid xid2 = new MysqlXid(new byte[] { 0x01 }, new byte[] { 0x58 }, 0);

try {

xaconn1 = xads1.getXAConnection();

conn1 = xaconn1.getConnection();

// dataresource--xaconnection--xaresource and connection

stmt1 = conn1.createStatement();

xares1 = xaconn1.getXAResource();

xaconn2 = xads2.getXAConnection();

conn2 = xaconn2.getConnection();

stmt2 = conn2.createStatement();

xares2 = xaconn2.getXAResource();

conn1.setAutoCommit(false);

conn2.setAutoCommit(false);

xares1.start(xid1, XAResource.TMNOFLAGS);

stmt1.execute("update t\_account1 set balance = balance + 100 where id = 1");

xares1.end(xid1, XAResource.TMSUCCESS);

//xaresource--start and end(excute)

xares2.start(xid2, XAResource.TMNOFLAGS);

stmt2.execute("update t\_account2 set balance = balance - 100 where id = 1");

xares2.end(xid2, XAResource.TMSUCCESS);

int ret1 = xares1.prepare(xid1);

int ret2 = xares2.prepare(xid2);

//xaresource--prepare(返回值决定 xaresource的commit or rollback)

if (ret1 == XAResource.XA\_OK && ret2 == XAResource.XA\_OK) {

xares1.commit(xid1, false);

xares2.commit(xid2, false);

System.out.println("OK!");

} else {

xares1.rollback(xid1);

xares2.rollback(xid2);

}

} catch (SQLException e) {

try {

xares1.rollback(xid1);

xares2.rollback(xid2);

} catch (XAException xae) {

xae.printStackTrace();

}

} catch (XAException e) {

e.printStackTrace();

} finally {

try {

stmt1.close();

stmt2.close();

conn1.close();

conn2.close();

xaconn1.close();

xaconn2.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

public static XADataSource getMysqlXADS(String url, int port, String user, String pass) {

MysqlXADataSource xads = new MysqlXADataSource();

xads.setUrl(url);

xads.setPort(port);

xads.setUser(user);

xads.setPassword(pass);

return xads;

}

}