

README

C2PL uses the JDBC library for SQLite3 and the communication between sites is established using Java RMI.

Download the project from Brightspace and make sure in the terminal you are inside the project folder by running a cd command to the project folder.

First step, run `cd ...projectPath`

And then,

To start Java RMI:

```
start rmiregistry -J-Djava.rmi.server.codebase=file:bin\
```

To start central site :

```
java -classpath bin centralsite.CentralManager
```

To start four different data sites that are connected to four different databases:

1. `java -classpath bin;sqlite-jdbc-3.8.11.2.jar -Djava.rmi.server.codebase=file:bin\datasite.DataSite transactions_1.txt`
2. `java -classpath bin;sqlite-jdbc-3.8.11.2.jar -Djava.rmi.server.codebase=file:bin\dataSite2.DataSite transactions_5.txt`
3. `java -classpath bin;sqlite-jdbc-3.8.11.2.jar -Djava.rmi.server.codebase=file:bin\dataSite3.DataSite transactions_3.txt`
4. `java -classpath bin;sqlite-jdbc-3.8.11.2.jar -Djava.rmi.server.codebase=file:bin\dataSite4.DataSite transactions_4.txt`

The above four commands for datasites should be run in four different terminals and will run four different sets of transactions without any deadlocks and all transactions will be committed.

To execute transactions with deadlocks, execute `transactions_1.txt` and `transactions_2.txt` in two different terminals using these commands:

5. `java -classpath bin;sqlite-jdbc-3.8.11.2.jar -Djava.rmi.server.codebase=file:bin\datasite.DataSite transactions_1.txt`
6. `java -classpath bin;sqlite-jdbc-3.8.11.2.jar -Djava.rmi.server.codebase=file:bin\dataSite2.DataSite transactions_2.txt`