

Assignment 3

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How to run?

You should need 3 setup. There are JMS RMI JDBN

1. RMI

run the rmiregistry in the working directory

2. JMS

using the glassfish4 to register JMS connection factory, Topic, Queue

3. JDBC

open the local mysql server and input the follow command

```
CRATE DATABASE 24Game;
GRANT ALL ON c3358.* to 'c3358'@'localhost';
CREATE TABLE 24Game_UserList (
-> username varchar(16) NOT NULL,
-> password varchar(32) NOT NULL,
-> win_number INT(5),
-> game_number INT(5),
-> avg_time FLOAT(10),
-> PRIMARY KEY username (username)
-> );
```

4. compile the file

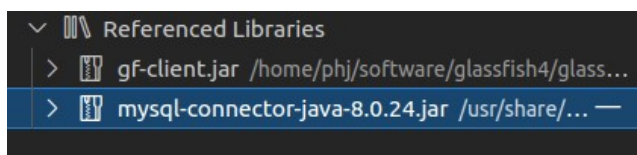
for server

```
/usr/bin/env /usr/lib/jvm/java-1.8.0-openjdk-amd64/bin/java -Djava.security.policy=./security.policy -Dfile.encoding=UTF-8 -cp GameServer
```

for the client

```
cd software/Gminer/cd /home/phj/Downloads/test/JPoker_24_Game ; /usr/bin/env /usr/lib/jvm/java-1.8.0-openjdk-amd64/bin/java -Djava.security.policy=./security.policy -Dfile.encoding=UTF-8 -cp /tmp/cp_5odlhhubhghrelj2aapw57dyi.jar GameGUI 127.0.0.1
```

add the reference library into workplace



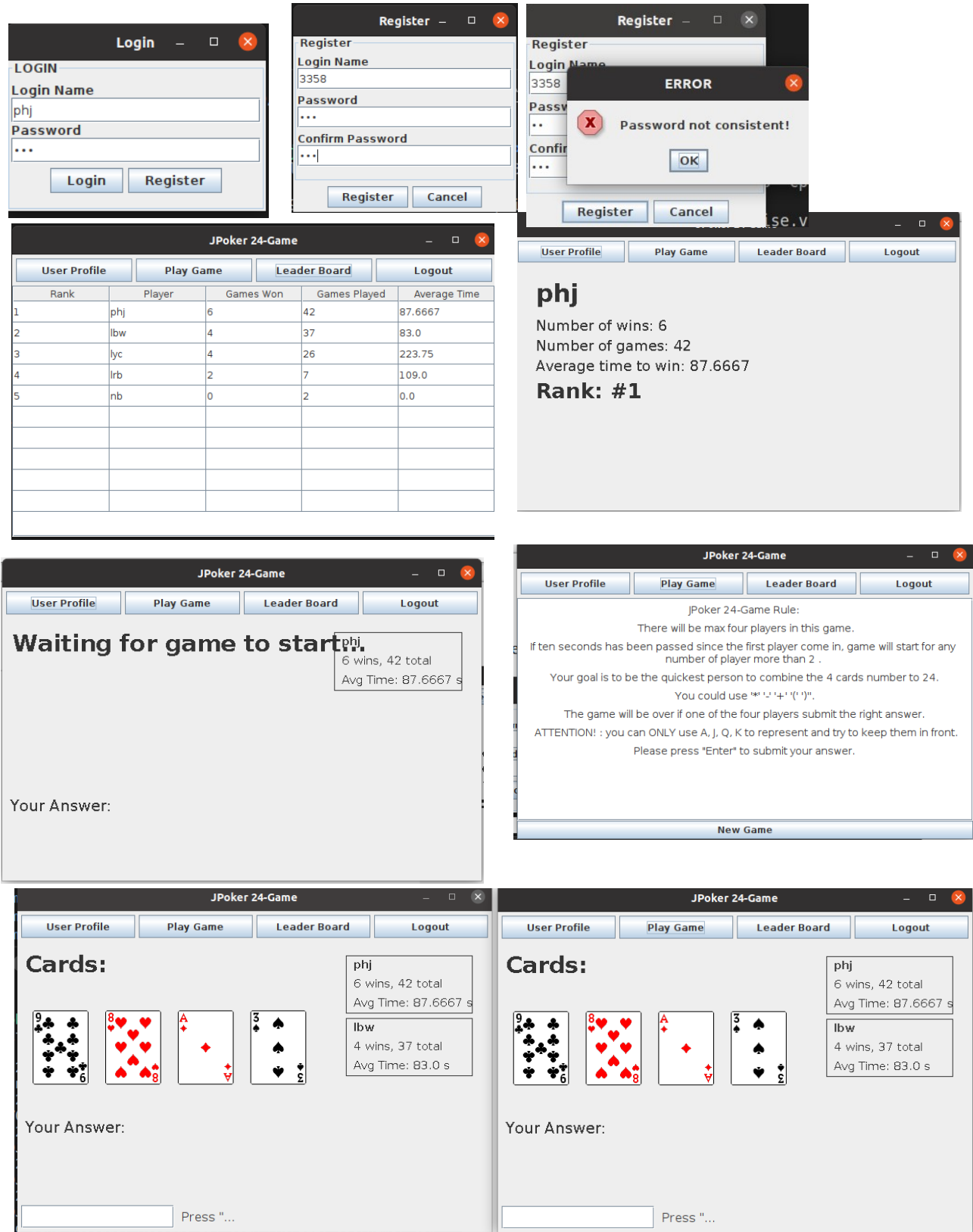
Destination Resources (2)				
New... Delete Enable Disable				
Select	JNDI Name	Enabled	Resource Type	Description
<input type="checkbox"/>	jms/JPoker24GameQueue	✓	javax.jms.Queue	JPoker24GameQueue
<input type="checkbox"/>	jms/JPoker24GameTopic	✓	javax.jms.Topic	JPoker24GameTopic

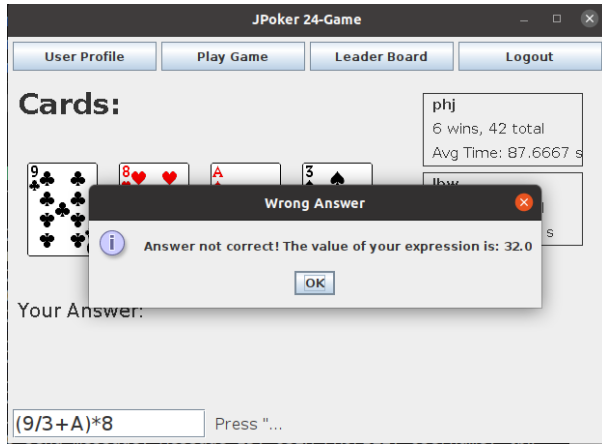
JMS Connection Factories

Java Message Service (JMS) connection factories are objects that allow an application to create other JMS objects programmatically. Click New to create a new connection factory. Click the name of a connection factory to modify its properties.

Connection Factories (2)				
New... Delete Enable Disable				
Select	JNDI Name	Logical JNDI Name	Enabled	Resource Type
<input type="checkbox"/>	jms/_defaultConnectionFactory	java:comp/DefaultJMSConnectionFactory	✓	javax.jms.ConnectionFactory
<input type="checkbox"/>	jms/JPoker24GameConnectionFactory		✓	javax.jms.ConnectionFactory

what is the appearance?
Front end





Back-end

```
-Dfile.encoding=UTF-8 -cp /tmp/cp_5odlhuhbhghrelj2aapw57dyi.jar GameServer
Loading class 'com.mysql.jdbc.Driver'. This is deprecated. The new driver class is 'com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of the driver class
is generally unnecessary.
Database connection successful.
May 21, 2021 9:37:35 PM com.sun.enterprise.v3.server.CommonClassLoaderServiceImpl findDerbyClient
INFO: Cannot find javadb client jar file, derby jdbc driver will not be available by default.
May 21, 2021 9:37:37 PM org.hibernate.validator.internal.util.Version <clinit>
INFO: HV000001: Hibernate Validator 5.1.2.Final
May 21, 2021 9:37:37 PM com.sun.messaging.jms.ra.ResourceAdapter start
INFO: MQJMSRA RA1101: GlassFish MQ JMS Resource Adapter: Version: 5.1.1 (Build 2-c) Compile: March 17 2015 1045
May 21, 2021 9:37:37 PM com.sun.messaging.jms.ra.ResourceAdapter start
INFO: MQJMSRA RA1101: GlassFish MQ JMS Resource Adapter starting: broker is REMOTE, connection mode is TCP
May 21, 2021 9:37:37 PM com.sun.messaging.jms.ra.ResourceAdapter start
INFO: MQJMSRA RA1101: GlassFish MQ JMS Resource Adapter Started:REMOTE
Checking the password: phj
Receive Message - user profile: phj
Retrieving user profile: phj
To phj. Trying to send message: USER_PROFILE
Receive Message - user profile: phj
Retrieving user profile: phj
To phj. Trying to send message: USER_PROFILE
Receive Message - Leader board: phj
Getting all user list from the database...
To phj. Trying to send message: LEADER_BOARD
Receive Message - user profile: phj
Retrieving user profile: phj
To phj. Trying to send message: USER_PROFILE
Receive Message - New game: phj
To phj. Trying to send message: WAIT
ten seconds passed status:1
Checking the password: lbw
Receive Message - user profile: lbw
Retrieving user profile: lbw
To lbw. Trying to send message: USER_PROFILE
Receive Message - Leader board: lbw
Getting all user list from the database...
To lbw. Trying to send message: LEADER_BOARD
Receive Message - user profile: lbw
Retrieving user profile: lbw
To lbw. Trying to send message: USER_PROFILE
Receive Message - New game: lbw
To phj. Trying to send message: START
```

```
./security.policy -Dfile.encoding=UTF-8 -cp /tmp/cp_5odlhuhbhghrelj2aapw57dyi.jar GameGUI 127.0.0.1
bash: cd: too many arguments
May 21, 2021 9:40:07 PM com.sun.enterprise.v3.server.CommonClassLoaderServiceImpl findDerbyClient
INFO: Cannot find javadb client jar file, derby jdbc driver will not be available by default.
May 21, 2021 9:40:09 PM org.hibernate.validator.internal.util.Version <clinit>
INFO: HV000001: Hibernate Validator 5.1.2.Final
May 21, 2021 9:40:09 PM com.sun.messaging.jms.ra.ResourceAdapter start
INFO: MQJMSRA RA1101: GlassFish MQ JMS Resource Adapter: Version: 5.1.1 (Build 2-c) Compile: March 17 2015 1045
May 21, 2021 9:40:09 PM com.sun.messaging.jms.ra.ResourceAdapter start
INFO: MQJMSRA RA1101: GlassFish MQ JMS Resource Adapter starting: broker is REMOTE, connection mode is TCP
May 21, 2021 9:40:09 PM com.sun.messaging.jms.ra.ResourceAdapter start
INFO: MQJMSRA RA1101: GlassFish MQ JMS Resource Adapter Started:REMOTE
Trying to send message: Message ID: USER_PROFILE; Username: lbw
Get user profile!
Trying to send message: Message ID: LEADER_BOARD; Username: lbw
Get leader board!
Trying to send message: Message ID: USER_PROFILE; Username: lbw
Get user profile!
Trying to send message: Message ID: NEW_GAME; Username: lbw
Game starts!
Game over!
Trying to send message: Message ID: UPDATE; Username: lbw
The winner is: phj
Trying to send message: Message ID: USER_PROFILE; Username: lbw
Get user profile!
```