

User Guide

My Hotel Booking System

2015/5/19

Yu Jun 26346702

User Guide for My Hotel Booking System

Content

USER GUIDE FOR MY HOTEL BOOKING SYSTEM	1
1. Install the MySQL database and create the tables	2
2. Start the Hotel Booing System Server program	2
3. Start the Broker program	3
4. Start the Client program	4
5. Check the function of this Hotel Booking System	4

The level of assessment I have attempted is **High Distinction**

Deployment instruction

1. Install the MySQL database and create the tables

- 1) The first thing you need to do is getting your MySQL installed in your PC, and then you should change the directory to where you put your ip26346702.sql. You also need to create a user named 'fit5183a2' with no passwords.
- 2) Secondly, you need to open the command line and then import the id26346702.sql to the database. The following is the command you need to take. **Attention: you should modify you environment path in your computer to add a path "the MySQL installation path\bin".**

```
C:\Users\hp>mysql -u fit5183a2 -p < id26346702.sql
```

Comments: In this database I have created two groups of tables, each group are representing a single server named CORBA Server or RMI Sever. There are two groups representing RMI, or CORBA respectively.

2. Start the Hotel Booing System Server program

- 1) In order to run the jar files properly and smoothly, you should first put the configuration files in the 26346702a2/config directory into the directory C:\Users\hp\sb or whatever folder you want.
- 2) Open the command line, then input the following command line with VM arguments "-Djava.security.policy=all.policy". Then you need to input program arguments "C:\Users\hp\sb", which is the folder for captaining basic configuration files. You will see the Server is now running. **Attention: you should change the directory to the folder where you put your Server.**

```
C:\Users\hp\Desktop\Assignment2\bin>java -Djava.security.policy=all.policy -jar RMIServer.jar C:\Users\hp\sb
INFO [main] <server.RMIServer:40> - RMI server starts...
DEBUG [main] <server.RMIServer:48> - UnicastRemoteObject.exportObject done
DEBUG [main] <server.RMIServer:53> - LocateRegistry.createRegistry done
DEBUG [main] <server.RMIServer:54> - start binding...
DEBUG [main] <server.RMIServer:57> - binding done
```

- 3) For the CORBA Server, you should also specify the directory containing the configuration files.

```
C:\Users\hnp\Desktop\Assignment2\bin>java -jar CORBAServer.jar C:\Users\hnp\sh
DEBUG [main] <server.CORBAServer:44> - servant instance created
DEBUG [main] <server.CORBAServer:54> - CORBA server is up...
```

If you wonder why I don't start up the name service first with a command window, the reason is that I have written the following Runtime code and some arguments like "-ORBInitialPort" and port number. So you don't have to startup a command window, and type 'tnameserv' first and input these VM parameters in the command window. The Initial port number is 1235.

```
try {
    Runtime runtime = Runtime.getRuntime();
    runtime.exec("tnameserv -ORBInitialPort 1235");
} catch (IOException e1) {
    // TODO Auto-generated catch block
    e1.printStackTrace();
    logger.error("tnameserv start error!");
}
```

```
String[] argv = {"-ORBInitialPort", "1235"};
try {
    ORB orb = ORB.init(argv, p);
    orb.connect(servant);
}
```

3. Start the Broker program

Open the Command line, then input the following command line, you will get the Broker Server started. **Attention: you should change the directory to the folder where you put your Server.**

```
C:\Users\hnp\Desktop\Assignment2\bin>java -Djava.security.policy=all.policy -jar Broker.jar C:\Users\hnp\sh
DEBUG [main] <broker.Broker:33> - Broker starts...
DEBUG [main] <broker.Broker:46> - RMI starts...
DEBUG [main] <broker.BrokerRMIClient:40> - get the stub
DEBUG [main] <broker.BrokerCORBAClient:68> - get servant
DEBUG [main] <broker.BrokerCORBAClient:71> - broker get the symKey as: yujun123
DEBUG [main] <broker.Broker:54> - UnicastRemoteObject.exportObject done
DEBUG [main] <broker.Broker:59> - LocateRegistry.getRegistry done
DEBUG [main] <broker.Broker:60> - start binding...
DEBUG [main] <broker.Broker:61> - binding done
```

Similarily like CORBA Server, you don't have to input the arguments of following picture, I have already wrote the codes for that.

```
String[] args = {"-ORBInitialPort", "1235"};
ORB orb = ORB.init(args, p);
```

4. Start the Client program

Open the command line, then input the following command line, you will get the Client started. If you input 'corba' following the directory of configuration files, then this client can directly communicate with CORBA Server. Instead, if you input 'rmi', the RMI Server will start up. **Attention: you should change the directory to the folder where you put your Server.**

```
C:\Users\hp\Desktop\Assignment2\bin>java -jar Client.jar C:\Users\hp\sh corba
*****
C      --Query the Cities Supported by the System!
LH     --Input the City Name to get the hotels Supported this city!
HI     --Input the City Name to get the all the hotel information! Supported this city!
RR     --Query the Room Rate of your requested Hotel!
U      --Input hotel ID, Check-in and Check-out Datesto get the vacant rooms in this hotel!
B      --Input Check-in and Check-out Dates, hotel ID, room ID and you information to book the room you specify?
U      --Input U<USER> to get information about the informatin about the User!
Q      --Input Q<QUIT> to exit the system!
*****
Please Use the following Commands to get the results you request!
```

```
C:\Users\hp\Desktop\Assignment2\bin>java -jar Client.jar C:\Users\hp\sh rmi
*****
C      --Query the Cities Supported by the System!
LH     --Input the City Name to get the hotels Supported this city!
HI     --Input the City Name to get the all the hotel information! Supported this city!
RR     --Query the Room Rate of your requested Hotel!
U      --Input hotel ID, Check-in and Check-out Datesto get the vacant rooms in this hotel!
B      --Input Check-in and Check-out Dates, hotel ID, room ID and you information to book the room you specify!
U      --Input U<USER> to get information about the informatin about the User!
Q      --Input Q<QUIT> to exit the system!
*****
Please Use the following Commands to get the results you request!
```

5. Check the function of this Hotel Booking System

Now you will see how it works. You will see in the front of the window

Attention: uppercase and lowercase are both ok in my system.

- 1) If you input "C" command and press "Enter" in the Command line, you will see all the cities supported by the System. The results are as following:

```
Enter Request: C : LH <cityname> : HI <cityname> : RR : U : B : U :Q: c
1. Adelaide
2. Hangzhou
3. NanJing
4. Melbourne
5. Brisbane
6. Suzhou
7. Ningbo
8. Sydney
```

- 2) If you input "LH" and the parameter city name at the same time, you will get hotels names list in corresponding city. Like lh Hangzhou, the results are as following:

```
Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: lh hangzhou
The Hotels:
1. hilton
2. chevron
3. regent
```

Comments: In Hangzhou, you can see that Hilton, chevron, and regent hotel brands are supported.

- 3) If you still want to know more about the hotel information of this city, you can have a try with the command “HI”+ the city of the name. For example, you can get hotel information of Melbourne with the command: HI Melbourne. The results are as following:

```
Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: HI Melbourne
Brand: hilton Hotel NO.: 5 City Name: Melbourne Location: Victoria Room Rate: 235.99 RMB Total Rooms Number: 10 Vacant Rooms Number: 10
Brand: chevron Hotel NO.: 5 City Name: Melbourne Location: Victoria Room Rate: 100.01 RMB Total Rooms Number: 20 Vacant Rooms Number: 20
Brand: regent Hotel NO.: 5 City Name: Melbourne Location: Victoria Room Rate: 150.98 RMB Total Rooms Number: 20 Vacant Rooms Number: 20
```

Comments: In this picture, you will see the brand name, hotel Number (in this case I intentionally set the different hotels but the same city the same hotel number for simplicity, you can change the hotel number whatever you like), location, room rate (in this case, you can compare the room rate with each other, so that you can make a better decision. You can also check the room rate with next command which I will talk it later), total room number, and vacant room number (If the customer have successfully booked the room, it will be decremented).

- 4) If you want to know the room rate of a particular hotel. You can use the command “RR”, you will see the Brand showing up in which you must input the hotel name.

```
Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: rr
Brand: _
```

After you input the hotel name, you will see the hotel number showing up in which you must also input the hotel number you want to check:

```
Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: rr
Brand: hilton
Hotel NO.: _
```

After you input the hotel number, you will see the room rate of a particular hotel.

```
Enter Request: C | LH <cityname> | HI <cityname> | RR | U | B | U |Q: rr
Brand: hilton
Hotel NO.: 4
The Room rate: 235.99 RMB
```

But when you input a hotel name which doesn't exist in this system, you will see the following hint:

```
Enter Request: C | LH <cityname> | HI <cityname> | RR | U | B | U |Q: rr
Brand: 7days
NO This Brand! Try Again: 7days
NO This Brand! Try Again: 7days
You have tried 3 times!
```

Similarly, if you input the hotel Number which is not illegal like the characters, the warning will show up. Even if you input the legal character, but this particular hotel with corresponding hotel number doesn't exist. Corresponding warning will also show up.

```
Enter Request: C | LH <cityname> | HI <cityname> | RR | U | B | U |Q: rr
Brand: hilton
Hotel NO.: dfs
The Hotel NO. is illegal! Try Again: sdf
The Hotel NO. is illegal! Try Again: 89
This hotel doesn't exist!
Go Back to Main Menu!
```

Comments: this function is done by the Regular Expression, even if the data you input is actually legal, but the database doesn't contain the information you input. A warning will show up to demonstrate that this hotel doesn't contain in our system.

- 5) You can see from this following picture, when you want to find out the vacant rooms of a particular hotel. You should input command "v", then subsequent requests are showing up, you only need to input the request according to the realistic condition. Invalid inputs are not allowed, so the system will correct your action like the following picture.

```
Enter Request: C | LH <cityname> | HI <cityname> | RR | U | B | U |Q: v
Brand: hilton
Hotel NO.: 4
Check-in date: sdf
Check-out date: sds
The Date is illegal!
Check-in date: 2015-02-23
Check-out date: 2015-03-01

The Vacant Room NO.: 40
The Vacant Room NO.: 41
The Vacant Room NO.: 42
The Vacant Room NO.: 43
The Vacant Room NO.: 44
The Vacant Room NO.: 45
The Vacant Room NO.: 46
The Vacant Room NO.: 47
The Vacant Room NO.: 48
The Vacant Room NO.: 49
```

Comments: you will see that the vacant room number is coming up. If someone has already booked a room in this hotel between the check-in date and check-out date, this room number will not come up. I will talk about this later.

- 6) If you input “B” in the command line, you will actually see this following condition. You will get a question about whether or not you have actually registered an account in this hotel. If not please input NO

```
Enter Request: C | LH <cityname> | HI <cityname> | RR | U | B | U |Q: b
Brand: hilton
Do You have an Account in this Hotel <YES/NO> ? _
```

If you input NO: then you will need to fill the blanks provided by the system. Like your ID, Your name, password, telephone number and E-mail. If you register successfully, you will see the last line of following picture. Then you would need to login in the system.

```
Enter Request: C | LH <cityname> | HI <cityname> | RR | U | B | U |Q: b
Brand: hilton
Do You have an Account in this Hotel <YES/NO> ? no
Input Your ID NO.: dsfa
Your ID NO. is illegal! Try Again: sdfa
Your ID NO. is illegal! Try Again: 123456
Your Name: yujun
Input Your Password: 123456
Confirm Your Password: 123456
Your Tele NO.: 18662219952
Your E-mail: yujunshe@qq.com
ADD BOOKER SUCCESSFULLY
```

The login system requires you to input the account id and password to get the permission to book the room. The check-in date and the check-out date are also needed, when you input the illegal date, the system will show you the warning. So you must input valid date. You also need to input credit card number which is 16 integer characters.

```
Your Account NO.: 123456
Your Password: 123456
Hotel NO.: 4
Room NO.: 44
Check-in date: 2015-03-28
Check-out date: 2015-03-29
Your credit NO.: 1234567890123456
Booking Successfully!

Transaction information:
Hotel: hilton Booker ID: 123456      Hotel NO.: 4      Room NO.: 44      Book Date: 2015-04-02
      Check-in Date: 2015-03-28      Check-out Date: 2015-03-29
```

Comments: you can see from the above picture, you are able to see that you have already booked the room successfully. In the transaction information, you would see the Hilton name, booker id, hotel number, room number, book date (the time you booked), and check-in date and check-out date. Booking the same room at the same period of time is

not permitted. For this, I tend to use the “Synchronized” key word on the booking method at the server side. So Booking the same room at the overlap time among different bookers will not occur in my system.

- 7) If you still want to check your information in this hotel, you can input “U” in the command line. Then you follow the order and input the required information. Like account number and password. You will see the picture below:

```
Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: u
Brand: hilton
Do You hava an Account in this Hotel <YES/NO> ? yes
Your Account NO.: 123456
Your PassWord: 123456
1. Booker ID: 123456      Name: yujun      Tel.: 18662219952      Mail Box: yujunshe@qq.com
   Booking information: Brand: Hilton      Hotel NO.: 4      Room NO.: 44      Book Date: 2015-04-02
   Check-in Date: 2015-01-11      Check-out Date: 2015-02-12      Credit Card Number: *****3456
2. Booker ID: 123456      Name: yujun      Tel.: 18662219952      Mail Box: yujunshe@qq.com
   Booking information: Brand: Hilton      Hotel NO.: 6      Room NO.: 66      Book Date: 2015-04-02
   Check-in Date: 2015-01-22      Check-out Date: 2015-02-13      Credit Card Number: *****3456
3. Booker ID: 123456      Name: yujun      Tel.: 18662219952      Mail Box: yujunshe@qq.com
   Booking information: Brand: Hilton      Hotel NO.: 4      Room NO.: 44      Book Date: 2015-04-02
   Check-in Date: 2015-03-28      Check-out Date: 2015-03-29      Credit Card Number: *****3456
This is Your Personal information!
```

Comments: you can see from above picture, you fill in the blank with your account number you just registered. Then you can login the system to see you basic information. Like telephone, email and the booking information. In this case you would see two piece of transaction information in this hotel which means you have booked twice in this hotel. These information is all recorded in the database.

Since you have already booked two rooms, we should know in this hotel that the room number is decreased by two, you can see the following picture to prove that! And at that time, the room you have booked must be unavailable.

```
Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: hi hangzhou
Brand: hilton      Hotel NO.: 4      City Name: Hangzhou      Location: Zhejiang      Room Rate: 235.99 RMB      Total Rooms Number: 10      Vacant Rooms Number: 7
Brand: chevron      Hotel NO.: 4      City Name: Hangzhou      Location: Zhejiang      Room Rate: 100.01 RMB      Total Rooms Number: 20      Vacant Rooms Number: 20
Brand: regent      Hotel NO.: 4      City Name: Hangzhou      Location: Zhejiang      Room Rate: 150.98 RMB      Total Rooms Number: 20      Vacant Rooms Number: 20
```

The room number 44 is not available between the 2015-01-11 and 2015-02-13, because this room is booked by account number 123456 during that period of time.

```

Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: v
Brand: hilton
Hotel NO.: 4
Check-in date: 2015-01-11
Check-out date: 2015-02-13
The Vacant Room NO.: 40
The Vacant Room NO.: 41
The Vacant Room NO.: 42
The Vacant Room NO.: 43
The Vacant Room NO.: 45
The Vacant Room NO.: 46
The Vacant Room NO.: 47
The Vacant Room NO.: 48
The Vacant Room NO.: 49

These rooms are vacant, and You can select whatever you like!

```

- 8) If you want to leave the system, you only need to go back to the main menu and input “Q” to quit the system, and the Client will send a message to the broker to close this socket, and then this client will close whatever needs to be closed. We will go back to the normal command line. While this system is a multi-thread system, you start the client at any time you want.

```

Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: q
INFO [main] <client.RMIClient:125> - RMIClient is shutting down the connection...

```

6. Check the functions of Web –based Hotel Booking System

- 1) First, you should put the files inside the directory 26346702a2/web into you tomcat server like Tomcat installed directory\webapps\ROOT, and then replace the current files, like the index.jsp, WEB-INF. Second, you should start up the tomcat server using the command “startup.bat” or “startup.sh” if you are using the UNIX platform. Last but not least, you should previously start up the RMI Server, CORBA Server, and Broker.
- 2) The first page you will see is like the picture below, and you should log in the system first. If you don’t have one, register one first.

Hotel Booking System

Guest ID Number:

Password:

- 3) If you don't have an account, click register to register one.

Hotel Booking System

Booker ID Number:	<input type="text" value="26346705"/>
Booker Name:	<input type="text" value="Yu Jun"/>
Telephone Number:	<input type="text" value="18662219952"/>
Password:	<input type="password" value="....."/>
Email:	<input type="text" value="yujun_daxia@163.com"/>
<input type="button" value="SUBMIT"/> <input type="button" value="RESET"/>	

- 4) Then you will see the page below, you will clearly see the cities supported by this hotel booking system. And you can also select the hotel ID, check-in date, and check-out date to query the rooms as required by you conditions.

Hotel Booking System

Hello Guest: 26346705 [LOG OUT](#)

Select Hotel ID:

Select Check-in Date 2015-05-

Select Check-out Date 2015-05-

City Supported by this System
Adelaide Hangzhou Melbourne NanJing Brisbane Ningbo Suzhou Sydney

- 5) After this, you will see the page below showing the required rooms supported by this hotel booking system, and you can select one to book, or if the price is too high, you can also query once by your choice. Logout button is available for you to log out the system if you don't want to book any more.

Hotel Booking System

Hello Guest: 26346705 [LOG OUT](#)

Input Hotel Number
 Input Check-in Date 2015-05-1
 Input Check-out Date 2015-05-1

Server	Brand	Hotel NO	Room NO	Check-in	Check-out	Date	Price	
RMI	chevron	5	50	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	51	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	52	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	53	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	54	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	55	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	56	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	57	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	58	2015-05-08	2015-05-09		110.06	<input type="radio"/>
RMI	chevron	5	59	2015-05-08	2015-05-09		110.06	<input type="radio"/>

Server	Brand	Hotel NO	Room NO	Check-in	Check-out	Date	Price	
CORBA	chevron	5	50	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	51	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	52	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	53	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	54	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	55	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	56	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	57	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	58	2015-05-08	2015-05-09		110.06	<input type="radio"/>
CORBA	chevron	5	59	2015-05-08	2015-05-09		110.06	<input type="radio"/>

- 6) If I click book, you will then see the page below containing the confirmation and credit card number input box. You should fill the blank with you credit card number if you make sure the information is ok. If you don't fill the blank, the booking action will not complete, instead the information of failure will show up for your illegal action.

Hotel Booking System

Server	Brand	Guest ID Number	Hotel Number	Room Number	Check-in Date	Check-out Date	Price	Credit Number
RMI	chevron	26346705	5	56	2015-05-08	2015-05-09	110.06	1234567890123456

Hotel Booking System

Hotel Booking System

Book successful!

Book failed!

- 7) If you input the right number, and you will see that the 'Book successful' information will show up, instead if you input the illegal number or don't input any characters, you will see the 'Book failed' information.