

User Guide

My Hotel Booking System

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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	3
5. Check the function of this Hotel Booking System	3

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 'fit5183a1' with no passwords, then you need to create a database named id26346702 with 'fit5183a1' account.
- 2) Secondly, you need to open the command line and then import the id26346702.sql to the specified database named id26346702. 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 fit5183a1 -p id26346702 < id26346702.sql
```

Comments: In this database I have created 12 tables, each four of which are representing single server. There are three groups representing Hilton, chevron, regent respectively.

2. Start the Hotel Booring System Server program

Open the command line, then input the following command line with arguments 'hilton', 'chevron', or 'regent' you will see the Server is now running, repeat the above action for three times, you will now find three Servers are running simultaneously. **Attention: you should change the directory to the folder where you put your Server.**

```
C:\Users\hp>java -jar Server.jar hilton
Server: The Server hilton is now running!
```

```
C:\Users\hp>java -jar Server.jar chevron
Server: The Server chevron is now running!
```

```
C:\Users\hp>java -jar Server.jar regent
Server: The Server regent is now running!
```

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\hp>java -jar Broker.jar
Get the broker server started!
```

4. Start the Client program

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

```
C:\Users\hp>java -jar Client.jar
Please Use the following Commands to get the results you request

*****
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 Cities Supported by the System!
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!
*****

Enter Request: C ! LH <cityname> ! HI <cityname> ! RR ! U ! B ! U !Q: u
```

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 Nunber: 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 the 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 register 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 hava an Account in this Hotel <YES/NO> ? _
```

If you input NO: then you will need to fill the blanks provided by the system. Like you 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 hava 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 are 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
C:\Users\hnp>
```