

CSCC43 | Summer 2019 | MyBnB - USER MANUAL

Welcome to MyBnB! This manual will cover everything you need to know in order to use the system efficiently and effectively.

Getting Started

To begin, open this project in your IDE of choice - I would recommend using IntelliJ. The main method resides in the MyBnBMain.java class.

At the top right hand corner of the IDE, ensure the run configuration in the dropdown is set to MYBNBMAIN and press the green triangle to begin the execution of the application.



Figure 1 - Run configuration dropdown and “start button”

Afterwards, you should be able to see the application running in the IDE’s console.

```
===== MENU =====
0. Exit.
1. Initialize Database. (First time setup)
2. Load sample data. (Run once after database initialization)
3. Go to MyBnB.
Choose one of the previous options [0-3]:
```

Figure 2 - Main menu

0 - End the execution of the application.

1 - Initialize the database by dropping the existing tables and loading in empty ones.

2 - Populate the database with valid values from CSV files. This command is completely optional and you don't need to run this command unless you want to populate the database with existing data. If you choose to go this route, then you will have to modify several lines within the **loadSampleData** file in the **DatabaseWorker.java** file - located in **src/database/DatabaseWorker.java** [lines 177 and up]

(SEE NEXT PAGE FOR MORE DETAILS)

```
174 @ public static void loadSampleData(Connection conn) {  
175     try {  
176         Statement st = conn.createStatement();  
177         String insertUsers = "LOAD DATA LOCAL INFILE '" + "C://Users/patri/Documents/CSCC43/MyBnB/data/mybnb - Users.csv" +  
178             "' INTO TABLE Users FIELDS TERMINATED BY ',' LINES TERMINATED BY '\r\n'";  
179         st.executeUpdate(insertUsers);  
180  
181         String insertRenters = "LOAD DATA LOCAL INFILE '" + "C://Users/patri/Documents/CSCC43/MyBnB/data/mybnb - Renters.csv" +  
182             "' INTO TABLE Renters FIELDS TERMINATED BY ',' LINES TERMINATED BY '\r\n'";  
183         st.executeUpdate(insertRenters);  
184  
185         String insertHosts = "LOAD DATA LOCAL INFILE '" + "C://Users/patri/Documents/CSCC43/MyBnB/data/mybnb - Hosts.csv" +  
186             "' INTO TABLE Hosts FIELDS TERMINATED BY ',' LINES TERMINATED BY '\r\n'";  
187         st.executeUpdate(insertHosts);  
188  
189         String insertListings = "LOAD DATA LOCAL INFILE '" + "C://Users/patri/Documents/CSCC43/MyBnB/data/mybnb - Listings.csv" +  
190             "' INTO TABLE Listings FIELDS TERMINATED BY ',' LINES TERMINATED BY '\r\n'";  
191         st.executeUpdate(insertListings);  
192  
193         String insertCalendar = "LOAD DATA LOCAL INFILE '" + "C://Users/patri/Documents/CSCC43/MyBnB/data/mybnb - Calendar.csv" +  
194             "' INTO TABLE Calendar FIELDS TERMINATED BY ',' LINES TERMINATED BY '\r\n' " +  
195             "| (calendar_date, price, listing_id, status, @vsin_renter, sin_host) " +  
196             " SET sin_renter = nullif(@vsin_renter, 'NULL')";
```

Figure 2a - DatabaseWorker.java class

Make note of the lines with the absolute path to the .csv files. You need to change these so that they lead to your .csv files in your system.

3 - Go to the main MyBnB menu

Main MyBnB Menu

```
===== MYBNB =====  
  
0. Back.  
1. Log in.  
2. Create an account.  
3. Search for listings.  
4. View reports.  
|choose one of the previous options [0-4]:
```

Figure 3 - MyBnB Main Menu

0 - Go back to the initial setup menu options

1 - Log in with a valid username/password

- 2 - Create an account
- 3 - Search for listings created by hosts in the MyBnB system
- 4 - View the reports for specific statistics/analytics on the data in the MyBnB database.

Create an Account

To create an account, press 2 and enter each field accordingly.

```
===== USER ACCOUNT CREATION =====  
  
Enter your date of birth (YYYY-MM-DD): 2000-01-01  
Enter your first and last name: Podrick Peppers  
Enter your address: King's Landing  
Enter your occupation: Knight  
Enter your SIN number: 198723546  
Enter your username: hi  
Enter your password: hello  
Are you a renter or a host? renter  
Enter your credit card number: 1122334455667789  
[SUCCESS] : User has been successfully created
```

Figure 4 - User Account Creation Flow

A few things to keep in mind:

- You must be older than 18 to use this application AND you must provide a date in the format given above
- Your SIN number must be 9 digits long. If another account is registered with the given SIN, your account will not be created
- If you are registering as a renter, you must also provide your credit card number (16 digits long) so that the system can keep track of your payment information. If you are registering as a host, you do not need to do this

Upon completion of this form, you will either be greeted with a success message or a failure message (depending on the validity of your information). With your newly created account, you can now press 1 to log in and enter your credentials

User Options - Renter

```
===== LOGIN =====  
  
Enter your username: hi  
Enter your password: hello  
[SUCCESS] : User hi has been successfully authenticated  
  
===== RENTER =====  
  
0. Logout.  
1. Book a listing.  
2. Cancel a booking.  
3. Review a host/listing.  
4. Delete account.  
  
Choose one of the previous options [0-4]:
```

Figure 5 - Successful Sign In & Renter Menu Options

0 - Logout of your current account. Logout of your current account. This will bring you back to the MyBnB menu

1 - Book a listing on the database system. You will first be asked to enter the ID of the listing you wish to book. Then you can select from the list of available dates which one you'd like to pick. If the date is available, the booking will succeed but if it is not, you will be notified that the listing is not available on the date you requested.

2 - Cancel a booking you've made. You will be asked to enter the ID of the listing you wish to cancel. From there, you will have to select which date(s) you want to cancel your booking.

3 - Review a host/listing that you've rented from. You will be given the list of hosts that you've rented from. This is to ensure that you can only write reviews for hosts that you've rented from.

4 - Delete your account. This deletes your account from the MyBnB system and any relevant record tied to it (except for the reviews you write on a host's listing)

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User Options - Host

```
===== HOST =====  
  
0. Logout.  
1. Create a listing.  
2. Update a listing's price.  
3. Update a listing's availability.  
4. Add an extra availability date.  
5. Remove a listing.  
6. Cancel a booking.  
7. Review a renter.  
8. Delete account.  
|choose one of the previous options [0-7]:
```

Figure 6 - Host menu options

0 - Logout of your current account. This will bring you back to the MyBnB menu

1 - Create a listing in the system. This will allow you to create a new listing on the MyBnB system. Follow through with the workflow of the form and enter the appropriate fields so that your listing can be created with available booking dates.

2 - Update one of your listings' price(s). This will allow you to update the price of a given listing's availability date. Enter the ID of the listing you wish to update the price for. Then proceed to enter the dates and the new price you wish for the dates to have. If a date is currently booked, you will not be able to modify the price.

3 - Update one of your listings' availabilities for a given date(s). This will allow you to change the availability for a given date. It should be noted that once you change a date from available to unavailable, you cannot undo this change.

4 - Add an extra date for availability for a given listing. This will allow you to add an extra date for availability for the specified listing. All you need to do is enter the dates you wish to list and the associated prices.

5 - Remove a listing from the system. This will allow you to remove a listing from the system along with all the available/unavailable dates associated with it.

6 - Cancel a booking for one of your listings. This will allow you to cancel a date that a listing is booked for.

7 - Review a renter that has rented from you. This will allow you to review any renters that have rented from your listings.

8 - Delete your account. This deletes your account from the MyBnB system and any relevant record tied to it (except for the reviews you write on a host's listing).

Search Queries

```
===== MYBnB =====  
0. Back.  
1. Log in.  
2. Create an account.  
3. Search for listings.  
4. View reports.  
Choose one of the previous options [0-4]: 3  
===== SEARCH =====  
0. Back.  
1. Search by latitude/longitude.  
2. Search by postal code.  
3. Search by address.  
4. Search by date range.  
5. Search by multiple filters.  
6. Search by multiple optional filters.  
Choose one of the previous options [0-6]:
```

Figure 7 - Search query options

0 - Go back to the previous menu

1 - Search for a listing by latitude/longitude. Enter a latitude/longitude and you will see all the listings that are within the radius of the latitude/longitude point that you specified.

2 - Search for a listing by postal code. Enter a postal code and you will see the listings that are either equal to your postal code or adjacent to it.

3 - Search for a listing by a specific address. Enter an exact address and you will see the listing that matches the address you specified.

4 - Search for a listing based on a range of availability dates. Enter a start/end date and you will see all the listings that are available within the date range you specified.

- 5 - Search for a listing based on several filters. Enter a date range, price range, postal code, and list of amenities. You will see all the listings that match each of those specified filters.
- 6 - Search for a listing by selecting which filters you want to apply in your query. You can choose (mix and match) the queries you would like to apply to your search query. Similar to option 5 but you can choose your filters.

Reports

```
Choose one of the previous options [0-4]: 4
===== REPORTS =====
0. Back.
1. Total number of bookings.
2. Total number of listings.
3. Top hosts based on # of listings.
4. Listing percentage per host.
5. Top renters based on # of bookings.
6. Top users with the most cancellations.
7. Popular phrases/words per listing.
Choose one of the previous options [0-7]:
```

Figure 8 - Report options

- 0 - Go back to the previous menu
- 1 - Total number of bookings will tell you the amount of bookings that have been made by renters in a given time range.
- 2 - Total number of listings will give you the amount of listings in a city, city/country, and city/country/postal code.
- 3 - Top hosts will give you a rank of the hosts that have made the most listings in a city and country.
- 4 - Listing percentage will tell you which hosts have more than 10% of the current market's share for rentals.
- 5 - Top renters will tell you which renters have made the most bookings in a given time range.
- 6 - Top users will tell you which users have made the most cancellations for bookings.
- 7 - Popular phrases/words will tell you the most commonly used noun phrases for a given listing.

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NOTE - Screenshots for going through the flow of each option was omitted as that would have resulted in a very lengthy user manual.