

Documentation - Group 20

CS 336 - 2017 Fall

Team

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Server Connection Guide

1. Decompress hotel.zip
2. Download and install node.js
3. Open terminal, change directory into hotel (cd hotel)
4. Run command line: *npm install*
5. Run buildHotel.sql to initialize the database
6. Open index.js. From line 23 to line 28, change username, host and password to your own MySQL username, host and password.
7. To start server, change directory into hotel in terminal, run command line: *node-dev index*
8. Server is listening to the port 8080. Type localhost:8080 in your browser.

Database Implementation

For the database, we used local server to connect MySQL to implement database schema from Project Deliverable-2. We have already inserted some values for each table, so that the admin will be able to do some queries after run the database.

For the ranking functions in the statistics page, we did SQL queries to return the hotelId, room/breakfast/service type or username, and rating/price. Then the server retrieves the results based on the client request, and send them back to display on the screen.

Algorithm for the server

For every entity set in the ER diagram, we create a class for it. The fields of each class are the corresponding attribute for this entity set. Every class has its corresponding methods which can be connected to MySQL and get the results.

For the main server, we use the express frame work and node.js to build the server. The server will catch the HTTP request send from client side, with corresponding request url. When the server processes the request, it will use corresponding static function from the class.

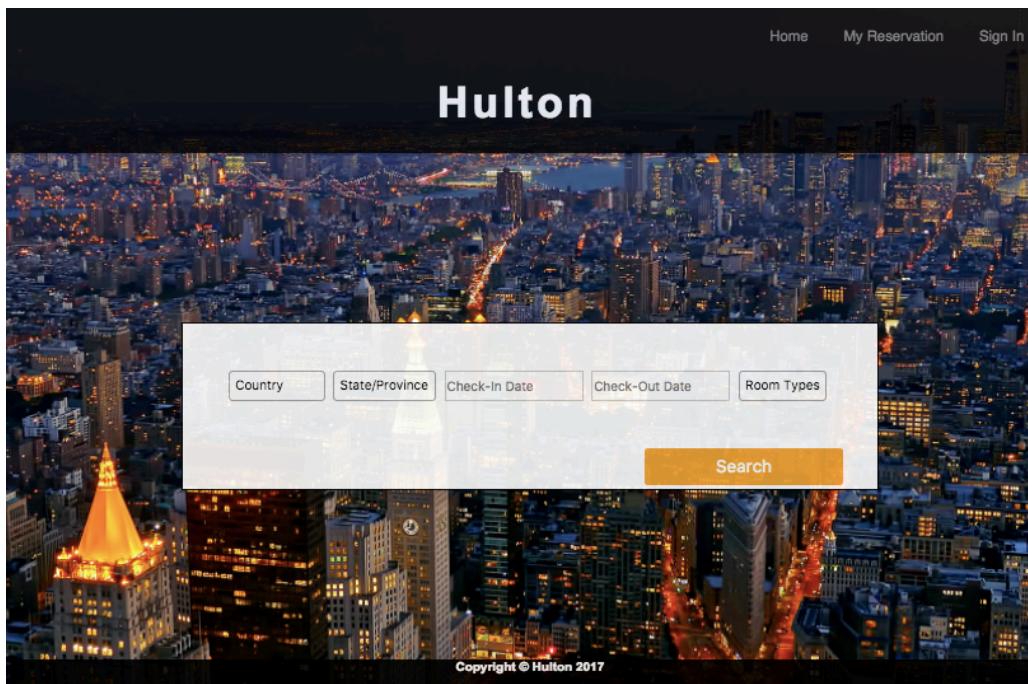
Algorithm for client-side

The client-side is responsible for sending user input information to the server and request data from the server to update the page. The main tools used are jQuery library and AJAX.

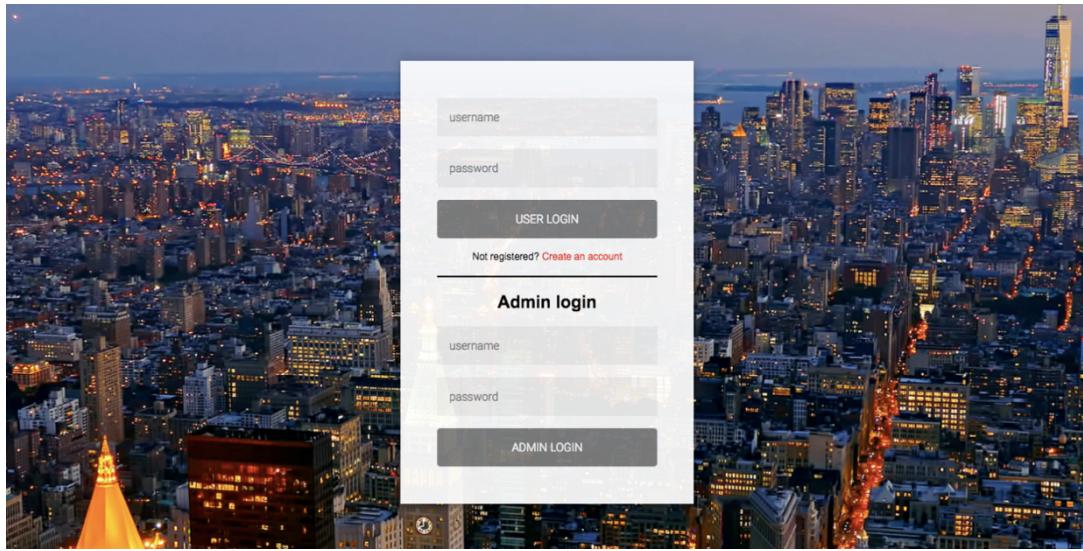
When an onclick event is triggered, e.g. when the user clicks the submit/search/select button, we send a POST request to the server, collect the user input information as a JSON object, and send it through a certain URL. In the callback function, the server will redirect the current page to the next step of the reservation process.

For displaying user profile/reservation and query results, we send a GET request to the server, the server will retrieve data from the database may or may not based on the POST request if there is any, and send it back to the client-side through a certain URL. Then the client will append the sent-back JSON object to the HTML, or reorganize them into a text string, and load it as an XML DOM object.

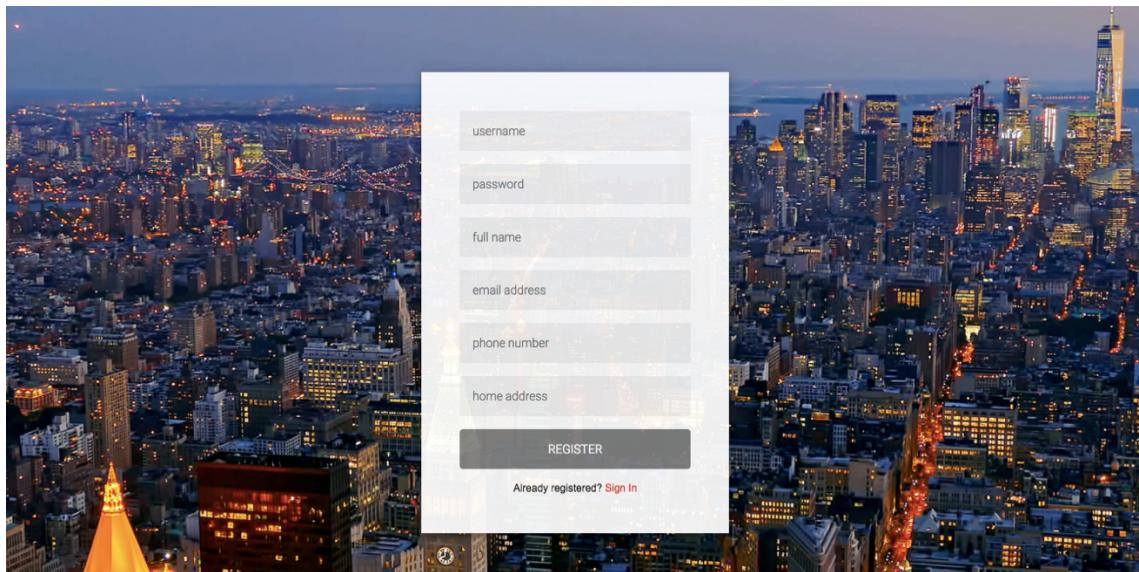
User Guide



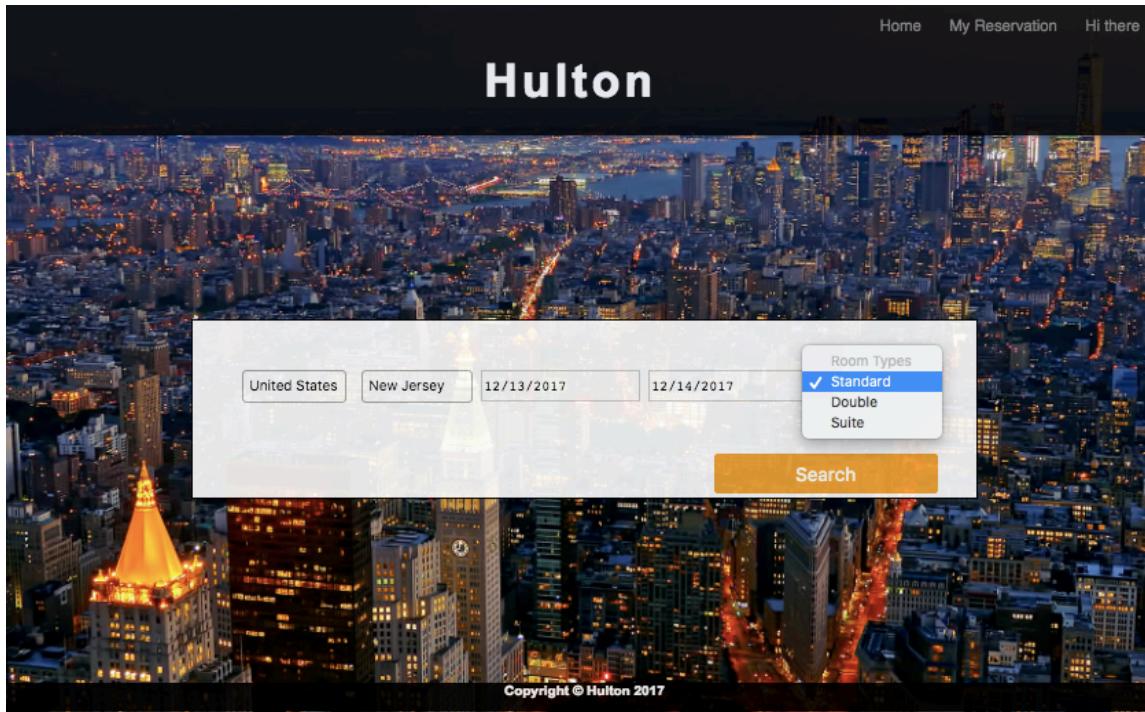
This website requires all the users to sign in before searching for the available rooms, and the sign in button is on the top-right corner. If the user clicks the “search” button before signing in, it will pop out a sign in page.



The sign in page allows the user to login or create an account, and the hotel manager is able to login as an admin using the default account (username: admin, password: admin). If logging in as an admin, the user will arrive statistics page which is mentioned below.



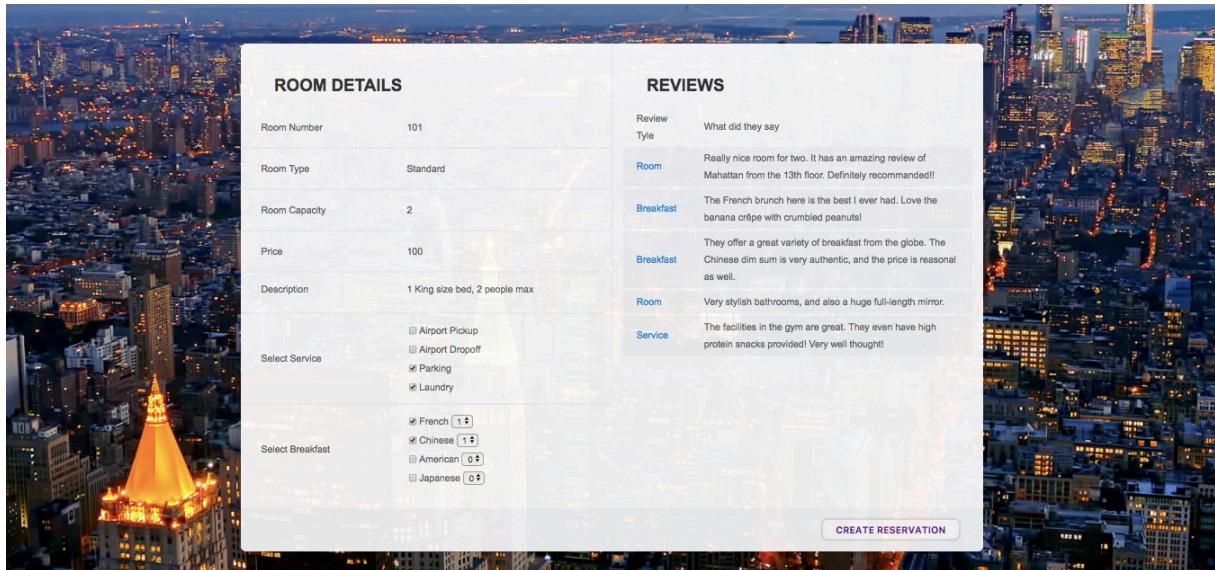
If the user is not registered, he can click “Create and account” and enter all the required information to register. After registration or signing in, the user will be redirected to home page.



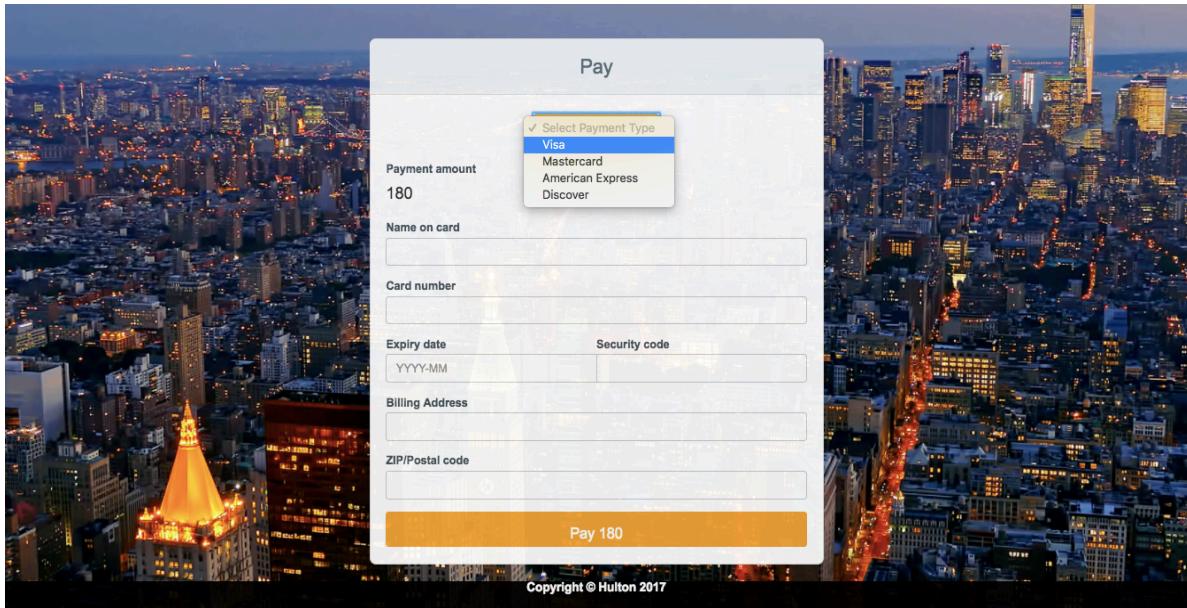
Then the user will be able to select country, state/province, check-in/check-out date and the room type to start searching.



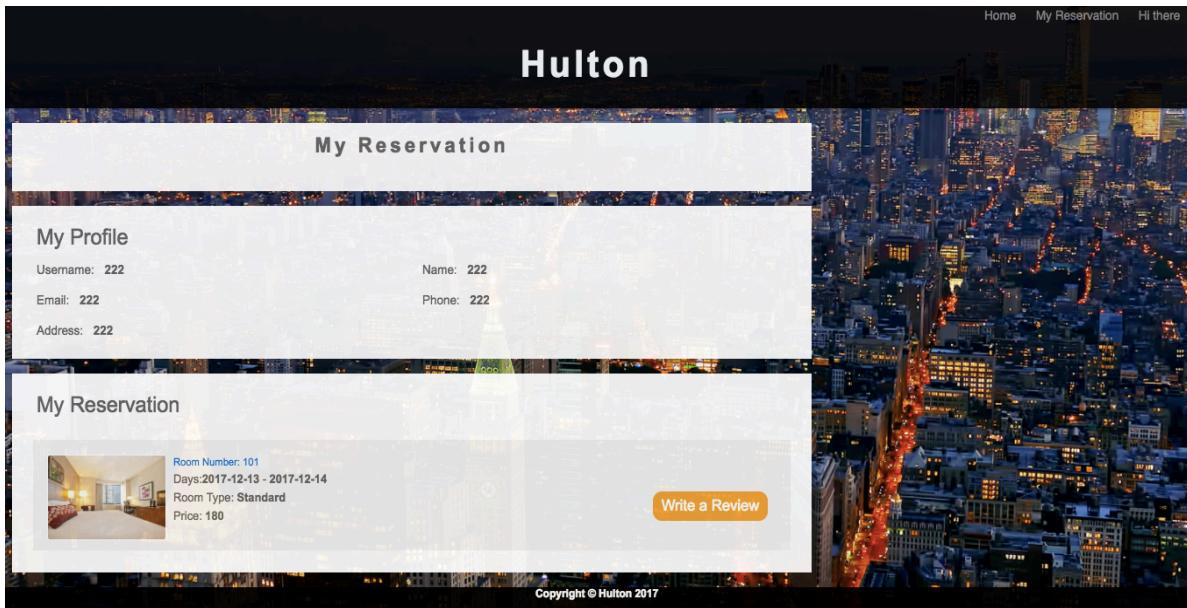
Next, the user will be redirected to the next page and able to see a list of hotels which offer rooms matched your needs. On the hotel list, the user can see the hotel ID, the base price and the hotel address. After that, the user can select a certain hotel by clicking “select” on the right.



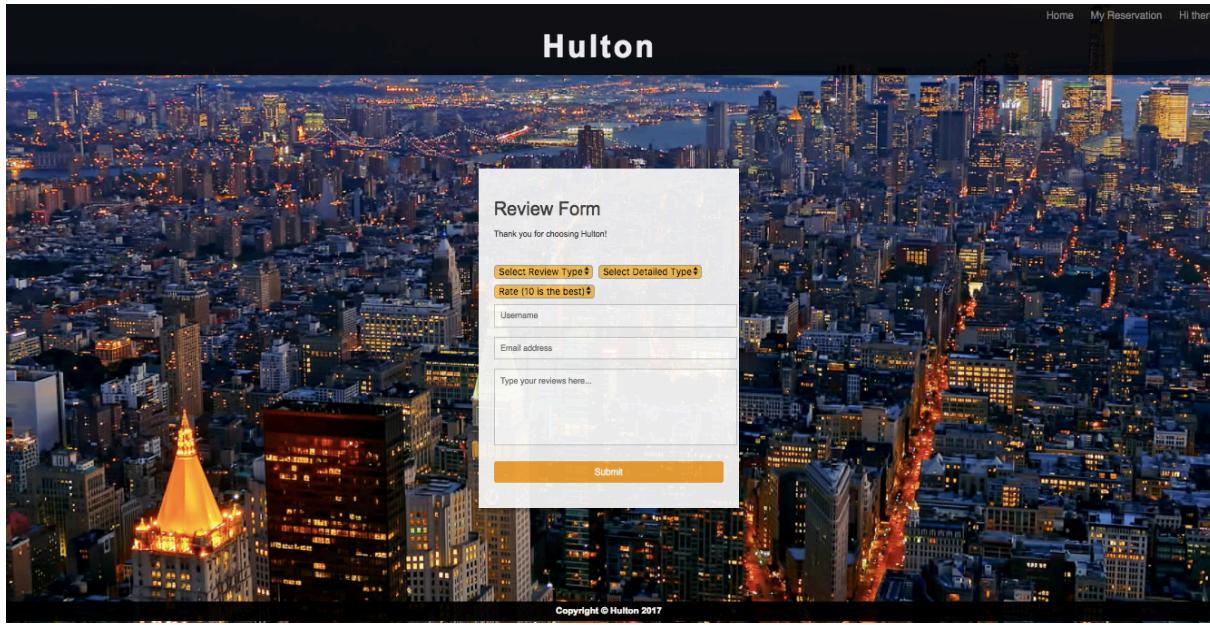
After selecting the certain hotel, the user will go to room page showing the detailed information of the room. On the right side of the page, there is a review section including room review, breakfast review and service review for customer's reference. On the left side, it shows all the information about this room, including room number, room type, room capacity, price, description, service type and breakfast type. The user must select what type of service and breakfast they want in order to make a reservation.



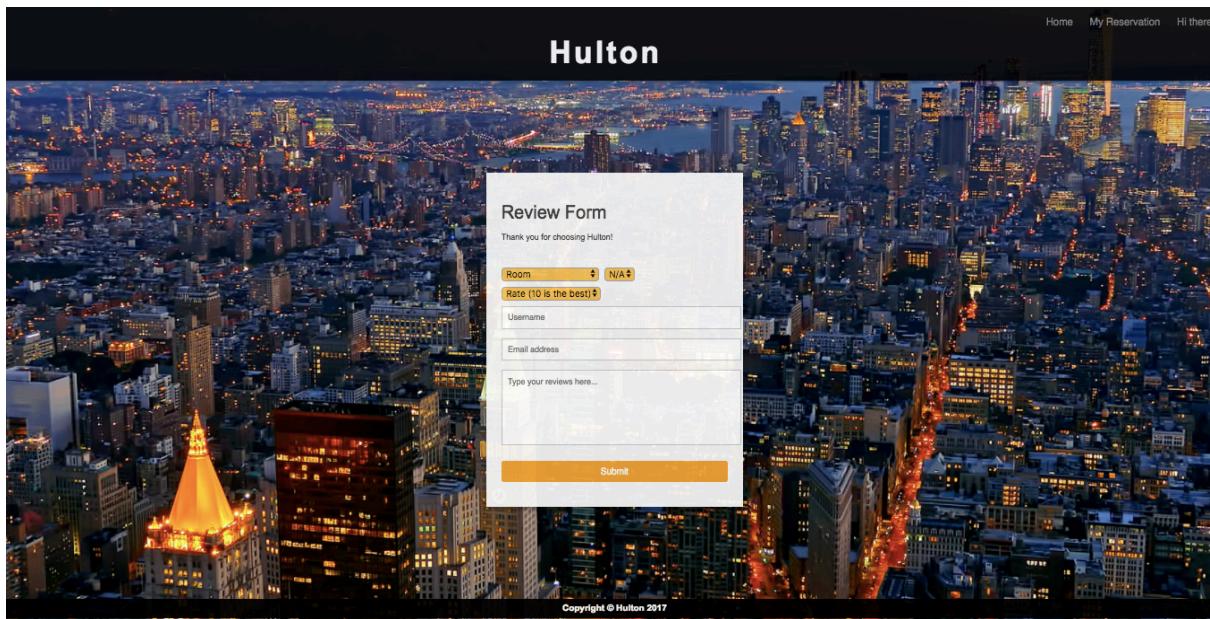
Then the user arrives the final step to complete this reservation. In this transaction page, the user will need to select the credit card type and enter all the required information. For the expiry date, the user need to type in the format of YYYY-MM.



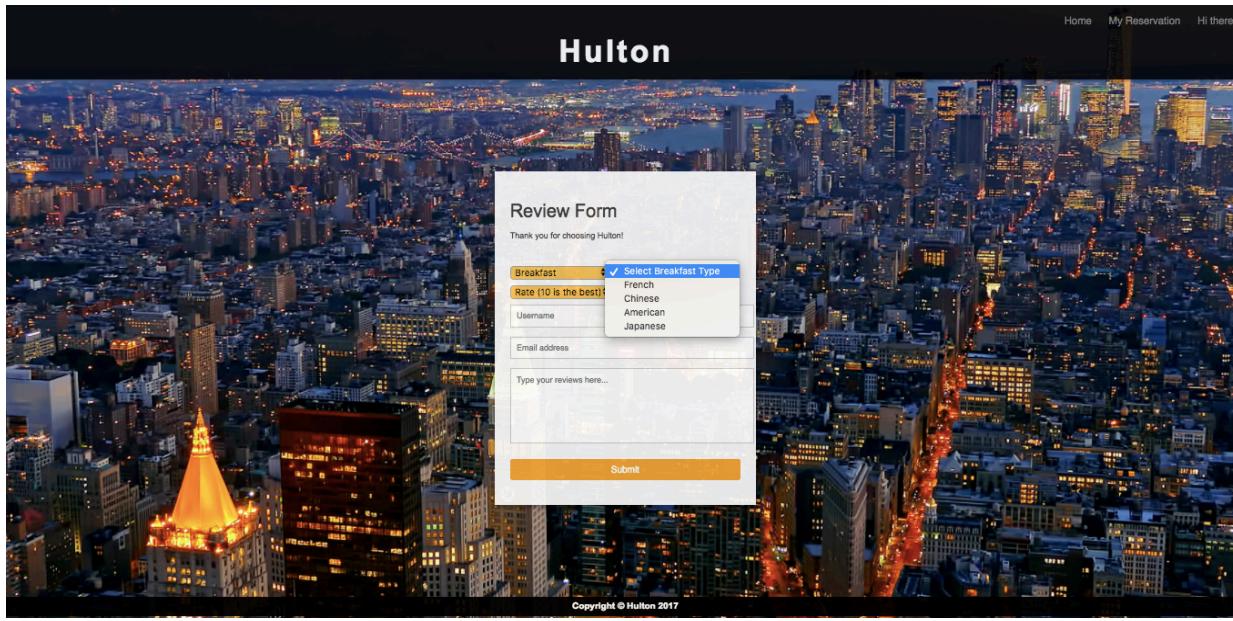
After the transaction process is completed, the user will be landed on the My Reservation page which can also be accessed through the header of the website. This page displays the user profile and all the reservation that has been made. On the left side of My Reservation part, the user can click "write a review" button to access review page.



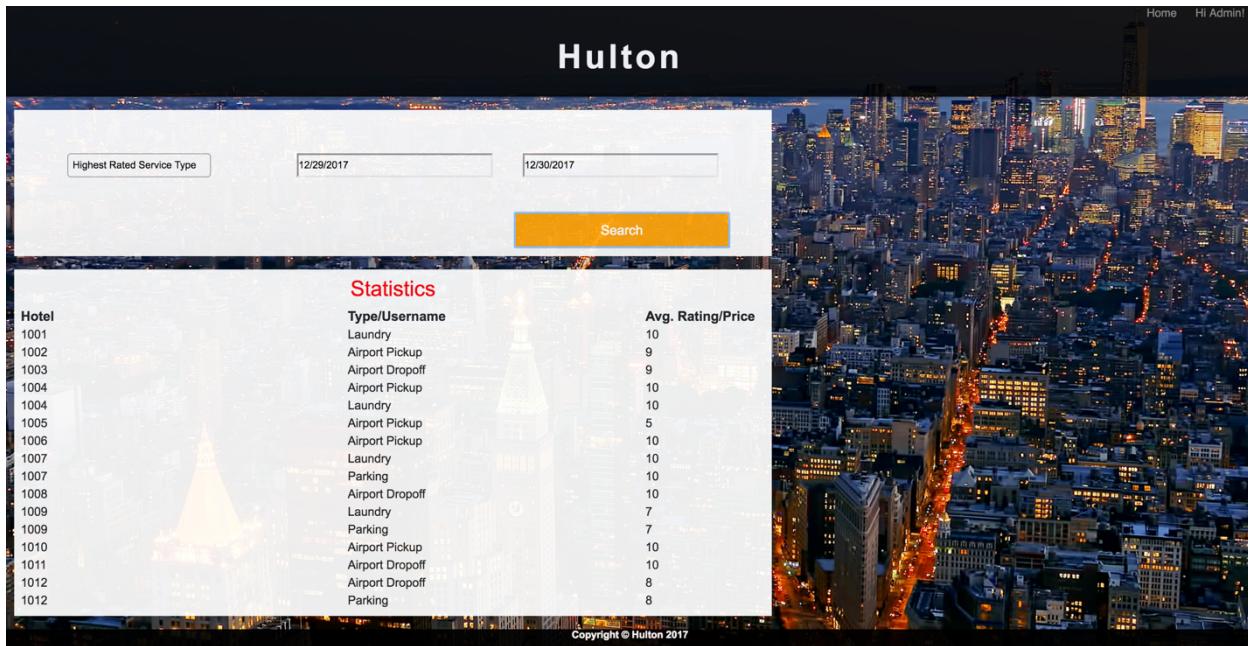
This page allows the user to select review type (room, breakfast and service) and write a review. The user will also need to select rating (0 to 10), enter username and email, and type comments in order to submit the review form.



If the user selects room review, the detailed type will be disabled.



If the user selects breakfast or service review, it will pop out a dropdown select tag for the detailed selection.



Finally, this website also provides a statistics page which are used by Hulton to analyze customer satisfaction and needs. Statistics page can be accessed by logging in as an admin. Admin is able to select stats category, check-in date and check-out date to computer the highest rated room, 5 best customers, the highest rated breakfast type and highest rated service type, and all the results will be displayed below.