

CS601-01/CS601-02: Project¹

TravelHelper - A Hotel Review Website

Due Date for Release #1: Nov 21, 11:59pm

The goal of the project is to implement a website with a **subset** of the functionality of tripadvisor (or oyster.com, hotels.com), where users can register, login, create a profile, write and edit hotel reviews, as well as search for hotels by the city, read reviews written by other people, search for the nearby tourist attractions and so on (see the list of features below). Note that this website will **not** allow the user to check availability or book hotels.

80% of the grade will be based on the functionality of the features your website provides.

General Requirements (for both parts of the project)

- You are required to implement both the front end and the back end.
- Your code should be in **Java** (plus some Javascript for the **front end** as needed).
- You may reuse code from your labs; just keep in mind that you will most likely need to modify it for the project. You may also use code from the examples I showed in class, but you need to completely understand every line of code in your project (saying "I am not sure how it works, I just copied it from your example" will result in a 0 for the project).
- You can either use Jetty/Servlets or your RawSocketsServer that you wrote for lab 6. I strongly recommend using Jetty/Servlets. You are not allowed to use any framework for part 1 of the project. For part 2 of the project, you might be able to use a framework like REACT, but you need to discuss it with the instructor first.
- MySQL Database: You are required to use the database assigned to you.
- By default, you may **not** use any libraries except for the ones we used for labs. You are *not* allowed to use DataTables jQuery plugin or similar plugins. If you would like to use a particular library or tool, please make sure to get the instructor's approval first.
- For the **final release** of the project, your web pages should look professional and have a clean look. Using Twitter Bootstrap is highly recommended. For the first part of the project, you will mostly concentrate on the backend, and I do not expect to see a polished front end.
- When you come for an interactive code review & demo (see the Submission subsection below), your code must be running on your assigned microcloud node, or on AWS or another hosting service.
- During the demo & interactive code review, it is your responsibility to demonstrate to the instructor that each feature works properly. You may **not** receive credit for the features you don't demonstrate at that time. Please practice showing a demo beforehand and come prepared. Make sure to show how your features handle error cases (e.g., login of a user that does not exist).

¹ The assignment is modified from the original assignment of Prof. Rollins.

Required Features for Release #1

For Release #1, you must complete all of the following required features for a total of 40 points.

Feature	Description	Points
User Registration	" <i>Register</i> " button that allows a user to register on the website. You need to check that the username has not already been taken, and that the password satisfies a set of reasonable requirements (ex: not too short, contains at least one special character etc.) User's info (username, hashed salt, hashed password+salt) should be stored in the MySQL database (you should access the database using JDBC as shown in class). Password should be salted and hashed.	5 pts
Login and Logout	Allow a user to login and logout. You need to maintain the session properly. Your code should use JDBC to access the user account info in MySQL database.	5 pts
View Hotels	Display the list of all hotels (display general hotel info like the name and address for each hotel). Display the average rating next to each hotel.	5 pts
View Reviews for a Given Hotel	Allow a user to click on a particular hotel, and display a list of reviews for that hotel.	5 pts
Store Reviews in the Database	Use MySql database to store <i>review</i> data.	5 pts
Add Review	Allow a logged in user to add a review for a hotel.	5 pts
Modify Review	Allow a logged in user to edit their review and delete it.	5 pts
Tourist Attractions	Have an option to display a list of tourist attractions within a certain radius of a given hotel.	5 pts

The list of required features for Release #2 will be posted later.

Javadoc Comments:

You are required to add javadoc comments to your code (above each class and above each public method).

Design:

It's important for your project to have good object-oriented design. I encourage each student to discuss their design with the instructor prior to coding.

Submission:

1. Your project code should be submitted to your private project-username repo on github before the deadline. Please keep pushing your code to github as you work on the project. I expect to see at least 10 commits. No history on github except for the final submission will result in a 0 for the assignment.
2. You need to deploy your webserver either on the microcloud node assigned to you or on AWS (or similar hosting site).
3. Both releases will be graded interactively - you must make an appointment with the instructor or the TA to demo your project by the given deadline.