

CS601-01/CS601-02

Lab1 Part 2

Due: Sep 15, 11:59pm

Part 2 of this lab builds on top of part 1 - please make sure your part 1 works well before you start working on part 2.

Just like in part 1, you need to use the provided structure. You **may not modify signatures of any methods in the starter code and may not modify the provided tests**¹. For part 2 of the lab, your code needs to *pass all the provided tests*.

Part 2 of the lab should contain all methods from part 1 of the lab plus you need to write the following methods:

loadReviews method should take a *path as a parameter*, and **recursively** find all .json files with hotel reviews in this folder and its subfolders and the subfolders of the subfolders etc. Your code needs to be recursive and general, it should work with any folder that contains json files with reviews (including some in subfolders) in the same format.

I recommend looking at any json file in input/reviews folder to understand its structure. Each json file in the **reviews** subfolder contains information about all the reviews for a given hotel id. You need to parse each json file with reviews using JSON Simple library, create the actual Review objects, and add references to them to the appropriate TreeMap in your HotelData data structure.

After loading all the reviews, you need to **compute the average review rating** for each hotel and store this information in the averageRating variable for each Hotel object.

For viewing JSON files, I recommend JSON Viewer:
<https://codebeautify.org/jsonviewer>

printToFile method takes the name of the output file as a parameter, and prints all hotel information from the hotelsMap to the file in the required format. Look at the file called expectedOutput in the test subfolder.

Do **not** hardcode the names of files or folders in your code. Your code should work on any directory that has json files in the same format.

test directory contains test files that will be used to test your lab. For lab 1 part 2 you need to pass all of the provided tests:

¹ Except for that one correction to testSimpleAddHotel() I posted about earlier on Piazza.

- `HotelDataTest.testInvalidDate`
- `HotelDataTest.testSimpleAddHotel`
- `HotelDataTest.testSimpleAddHotelReview`
- `HotelDataTest.testThreeReviewsSameHotel`
- `HotelDataTest.testInvalidRating`
- `HotelDataTest.testGetHotels`
- `HotelDataTest.testAddInvalidReview`
- `HotelDataTest.testPrintToFile`

Grading

Your code needs to pass all tests in `HotelDataTest` for lab1 **part 2**. The tests are 80% of your total grade for this assignment. The remaining 20% are for efficiency, encapsulation, exceptions, whether the program is implemented according to the lab description etc.

The Javadoc provided in the skeleton code provides specific descriptions of the expected behavior and output of each method. Fill in the code as needed, and add other methods as necessary. Proper encapsulation is important: make sure your instance variables are private, etc.

Notes:

- You may **not** make any modifications to the API or the test cases that are provided to you unless the instructor explicitly tells you it is allowed.
 - You are not allowed to use any other external libraries for this lab except for `JSONSimple` and `JUnit`.
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Make sure your code compiles and runs before your final submission - projects that don't compile or don't run will get a 0. Passing the tests is 80% of the grade for each part of the lab.

Academic Honesty

This assignment is to be done individually. You may **not** work with other people, look at their code or ask them for help.

You may not copy (even partially) any part of this code from the web.

You may ask the instructor, the TAs and CS tutors from the CS tutoring center for help.