

CST 365/465

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Homework #1

Due: 6/20/23 (by midnight)

For this assignment, you will need to create a Netbeans project which you will need to name using your Last name followed by your first name followed by “-Homework1” to name it. After completing the assignment, zip the project directory and turn in **via blackboard** by the due date.

Finally, you will need to perform this work using Spring Boot.

Part I: Initialization

1. Our spring system will be an review system that will allow us to work with an review database.
 - a. You'll need to make a review object which has the following fields: RID (Integer Review ID), Title, Body, Stars (double – range 0-5), Reviewer
 - b. EQUALS method: should exist and use RID to compare reviews for equality.
2. **(10%)** Your Spring controller should create 30 reviews at random using the initialization code we developed in class (in week 1) and store them in an ArrayList designed to store reviews.

Part II: GET endpoints

1. **(10%) Get all reviews**
2. **(10%) Get review with given RID**
 - a. If the review with the given RID exists, return it
 - b. Otherwise, return 404
3. **(10%) Get all reviews with a given title**
 - a. If any reviews with the given title exists, return them
 - b. Otherwise, return a 404
4. **(10%) Get the reviews with over 3 stars**

Part II: POST endpoints

1. **(15%) Add a review**
 - a. No duplicates allowed
 - b. Only accept valid reviews
 - c. Report with review if OK, conflict otherwise

Part III: PUT endpoints

1. **(15%) Update an review**
 - a. No duplicates allowed
 - b. Only accept valid reviews
 - c. Report with review if OK, conflict otherwise

Part IV: DELETE endpoints

1. **(10%) Delete review with the given RID**
 - d. Report with review if OK, 404 otherwise

Part V: Validation (Review)

1. **(10%) Validate all fields of review using the following constraints:**

- a. RID must be present and between 100 and 999
- b. Title, body, reviewer must be present and not empty strings
- c. Stars must be positive number and greater than 0

GRADUATE STUDENTS ONLY (UG may do for extra credit)

You will work on some additional GET endpoints:

1. (10%) Create a new object named Reviewer with the following fields: UID (Integer user ID), Name (String), Bio (String)
2. (10%) In your constructor, generate 5 reviewers and put them into a separate list.
3. (10%) Modify the review object to hold the UID of the reviewer rather than name and make sure each review matches to a reviewer in the reviewer list
4. (20%) Create the endpoints necessary to manage reviewers (list, delete, update, put)

Note:

- If the project or the zipped file is NOT named correctly, I will take **10 points** off the total score.
- If the files within the project are named incorrectly, I will take **10 points** off the total score.
- If the db is named incorrectly, I will take **10 points off** the total score.
- If the project doesn't contain sufficient comments, I will take **10 points** off the total score.
- This is an individual assignment and what you turn in should represent only your work.
- Do NOT try to do this last minute!