


Work on project. Stage 1/5: First recipe

Project: [Recipes](#)

First recipe

 Hard  35 minutes  747 users solved this stage. Latest completion was **about 1 hour ago**.

Description






We all were in a situation when we wanted to cook something special but couldn't remember a recipe. Let's create a program that can store all recipes in one place. The program is a multi-user web service based on Spring Boot that allows storing, retrieving, updating, and deleting recipes.

In the first stage, you'll implement a simple service that supports two operations: adding (`POST /api/recipe`), and retrieving (`GET /api/recipe`) a recipe. The service will be able to store only one recipe at a time. Every new recipe added via `POST` request will override the previous one. We will improve the service to support multiple recipes in the stages to come.

A recipe includes 4 fields: `name` , `description` , `ingredients` , `directions` . Here's an example of the `Fresh Mint Tea` recipe:

```
{
  "name": "Fresh Mint Tea",
  "description": "Light, aromatic and refreshing beverage, ...",
  "ingredients": "boiled water, honey, fresh mint leaves",
  "directions": "1) Boil water. 2) Pour boiling hot water into a mug. 3) Add
5 minutes. 5) Add honey and mix again."
}
```

131 / 131 Prerequisites

- ✓  [Computer programming](#) ✓
- ✓  [Paradigms](#) ✓
- ✓  [Introduction to Java](#) ✓
- ✓  [Basic literals](#) ✓
- ✓  [Overview of the basic program](#) ✓

Show all

[Join a study group for the project Recipes](#)

Discuss your current project with fellow learners and help each other.

Theory

With Spring Boot, we need to write data classes with a lot of getters, setters, and constructors; having a readable `toString` is also a good idea. Getters and setters are often simple, they return or store a value. Manually writing these methods may be tedious and lead to errors. To simplify this process, we can use a very simple but powerful [Project Lombok](#) library. It can generate all these methods during compilation and reduces the number of lines and bugs. It also improves code readability and maintainability. Take a look at the example below:

```
@Data
@AllArgsConstructor
@NoArgsConstructor
class Animal {
    String name;
    int age;
    int weight;
}
```

`@Data` annotation automatically generates getters (for all fields), setters (for all non-final fields), `hashCode` , `equals` , and a readable `toString` method. Second and third annotation generates constructors. The annotations can be different – if you want to know more about this library, take a look at the link above. The library is already imported; feel free to use this library not only with Spring Boot but also with any other Java program.

The tests won't check whether you use Project Lombok or not.

Objectives

Implement two endpoints:

- `POST /api/recipe` receives a recipe as a JSON object and overrides the current recipe.
- `GET /api/recipe` returns the current recipe as a JSON object.

The initial recipe can have any form.

Examples


Example 1: `POST /api/recipe` request with the following body:

```
{
  "name": "Fresh Mint Tea",
  "description": "Light, aromatic and refreshing beverage, ...",
  "ingredients": "boiled water, honey, fresh mint leaves",
  "directions": "1) Boil water. 2) Pour boiling hot water into a mug. 3) Add fresh mint leaves. 4) Mix and let the
5 minutes. 5) Add honey and mix again."
}
```

Example 2: Response for a `GET /api/recipe` request:

```
{
  "name": "Fresh Mint Tea",
  "description": "Light, aromatic and refreshing beverage, ...",
  "ingredients": "boiled water, honey, fresh mint leaves",
  "directions": "1) Boil water. 2) Pour boiling hot water into a mug. 3) Add fresh mint leaves. 4) Mix and let the
5 minutes. 5) Add honey and mix again."
}
```

 Report a typo

 See hint

↙ Write a program

[Code Editor](#)

[IDE](#)

CONNECTION STATUS

- ✓ IDE is responding IntelliJ IDEA 2021.2.1
- ✓ EduTools plugin is responding 2022.1-2021.2-680

Solve in IDE

 Synchronizing IDE may take a while

Look up solution (💎 100)

[Comments \(51\)](#)

[Hints \(7\)](#)

[Useful links \(1\)](#)

[Solutions \(99\)](#)

[Show discussion](#)