

# Recipe Scraper Instruction Manual

## About the recipe scraper:

This recipe scraper tool was made to simplify the process of searching for recipes that fit a certain set of criteria. The tool was specifically designed for people with dietary restrictions who usually have a difficult time finding recipes that fit their needs. The tool is also helpful for using all of the ingredients in your fridge, helping minimize food waste, as the generator helps search for recipes that use a set of inputted ingredients.

## How to Run:

In IntelliJ, run the main method of RecipeInterface.java to launch the GUI and read the instructions below.

## Instructions:

1. Select your dietary restriction (can also leave it blank)
  - a. Choose between vegan, vegetarian, gluten free, keto, kosher, or no restriction



The screenshot shows the 'Recipe Generator' application window. It has a title bar with standard macOS window controls. The main content area is light blue and contains the title 'Recipe Generator' with a small icon. Below the title, there are four labels: 'Dietary Restriction:', 'Max Total Time (mins):', 'Min Servings:', and 'Ingredients (comma-separated):'. To the right of the 'Dietary Restriction:' label, a dropdown menu is open, showing options: 'None' (selected with a checkmark), 'Vegetarian', 'Gluten-Free', 'Keto', 'Vegan', and 'Kosher'. Below the input fields, there is a button labeled 'Generate Recipes'.

2. Put in the criteria (optional)
  - a. Max Total Time (mins)
  - b. Minimum servings
3. Provide a list of ingredients you would like to use



The screenshot shows the 'Recipe Generator' application window with the following inputs: 'Dietary Restriction:' is set to 'Vegan' (shown in a dropdown box); 'Max Total Time (mins):' is '30'; 'Min Servings:' is '2'; and 'Ingredients (comma-separated):' is 'broccoli, onion, garlic, pepper'. The 'Generate Recipes' button is at the bottom.

4. Click Generate Recipes

The screenshot shows a web application titled "Recipe Generator". It has a light blue background. At the top, there's a header with the title "Recipe Generator" and a fork and knife icon. Below the header, there are four input fields with labels: "Dietary Restriction:" (with a dropdown menu showing "Vegan"), "Max Total Time (mins):" (with a text input showing "30"), "Min Servings:" (with a text input showing "2"), and "Ingredients (comma-separated):" (with a text input showing "broccoli, onion, garlic, pepper"). Below these fields is a button labeled "Generate Recipes".

Below the button, there's a scrollable list of recipe cards. The first card is titled "Broccoli Rice" and contains the following information:

- Cook Time:** 10 mins
- Prep Time:** 5 mins
- Servings:** 4
- Total Time:** 15 mins
- Score:** 0.755
- Full Recipe:**
  - Ingredients:**
    - 1 (12 ounce) bag broccoli florets
    - 2 tablespoons olive oil
    - ½ small onion, minced
    - 2 large cloves garlic, minced
    - ¾ teaspoon sea salt
    - ¼ teaspoon ground black pepper
    - 1 lemon, juiced
  - Directions:**
    - Place 1/2 of the broccoli florets in a food processor; pulse about 20 times until broccoli looks like grains of rice. Repeat with remaining broccoli florets.
    - Heat olive oil in a large skillet over medium-low heat. Add onion; cook and stir until softened, about 3

Below the "Broccoli Rice" card, there are three more recipe cards visible: "Pan Fried Green Beans", "Roasted Garlic Lemon Broccoli", and "Roman Vegetable Stir Fry".

5. Toggle between recipes to find the one you want and scroll in each recipe to view the full directions and see the missing ingredients.

Recipe Generator

Recipe Generator

Dietary Restriction:
Gluten-Free

Max Total Time (mins):
30

Min Servings:
2

Ingredients (comma-separated):
broccoli, onion, garlic, pepper

Generate Recipes

Broccoli Rice

Pan Fried Green Beans

Roasted Garlic Lemon Broccoli

- 2 teaspoons extra-virgin olive oil  
- 1 teaspoon sea salt  
- ½ teaspoon ground black pepper  
- 1 clove garlic, minced  
- ½ teaspoon lemon juice

Directions:

- Preheat the oven to 400 degrees F (200 degrees C).
- Toss broccoli florets with extra virgin olive oil, sea salt, pepper, and garlic in a large bowl. Spread the broccoli out in an even layer on a baking sheet.
- Bake in the preheated oven until florets are tender enough to pierce the stems with a fork, 15 to 20 minutes. Remove and transfer to a serving platter.
- Squeeze lemon juice liberally over broccoli before serving for a refreshing, tangy finish. jewels

Nutrition Facts:
49 Calories 2g Fat 7g Carbs 3g Protein

**Ingredients missing:**

- 2 teaspoons extra-virgin olive oil
- 1 teaspoon sea salt
- ½ teaspoon lemon juice

Roasted Vegetable Stir Fry

### Alternatively:

Run the main method of Main.java to get a user experience in the console as shown below.

```

Hello!
Do you have any dietary restrictions? (y/n)
y
Please specify:
1. Vegetarian
2. Gluten-Free
3. Keto
4. Vegan
5. Kosher
Your choice: 4
You selected Vegan.
Would you like to filter by recipe details such as prep time, total time, and servings? (y/n)
n
What ingredients would you like to use?
Please separate each ingredient with a comma
broccoli, onion, garlic, pepper
Great, finding recipes with:
- broccoli
- onion
- garlic
- pepper

```

```

1. Broccoli Rice Recipe.txt -> 0.7559289460184544
- Cook Time: 10 mins
- Prep Time: 5 mins
- Servings: 4
- Total Time: 15 mins
Ingredients:
- 1 (12 ounce) bag broccoli florets
- 2 tablespoons olive oil
- ½ small onion, minced
- 2 large cloves garlic, minced
- ½ teaspoon sea salt
- ½ teaspoon ground black pepper
- 1 lemon, juiced

Directions:
- Place 1/2 of the broccoli florets in a food processor; pulse about 20 times until broccoli looks like grains of rice. Repeat with remaining broccoli florets.
- Heat olive oil in a large skillet over medium-low heat. Add onion; cook and stir until softened, about 3 minutes. Stir in garlic; cook for 30 seconds. Stir in broccoli rice, salt, and pepper. Reduce heat to low and cook, covered, until broccoli has softened, about 5 minutes. Pour lemon juice on top.

Nutrition Facts:
104 Calories 7g Fat 10g Carbs 3g Protein

```

### **Functionalities:**

In both options, we match the inputted ingredients with the recipes we scraped from AllRecipes. We scraped around 2,300 recipes from AllRecipes and stored them in a folder called “recipes” which we traverse in our recipe-matching filtering algorithm.

**Assumptions:**

We only scraped from the AllRecipes site but in future iterations would scrape from more websites to get even more recipes. We wanted to keep the scale of our project relatively small and keep the scraping time short (~10 minutes). We assume the user inputs ingredients and that at least one will match with a recipe. We have some room for error in spacing and capitalization with the user input but assume that spelling is accurate. In future iterations we may normalize the user input even more to match more ingredients in our recipes (i.e. remove pluralizations, extraneous punctuation, etc).