**Reviewing Assignment**

Lab Assignment 3

|  |  |
| --- | --- |
| Started: | Oct 14, 2014 10:17 PM |
| Finished: | Oct 15, 2014 7:05 PM - late |

 1 of 1

**Lab Assignment 3     Total Grade: 18.5   (of possible 20 points)**

**Score: 18.5   (of possible 20 points)**

**Assignment 3 - Recipe-to-Nutrition Converter**

Select one option from below.  All (both) options are worth the same number of points.  The more advanced option(s) are provided for students who find the basic one too easy and want more of a challenge.   Make sure you have read and understood

* both ***modules A*** and ***B*** this week, and
* ***module 2R - Lab Homework Requirements***

before submitting this assignment. Hand in only one program, please.

OPTION A (Basic):  Nutritional Calculator

Let's write the bare bones of something that could turn into an app.  The user will select amounts of different ingredients that go into a recipe, and the program will give the nutritional value of that recipe.

You'll first have to do some simple research and collect information about the nutritional data of a few of your favorite food ingredients. You'll hard-code these numbers into the program framework that I supply, below. Then, you'll further modify the framework to make it more useful (details, below). Finally, you will run the program several times, giving a different recipe each time.

***The Research***: Among some useful sources of nutritional information is [http://nutritiondata.self.com](http://nutritiondata.self.com/). Enter a food name (like "garbanzo beans") and find the closest match from the list you get (say "Chickpeas, boiled without salt").  Use the pull-down to get "Serving Size = 100 gm".  Then scroll down to find the nutrients you are interested in.  In some cases, you may have to refer to an additional page, say, if the nutrient happens to be too detailed for that site. For example, in my program, I selected "soluble fiber" as one of the nutrients, but [nutritiondata.self.com](http://nutritiondata.self.com/) only gives *total* fiber, so I had to look elsewhere (e.g.,  (<http://huhs.harvard.edu/assets/File/OurServices/Service_Nutrition_Fiber.pdf> or a similar fiber-specific reference) and do some conversions to find out how much soluble fiber was in 100g of my ingredient.

***A Simple Framework to Start***: Here is a short program I wrote for you.  Study it carefully until you understand every line, and make sure it runs on your system.  You can't do the assignment until you first get this working and know how it works:

// CS 1A Lab 3 Framework

import java.util.Scanner;

public class Foothill

{

// food #1 constants

static final String FOOD\_1\_NAME = "avocado";

static final int FOOD\_1\_CALORIES\_P100G = 160; // in calories

static final double FOOD\_1\_SOL\_FIBER\_P100G = 1.75; // in grams

// food #2 constants

static final String FOOD\_2\_NAME = "tomato";

static final int FOOD\_2\_CALORIES\_P100G = 18; // in calories

static final double FOOD\_2\_SOL\_FIBER\_P100G = .12; // in grams

// food #3 constants

static final String FOOD\_3\_NAME = "buffalo mozzarella";

static final int FOOD\_3\_CALORIES\_P100G = 282; // in calories

static final double FOOD\_3\_SOL\_FIBER\_P100G = 0.; // in grams

static final String INDENT = " ";

static final String SEPARATOR = "\n";

public static void main(String[] args)

{

String recipeName, userInputStr;

int userInputInt;

double totalSolFiber, totalCals;

Scanner inputStream = new Scanner(System.in);

// initialize accumulator variables

totalSolFiber = 0.;

totalCals = 0;

// print menu

System.out.println("---------- List of Possible Ingredients ---------");

System.out.println(INDENT + "Food #1: " + FOOD\_1\_NAME);

System.out.println(INDENT + "Food #2: " + FOOD\_2\_NAME);

System.out.println(INDENT + "Food #3: " + FOOD\_3\_NAME + SEPARATOR);

// name of recipe

System.out.print("What are you calling this recipe ? ");

recipeName = inputStream.nextLine();

// food #1 ---------------------------------------------------------

System.out.print("How many grams of " + FOOD\_1\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

// update accumulators

totalCals += userInputInt \* (FOOD\_1\_CALORIES\_P100G/100.);

totalSolFiber += userInputInt \* (FOOD\_1\_SOL\_FIBER\_P100G/100.);

// food #2 ---------------------------------------------------------

System.out.print("How many grams of " + FOOD\_2\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

// update accumulators

totalCals += userInputInt \* (FOOD\_2\_CALORIES\_P100G/100.);

totalSolFiber += userInputInt \* (FOOD\_2\_SOL\_FIBER\_P100G/100.);

// food #3 ---------------------------------------------------------

System.out.print("How many grams of " + FOOD\_3\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

// update accumulators

totalCals += userInputInt \* (FOOD\_3\_CALORIES\_P100G/100.);

totalSolFiber += userInputInt \* (FOOD\_3\_SOL\_FIBER\_P100G/100.);

inputStream.close();

// report results --------------------------------------------------

System.out.println("\nNutrition for " + recipeName + "------------");

System.out.println(INDENT + "Calories: " + totalCals);

System.out.println(INDENT + "Soluble Fiber: " + totalSolFiber);

}

}

Here are two sample runs:

/\* -------------------- Sample Run #1 ------------------

---------- List of Possible Ingredients ---------

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

What are you calling this recipe ? Michael's Simple Guacamole

How many grams of avocado? 200

How many grams of tomato? 350

How many grams of buffalo mozzarella? 0

Nutrition for Michael's Simple Guacamole------------

Calories: 383.0

Soluble Fiber: 3.9200000000000004

-------------------- Sample Run #2 ------------------

---------- List of Possible Ingredients ---------

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

What are you calling this recipe ? Michael's Simple Caprese

How many grams of avocado? 0

How many grams of tomato? 182

How many grams of buffalo mozzarella? 150

Nutrition for Michael's Simple Caprese------------

Calories: 455.76

Soluble Fiber: 0.21839999999999998

----------------------------------------------------------------- \*/

Notice that the user gets a list of ***three ingredients*** and selects quantities of each for his/her recipe.

* **English Language Hint**:  An ***ingredient*** is something you would buy and use in the recipe.  It could be a vegetable or a brand name of some pre-cooked mixture.  Examples of ***ingredients*** are ***tomatoes***, ***avocado***,***olive oil***, ***Campbell's beef broth***, ***sugar***, ***garlic***, ***split peas***, ***soy beans***, ***tofu***, ***pasta***, etc.

The program asks for every one of the ingredients for your recipe, so if one is not included in the recipe, the user has to answer "0" when prompted for the # of grams.  (This can only be avoided if you use loops to let the user select from the ingredient menu -- see option **B-2**, if you are interested.) You can see how I provided ingredients that can make two very different dishes, depending on which ones the user chooses.

***Your Assignment***:  You will have some fun embellishing the above program as follows:

1. Display a list of between ***four*** and ***six*** ingredients to the console (instead of my *three*).
2. Define between  ***four*** and ***six nutrient constants*** (instead of my *two*).  I defined and computed ***calories*** and ***soluble fiber***, but you will define and compute ***four***, which may include those two, or be four entirely different nutrients.  **English Language Hint**:  A ***nutrient*** is something like ***calories***, ***protein***, ***fat***, ***vitamin C***, ***fiber***.  These are compounds that are found in foods.
3. Prompt for, and receive, the number of ***servings***, e.g., two (2) or nine (9), and instead of giving the nutritional breakdown of the entire recipe, only state the nutritional value in a *single serving*.  **English Language Hint**:  A ***serving*** is how much you serve to one person.  If the ***recipe*** says it "**serves seven**" that means that you follow the directions and amounts exactly, but when you are done, you **divide the food you made into seven equal portions**.  Each portion is one ***serving***.
4. Add error testing.  If the user enters an amount (grams) either < 0 or > 1000, end the program, instantly, with an error message.  If the user enters a number of servings < 1 or > 10, end the program, instantly, with an error message.

You don't have to use my ingredients or nutrients, but you may.  Run the program at least five times entering different recipes, and making an input error in one of those five runs, exercising your error testing.  Submit all five runs with your source.

What Your Program Will Look Like When Run

Your program will:

1. ask for the name of the recipe,
2. ask for the number of portions that this recipe serves, and
3. start a sequence of prompts for the number of grams of each food the user wants in this recipe.

------------SAMPLE RUN --------------------

List of Supplies (no user interaction here)

.....

.....

.....

Name of recipe?  answer

# servings?  answer

#grams of sugar?  92

#grams of honey?  291

#grams of donuts?  4

#grams of syrup?  12

... computing ...

The nutritional value per serving is blah blah ...

It will be interesting to see how many different recipes you can make using the same ***four*** to ***six*** ingredients.

OPTION B-1 (Additional Serving Size Options)

Figure out a way to allow the user to, optionally, enter a more common amount of some values.  For example, if tomatoes or avocados are among your ingredients, allow the user to enter the amount either in grams *or* in multiples/fractions of the entire fruit/vegetable (2 avocados, 0.5 tomatoes).

OPTION B-2 (Arrays and Loops)

If you are familiar with arrays and loops, and think you can use them without getting into trouble (I deduct for *improper* use of any optional/future material), use them to considerably shorten the program.  If you do so, you may go beyond the limit of six ingredients or nutrients.

*Bon appétit*.

**Answer**

* text/plain[Assignment\_3.txt](https://myetudes.org/access/mneme/content/private/mneme/cff3240c-b51c-41f6-80dc-4db4530bdd05/submissions/14814593/696df45f-8970-4f3f-8055-9145f45d63a4/Assignment_3.txt)

[[https://myetudes.org/ambrosia_library/icons/collapse.gif](https://myetudes.org/portal/tool/09d2d876-2329-4a14-000d-b3da1e731165/review/14814593/list) Model Answer](https://myetudes.org/portal/tool/09d2d876-2329-4a14-000d-b3da1e731165/review/14814593/list)

/\* CS 1A Lab 3

 \* Instructor Solution

 \*/

import java.util.Scanner;

public class Foothill

{

   // food #1 constants

   static final String FOOD\_1\_NAME = "avocado";

   static final int FOOD\_1\_CALORIES\_P100G = 160;  // in calories

   static final double FOOD\_1\_SOL\_FIBER\_P100G = 1.75;   // in grams

   static final double FOOD\_1\_SUGARS\_P100G = .3;   // in grams

   static final double FOOD\_1\_VIT\_C\_P100G = 8.8;   // in grams

   // food #2 constants

   static final String FOOD\_2\_NAME = "tomato";

   static final int FOOD\_2\_CALORIES\_P100G = 18;  // in calories

   static final double FOOD\_2\_SOL\_FIBER\_P100G = .12;   // in grams

   static final double FOOD\_2\_SUGARS\_P100G = .12;   // in grams

   static final double FOOD\_2\_VIT\_C\_P100G = 12.7;   // in grams

   // food #3 constants

   static final String FOOD\_3\_NAME = "buffalo mozzarella";

   static final int FOOD\_3\_CALORIES\_P100G = 282;  // in calories

   static final double FOOD\_3\_SOL\_FIBER\_P100G = 0.;   // in grams

   static final double FOOD\_3\_SUGARS\_P100G = 1.3;   // in grams

   static final double FOOD\_3\_VIT\_C\_P100G = 0;   // in grams

   // food #4 constants

   static final String FOOD\_4\_NAME = "fresh basil";

   static final int FOOD\_4\_CALORIES\_P100G = 23;  // in calories

   static final double FOOD\_4\_SOL\_FIBER\_P100G = 0.7;   // in grams

   static final double FOOD\_4\_SUGARS\_P100G = 0;   // in grams

   static final double FOOD\_4\_VIT\_C\_P100G = .9;   // in grams

   // more ingredients supplied by student

   static final String INDENT = "   ";

   static final String SEPARATOR = "\n";

   static final int MIN\_GMS = 0;

   static final int MAX\_GMS = 1000;

   static final int MIN\_SVGS = 0;

   static final int MAX\_SVGS = 10;

   public static void main(String[] args)

   {

      String recipeName, userInputStr;

      int userInputInt, numServings;

      double totalSolFiber, totalCals, totalSugars, totalVitC;

      Scanner inputStream = new Scanner(System.in);

      double fibPerServe, calsPerServ, sugPerServe, vitCPerServe;

      // initialize accumlator variables

      totalSolFiber  = 0.;

      totalCals =  0;

      totalSugars  = 0.;

      totalVitC =  0;

      numServings = 0;

      // print menu

      System.out.println("---------- List of Possible Ingredients ---------\_");

      System.out.println(INDENT + "Food #1: " + FOOD\_1\_NAME);

      System.out.println(INDENT + "Food #2: " + FOOD\_2\_NAME);

      System.out.println(INDENT + "Food #3: " + FOOD\_3\_NAME);

      System.out.println(INDENT + "Food #4: " + FOOD\_4\_NAME + SEPARATOR);

      // name of recipe

      System.out.print("What are you calling this recipe ? ");

      recipeName  = inputStream.nextLine();

      // #servings

      System.out.print("How many people does this recipe serve ? ");

      userInputStr  = inputStream.nextLine();

      numServings = Integer.parseInt(userInputStr);

      if ( numServings < MIN\_SVGS || numServings > MAX\_SVGS)

      {

         System.out.println ("Error:  invalid input");

         inputStream.close();

         return;

      }

      // food #1 ---------------------------------------------------------

      System.out.print("How many grams of " + FOOD\_1\_NAME + "? ");

      userInputStr = inputStream.nextLine();

      userInputInt = Integer.parseInt(userInputStr);

      if ( userInputInt < MIN\_GMS || userInputInt > MAX\_GMS)

      {

         System.out.println ("Error:  invalid input");

         inputStream.close();

         return;

      }

      // update accumulators

      totalCals += userInputInt \* (FOOD\_1\_CALORIES\_P100G/100.);

      totalSolFiber  += userInputInt \* (FOOD\_1\_SOL\_FIBER\_P100G/100.);

      totalSugars  += userInputInt \* (FOOD\_1\_SUGARS\_P100G/100.);

      totalVitC  += userInputInt \* (FOOD\_1\_VIT\_C\_P100G/100.);

      // food #2 ---------------------------------------------------------

      System.out.print("How many grams of " + FOOD\_2\_NAME + "? ");

      userInputStr = inputStream.nextLine();

      userInputInt = Integer.parseInt(userInputStr);

      if ( userInputInt < MIN\_GMS || userInputInt > MAX\_GMS)

      {

         System.out.println ("Error:  invalid input");

         inputStream.close();

         return;

      }

      // update accumulators

      totalCals += userInputInt \* (FOOD\_2\_CALORIES\_P100G/100.);

      totalSolFiber  += userInputInt \* (FOOD\_2\_SOL\_FIBER\_P100G/100.);

      totalSugars  += userInputInt \* (FOOD\_2\_SUGARS\_P100G/100.);

      totalVitC  += userInputInt \* (FOOD\_2\_VIT\_C\_P100G/100.);

      // food #3 ---------------------------------------------------------

      System.out.print("How many grams of " + FOOD\_3\_NAME + "? ");

      userInputStr = inputStream.nextLine();

      userInputInt = Integer.parseInt(userInputStr);

      if ( userInputInt < MIN\_GMS || userInputInt > MAX\_GMS)

      {

         System.out.println ("Error:  invalid input");

         inputStream.close();

         return;

      }

      // update accumulators

      totalCals += userInputInt \* (FOOD\_3\_CALORIES\_P100G/100.);

      totalSolFiber  += userInputInt \* (FOOD\_3\_SOL\_FIBER\_P100G/100.);

      totalSugars  += userInputInt \* (FOOD\_3\_SUGARS\_P100G/100.);

      totalVitC  += userInputInt \* (FOOD\_3\_VIT\_C\_P100G/100.);

      // food #4 ---------------------------------------------------------

      System.out.print("How many grams of " + FOOD\_4\_NAME + "? ");

      userInputStr = inputStream.nextLine();

      userInputInt = Integer.parseInt(userInputStr);

      if ( userInputInt < MIN\_GMS || userInputInt > MAX\_GMS)

      {

         System.out.println ("Error:  invalid input");

         inputStream.close();

         return;

      }

      // update accumulators

      totalCals += userInputInt \* (FOOD\_4\_CALORIES\_P100G/100.);

      totalSolFiber  += userInputInt \* (FOOD\_4\_SOL\_FIBER\_P100G/100.);

      totalSugars  += userInputInt \* (FOOD\_4\_SUGARS\_P100G/100.);

      totalVitC  += userInputInt \* (FOOD\_4\_VIT\_C\_P100G/100.);

      inputStream.close();

      // compute per-serving amounts

      fibPerServe = totalSolFiber / numServings;

      calsPerServ = totalCals / numServings;

      sugPerServe = totalSugars / numServings;

      vitCPerServe = totalVitC / numServings;

      // report results --------------------------------------------------

      System.out.println("\nNutrition for " + recipeName + "------------");

      System.out.println("Nutritional Value per Serving:");

      System.out.println(INDENT + "Calories: " + calsPerServ);

      System.out.println(INDENT + "Soluble Fiber: " + fibPerServe );

      System.out.println(INDENT + "Sugars:   " + sugPerServe );

      System.out.println(INDENT + "vit. C:  " + vitCPerServe );

   }

}

/\* -------------------- Sample Run  ------------------

---------- List of Possible Ingredients ---------\_

   Food #1: avocado

   Food #2: tomato

   Food #3: buffalo mozzarella

   Food #4: fresh basil

What are you calling this recipe ? Loceff Special

How many people does this recipe serve ? 7

How many grams of avocado? 180

How many grams of tomato? 490

How many grams of buffalo mozzarella? 185

How many grams of fresh basil? 75

Nutrition for Loceff Special------------

Nutritional Value per Serving:

   Calories: 130.73571428571427

   Soluble Fiber: 0.609

   Sugars:   0.5047142857142858

   vit. C:  11.249285714285715

[more runs supplied by student]

----------------------------------------------------------------- \*/

**Comments**

Dmitri,

STYLE:  
\* Style was very good.  
  
EXTENDING AMOUNT OF DATA:  
\* extended the number of ingredients to fall in the 4 to 6 range.  
\* You extended the number of nutrients to fall in the 4 to 6 range.  
  
SYMBOLIC CONSTANTS:  
- You did not use symbolic constants for some of the unchanging values (MIN and MAX). We always want to see numbers like this as constants rather than literal values. This is not a penalty until next week.  
  
ERROR CHECKING:  
\* Good use of the if statement and tested for both out-of-range servings and out-of-range ingredient amounts.  
Look at how I dealt with the error testing to avoid the nesting and the else clauses.

SERVINGS LOGIC:  
\* You correctly divided the totals by the number of servings; great.  
- But doing the division every time was not a good choice.  You do 5 x the number of divisions that you needed.  Unnecessary computations should be avoided. (-.5)

RUN:  
\* You did good testing, running the program several times, proving that it worked.    
\* You even showed that it handled errors. Great.  
  
SUMMARY:  
Wonderful submission.

Don't forget to take the time to compare your solution with the attached instructor solution.

1 day late (-1)

 1 of 1

import java.util.Scanner;

public class Foothill

{

static final String FOOD\_1\_NAME = "avocado";

static final int FOOD\_1\_CALORIES\_P100G = 160;

static final double FOOD\_1\_SOL\_FIBER\_P100G = 1.75;

static final int FOOD\_1\_FAT\_P100G = 15;

static final double FOOD\_1\_CARBS\_P100G = 8.2;

static final double FOOD\_1\_PROTEIN\_P100G = 1.95;

static final String FOOD\_2\_NAME = "tomato";

static final int FOOD\_2\_CALORIES\_P100G = 18;

static final double FOOD\_2\_SOL\_FIBER\_P100G = .12;

static final double FOOD\_2\_FAT\_P100G = .13;

static final double FOOD\_2\_CARBS\_P100G = 3.85;

static final double FOOD\_2\_PROTEIN\_P100G = .85;

static final String FOOD\_3\_NAME = "buffalo mozzarella";

static final int FOOD\_3\_CALORIES\_P100G = 282;

static final double FOOD\_3\_SOL\_FIBER\_P100G = 0.;

static final double FOOD\_3\_FAT\_P100G = 15.85;

static final int FOOD\_3\_CARBS\_P100G = 3;

static final double FOOD\_3\_PROTEIN\_P100G = 26.5;

static final String FOOD\_4\_NAME = "garlic";

static final int FOOD\_4\_CALORIES\_P100G = 13;

static final double FOOD\_4\_SOL\_FIBER\_P100G = 0.35;

static final double FOOD\_4\_FAT\_P100G = 0.;

static final int FOOD\_4\_CARBS\_P100G = 3;

static final double FOOD\_4\_PROTEIN\_P100G = 0.65;

static final String FOOD\_5\_NAME = "lettuce";

static final int FOOD\_5\_CALORIES\_P100G = 15;

static final double FOOD\_5\_SOL\_FIBER\_P100G = 1.5;

static final double FOOD\_5\_FAT\_P100G = 0.;

static final int FOOD\_5\_CARBS\_P100G = 3;

static final double FOOD\_5\_PROTEIN\_P100G = 1.5;

static final String INDENT = " ";

static final String SEPARATOR = "\n";

public static void main(String[] args)

{

String recipeName, numServingsStr, userInputStr;

int numServingsInt, userInputInt;

double totalCarb, totalCal, totalFat, totalProt, totalSolFiber;

Scanner inputStream = new Scanner(System.in);

totalCarb = 0;

totalSolFiber = 0;

totalCal = 0;

totalFat = 0;

totalProt = 0;

System.out.println("List of Supplies");

System.out.println(INDENT + "Food #1: " + FOOD\_1\_NAME);

System.out.println(INDENT + "Food #2: " + FOOD\_2\_NAME);

System.out.println(INDENT + "Food #3: " + FOOD\_3\_NAME);

System.out.println(INDENT + "Food #4: " + FOOD\_4\_NAME);

System.out.println(INDENT + "Food #5: " + FOOD\_5\_NAME + SEPARATOR);

System.out.print("Name of recipe ? ");

recipeName = inputStream.nextLine();

System.out.print("# servings ? ");

numServingsStr = inputStream.nextLine();

numServingsInt = Integer.parseInt(numServingsStr);

if (numServingsInt >= 1 && numServingsInt <= 10)

{

System.out.print("How many grams of " + FOOD\_1\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

if (userInputInt >= 0 && userInputInt <= 1000)

{

totalCal += (userInputInt \* (FOOD\_1\_CALORIES\_P100G / 100.))

/ numServingsInt;

totalSolFiber += (userInputInt \* (FOOD\_1\_SOL\_FIBER\_P100G / 100.))

/ numServingsInt;

totalCarb += (userInputInt \* (FOOD\_1\_CARBS\_P100G / 100.))

/ numServingsInt;

totalFat += (userInputInt \* (FOOD\_1\_FAT\_P100G / 100.))

/ numServingsInt;

totalProt += (userInputInt \* (FOOD\_1\_PROTEIN\_P100G / 100.))

/ numServingsInt;

}

else

{

System.out.println("Invalid input, value should be between 0 "

+ "and 1000 grams");

inputStream.close();

return;

}

System.out.print("How many grams of " + FOOD\_2\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

if (userInputInt >= 0 && userInputInt <= 1000)

{

totalCal += (userInputInt \* (FOOD\_2\_CALORIES\_P100G / 100.))

/ numServingsInt;

totalSolFiber += (userInputInt

\* (FOOD\_2\_SOL\_FIBER\_P100G / 100.)) / numServingsInt;

totalCarb += (userInputInt \* (FOOD\_2\_CARBS\_P100G / 100.))

/ numServingsInt;

totalFat += (userInputInt \* (FOOD\_2\_FAT\_P100G / 100.))

/ numServingsInt;

totalProt += (userInputInt \* (FOOD\_2\_PROTEIN\_P100G / 100.))

/ numServingsInt;

}

else

{

System.out.println("Invalid input, value should be between 0 "

+ "and 1000 grams");

inputStream.close();

return;

}

System.out.print("How many grams of " + FOOD\_3\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

if (userInputInt >= 0 && userInputInt <= 1000)

{

totalCal += (userInputInt \* (FOOD\_3\_CALORIES\_P100G / 100.))

/ numServingsInt;

totalSolFiber += (userInputInt

\* (FOOD\_3\_SOL\_FIBER\_P100G / 100.)) / numServingsInt;

totalCarb += (userInputInt \* (FOOD\_3\_CARBS\_P100G / 100.))

/ numServingsInt;

totalFat += (userInputInt \* (FOOD\_3\_FAT\_P100G / 100.))

/ numServingsInt;

totalProt += (userInputInt \* (FOOD\_3\_PROTEIN\_P100G / 100.))

/ numServingsInt;

}

else

{

System.out.println("Invalid input, value should be between 0 "

+ "and 1000 grams");

inputStream.close();

return;

}

System.out.print("How many grams of " + FOOD\_4\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

if (userInputInt >= 0 && userInputInt <= 1000)

{

totalCal += (userInputInt \* (FOOD\_4\_CALORIES\_P100G / 100.))

/ numServingsInt;

totalSolFiber += (userInputInt

\* (FOOD\_4\_SOL\_FIBER\_P100G / 100.)) / numServingsInt;

totalCarb += (userInputInt \* (FOOD\_4\_CARBS\_P100G / 100.))

/ numServingsInt;

totalFat += (userInputInt \* (FOOD\_4\_FAT\_P100G / 100.))

/ numServingsInt;

totalProt += (userInputInt \* (FOOD\_4\_PROTEIN\_P100G / 100.))

/ numServingsInt;

}

else

{

System.out.println("Invalid input, value should be between 0 "

+ "and 1000 grams");

inputStream.close();

return;

}

System.out.print("How many grams of " + FOOD\_5\_NAME + "? ");

userInputStr = inputStream.nextLine();

userInputInt = Integer.parseInt(userInputStr);

if (userInputInt >= 0 && userInputInt <= 1000)

{

totalCal += (userInputInt \* (FOOD\_5\_CALORIES\_P100G / 100.))

/ numServingsInt;

totalSolFiber += (userInputInt

\* (FOOD\_5\_SOL\_FIBER\_P100G / 100.)) / numServingsInt;

totalCarb += (userInputInt \* (FOOD\_5\_CARBS\_P100G / 100.))

/ numServingsInt;

totalFat += (userInputInt \* (FOOD\_5\_FAT\_P100G / 100.))

/ numServingsInt;

totalProt += (userInputInt \* (FOOD\_5\_PROTEIN\_P100G / 100.))

/ numServingsInt;

}

else

{

System.out.println("Invalid input, value should be between 0"

+ " and 1000 grams");

inputStream.close();

return;

}

inputStream.close();

System.out.println("\nThe nutritional value of "

+ recipeName + " per serving is:");

System.out.println(INDENT + "Calories: " + totalCal);

System.out.println(INDENT + "Soluble Fiber: " + totalSolFiber);

System.out.println(INDENT + "Carbohydrate: " + totalCarb);

System.out.println(INDENT + "Fat: " + totalFat);

System.out.println(INDENT + "Protein: " + totalProt);

}

else

{

System.out.println("Invalid input, value should be "

+ "between 1 and 10");

}

}

}

/\*----------paste of run from console window------------

---Run 1---

List of Supplies

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

Food #4: garlic

Food #5: lettuce

Name of recipe ? salad

# servings ? 4

How many grams of avocado? 150

How many grams of tomato? 250

How many grams of buffalo mozzarella? 180

How many grams of garlic? 30

How many grams of lettuce? 300

The nutritional value of salad per serving is:

Calories: 210.37499999999997

Soluble Fiber: 1.8825

Carbohydrate: 9.306249999999999

Fat: 12.838750000000001

Protein: 14.36125

---Run 2---

List of Supplies

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

Food #4: garlic

Food #5: lettuce

Name of recipe ? Cezar

# servings ? 12

Invalid input, value should be between 1 and 10

---Run 3---

List of Supplies

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

Food #4: garlic

Food #5: lettuce

Name of recipe ? Big salad

# servings ? 10

How many grams of avocado? 800

How many grams of tomato? 900

How many grams of buffalo mozzarella? 0

How many grams of garlic? 500

How many grams of lettuce? 1000

The nutritional value of Big salad per serving is:

Calories: 165.7

Soluble Fiber: 3.183

Carbohydrate: 14.524999999999999

Fat: 12.117

Protein: 4.15

---Run 4---

List of Supplies

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

Food #4: garlic

Food #5: lettuce

Name of recipe ? Diet salad

# servings ? 1

How many grams of avocado? 10

How many grams of tomato? 100

How many grams of buffalo mozzarella? 2

How many grams of garlic? 1

How many grams of lettuce? 399

The nutritional value of Diet salad per serving is:

Calories: 99.62

Soluble Fiber: 6.283499999999999

Carbohydrate: 16.729999999999997

Fat: 1.9469999999999998

Protein: 7.5665

---Run 5---

List of Supplies

Food #1: avocado

Food #2: tomato

Food #3: buffalo mozzarella

Food #4: garlic

Food #5: lettuce

Name of recipe ? Soup

# servings ? 5

How many grams of avocado? 500

How many grams of tomato? -1

Invalid input, value should be between 0 and 1000 grams

----------------------------------------------------- \*/