

## Campus Santa Fe Computer Science Department Programming Fundamentals TC1014 Final Project

Project Goal: Create a Java application to solve a medium complexity computer problem using arrays.

**Activity type**: Individual.

Due date: November 26<sup>th</sup>, 2018.

**Delivery format**: OneDrive in a folder called finalProject:

- ✓ User manual. Brief explanation on how to use your application. Add a diagram to explain the structure of your files and arrays.
- ✓ Source Code (java file).

## Instructions:

Your task is: Create an application to help users to measure what they eat, either using portions or grams as input.

The application must have 4 main functions:

- Register food
- See summary
- Reset data
- Exit application

The functionality of each of the four options is described as follows:

- ✓ The register food option lets you to capture your food using one of this 2 options:
  - Input units (this way you do not have to deal with grams, kilos or spoons)
  - Input portions
- ✓ After the user selects the input method, to continue the register a food option, the user should input:
  - What he/she ate?
  - How much (units) he/she ate?
- ✓ If the user decides that the input is in units, the application should convert it to portions and then save the number of portions and calories consumed.
- ✓ If the user decides to input portions, the application should save the number of portions and calories consumed.
- ✓ Save the information you just read into arrays. Make the calculations to accumulate the recently read portions into one array that contains the limit for each category and the actual consumption.
- ✓ Once this information it's saved, the application must return to the **main** menu.
- ✓ The see summary option shows you:

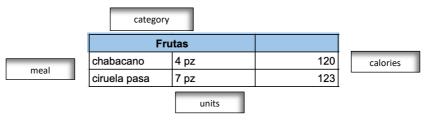


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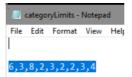
- The portions limit that the user has on each category, and the actual consumption.
- The calories consumed in each category and the total calories limit.
- ✓ The **reset data** option should reset the number of portions and calories to zero.
- ✓ The exit application option should save the portions consumed and accumulated calories by each category to a file(s).

## General specifications:

- ✓ Data must be read from text files. You should have one file with the name of all categories and also a file for each category.
- ✓ Each category file should contain the list of each meal in that category, the units that make a portion and the calories contained. Example:



You need a separated file with the portion limits for each category and the total calories limit. Example:



- ✓ After the reading, data should be transferred to multiple arrays.
- ✓ The application must manage all data using arrays (one and multiple dimensions). Select the correct data type for the information that is going to be managed. You are free to select one-or two-dimensions arrays, except for:
  - The portions limits and actual consumption. Example

