COSC 351.101
Dr. Vincenti
Spring 2019

Assignment 2 – Pair Programming Project

Assignment description

For this assignment you will work with a partner. The groups will be randomly selected in Sakai. You should contact your partner as soon as possible so you can get started on this assignment.

Using inheritance, build on what you or your partner created for Assignment 1. For this assignment, you will implement the classes listed below, with the appropriate setters and getters. The list below outlines any restrictions associated with each attribute, and also includes getters for calculated attributes.

Class	Parent	Attribute	Acceptable values
FoodItem	None	Name	Upper-case and lower-case letters, dashes, apostrophes, and spaces. Min 2 characters, max 50 characters.
		Brand	Upper-case and lower-case letters, dashes, apostrophes, and spaces. Min 2 characters, max 50 characters.
		UPC Code	A positive number of 12 digits, not including any leading 0s.
		Production Date	Format: YYYY-MM-DD, cannot be after today's date.
		Unit Weight	A positive real number.
		Product Age	Generated, using today's date and the number of days since the production date.
FreshFood	FoodItem	Expiration Date	Format: YYYY-MM-DD, cannot be prior to the production date or later than one month from the production date.
		Refrigerated	True or False.
ProcessedFood	FoodItem	Packaging	Options: Plastic, Metal, Paper, None.
		Expiration Date	Format: YYYY-MM-DD, cannot be prior to the production date or 5 years past the production date, if an expiration date exists. If no expiration, set the value to 0000-00-00.
Fruits and Vegetables	FreshFood	Farm	Upper-case and lower-case letters, dashes, apostrophes, and spaces. Min 2 characters, max 50 characters.
		Season	Options: Spring, Summer, Fall, Winter, Mixed.
Protein	FreshFood	Type	Options: Cattle, Game, Fish, Poultry.
		Prepackaged	True or False.
Cheese	ProcessedFood	Milk Type	Options: Cow, Sheep, Goat, Buffalo, Mixed.
		Origin	Country, from a list that will be provided to you in JSON format.
Precooked	ProcessedFood	Ingredients	Array of ingredients. Each can contain upper-case and lower-case letters, dashes, apostrophes, and spaces. Min 2 characters, max 50 characters.
		Frozen	True or False.

The main function should create an instance of each object you have created, then ask the user for inputs, and store the information in the object. The main function will then output all the information contained in the object. Use the code created for lectures as a guide.

Documentation: comment each relevant part of your code, and follow Javadoc guidelines where appropriate.

jUnit: Ensure that the automated testing done through jUnit will successfully complete. Any failed or incomplete tests will indicate that the classes do not meet the requirements. You will be provided a series of jUnit test cases about half-way through the project.

Notes

If you wish to challenge yourself, you can make sure that the program "fails gracefully" if someone enters the wrong information or data type.

To collect data to be stored in numeric types, I suggest that you use the following:

```
int x = Integer.parseInt(userInput.nextLine());
```

The example above will work properly only for integers. To accept other types you will have to change the code slightly, to match the data type.

The name of the class containing your *main* function should be *Assignment2*. The name of the package containing your project should be *assignment2*.

Turn in

Turn in any .java files you have created for this assignment. Please make sure that you only turn in the files with the ".java" extension, and not the ".java~" or ".class" ones.