INFSCI 0017 – Fall 2018

Assignment 2 - MenuManager

We are going to build the first stage of what will become the final project. The idea is to create a food menu manager application allowing to create balanced daily menus. For this first stage, we are going to build and test some basic classes that we will need in the next stages.

1. Create a Eclipse project named ***[your pitt id]_MenuManager***
2. Create a package ***edu.pitt.is17.[your pitt id].menumanager***
3. Implement the following classes as represented in the class diagrams. Methods and constructors are explained below.

Classes Entree, Side, Salad and Dessert are all similar, representing the parts of a menu.

Entree
- name : String - description : String - calories : int
+ Entree(name : String, desc : String, cal : int)

Side
- name : String - description : String - calories : int
+ Side(name : String, desc : String, cal : int)

Salad
- name : String - description : String - calories : int
+ Salad(name : String, desc : String, cal : int)

Dessert
- name : String - description : String - calories : int
+ Dessert(name : String, desc : String, cal : int)

Class Menu contains one object of each of the previously defined classes (Entree, Side, Salad and Dessert) and a name.

Menu
- name : String - entree : Entree - salad : Salad - side : Side - dessert : Desert

+ Menu(name : String)
+ Menu(name : String, entree: Entree, side: Side)
+ Menu(name : String, entree: Entree, side: Side, salad : Salad, dessert: Dessert)
+ totalCalories() : int
+ description() : String

Methods in class Menu:

- totalCalories(): sums the calories of all the parts of the menu (Entree, Side, Salad and Dessert)
- description() : concatenates the descriptions of the parts of the menu in order. First Entree, then side, then salad and lastly, dessert. It has to separate the descriptions by new lines and add the type and the name of each part of the menu. A manu could lack some of the parts, in this case, it has to indicate as N/A. For example:

  Entree: Sirloin Steak. A delicious piece of 1/2 a pound of our carefully selected meat grilled and seasoned. Choose how much you want it cooked.

  Side: Rice and Avocado. Premium quality indian rice mixed with avocado.

  Salad: N/A

  Dessert: N/A

TIP: you can check if an object is null :

```
if(salad == null) { something here! }
```

- There are 3 constructors in class Menu setting some of the parts of the menu. All of them need the name of the menu (the name is always required). All parts that are not passed in the constructors should be set to null. For example, the first constructor Menu(String name) sets the name and then sets all other properties to null:

```
entree = null;
side = null;
salad = null;
dessert = null;
```

4. Add getters and setters for all properties in all classes. Getters and setters are not included in the diagram and they are assumed.

5. Create a class MenuTest with a main method to test the Menu class. Create, for example, 2 entrees, 1 sides, 2 salad and 1 dessert and 2 Menu objects. Then fill the first menu with an entree and a salad. Fill the second menu with the remaining: 1 entree, 1 side, 1 salad and 1 dessert. Print out both menus, including the menu name, the total amount of calories and the description. Note that this is only to test the classes, so just make sure you try all the functionalities of Menu and other classes here.

6. Add comments to your classes. Add a comment just above the class definition (top of the file, but after imports and package lines) including your name (author) and date when created (created). Look at this example showing the JavaDoc format:

```
/**
 * Class Entree
 * author : Julio
 * created: 10/18/2018
 */
```

   Make sure you start with /** and close with */. Then every line has to begin with a *. If you write /** and then hit enter, in Eclipse, it will add automatically the closing (*/) and it will start each line with *.
7. Make sure your code is correctly indented. You can use Eclipse option to indent the code (select all your code, go to Eclipse menu Source -> Correct Indentation).

Export your project and compress it in a file named *[your pit id]_Assignment2_INFSCI0017.zip*.

PLEASE NOTE THAT YOU MUST NAME THE ZIP AS *Assignment2* (not MenuManager).