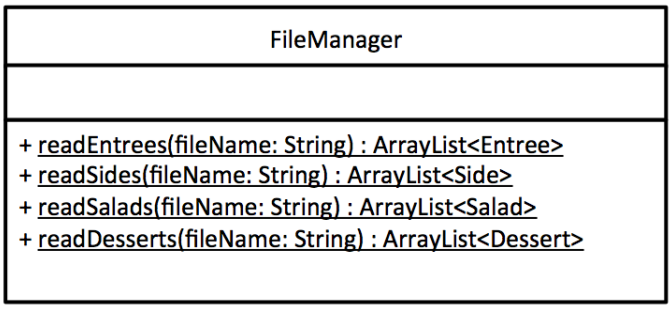
INFSCI 0017 – Fall 2018 **Assignment 3 - MenuManager - Reading food from files**

We are continuing the MenuManager project by adding a class with methods to read information from a File.

1. **Do not create another project**, work in your project **[*your pitt id]_MenuManager*** (from last homework). We encourage you to compare your Assignment 4 with the solution posted in CourseWeb (Course Documents/ Assignment Solutions), correct what needs to be fixed, and then work from there.

2. Implement the **FileManager**. Methods in this class are *static* and the class has no properties. We will not create objects of this class, but use its static methods. In UML diagrams, static methods (and static variables) are underlined. FileManager class has methods for reading different types of dishes (Entree, Side, Salad, Dessert) from different files. Each of these methods returns an ArrayList.



   All files should follow the same format, with name, description and calories separate by double '@', one dish per line:

   name of dish@@description of the dish@@calories

   for example:

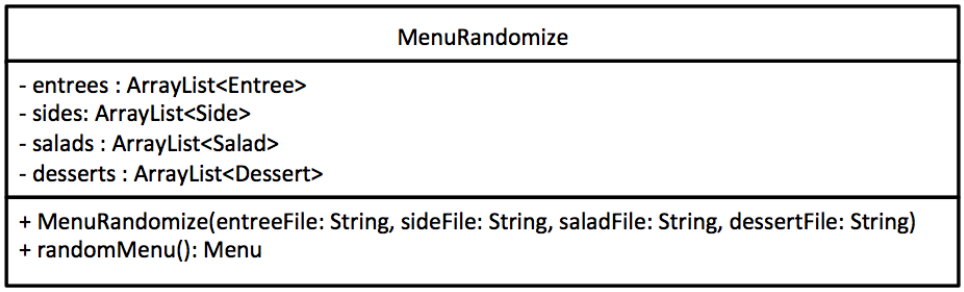
```
Griller Steak@@Carfully selected prime quality steak griller to the point of your preference@@740
Curry Chicken@@Curry marinated chicken, cooked slowly in wood fire oven@@430
```

   In your project, create a folder called “data” (lowercase). Inside the “data” folder, create four text files: *entrees.txt, sides.txt, salads.txt* and *desserts.txt*. Populate each of the files with appropriate entries in the format described above. Create 5 entries for each file. For example, in the deserts.txt file, you may have an entry that looks like the following:

```
Cheesecake@@Lemon raspberry cheesecake with white chocolate@@700
```

   Hint: When reading lines from text files, you need to separate each line into an array, where the first element of the array will be the dish name, the second element will be the dish description, and the third will be calories. You need to look up the split() method of the String class (remember, Google is your friend).

3. Implement the **MenuRandomize** class. The constructor receives the file names of 4 files, one for each type of meal, and uses FileManager to load data from these text files into the 4 ArrayList declared as properties (one array for each type of dish). The method randomMenu() randomly pick one Entree, one Side, one Salad and one Dessert, and return a Menu object composed of the random dishes. Note that data should be "loaded" (read from the files using FileManager class methods) in the constructor of MenuRandomize.



4. Check your classes with the following Tester class

```
public class MenuTester{
	public static void main(String[] args){
		MenuRandomize randomize = new MenuRandomize("data/entrees.txt",
			"data/sides.txt","data/salads.txt","data/desserts.txt");
		Menu myMenu = randomize.randomMenu();
		System.out.println(myMenu.description()+"\nTotal calories"+
					myMenu.totalCalories());
	}
}
```

5. Add comments to your classes. Add a comment just below the class definition (top) including your name (author) and date when created (created). Look at this example to see the format:

```
/**
 * Class Entree
 * @author : Dmitriy
 * @created: 10/18/2017
 */
```

Add also comments to all important methods (all methods included in the diagrams). Use the Java Doc format for these comments including the @param and @return parts. Example:

```
/**
* Method calculate
* @param a a double number
* @param b an integer number
* @return the multiplication
*/
public double calculate(double a, int b){
	return a * b;
}
```

Make sure you start with /** and close with */. 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 *.

6. 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]_Assignment3_INFSCI0017.zip*. PLEASE NOTE THAT YOU MUST NAME THE ZIP AS Assignment3 (not MenuManager).

Due date is Friday, November 16th 23:59 PM. Submit using CourseWeb submission tool.