

Programming Languages 2

Lesson 8

Create a project to record your spending

1. Start a new NetBeans project. The name of the project is “Spending”. The name of the main class is “Main”.
2. Add a new class to the project named “Expenses”. Make this class implement the `Comparable` interface. The class has the following attributes: `name`, `price` and `date`. The `date` is represented by three `int` values.
3. Add getters and setters for all the attributes and a constructor that can set all of them.
4. Add an exception class to the project. The name of it is `InvalidDateException`.
5. Make the constructor of the `Expense` throw this exception if the given date is not valid.
6. Implement the `compareTo` method. It returns a negative number if the given object is before the parameter and a positive one in the opposite case. It returns 0 if the two objects may be replaced.
7. Add an empty file to the project root folder with the name `data.txt`. Fill it with the following data:

```
2013-11-15@book@34.50
2013-10-11@apple@5.50
2013-12-01@chair@110
```
8. Create a new `List` in the main method and read all data from the file into it. (you may chose the `ArrayList` implementation of the `List` interface)
9. Print out the elements of the list. Each item has to be in a different line. To do this add a new static method to the main class that gets the `Vector` as a parameter and prints it out.
10. Sort the list using the `sort()` method of the `Collections` class, and print out the list again.