Extending an Existing Assignment

CS 5004 Object Oriented Design

1. **Goals**

In class we talk about how programming well the first time makes it easier to extend. I’d like to emphasize this point by having a lab assignment that is a continuation of the previous. This week, I’d like you to extend your previous assignment and include in your report how your original design did or did not allow for easy extension.

1. **In Recitation**

TBD

1. **Instructions**

I’m going to reduce instructions even more this assignment. Here are your 5 objectives:

Objective 1: Add abstract map and abstract filter method to your previous assignment and test these methods.

map, convert? all string?

filter, abstract?

Objective 2: Demonstrate fold with an abstract count method.

comparable?

Objective 3: Implement the ability to determine equality between tasks. This would need to exclude the id if you uniquely generated it.

Objective 4: Implement a priority system and the ability to compare tasks based on priority.

Objective 5: Add a method to load tasks from a CSV file and save the tasks out to a CSV file. (A demonstration of this will be given in class or recitation.)

1. **Extensions**

Outside academics you will not get specific requirements. Each lab assignment is worth 100 points, but the base requirements will only get you to 85% - 90%. If you want an A, you’ll have to find a way to go above and beyond what is asked. I’ll often make some suggestions to you in this section, but it is entirely up to you what you’d like to add to the assignment. Make sure you know who your grader is and discuss extension expectations with them. You won’t have to do all of the extensions to get 100% credit.

Extension suggestions:

1. Add additional functionality not requested
2. Sort your nodes based on priority
3. Sort your nodes with an algorithm you’ve built in
4. Create a different type of fold method
5. Make your application easy to grade with a well designed driver object
6. Go above and beyond with your implementation and creativity
7. **Report**

Each assignment must include a short report. The generation of this report should take you no more than 15 minutes. This gives you a chance to reflect back on what you learned and it makes grading easier on your grader. For this report, I want the following sections:

1. Reflection (*What did you learn?)*
2. Did your original design make it easier or harder for extending it? Explain.
3. Extensions (*What extensions are you requesting?)*
4. Grading Statement (*Based on the rubric, what grade do you feel you deserve? Be honest.)*
5. *Academic Integrity Statement*
6. **Submission**

Please read carefully. Failure to follow submission instructions can result in a reduced

score.

Submit all files on Canvas under the appropriate assignment. Make sure to include the following named as follows:

Submit your files as a single zip file named: “Your Name”\_”Assignment”.zip

Include your report as: “project\_report\_05.pdf”

Submission checklist:

* Did you include adequate comments?
* Did you include comment blocks at the top of each file?
* Did you name your files as requested?
* Does your code compile?
* Did you remove any package lines generated by your IDE?
* Did you take care of any warnings presented by your IDE?

1. **Rubric**

|  |  |  |
| --- | --- | --- |
|  | **Possible** | **Given** |
| Objectives | | |
| Objective 1 | 12 | 0 |
| Objective 2 | 12 | 0 |
| Objective 3 | 12 | 0 |
| Objective 4 | 12 | 0 |
| Objective 5 | 12 | 0 |
| Misc | | |
| Adequate testing | 10 | 0 |
| Code Quality | 10 | 0 |
| Not included in total possible: | | |
| Driver not included as requested | -100 | 0 |
| Does not compile | -100 | 0 |
| Extensions (Not calculated without report) | 20 | 0 |
| Late without pre-approved extension or LE | -100 | 0 |
| Creative or went above and beyond | 10 | 0 |
| Code contains warnings | -20 | 0 |
|  | |  |
| TOTAL POINTS POSSIBLE out of 100 | 80 | 0 |

Note: Because this is a continuation of a previous assignment and due to the flexibility of the assignment, I’m decreasing max score to 80 and making it possible to get 20 extension points.