**Lab 1**

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| --- | --- | --- | --- |
| Student Name | | Student CSUSM ID | Contribution percentage |
| 1 |  |  |  |
| 2 |  |  |  |

**Grading Rubrics (for instructor only):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Criteria | 1. Beginning | 2. Developing | 3. Proficient | 4. Exemplary |
| Mapping from design to Java code | 0-9 | 10-14 | 15-19 | 30 |
|  |  |  |  |
| Program: quality ->  *Readability* | 0-2 | 3-5 | 6-9 | 10 |
|  |  |  |  |
| Program: quality ->  *Modularity* | 0-2 | 3-5 | 6-9 | 10 |
|  |  |  |  |
| Program: quality ->  *Simplicity* | 0-2 | 3-5 | 6-9 | 10 |
|  |  |  |  |
| Updated design:  *correctness* | 0-9 | 10-14 | 15-19 | 20 |
|  |  |  |  |
| Updated design:  *Consistency with code* | 0-9 | 10-14 | 15-19 | 20 |
|  |  |  |  |
| Total Grade (100) |  | | | |

**Problems:**

1. In the following design in UML class diagram, some classes are incomplete (lack of attributes and/or operations). You should update the class diagram by adding important attributes and/operations that are appropriate.



1. Translate your complete design into Java implementation. For this assignment, your code may not be executable. Remember, the goal is to make sure the implementation is consistent with the design.

**Solution:**

* First, remember to zip the src folder of your project and submit the zip file to the ungraded assignment named “Lab1CodeSubmission”. One submission from each team.
* Paste all you source code here.
* Paste your updated UML class diagram below.
* Save this report in PDF, then **each student** needs to submit the pdf report to the graded assignment named “Lab1ReportSubmission”.