**Lab 6**

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| --- | --- | --- | --- |
| Student Name | | Student CSUSM ID | Contribution percentage |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Criteria | 1. Beginning | 2. Developing | 3. Proficient | 4. Exemplary |
| Modeling | 0-14 | 15-19 | 20-24 | 25-30 |
|  |  |  |  |
| Program: functionality  *correctness* | 0-9 | 10-14 | 15-19 | 20 |
|  |  |  |  |
| Program: functionality  *Behavior Testing* | 0-9 | 10-14 | 15-19 | 20 |
|  |  |  |  |
| 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 |
|  |  |  |  |
| Total Grade (100) |  | | | |

**Problems:**

A system design in UML class diagram is shown below, where multiple notifications shown in a NotificationBar may share the same attached files or media objects.



1. What design pattern is used for the classes (interfaces) in green? [10 points]
2. What design pattern is used for the classes in blue? [10 points]
3. Implement the design in Java. You may add more attributes or operations to a class if needed. Make sure all the relations are appropriately mapped into code. [80 points]

**Solution:**

* First, remember to zip the src folder of your project and submit the zip file to the ungraded assignment named “Lab6CodeSubmission”. One submission from each team.
* Paste a screenshot of a run of your program here.
* Also paste all you source code here.
* Save this report in PDF, then submit the pdf report to the graded assignment named “Lab6ReportSubmission”. One submission from each team.