

This is the third of five assignments that you will complete over the course of the semester:

- 1: Requirements Draft (10% of homework grade)
- 2: Final Requirements and Requirement-Based Tests (25%)
- 3: Design Draft (15%)**
- 4: Final Design and Implementation (25%)
- 5: Testing (25%)

Each assignment is graded over a series of categories. You will be judged on a scale of 1-4 for each criterion, where a 1 corresponds to a 60%, a 2 corresponds to 75%, a 3 corresponds to 90%, and a 4 corresponds to 100%. If there is no work for a criterion or it is clear that even a minimal amount of effort was not put in, you will receive a 0% for that section of the assignment.

The following is a tentative idea of what we are looking for in Assignment 3. This may change before final grading, but gives criteria to aim for with your submission. A “4” in a category requires all requested elements to be present. Missing elements will result in a lower grade.

Organization (15%):

- Have a good organization including a logical layout.
- All sections present.
- Design formatted to be easily understood.
- Uses good grammar, and has a single voice.
- No irrelevant data.

System Architecture (30%):

- Introduction, architectural overview, interface, and data store sections present.
- Material provides proper context and background on the group’s version of BILL.
- Proper differentiation between internal data stores (any persistent storage used internally by BILL) and external data sources.
- Proper use of interfaces when discussing architecture (i.e., any interface between BILL and users, external systems, or data sources, not “Java interfaces”).

Structural Design (55%):

- Overall design
 - Extensible OO design that is clearly capable of providing the requested functionality.
 - High cohesion and low coupling.
 - All interfacing with BILL is through the defined API interface. Access is controlled, and proper privacy and scoping is maintained.
 - Customized Exceptions
- Class Diagram
 - Properly formed UML.
 - External files and systems should not be present in class diagram.

- Justification and Explanation
 - VERY IMPORTANT to justify and explain your design. Must show that different options were considered and why/how group arrived at final design. Must demonstrate understanding of OO principles.
 - Automatic maximum of 2 on this section if no justification present.
- Class Descriptions
 - Level of detail is sufficient. Is this implementable by another team?