Software Engineering
Laboratory Project

Grading Policy

Your laboratory project will be graded according to the points you gain from the following seven parts:

1. 《Software Requirements Specification》

Due: the 8th week

Minimum requirement of contents:

- Introduction (2 points);
- User Scenarios(8 points); Data Flow Diagram (7 points); State Diagrams(5 points); Class Diagrams(5 points) and CRC Cards (5 points);
- Validation Criteria (15 points).

Concerned points:

- The accuracy of the validation criteria: full marks can be obtained if more than 90% of the functions are covered. The acceptance testing of the subsystem version 1.0 will strictly go by the criteria.
- The language and style of the document must be uniformed (3 points).

Grading: The full mark = 50 points × number of participants

2. 《Research on Design Patterns》

Due: the 11th week

Minimum requirement of contents:

- Review of latest research papers (10 points);
- Analysis on the architecture of your subsystem (15 points);
- Design pattern applied to your subsystem (20 points);
- Discussions on other design patterns which may also support your subsystem (10 points);
- References (3 points).

Concerned points:

- The pattern description must be complete.
- The language and style of the document must be uniformed (2 points).

Grading: The full mark = 60 points × number of participants

3. 《System Design》(5-minute presentation + 1-minute Q&A)

Due: the 12th week

Grading Table:

Group Name:			
Introduction（5）		ACD（10）	
Archetypes (10)		Hierarchy (20)	
Style（5）		Total (50)	
Comments			
Good points:			
Shortcomings:			

Grading Policy: Each group will evaluate the other groups' performances and fill in the grading tables. For each group, let p_1 be the average points given by the other groups with the maximum and minimum points taken off; and let p_2 be the points given by the instructor, the final points obtained will be $(p_1 + p_2) / 2$. The full mark = 50 points × number of participants

Note: The group(s) who miscalculate the points for other groups or hand in grading tables with comments missing will be penalized 1 ~ 10 points.

4. 《Test Specification》

Due: the 13th week

Minimum requirement of contents:

- Overall Plan (10 points);
- Functional Testing (10 points);
- Boundary Testing (4 points);
- Stress Testing (4 points);
- Interface Communication Testing with Other Groups' Modules (5 points).

Each group is supposed to provide all the necessary testing databases and detailed test cases. (4 points)

Concerned points:

- The plan must be complete and operable.
- The language and style of the document must be uniformed (3 points).

Grading: The full mark = 40 points. Only partial participation is required. This part will be graded together with the subsystem version 1.0.

5. 《Subsystem Version 1.0》(Release version required, NOT the one running under IDE)

Due: the 15th week

Minimum requirement of acceptance:

- Complete functionality – there must be NO defects which seriously affect the demonstration of the functions (30 points);

- In your source code, all the classes, function declarations and implementations must be sufficiently commented (10 points). Your code will be randomly inspected. Any source code file with less than 1/3 of the lines commented *meaningfully* will NOT be accepted (and thus 10 points will be lost). Redundant comments will not be counted;
- The testing report must be filled in according to the testing plan. Each defect must correspond to a record of detection and correction. The testing results must be highly consistent with the source code (10 points);
- The Help document must be highly consistent with the real subsystem (10 points).

Grading: The full mark = 60 points. Only partial participation is required. Every one of the participants must attend the acceptance testing and report his or her work to the inspector. This part will be graded together with the testing plan document.

The full mark of part 4 & 5 = 100 points × total number of participants in part 4 & 5.

6. 《Subsystem Version 2.0》(Release version required, NOT the one running under IDE)

Due: the 16th week

Minimum requirement of acceptance:

- All the defects found in version 1.0 are corrected (10 points);
- Pass the inspector's regression testing with similar requirements as in version 1.0 (20 points);
- The testing report and updated Help document (10 points).

Grading: The full mark = 40 points × number of participants

7. 《Final Integration of System》

Due: within 3 working days after the Final Exam

Minimum requirement of acceptance:

All the functions and data communications among the groups are correct.

Grading: The full mark = 100 points × number of participants. The group leaders and the chief programmers must attend the acceptance testing and report to the inspector.

Without other specifications, all the groups shall obtain the same average points for this part. However, you may e-mail your complains to the inspector about other group's negative attitude toward integration. Any group that is sued by more than half of other groups will receive a penalty deduction or in the worst case, a zero grade. In case it is perfectly clear that some groups are fully responsible for the (partial) failure of the integration, the groups will take the consequences by their own.

Rewards and Penalties:

- A group leader who is sued by more than half of his team members must be replaced. The group must then select a new leader as soon as possible.
- A group leader's work for each project is graded as the average points of the group.
- A group leader who can successfully manage the group development throughout the quarter will be awarded up to 5 bonus points added to his or her final grade.
- A group leader who makes serious mistakes during development will receive a penalty deduction of up to 5 points from his or her final grade.
- Each assignment is due on a specified date. After the due date, the penalty will be 10% for each day they are late for at most 5 days (each *day* is considered closed at 22:00). After the fifth day the assignment will be graded zero.

Tip:

Evenly distributed technical staff among all the groups might serve the final integration better.

Bonus:

Select one of the following three topics to write an essay, you will be awarded up to 5 bonus points added to your final grade.

Topics:

1. Please read sufficient references to understand the modeling methods for non-functional requirements. Develop analysis models for performance and reliability requirements of your project system.
2. Please read sufficient references to understand the testing methods for non-functional requirements, and to learn automatic testing tools. Give a testing plan for performance and reliability requirements of your project system.
3. Please read sufficient references to understand the WebApp benchmark techniques and tools, especially the *Cloudstone*. Take your project system as an application and analyze the measurements.

Due: the last minute before the Final Exam.

Note: This is ***NOT*** a team work assignment. You are supposed to complete your essay ***independently***.