

SWEN 6301: Final Project Proposal

Due on October 20, 2018 at 2:00 PM (noon)

Instructor: Ahmed Tamrawi

Revision 2

The project of the Software Construction course aims at evaluating your software development skills including: problem formulation, requirements gathering, design, coding, testing, and deployment.

Proposal Submission

~~An up-to 1000 words document that contains the problem definition and the proposed solution must be submitted by the set deadline. The proposal document should also contain details about the preferred software repository, languages, and testing strategy to be used.~~

Final Project Submission

All the software files (e.g., code, database tables etc.) should be provided using a project management/hosting service such as `github.com` and `bitbucket.org`. Besides that, a report should be delivered, including:

1. Problem statement and a brief list of requirements.
2. Software design referring to its subsystems (e.g., classes, packages, and containers) and internal connections, with a discussion on why you need those subsystems, the reasons behind the connections between the subsystems, and how these subsystems contribute to the high-quality design of the software.
3. Internals of the subsystems, i.e. the classes in each subsystem together with their relations such as inheritance.
4. Discussion about the cohesion and coupling of the subsystems and how one can improve the design to achieve a high-quality design.
5. Discussion about the concepts used to design high-quality variables, statements, and routines. (hint: the use of checkstyle and lint tools).
6. Discussion on the testing strategy used and the coverage goals.
7. A detailed description on how to run/build/test the system. It would be better if you provide separate scripts for running, building, and testing the system.
8. Each group member should be responsible for the implementation of, at least, one subsystem and the workload among the group members should be fair.
9. Each group member should also contribute to the overall design and the report preparation. The contribution of each member should be explicitly mentioned.
10. A set of representative screen-shots of the running system, with some test-cases

Although having a good user interface is appreciated, please keep in mind that the general system design and classes' internals together with their relationships are more critical.

After all projects are submitted, each project will be evaluated by another randomly selected team. The evaluation team will submit an evaluation report discussing the good elements and issues in the evaluated project. The evaluation will be based on the concepts learnt through the course.

Important Dates for Project submissions

- ~~Proposal Submissions Due: 20th October, 2018~~
- ~~Notification of Acceptance: 23th October, 2018~~
- Final Project and Report Submission Due: 8th December, 2018
- Final Project Presentation: 8th and 15th December, 2018

Grading

Software Repository Use (at least 20 commits)	5%
High Quality Classes/Packages/Containers	5%
High Quality Variables/Statements/Routines	5%
Project Testing and Coverage Monitoring	5%
Report	5%
Presentation	5%
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Total	30%

Presentation

The presentation (< 20 minutes) should briefly cover the elements of project report along with possible demo (if available). A possible structure would be:

1. Problem statement and its importance.
2. Software Requirements and Design.
3. High-Quality Subsystems (e.g., classes, containers, packages). In addition to some comments about the cohesion and coupling.
4. High-Quality Routines including variables and statements.
5. Testing strategy and coverage monitoring.
6. Software repository used.
7. Building/Running/Testing the system.
8. Team Workload and assigned tasks.
9. Demo (if available - not required).
10. Lessons learned.