**Level-3 Project Instructions**

**Introduction**

Team Project is a learn-by-doing project that endeavours to teach issues in design patterns, teamwork, communication and implementation by giving teams of 4-6 students the task of designing and building a complete product encompassing design patterns and software implementation in a structured team environment. The substance of the project centres on the design and implementation of a product to conform to a specification. The design components of this product will be appropriate for a student with 3rd year technical knowledge and pre-requisite course knowledge. A challenging aspect will come from the requirement to work effectively in a group, operate to fixed deadlines, and report regularly on progress. This project is intended to be both a challenging and enjoyable way to enhance your engineering skills in software design and construction, programming at all levels and understand issues of sustainablility in a team environment.

**Project description**  
You are supposed to figure out a real-world project with your team members. Different teams should work on different projects. work including but not limited to:

1. Try to conceive a real-world project and formulize it in a simple requirement document.([template](http://git.oschina.net/OOAD2017/Course-Recourse/attach_files/download?i=93918&u=http%3A%2F%2Ffiles.git.oschina.net%2Fgroup1%2FM00%2F01%2FD6%2FPaAvDFmwnPKAZBz6AAIzOhVBm0Y98.docx%3Ftoken%3D8701e225b3ea439220f3dd4a1c7f0824%26ts%3D1504746833%26attname%3DOE%2520Browser%2520Problem%2520Statement.docx))
2. Apply a minimum of 5 design patterns to solve the design problems of your project and at least a new design pattern(now covered in class) is suggested.
3. Software implementation based on you design.
4. Project presentation and sharing.

**Final Handover of the Project**

During the semester you will be developing a set of materials that will be the handover package for your project. Because every project is different, the exact content of the package is up to you, but it should be carefully edited and suitable for course contents. The final package is likely to include some or all of the following:

Requirements specification System and program design(e.g class diagrams) Source and binary code

**\*\* Project grading.\*\***

Grade X: No assessable work received.

Grade 1, Fail: Fails to demonstrate most or all of the basic requirements of the course: The student did not submit any work nor attend many classes. The student has failed one or more assessment items for which passing grades were required and/or all compulsory sessions not attended.

The minimum percentage required **for** a grade of 1 is: 0%

Grade 2, Fail: Demonstrates clear deficiencies in understanding and applying fundamental concepts; communicates information or ideas in ways that are frequently incomplete or confusing and give little attention to the conventions of the discipline: The student fails to demonstrate accurate, relevant knowledge or understanding of the underlying concepts. The student has failed one or more assessment items for which passing grades were required and/or failed to make a useful contribution to the project as evidenced by their peer assessment factor and/or all compulsory sessions not attended.

Grade 3, Fail: Demonstrates superficial or partial or faulty understanding of the fundamental concepts of the field of study and limited ability to apply these concepts; presents undeveloped or inappropriate or unsupported arguments; communicates information or ideas with lack of clarity and inconsistent adherence to the conventions of the discipline: Falls short of satisfying all basic requirements for a pass. Some knowledge of the course is evident but the student only demonstrates a limited understanding of the underlying concepts and the information provided is largely inaccurate or irrelevant. The student failed to make a useful contribution to the project as evidenced by their peer assessment factor and/or has failed one or more assessment items for which passing grades were required and/ or mandatory sessions not attended.

Grade 4, Pass: Demonstrates adequate understanding and application of the fundamental concepts of the field of study; develops routine arguments or decisions and provides acceptable justification; communicates information and ideas adequately in terms of the conventions of the discipline: The student passed all assessment items that required a passing grade and the aggregated total score is typically in the range 50 - <65%. The student demonstrates basic skills and competency and has sound knowledge of relevant information and at least a basic understanding of the underlying concepts. The peer assessment factor indicates that the student has participated to a satisfactory degree in the project.

Grade 5, Credit: Demonstrates substantial understanding of fundamental concepts of the field of study and ability to apply these concepts in a variety of contexts; develops or adapts convincing arguments and provides coherent justification; communicates information and ideas clearly and fluently in terms of the conventions of the discipline: The student passed all assessment items and the aggregated total score is typically in the range 65 -< 75%. The student demonstrates basic skills and competency and has a sound knowledge of relevant information and a sound understanding of key concepts. There are only minor factual inaccuracies evident in their work. Their peer assessment factor indicates that the student has participated in the project. At least 4 design patterns have been completed.

Grade 6, Distinction: As for 5, with frequent evidence of originality in defining and analysing issues or problems and in creating solutions; uses a level, style and means of communication appropriate to the discipline and the audience: The student passed all assessment items and the aggregated total score is typically in the range 75 - <85%. Key concepts are clearly understood and there is a demonstrated ability to scope and solve previously unseen problems. There are only minor factual inaccuracies and no irrelevant information is presented instead comprehensive design and project management is shown with some areas taken to greater depth. Their peer assessment factor indicates that the student has participated in the project and showed a level of leadership. At least 5 design patterns have been completed with above normal quality.

Grade 7, High Distinction: As for 6, with consistent evidence of substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critically evaluates problems, their solutions and implications: The student passed all assessment items and the aggregated total score is typically in the range 85 - 100%. Key concepts are clearly understood and used with credible judgment to scope and solve previously unseen problems. There is evidence of critical analysis and synthesis of information, concepts and skills from different aspects of the course. There are no factual inaccuracies and no irrelevant information is presented. The peer assessment factor indicates student demonstrated leadership. At least 5 design patterns and a new design pattern have been completed with high quality.

For more details, please visit the following link:

https://gitee.com/SE2018/Software-Engineering/wikis/Project-assignments(%E9%A1%B9%E7%9B%AE%E8%AF%B4%E6%98%8E%EF%BC%89?sort\_id=225205