SWE20001 Managing Software Projects > Project Proposal Stage > Pass Task 03P, Solution Direction and Design

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Modification History

Date (created / modified)	Purposes
2022-01-17	Convert to asciidoc format and modify for 2022 S1
2022-02-26	Fix minor issues

Project Proposal Stage

Context of Project Proposal

Project proposal is a document, usually written by the Project Managers, to bid a project.

The software project could be an in-house project or an external project.

If it is an in-house project, it means that the Project Manager does the project for their own company and the project 'client' may be someone from other department(s).

If it is an external project, there are many different scenario. One example is one of our Government's software application done by Microsoft. Here is a common scenario.

A company wants someone to develop a software application for them. They start with a RFP (Request For Proposal) document, something like 01_R_RFP.pdf, and send these to several software vendors (e.g. IBM, Microsoft, HP, ...). The company will then receive some proposals from these software vendors and select the winning proposal. The software vendor being selected will develop the software for the company.

The portfolio work you do in this Project Proposal Stage is to prepare you, as a project manager, to write a good software project proposal.

Project Proposal Group

You have been asked to form a team of 4 – 6 students in the same tutorial and work as a team for the group tasks for the semester.

For the group tasks in Project Proposal Stage, you need to register your team in Doubtfire under the **Project Proposal Group Tasks** and submit your work as a group task.

Please do not call your group "Project Proposal Group" as there may be potential conflicts in the group names.

Pass Task 03P, Solution Direction and Design - Individual Task

This document describes Pass Task 03P for your Doubtfire submission purposes.

This task aims to develop a rough software design of the software to be developed.

Suggested Timing

Start	Week 2 (after lecture)
Feedback	Ask Tutor in your Weeks 2 or 3 Tutorial class
Due	Week 4 Monday (21 March 2022) 9:00am

Task Overview

Purpose:	To practise how to develop a project proposal of a software based on its description – Software Design
Tasks:	**Software Design** 1. Develop a solution direction of a software project 2. Develop a high-level design of a software project

Pre-requisite Task[1]	Pass Task 02P
Follow-up Task[2]	Pass Task 04P
Resources:	Lecture 2a Arch Design Lecture 2b Software Design 03_R_Design_Template.docx **Books on Unified Modeling Language (UML)** There are many books on UML. Below are some from Swinburne Library 1. Fowler, Martin (2018) *UML Distilled: A Brief Guide to the Standard Object Modeling Language.* Pearson Education. Link via Swinburne Library 2. Larman, Craig (2005) *Applying UML and patterns: an introduction to object-oriented analysis and design and iterative development,* 3rd ed. Prentice Hall. Link via Swinburne Library 3. Unhelkar, Bhuvan (2017) *Software Engineering with UML.* Milton: Auerbach Publishers, Incorporated. Link via Swinburne Library **Tools for UML** There are many tools for drawing UML diagrams. Below are some examples. 1. edraw and their articles about UML 2. smartdraw and their articles about UML
Feedback:	Ask your tutor for feedback

Tasks and Instructions

Now your team has chosen one of the following projects you will be doing for this unit:

1. the standard GotoGre MRM project
2. a project of your choice

We will call this project as "your project" in the future.

Solution Direction and Design

1. Suggest one solution direction (e.g. Web based application with particular technology or desktop-only application) for your project. Things to be considered

   a. Problem domain

   b. Solution domain

   c. Your knowledge in the related business (e.g. daily operations in a pharmacy store if it is the

standard GotoGre MRM project)

    d. Your knowledge and experiences in the programming skills (e.g. Web app using xAMP and Web apps using WebAPI are considered to be different skills)

> Remember to be honest to yourself and your team so that others can help. Software development is a team work not individual heroic behaviour.

2. Propose a high-level design (aka architecture diagram) of your project, indicating each tier as well as their roles and responsibilities

> You may need to draw a rough diagram for the design and briefly describe the roles and responsibilities of each component in your diagram.

Submission Details

Submission Format and Personal Details

Submit a pdf document in **portrait** mode[3] to Doubtfire. Remember to include the following details in the document for submission:

- Your name and student ID
- Your tutorial class including your room location (e.g. Tue 12:30 EN310)
- Your tutor's name
- Your own responses to the tasks

What to submit

Submit your own version of 03_R_Design_Template.docx, properly completed and converted to a pdf file in portrait mode, as mentioned above.

[1] You or your team need to complete the pre-req (pre-requisite) task before doing this task.

[2] You or your team need to complete this task in order to do the follow-up task because the follow-up task depends on your answer in this one. Strongly suggest you keep the same team if possible. Do the follow-up tasks before the next tutorial and then ask feedback in the tutorial.

[3] Landscape mode pdf does not work properly on Doubtfire.