

COMP6204 Software Project Management and Secure Development- Coursework

Assignment:	Software project initiation and planning	Lecturer:	ra3@ecs	Weighting:	30%
Deadline:	14/12/2023, 16:00	Feedback:	30/01/2024	Effort:	45 hours per person

I. Objective

This assignment is group coursework. It is expected that each team member contributes equally to the project work. However, a Mark Distribution Form will be provided to record each member's contribution, which should be signed by all members and submitted as the first page of your report.

The purpose of this CW is to practice project management planning for the given case study using your choice of software and tools. The aim is to follow the PMI approach to project management to conduct project initiation and planning phases as described below. You will learn how to create a planning report and required outputs for the provided case study and apply different techniques and tools discussed in the lectures. What you learn from this exercise should be applied to the management of real projects. Below is a detailed procedure to accomplish this assignment.

II. Background and context

In the School of Electronics and Computer Science, students in the final year must submit a final project/dissertation as a part of their programme. At the moment, we have a basic system to provide access to the [archive of third-year projects](#), designed and implemented many years ago. This system is only providing access to the text of the Part III Project. This system is far from being ideal. The MEng and MSc Students also produce project reports/dissertations that we want to make available to future students and Staff. In consultation with academic and administrative staff, the ECS management has decided a new system should be developed to address the current issues and provide access to various project reports and associated datasets in a user-friendly manner to enhance the user experience for both students and academics. This could be a system similar to the [ePrints](#) system, currently for making research papers and PhD theses available.

II. An overview of the Archive System

The process begins with a student submitting their report to the Handin System. Students can submit one or more versions of their report as a document file, usually in PDF format. A report usually has several companion files, such as a Zip file containing project source code or data sets and a video demo. The submission has a title, submission date and some meta-data such as information about the student (name, email, module name and programme of study, year of study and so on), supervisors' information (usually more than one supervisor) and the type of report (Part-III project, GDP Project or MSC Project). It is also desirable to be able to put an embargo on some reports or their associated data for a pre-determined time. The new **Archive system** should be able to export the latest version of the submitted report and its related files and metadata from the Handin system as soon as a new submission becomes available.

Academics and students should be able to browse and search the archive in various ways. For some ideas about these methods, you refer to the University [ePrints](#).

III. Your tasks

Project Report

In this project, we use a **predictive** approach, and the emphasis is placed on the early stages of the project management processes, i.e., the initiation and planning phases. In terms of the required process/outcomes, the following table provides a list of processes and outcomes you must complete. You should form your team and start working on this project as soon as possible. In your report, you should aim to provide a clear structure, including a title page showing your team information, a content page and sections and subsections representing the required outputs indicated by the table below. For the budget and duration, you can assume that the project is defined to be completed in **one calendar year** and has a **budget of £200,000**. You should consider only the human resource budget for completing identified activities. It is not necessary to consider electricity, building and physical equipment such as chairs, tables, computers, networks, hardware, and software costs. All these items are provided by the University.

Project Peer Review Activity

In week 12 we invite all groups to a peer review session. We organise groups into clusters of 2-3 groups. Each group should review and provide written feedback on the other groups in their cluster. This activity aims to provide you with the experience of reviewing other projects in a realistic setting. This session is mandatory, and you should make sure that all team members are available for this activity. More details on the clusters, venue and the exact timing will be announced closer to the event.

Table 1. Tasks List

Phase	Tasks
1. Initiation	
	Defining Team Organization & Responsibility Assignment Matrix
	Create the Project Charter and Assumption Log
	Identifying project stakeholders and create Stakeholder Register
2. Planning	
	Develop a Project Management Plan – Should include the following sections
	Plan and define project scope (Out-of-scope statements can be included, describe the deliverables) Collect requirements and produce the requirement document – Identify functional and non-functional requirements for your system. Produce each requirement in a separate numbered

	sentence. Requirements should be grouped by some method (e.g., by stakeholder, subsystem, development iteration, etc.).
	Create Work Breakdown Structures (WBS) - The WBS should include all tasks needed to meet the scope of your project. You should provide a clear structure for tasks, subtasks and work packages.
	Create the Activity List and Sequencing of Activities – Present your project schedule in AON with critical path analysis.
	Estimate activity durations, develop schedule baseline and milestone list - Based on your WBS, estimate the duration of each task in Gantt chart format. Document the method used to create your estimates.
	Produce Resource Assignments & Responsibility Assignment Matrices – Determine how many of each type of resource is needed to perform each task. Produce Resource Breakdown Structure & Resource Histogram.
	Produce Risk Register – Show a risk analysis for your project, including at least eight risks. Include impact analysis (prevention, detection, & mitigation) and prioritization (based on impact assessment).
	Produce cost baseline – This should include cost estimates for tasks and their resources, cost budgeting for the whole project. Cost Control – define processes.

IV. Relevant Learning Outcomes (LOs)

1. Acquire experience in working in groups and recognise interpersonal dynamics in a small team.
2. Apply project management concepts to a given case study.
3. Evaluate and critically reflect on different dimensions of project management with an emphasis on the initiation and planning phases.
4. Demonstrate knowledge and understanding of the above aspects by producing good quality documentation.

V. Marking Scheme

<i>Criteria</i>	<i>Description</i>	<i>LOs</i>	<i>Total</i>
Team organisation, stakeholders, and project charter	Clear project purpose or justification, measurable project objectives, clear assumptions, and constraints, realistic assignment matrix, accurate set of stakeholders	1,2,3	10
Project management plan, project scope, and requirements	Effective project plan, clearly identifying aims, deliverables, scope, schedule, cost, and human resources. Accurate and comprehensive list of requirements	1,2,3	20

Work breakdown Structures (WBS), Activity Lists and sequencing of activities, activity durations, schedule baseline and milestone list	Accurate WBS and Activity Lists, clear sequencing and good estimation of duration, effective milestones, effective use of diagrams and tools, provide multiple representation of the relevant aspects of the project at different level of details	1,2,3	40
Resource Assignments & Responsibility Assignment Matrices Resource breakdown structure & Resource Histogram	Effective and balanced Resource Assignments, good alignment of the Resource breakdown structure & Resource Histogram with the WBS and Activities list.	1,2,3	10
Risk register Cost baseline	Accurate risk identification and documentation Good estimation of the costs and effective distribution of the budget	1,2,3	10
Presentation	Accurate diagrams & templates, good quality of English, layout, clarity of purpose, linking between templates and diagrams and the text of the report; readability and clarity of	4	10

Late submissions will be penalised at 10% per working day. No work can be accepted after feedback has been given. Please note the University regulations regarding academic integrity. The marking scheme is indicative, and all marks returned to students are for feedback purposes. These marks will be prior to moderation and before late penalties are applied.