MITS5001

IT Project Management

Major Project

Major project (Group Assignment) - 30% (Due week 12, Sunday 11:55pm)

This assessment is to be completed in teams of 3 or 4 members. You should begin by submitting (till week 5) the signed group participation form at the end of this document. This form needs to be completed, signed by all group members and must email to **lecturer/instructor**. Once submitted, the teams will remain fixed and no member additions or deletions will be allowed unless by approval of your unit facilitator.

Objective(s)

The objective of this assessment is to apply the knowledge and experience acquired with IT Project Management concepts, tools and methods gained through the lectures and activities to a Case Study Problem. You are required to identify key project parameters during the phases of project life cycle which can accurately estimate the project flow and resources, project milestones and detailed cost estimation. You will also need to employ project execution and monitoring techniques which lead to a successful project closing, risk assessment and control and recommendations.

The following ULOs are assessed in this assessment.

- **LO1** Demonstrate ability to skilfully manage projects by putting to effective use various IT project management tools and techniques.
- **LO2** Critically analyse project parameters and identify the key processes from the available project management book of knowledge in practical case scenarios.
- **LO3** Independently analyse project flow, resources, timelines and budget requirements using PM Tools.
- **LO4** Apply emerging PM principles and state of the art tools to manage project scope, project time and resourcing.
- **LO5** Carry out research studies to provide expert judgement on the project progress and strategize contingency and fall-back plans to ensure project deliverables are met as planned.

INSTRUCTIONS

The purpose of this major project is to develop a well-analysed and well-researched project planning document based on the overall parameters of a project and establish the appropriate project management and quality environment required to complete the project. Since a project case has given, you must take this description as the basis to analyse and identify project issues, apply different project management tools and techniques to manage the project, conduct post-project review (i.e., lessons learned) and make recommendations for improvements for future reference. If you find that the description below is not

detailed enough, you can make your own assumptions. But any assumptions must be reasonable and documented.

The major group project assignment should include various phases of a project life cycle, such as *initiating, planning, executing and closing* a project. Project Management Plan helps the management team to maintain a constant focus towards delivering the major project in accordance with the customers' needs, wants, and expectations. The development of such a plan is comprised of the business case, project objectives and goals, success criteria, scope, high level schedule, stakeholder accountabilities, the communication plan, benefits and costs, governance and resourcing, the management approaches and a high level risk plan. Such information ensures a consistent understanding of the project, help to set expectations, and identify resources necessary to move the project to the next level of detailed planning. Major project must be delivered in a manner that captures the user's trust and confidence in the chosen projects ability to effectively and efficiently deliver quality services/products. In order to ensure major project success, it is imperative that good project management principles are used early in the planning stage of a project. As the major project becomes more defined, the Project Management Plan will become the tool by which the project will be effectively managed.

Students should include all aspects of the project as if they were the Project Manager and it is a requirement of the subject that they include the use of software (Microsoft Project). Students are expected to show evidence of reading and research using credible resources including, but not confined to their prescribed text. The assignment will be marked on the basis of depth of subject knowledge, analysis, research, properly referenced and synthesized of a suitable and well-argued response. Failure to complete and submit the assessment by the due time and date without prior approval will result in a fail for the subject.

Assessment will be on the basis of the realistic nature of the project and how well it is presented. Make sure that the timeline, the budget and the quality of the work is realistic, justifiable and sufficiently attractive to win a tender for a real project.

Your major project report must consist of at least the following:

1. A clear outline of the project including title, start and end date, goals and objectives.
2. Gather project requirements (both functional and non-functional)
3. The envisaged project team members (title, skills/expertise)
4. Develop a project plan
    - Construct Work Breakdown Structure (WBS)
    - Estimate time breakdown for each cycle of the project
    - Determine resource needs for your project
    - Draw a Gantt Chart and Network Diagram for your project

- Estimate cost for your project
- Stakeholder analysis for your project
- Plan communications for your project
- Plan project risks management

5. Use of Microsoft Project to complete WBS, allocate time and resources, apply cost, and prepare Gantt chart and Network Diagram.
6. Project Signoff (page)
7. Post project review and recommendations

Submission Guidelines:

All submissions are to be submitted through turn-it-in. Drop-boxes linked to turn-it-in will be set up in the Unit of Study Moodle account. Assignments not submitted through these drop-boxes will not be considered.

Submissions must be made by the due date and time (which will be in the session detailed above) and determined by your Unit coordinator. Submissions made after the due date and time will be penalized at the rate of 10% per day (including weekend days).

The turn-it-in similarity score will be used in determining the level if any of plagiarism. **Turn-it-in will check conference web-sites, Journal articles, the Web and your own class member submissions for plagiarism**. You can see your turn-it-in similarity score when you submit your assignment to the appropriate drop-box. If this is a concern you will have a chance to change your assignment and re-submit. **However, re-submission is only allowed prior to the submission due date and time**. After the due date and time have elapsed you cannot make re-submissions and you will have to live with the similarity score as there will be no chance for changing. Thus, plan early and submit early to take advantage of this feature. You can make multiple submissions, but please remember we only see the last submission, and the date and time you submitted will be taken from that submission.

Your document should be a single word or pdf document containing your report.

Your report or critique must include:

- Title Page: The title of the assessment, the name of the paper you are reviewing and its authors, and your name and student ID.
- Introduction: A statement of the purpose for your report and a brief outline of how you will discuss the selected article (one or two paragraphs). Make sure to identify the article being reviewed.
- Body of Report: Describe the intention and content of the article. If it is a research report, discuss the research method (survey, case study, observation, experiment, or other method)

and findings. Comment on problems or issues highlighted by the authors. Discuss the conclusions of the article and how they are relevant to what you are studying this semester.

- Conclusion: A summary of the points you have made in the body of the paper. The conclusion should not introduce any 'new' material that was not discussed in the body of the paper. (One or two paragraphs)
- References: A list of sources used in your text. They should be listed alphabetically by (first) author's family name. Follow the IEEE style.
- The footer must include your name, student ID, and page number

ATLAS

Atlas is a health insurance provider in the southeast region. The company has employed the "waterfall" methodology for their software development projects. The waterfall methodology assumes that projects can be managed better when segmented into a hierarchy of phases, stages, activities, tasks, or steps. The waterfall methodology therefore directs a software development project to progress in an orderly sequence of development steps. This also means concurrent development steps of a project are prohibited. Atlas has experienced a rapid growth over the years. In just a short five-year span, the numbers of subscribers has increased from two hundred thousand to more than one million subscribers. Management predicts even more growth. This number is only the subscribers, and their dependents are not included in this number. Therefore, the rapid growth of subscribers means extensive data to manage for Atlas. The company has been using Microsoft Access as their data management system. Atlas realizes the limitations of MS Access in managing large amounts of data, now that they have to deal with their aggressive demands. Therefore, an upgrade to more sophisticated data management systems is a must.

After some research, top business managers decided to convert the database management system to Oracle, which should have been be able to provide flexibility, ability to manage huge amounts of data, expandability, and referential integrity.

THE PROJECT

To respond to this need, Atlas initiated a project whose purpose was to implement:

> *Oracle database with proper connectivity to the existing system, and Safe data transfer from MS Access to Oracle*
>
> Project Budget: $ 250, 000
>
> Project Duration: 12 weeks

The pharmacy department (PD) was responsible for the project and its cost. The PD selected Will Smith as the project manager and Rebeka Adam as the business analyst, both of whom were very experienced individuals. Will was the main person in charge of any problem/issue/concern regarding the project. He was responsible for all aspects of the project, including project schedule, development matrix, budgeting, and issue escalations. Rebeka was the major point of contact for the user. She was responsible for collecting all the requirements from the users and documenting them in the business requirement document.

WATERFALL SOFTWARE DEVELOPMENT

As mentioned, similar to other projects this project followed the waterfall software development model. The project must complete each phase and go through a final walkthrough (FWT) before it could move forward. The formal walkthrough committee usually involved the phase completion check-off and presided over all sign-offs. The committee consisted of managers from different functional areas. Will was also involved in the FWT, but was not part of the committee. So his signature was not required for phase completion sign-off. The purpose for the FWT meeting was to ensure that specification requirements of the particular phase were clearly met and documented. Requirements must be validated and exit criteria must be satisfied before the project could progress. In other words, the waterfall model created disciplined project management and ensured the adequacy of documentation and design reviews. It set all requirements, schedules, and expectations before the project kick-off. Figure 1 shows a preliminary outline that represents the overall process of software development life cycle at Atlas.

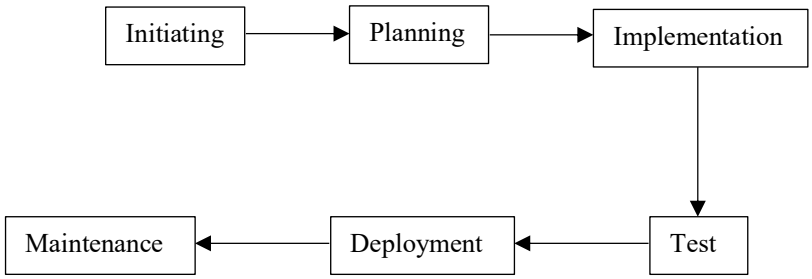

Figure 1: Software development life cycle

Initiation Phase

As the project manager, Will was responsible for the development of the resource requirement document and project plan. To prepare these documents, he needed to get help from different functions. In particular, Will needed assistance from the Solution Engineer (SE), Systems Analyst (SA), Developer (D), Test Analyst (TA), Release Engineer (RE), Data Architect (DA), and Database Analyst (DBA). The maximum full time resources available for initiation phase are mentioned below. The resources work 40-hour week from Monday to Friday (i.e. a 5-day week with 8-hour days).

Resources	$/Hour	Number Available
SE	65	1
SA	65	1
D	50	1
TA	60	1
RE	65	1
DA	50	2
DBA	50	3

You may also need to make some assumptions to complete your schedule and budget to complete the initiation phase. Moreover, you must research the resources you required for rest of the phases and estimate the resource requirements, budget and task allocation. If so, make sure that you list all the assumptions as well as the constraints.

Marking Guide: 100 Marks

Task	Description	Marks
Introduction	Write an introduction for the report	5
Report Layout	Report layout, language and style should be good	5
Literature Review	Select three (3) recent (not older than 2015) research papers relevant to Project Life Cycles, Integration Management, Scope Management, Schedule Management, Resource Management, Communications Management, Risk Management, Agile Project Management, Change Management, and Stakeholder Management.	9
Stakeholder Analysis and Communication Plan	List all the key stakeholders who need to receive communications, including communication type and frequency.	8
Project Charter	Design a project charter that includes, background of the project, project objectives, main project success criteria, roles and responsibility of project stakeholders, and risk and dependencies.	15
Gantt Chart	Construct a Gantt Chart schedule that includes, work break-down structure (WBS), start and end date of each task, responsible person to perform the task and proceeding task/s.	20
Cost Management plan	Report a cost management plan that includes resource planning and cost estimation of the project. Resource planning determines how much human resource, raw material, equipment and facilities that would be required to deliver the project.	10
Risk Assessment	Discuss a risk assessment and management plan. This should include identifying possible risks, performing qualitative and quantitative risk analysis and planning for risk responses.	9
Project Monitoring and Evaluation	Critically analyse a controlling and monitoring method. Propose a controlling and monitoring method that suits for this project.	10
Conclusion	A summary of the report	5
References	Follow the IEEE style	4

Group Participation Form. (IT Project Management Major Project Assessment)

This form is to be completed by the group and returned to your tutor/lecturer as soon as possible.

We, the undersigned, agree to contribute individually and as a team to complete the Group Project for MITS5001 IT Project Management in the time specified. (It should be noted that failure to participate in a group may result in a fail for the assessment component of the subject.)

Group membership:

	Surname	First name	Student ID	Date	Signature
1.	_____	_____	_____	___/___/___	_____
2.	_____	_____	_____	___/___/___	_____
3.	_____	_____	_____	___/___/____	_____
4.	_____	_____	_____	___/___/____	_____

* All members in the team will receive the same mark for the project, unless there are extenuating circumstances whereby an individual's mark has to be altered by the tutor/lecturer, or if the peer group assessment warrants it.

** Team members should contact their tutor/lecturer immediately if problems arise within the team that may cause completion of an assignment to be severely delayed, or the quality of the submission to be substantially lowered.

*** No additions or deletions from Teams allowed unless agreed to by your Instructor