

# PA2515 Applied Software Project Management

## Individual Report Assignment

### Instructions

**Answer all 5 questions.**

**Purpose:** This assignment is a mechanism for you to demonstrate that you, individually, have met the learning objectives for the course and have actively participated in your team's project.

**Marking:** As a guide to what is expected in your answers, the marking criteria are explained after each question. Each question has a total of 20 marks available. ***Please use the marks available for each part of a question and the marking criteria as an indication of how much content is expected for each part of a question.*** To obtain a passing grade for the report, your total mark must be 50% or more, and additionally you must obtain a mark of 50% or more for Question 5 (because this question is a reflection on *your* role in the project). Note that submissions in which the marker believes a reasonable attempt has *not* been made to answer *all* five questions will not be marked (and so no feedback will be provided) but will be assessed as failed.

**Submission:** Submit your report as a single PDF via itslearning. To assist us in marking, you must adhere to the following format:

- begin the answer to each of the five questions on a new page
- the answer to each question must not be more than two pages long (any text after the second page will be ignored when marking)
- you must clearly indicate when you begin answering each part of a question (for example, you might use a sub-heading that specifies the question part, such as “2.3”)
- you may additionally include a list of references as one or more extra pages
- you may **not** include additional material, for example, as appendices (any such material will be ignored when marking)
- the page size must be A4 and use a legible font size (11pt size or larger) and page margins (2cm or more)
- the title page must include your name, acronym, and your project team number
- your report must therefore consist only of:
  - a title page (1 page)
  - your answers to the questions (a maximum of 10 pages in total)
  - a list of references (1 or more pages)

**Collusion:** The answers in your report must be decided upon and written by you only. This is *not* a group assignment.

**Plagiarism:** As for other written assignments, you must not plagiarise material. Content that is derived from other sources (including other documents that you have written yourself or as part of the team) must be put into your own words or clearly presented as a quote, and in both cases the original source must be cited and referenced appropriately.

## Question 1 - Project Development Methodology

1.1 Which project development methodology (also called a “lifecycle model”) did your team use for your project? Briefly explain **why** your team chose this methodology.

[3 marks]

1.2 Describe the **adaptations** (or customisations) that your team made to the basic/standard/traditional form of your chosen methodology when you used it for your project. For each adaptation: explain the change, the justification for it, and discuss whether **you** think the adaptation was successful.

*Hint: your team might have made adaptations as a result of the number of people in your team, their skills and knowledge, time constraints, when and how you were available to work on the project, the type of product you were producing, the nature of your customer, the reporting requirements for status report and meeting assignments, etc. Consider both adaptations you described initially in your project plan and any additional adaptations you made during the course of the project.*

[8 marks]

1.3 What do **you** think are the **strengths** (i.e. advantages compared to other development methodologies) of the methodology used by your team? Justify your answer using **examples** from your experience of participating in this project.

[4 marks]

1.4 What do **you** think are the **weaknesses** (i.e. disadvantages) of the methodology used? Justify your answer using **examples** from your experience of participating in this project, and briefly explain how using a different methodology might have avoided these particular weaknesses.

[5 marks]

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Marking criteria:

- 1.1
  - a clearly identified methodology [1 mark]
  - a well-argued justification for using this methodology that is consistent with the project plan [2 marks]
- 1.2 For each adaptation discussed (up to a maximum of 8 marks):
  - explanation [1 mark]
  - justification [1 mark]
  - reflections on whether it was successful [2 marks]
- 1.3 Multiple strengths discussed that demonstrate an understanding of the methodology and are supported by the student's personal experience from the project [4 marks]
- 1.4 Multiple weaknesses discussed that demonstrate an understanding of the methodology, are supported by the student's personal experience from the project, and convincingly compared to another methodology [5 marks]

## Question 2 - Monitoring and Control

*In this question, your answers should consider **both** schedule management (i.e. when each task was completed) **and** effort management (i.e. the work required to complete each task). You may interpret the word “plans” in the question as referring to your initial project plans, ongoing revised plans, and/or shorter-term plans (e.g. for “sprints”, “iterations”, or “phases”).*

2.1 What processes, methods, and tools did your team use to **measure and track progress** during your project?

[4 marks]

2.2 To what extent did your team’s actual progress on the project **deviate** from your plans? Provide quantitative **examples** as part of your answer.

[4 marks]

2.3 What do **you** think were the **reasons** for these deviations? Justify your answer.

[4 marks]

2.4 What **actions** did your team take as a result of these deviations? Explain why these particular actions were taken.

[4 marks]

2.5 As a result of your experience on this project, what would **you** do in future projects to measure, control, and react to deviations between actual and planned progress? Explain your answer.

[4 marks]

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Marking criteria:

- 2.1 description of process, methods, and tools (suitably referenced where appropriate) is comprehensive and consistent with the chosen project development methodology (where the processes etc. differ from those proposed in the initial project plan, the reason for these differences are explained) [4 marks]
- 2.2 deviations from plans are discussed using quantitative examples [4 marks]
- 2.3
  - proposed causes of the deviations are convincingly argued [2 marks]
  - causes of the deviations are related to the student’s experience of the project (rather than being generic) [2 marks]
- 2.4 actions taken as a result of detecting deviations are clearly described and motivated [4 marks]
- 2.5
  - proposals demonstrate an understanding of techniques for measuring and tracking process [2 marks]
  - proposals are justified by the experience on this project [2 marks]

## Question 3 - Risk Management and Quality Management

3.1 What processes, methods, and tools did your team use to **identify the risks** to the project and **monitor risks** during your project?

[4 marks]

3.2 Did any of the risks anticipated in your project plan actually occur during the project?

If **yes**: what were these risks, and what actions did the team take to reduce the impact of them once they had occurred?

If **no**: what actions did the team take to minimise the chance that the risks identified in the project would occur?

[4 marks]

3.3 Did any risks or challenges occur that were *not* anticipated in the project plan?

If **yes**: what were these risks, and why do *you* think they were not anticipated in the project plan?

If **no**: why do **you** think that your team encountered no unanticipated risks?

[4 marks]

3.4 What processes, methods, and tools did your team use *both* to **ensure** and to **assess** the quality of the software?

[5 marks]

3.5 To what extent do you think these processes, methods, and tools were effective in ensuring and/or improving the quality of the software you produced?

[3 marks]

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Marking criteria:

- 3.1 a convincing discussion of how risks were identified by the team (that is consistent with the project plan) [2 marks] and of monitoring risks [2 marks]
- 3.2
  - a convincing discussion of how *either* impact *or* chance of risk(s) were mitigated, justified by examples from the project and referencing the mitigation strategies proposed the project plan [4 marks]
  - but [-1 mark] if no clear yes/no answer to the first part of the question
- 3.3
  - a well-argued analysis of why (un)encountered risks were or were not anticipated [4 marks]
  - but [-1 mark] if no clear yes/no answer to the first part of the question
- 3.4 a comprehensive explanation that covers both ensuring and assessing quality, and which is clearly related to the quality criteria the team specified for their product [5 marks]
- 3.5 reflections on how effective the processes/methods/tools were in practice, supported by examples [3 marks]

## Question 4 - Project Team

*Your answers to this question should focus on aspects of your team's performance that are related to the **management** of the project.*

4.1 In what ways do **you** think your team managed the project well? In your answer, provide specific examples, and explain why you think your team was good at these aspects.  
[8 marks]

4.2 In what ways do **you** think your team could have managed the project better? In your answer, provide specific examples, explain what *you* think caused your team to perform less well on these aspects, and discuss what changes could have improved the team's performance.  
[12 marks]

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Marking criteria:

- 4.1
  - comprehensive discussion identifying multiple aspects in which the team managed the project well [2 marks]
  - the discussion is supported by specific examples [4 marks]
  - convincing analysis as to why the team performed well on these aspects [2 marks]
- 4.2
  - comprehensive discussion identifying multiple aspects in which the team could have managed the project better [2 marks]
  - the discussion is supported by specific examples [4 marks]
  - convincing analysis of why the team performed badly on these aspects [2 marks]
  - changes proposed to improve the team's performance are practical and argued well [4 marks]

## Question 5 - Your Role

5.1 How did **you** contribute to the success of your team in terms of (a) managing the project; and, (b) creating the software product?

*Hint: In your answer, explain the different roles (both formal and informal) that you had during the project and what you did in those roles, highlight particular contributions you are proud of, and provide specific examples of how your work in these roles helped your team to succeed.*  
[10 marks]

5.2 Do **you** think the roles you had during the project were the most effective use of your skills and knowledge? Justify your answer.

[2 marks]

5.3 If you were to perform the same roles on a similar project in the future, what would **you** do differently?

[4 marks]

5.4 What are the most important aspects of **software project management** that you have learnt by participating in this project? Justify your answer using examples from your team's project.

[4 marks]

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Marking criteria:

- 5.1
  - (a) multiple and specific examples of the contributions made by the student in terms of *project management* that also justify why these were beneficial to the team [5 marks]
  - (b) multiple and specific examples of the contributions made by the student in terms of *software development* that also justify why these were beneficial to the team [5 marks]
- 5.2
  - a description of skills and knowledge used by the student that relates these to the roles undertaken and justifies the answer [2 marks]
  - but [-1 mark] if no clear yes/no answer to the first part of the question
- 5.3 relevant suggestions as to how the student would execute these roles differently, justified by specific examples of how their contribution on the current project could have been improved [4 marks]
- 5.4 multiple reflections on what has been learnt, supported by relevant examples [4 marks]