BTEC

January 2018

Level 3 National in Computing

Unit 3: Planning and Management of Computing Projects

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Grade Boundaries

What is a grade boundary?
A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade, Distinction, Merit and Pass.

Setting grade boundaries
When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark should be for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in external assessments
Each external assessment we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each test, because then it would not take into account that a test might be slightly easier or more difficult than any other.

Grade boundaries for this, and all other papers, are on the website via this link:
http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

Unit 3: Planning and Management of Computing Projects (31770H)

Grade	Unclassified	Level 3		
		P	M	D
Boundary Mark	0	25	38	52

Introduction

This was the first examination season for Level 3 BTEC Computing Unit 3: Planning and Management of Computing Projects.

This unit is a paper based exam, assessed through a two part task. Part A was the development of the PID and Gantt chart which was 3 hours and part B was the checkpoint and email which was 2 hours.

This unit is a mandatory unit for all learners studying the extended certificate, foundation diploma, all diplomas and the extended diploma.

The examination for this unit will always contain four sections and each section will be linked to a scenario that and used throughout the whole of that section. The scenario clearly stated at the beginning of each section.

Each section is broken down into activities, which will then test learners on different areas of the specification, and learners are expected to apply their knowledge to the scenario.

Learners are provided with a scenario with additional information to support. They instructed to look at individual parts / sections of this during the examination in order to answer questions. The information brief may give learners:
1. Information about problems that they need to solve.
2. Interpret the scenario and apply solution using Project Management techniques and theory

All Activities of the examination paper provide differentiation at all attainment levels and the brief is designed to escalate in difficulty so that a larger percentage of higher-grade marks depends on the skills, knowledge, understanding and application of theory.
- LE Report to be considered with paper and mark scheme
- Contextual introduction

Introduction to the Overall Performance of the Unit

The overall performance of learners was good though we have nothing to compare to the previous season for this unit. It was evident that learners well prepared for the rigour of this exam. The performance on the Activity 1 was excellent with many learners picking up marks for most sections. The number of blank responses was also significantly low. Activity 3 and 4 were of high standard and demonstrated the learner ability to apply theory to practical scenario.

However, there is still evidence that many learners are still not covering the full specification in depth. Activity 2 was particularly poor, recommend that centre try using actual project management software rather than spreadsheets, it was clear that students either ran out of time or were unsure how to populate the spreadsheets correctly. Other issues;

Smart objectives can be anything that is appropriate to the scenario as long as they are Specific, Measurable, Achievable, Realistic and Timebound. In many cases, timebound was missing, or they were more generic than specific. Last column, comments, helps distinguish the middle band from the higher band. Thinking about the timings and consideration, which related to the Gantt chart, and was lacking by many candidates.

Risk analysis generally completed correctly, but marks thrown away by not considering contingency plans. All too often candidates completed the type of risk, which was mainly internal as per the brief, they correctly filled in the probability, impact and severity, but contingency plan was all too often incomplete or not specific. To gain the top band this is important aspect and candidates have to really understand and thing how they may lower the risk of the project failing.

The communication plans were generally completed correctly, but again marks thrown away by not specifying the purpose of the communication. All too often, what was discussed was not specific or repeated for each stakeholder indicating lack of understanding of communication methods.

The vast majority of learners are still struggling to create Gantt charts. Most learners were not able to use logic chains of reasoning apply Project Management techniques, for example relating complex and general functional points to the hours need to complete the task and the cost associated with this, therefore resulted in learners achieving very low marks.

Individual Questions

The following section considers each question on the paper, providing examples of learner responses and a brief commentary of why the responses gained the marks they did. This section should be considered with the live external assessment and the corresponding mark scheme.

Activity 1

Project Initiation Document

Project Details

Project Title:	Mutto Control System
Project Sponsor Name:	Mutto
Project Client Name:	Haroon
Project Manager Name:	███████████
Start Date:	12/02/18
Completion Date:	13/04/18
Estimated Cost:	The client has informed us that they have a budget of £18,900. According to my Cost plan the total cost will be £22,799.29.

Document Details

Version	Modifications	Author	Date
1	Project Details added	████████████	10/01/18
2	Approvals & Distributions		10/01/18
3	Purpose of the PID & background complete.		10/01/18
4	SMART Objectives		10/01/18
5	Scope & Assumptions		10/01/18
6	Constraints & Risks		10/01/18
7	Risk Management Strategy		10/01/18
8	Stakeholders		10/01/18
9	Communication Plan		10/01/18
10	Deliverables		10/01/18
11	Organisational Structure		10/01/18
12	Scope		10/01/18

Approvals
This document requires the following approvals:

Name	Role	Signature	Date	Version
Brenda	Owner of SIS	SIS.Brenda	10/01/18	12

Objectives

SMART objective	Achieved?	Date and Comments
Analysis of the current system (3 days)		Completed by 14/02/2018
Design of the new system (3 days)		Completed by 19/02/2018
Test Plan (2 days)		Completed by 20/02/2018
Building of the new system (7 days)		Completed by 28/02/2018
Testing of the new system (10 days)		Completed by 16/03/2018
Regression Testing (2 days)		Completed by 06/03/2018
System Testings (10 days)		Completed by 16/03/2018
Implementation/changeover of the new control system (10 days)		Completed by 07/03/2018
Monitoring of the new control system for one calendar month (30 days)		Completed by 13/04/2018
Handover of the new system (1 day)		Completed by 13/04/2018

Assumptions

Assumption	Validated by	Status	Comments
No-one will be ill during the project		Project Manager	Making sure that all employees are able to attend work during the project
All components will arrive on time		Project Manager	Making sure that the components are tracked and make sure they are ordered long before the start of the project so you can prepare a back-up delivery if the first set don't turn up.
All hardware works fine throughout the project		Project Manager	Make sure that the hardware is working fine and performing regular checks throughout the project so if something was to go wrong then you can order replacements.
The outcomes of the project are met		Project Manager	Make sure everything goes right and meets the deadlines
All laptops which are being used work fine		Project Manager	Test all laptops before they are needed.

Constraints

Constraint	Validated by	Status	Comments
Members of staff becoming ill		Project Manager	Making sure staff are in as much as they can and they let me know as soon as possible so I can get the contractors.
Users unable to use the software because they don't know how to		Project Manager	Make sure the users of the software are taught correctly and can use all features of the system.
Components don't work		Project Manager	Make sure checks are performed and backup components are ready to be delivered.
Making sure that the outcomes we are expected to achieve are obtained		Project Manager	All tasks are completed on time so the outcomes should be true.

Stakeholder	Responsibility
▮▮▮▮ – Project Manager	Manage and overlook the team which is carrying out this project to ensure that the work being produced by the team is correct and of good quality. Project Manager should also ensure that any deadlines set are being met on time to keep the client satisfied.
Haroon - Client	Make sure that the requirements they set are being met and gaining an understanding of what is happening.
Brenda – Project Sponsor	Their responsibility is to ensure that the project is progressing well, being carried out as expected and any company rules and regulations are being followed throughout the project.
Project Team – Erik (Programmer), Jenny (Systems Integrator) and Robert (Junior Systems Integrator)	To ensure that all work is carried out and completed to the expected standard.
Maintenance Staff	To ensure they have an understanding of the new system so they can perform their job using the new system.
Contractors	To fill in for any staff that aren't present and help complete work to a good standard. These will only be used if necessary.

The learner has clearly used their knowledge and understanding to demonstrate awareness of how project managers operate. It is good to see link between strategy and project outcomes. It is also important that when writing within the scope the learner considers other aspects which may affect the quality of the product been delivered; for example if the scope changes, but budget and timescales remain the same. This could have an impact on the quality of the product been delivered. The learner has approached this task by correctly interpreting and transferring the correct information from the brief to the PID. The objectives have reflected the Project Lifecycle stages, Analysis, Design, Implementation, Testing and Evaluation/Review, and then adding relevant information from the scenario. These are specific and time constrained and relevant to the given scenario. The above candidate has considered all areas using logical chains of reasoning that show a full awareness of the given scenario. In the most cases to reach top mark band, it expected that the learner populate the last column with higher order of thinking, for example in the assumptions and constraints section you would expect the leaner to have interpreted the scenario correctly and applied theory. The learner work would fit into **Band Mark 4 (10-12)** in the mark scheme.

Risk Management Strategy

| Risk	Probability	Impact	Severity	Contingency Plan
Design & Analysis of the system may pass the set deadline	Low	Low	Low	If we are made aware of this risk, this stage and employee should be monitored. Extra staff should be considered to assist.
Employee falls ill during the project	Low	Medium	Low	If someone falls ill, a contactor should be employed so there is someone to fill in temporarily and meet deadlines.
Systems Integrator may be needed for another project	Low	High	Medium	If this happens, the Junior Systems Integrator will be required and monitored

The learner has to understand that project management is complex and certain things need to be considered before the project starts. The risk factors need to be appropriate and contingency plans thought of more weight is put on this area. There is consideration of the relevant risks and using logical chains of reasoning shows a full awareness of the given scenario. The learner has considered probability of risk been Low as there is no indication that the organisation cannot complete the work. Impact is medium to high, as the corrective action would require other staff employed. The severity of risk is also set from low to medium because any problems that arise and dealt in-house. **Mark Band (3-4)**

Communication Plan

Stakeholder(s)	Frequency	Type	Purpose
Haroon (Plant Manager) - Client	Every other day throughout the week	Meeting with Project Manager	The purpose of this is to keep Haroon updated of the project. He told us that he wants to be updated regularly regarding the progress of the project.
Brenda (Owner of SIS) - Sponsor	Once a week at the end of the week	Meeting with Client and Project Manager/e-mail	To ensure Brenda is aware of how the project is going and if company guidelines are being followed. Brenda doesn't need a regular update of the project as she is the owner of the company. Therefore, she won't be directly involved with every project the company has been provided.
Erik - Programmer	Daily	Team meeting	To get an update on how the project is going and to address any issues that may have occurred during the project so far. The frequency is daily because not only do I need to understand what the progress is but Haroon, the client, wanted regular updates.
Jenny – Systems Integrator	Daily	Team meeting	To get an update on how the project is going and to address any issues that may have occurred during the project so far. The frequency is daily because not only do I need to understand what the progress is but

This is a crucial component of the project; the frequency and method of communication are appropriate for the target audience, using logical chains of reasoning that show awareness of the given scenario. More emphasis and weight for the top end marks is for the purpose. This demonstrates that the candidate has thought about why the communication is necessary thinking about what would be discussed during the communication. The learner would fit into **mark band 3(4).**

Activity 2
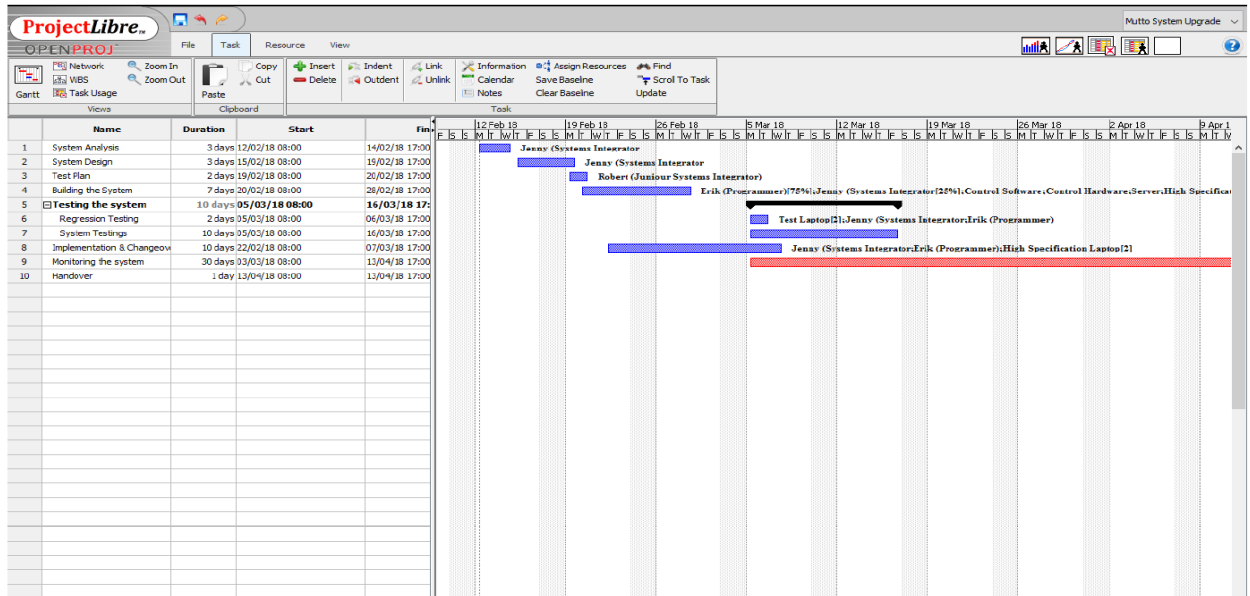
The learner has clearly used a project development tool, in this case ProjectLibre. The learner has provided a Gantt chart with list of tasks which follow the project life cycle, in order for the scenario and shows final task and changeover. Clear dates with time constrained demonstrated. They have added milestones and resources to each task, in this case the allocation of task to the correct worker. It must be noted that if resources are not on the Gantt chart then the leaner cannot achieve mark band 3, in a lot of cases the highest mark band 1. This learner achieved **Mark band 3 (7-8)**
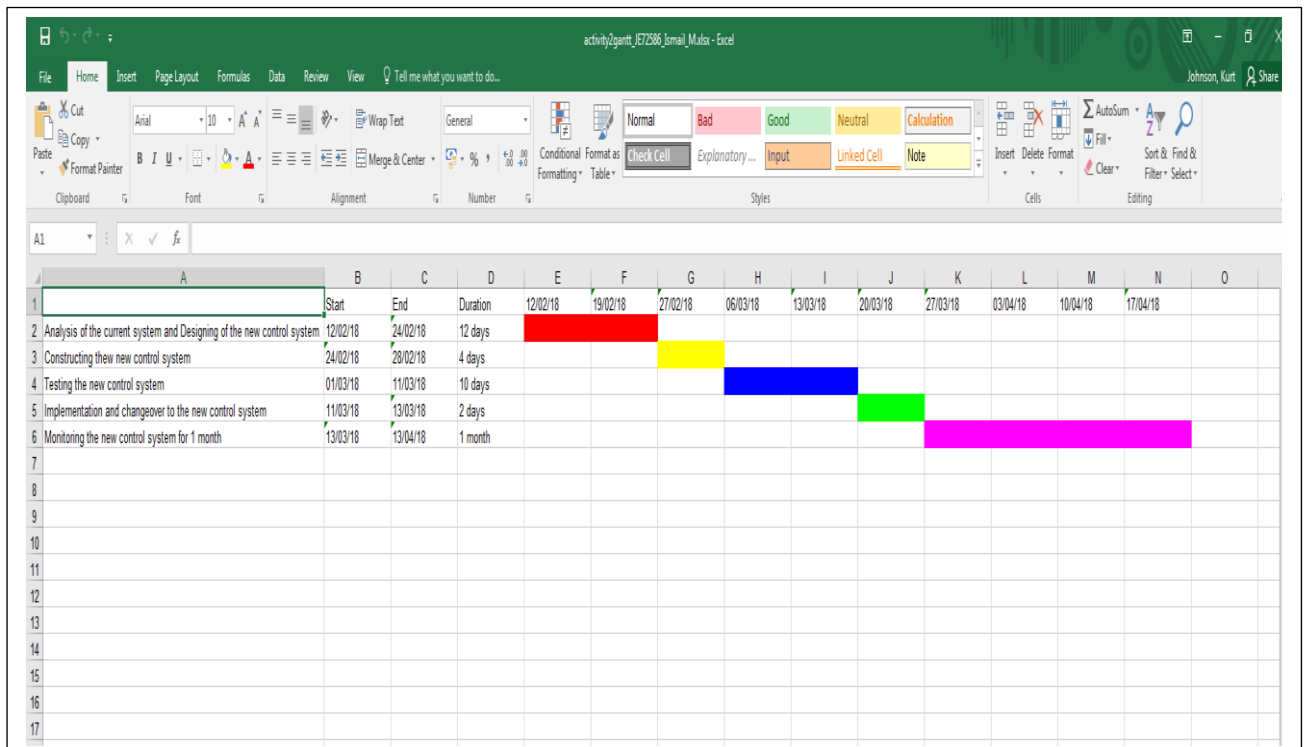
The learner has clearly not used project development tool though spreadsheets can be used for this Project it not advisable due to limitation ad time consuming to provide a full functional project plan. Centre can use Microsoft Excel 2016 which does provide a Gantt chart template. The learner has provided a Gantt chart with list of tasks, with milestones but very linear as each stage seems to start and stop exactly, you would assume that some area may need overlap and in order to complete the project within the required time. However please be aware that in some cases this is not possible and may overrun. The learner has not add any resources which must be added to the Gantt chart. They have added milestones the timings and added resource to each task. **Mark band 3 (7-8)**

ID	Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	Variance	Actual	Remaining	Qtr 1, 2018 Jan Feb Mar	Qtr 2, 2018 Apr May Jun	Qtr Jul
1	**Mutto Control System**	£0.00	Prorated	£11,568.00	£0.00	£11,568.00	£0.00	£11,568.00			
2	**Analysis and Design**	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00			
3	Analysis of the current system	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00			
4	Designing of the new control system	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00			
5	Analysis and Design completed	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00	◆ 26/02		
6	Constructing the new control system	£0.00	Prorated	£3,408.00	£0.00	£3,408.00	£0.00	£3,408.00			
7	Development of inputs (12 General function points)	£0.00	Prorated	£864.00	£0.00	£864.00	£0.00	£864.00			
8	General Function 1	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integr		
9	General Function 2	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integr		
10	General Function 3	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integr		
11	General Function 4	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integr		
12	General Fucntion 5	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integr		
13	General Function 6	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integr		
14	General Function 7	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
15	General Function 8	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
16	General Function 9	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
17	General Function 10	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
18	General Function 11	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
19	General Function 12	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
20	Development Inputs Completed	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00	◆ 20/02		
21	Devleop of processes (10 General function points)	£0.00	Prorated	£768.00	£0.00	£768.00	£0.00	£768.00			
22	General Function 1	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior System		
23	General Function 2	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior System		
24	General Function 3	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior Syste		
25	General Function 4	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior Syste		
26	General Function 5	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior Syste		
27	General Function 6	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior Syste		
28	General Function 7	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior Syste		
29	General Function 8	£0.00	Prorated	£78.00	£0.00	£78.00	£0.00	£78.00	Robert (Junior Syste		
30	General Function 9	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
31	General Function 10	£0.00	Prorated	£72.00	£0.00	£72.00	£0.00	£72.00	Jenny (Systems Integ		
32	Development of processes complete	£0.00	Prorated	£0.00	£0.00	£0.00	£0.00	£0.00	◆ 21/02		
33	Development of outputs (16 Complex function points)	£0.00	Prorated	£1,776.00	£0.00	£1,776.00	£0.00	£1,776.00			
34	General Function 1	£0.00	Prorated	£112.00	£0.00	£112.00	£0.00	£112.00	Erik (Programmer)		
35	General Function 2	£0.00	Prorated	£112.00	£0.00	£112.00	£0.00	£112.00	Erik (Programmer)		
36	General Function 3	£0.00	Prorated	£112.00	£0.00	£112.00	£0.00	£112.00	Erik (Programmer)		
37	General Function 4	£0.00	Prorated	£112.00	£0.00	£112.00	£0.00	£112.00	Erik (Programmer)		

Project: activity2gantt_J568923_FELT
Date: Tue 09/01/18

Task		Milestone	◆	External Tasks	
Split		Summary		External Milestone	◇
Progress		Project Summary		Deadline	⇩

Page 1

Every project requires resources and defined budget. The learner has correctly applied resources, tasks and in some cases, sub-tasks shown with a detailed breakdown of the function points, the timings and the cost associated with each. Using project management software or spreadsheets will suffice for this section. **Mark band 3 (5-6).**

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Activity 3

Report Details

Date of Checkpoint	05/03/18
Period Covered	12/02/18 – 05/03/18

Document details

Version	Modifications	Author	Date
1	No modifications	Jake Noble	05/03/18

Approvals

This document requires the following approvals:

Name	Role	Signature	Date	Version
Brenda	Owner of SIS		05/03/18	1
Haroon	Plant Manager		05/03/18	1

Distribution

This document has been distributed to:

Name	Role	Date of Issue	Version
Brenda	Owner of SIS	05/03/18	1
Haroon	Plant Manager	05/03/18	1
Erik	Programmer	05/03/18	1
Jenny	Systems Integrator	05/03/18	1
Robert	Junior Systems Integrator	05/03/18	1

Products

Product Name	Work Undertaken	Date Complete
Analysis of input control system	Test values of Input control systems should be checked from previous control systems designed.	14/02/18
Designing of output control system	Test values of output control systems should also be checked	19/02/18

	from previous control systems designed.	
Analysis of Test Plan	This document has been created so Robert knows what the plan is to test the system. If there is a plan in place, the test should be better.	20/02/18
Installing OS to control software	The operating system has been installed successfully and tested	20/02/18
Installing server hardware	The server has been installed and works correctly.	20/02/18
Creating database	The database has been installed and has been developed to meet the requirements.	20/02/18

Quality Management

Erik was the Programmer in this project and his role was to carry out the testing of the system and monitoring the system once it was first created. He was required to provide me with details on the system testing and its results from monitoring.

The learner has assumed that the project manager will only seek approval from the CRM and Client, which is a reasonable assumption and indicates an awareness of normal project protocol from the learner. One of the Band 3, marking criteria for the Checkpoint report is, "Information given in the brief is entered in accurately with all sections fully completed". The learner has fully completed this section. **Mark Band 3 (6-8)**

Work Package Tolerance Status

Time:	The project will be completed before the assigned deadline of 13/04/18.
Cost:	The final cost of the project will be slightly under the budget of £18,900.
Quality:	The quality of the project will be of expected standard.

Issues log

Date Raised	Raised By	Description	Action Taken	Date Closed
09/02/18	Plant Manager	Jenny and Erik's time to do the project was cut and they were unavailable to work on the inputs.	Contractors were employed and other members of staff helped fill in for Erik and Jenny.	12/02/18
12/02/18	Plant Manager	Erik had to create a new script.	Erik had to create a new script for the power supply of the system to switch to the standby generator in case of a power failure.	14/02/18
15/02/18	Plant Manager	Two extra staff were added to the intermediate level course.	The two extra staff were assigned to the intermediate level course.	20/02/18

There is a consideration of the relevant additional information that shows a full awareness of the scenario and information given in the brief. It is entered accurately with all sections fully completed, requirements have both been met by the learner work. In this section we are looking for accurate and relevant information which has been thought about before been entered into each section. **The band 3(6-8)**

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Lessons Learned

Throughout the project some members of staff at Mutto were put on a training course for this new system to help them develop an understanding on how to operate the system that is being installed. Training will be required in order for the system to be beneficial for Mutto so their staff can do their job properly. Without the training, the staff wouldn't know how to operate the system and therefore, productivity would be very low. I feel that the training went well and it was worthwhile for the staff involved and for Mutto. The staff were split up and sent onto different level courses. Three people were sent to attend the Basic Level training course, two on the Intermediate and one on the advanced level course. This was set up this way so there are some people who can deal with different levels of the system. To be more beneficial and efficient, I would change up how the staff were learning. There could have been online classes or if I could choose some of the content, I would involve a scenario where there was an issue which occurred and the trainees would have to try and resolve the issue. This prepares them for what potentially will happen when using the system in the future. I was asked to add a further two more people to the intermediate level training course by Haroon. This wasn't too much of an issue to deal with although, they would be further behind than the rest of the trainees.

Jenny was absent for a short period during the design of the new system. The design section of the project was aimed to take 2 days to complete. Due to the absent member of the team this section had to be extended by an extra day.

Lessons learned are relevant and insightful, showing thorough understanding of project management concepts" has been met. This section should evaluate progress and performance, should inform what changes they would make to future working practices the learner has done this discussing communication issues with the team. Areas discussed at the stage, any issues dealt with, any cost saving or additional costs, the impact, timings and the scope of the task, which is what the candidate set out to beginning, have they met this at this point, are they on target. The leaner has done this well and fits in into **mark band 3 (6-8)**

Robert helped with covering for Jenny and did a part of the design of the system until Jenny came back and finished the task. I assisted Robert because he also had to perform his task alongside covering for Jenny. Along with this, Jenny and Erik's time on the project was cut and unfortunately they were unavailable for the input work during the design stage. Therefore, contractors were needed to fill in and assist with the development of the project before the deadline. Erik was also asked to write a new script which took up more time and gave him more work.

The team members communicated often during the project through e-mails or in team meetings which were scheduled weekly. E-mails were sent nearly every day to help the team with a progress update of the project and what needed to be completed. This helped keep things running smoothly because each member of the team understood what needed completing to we could finish and move onto the next task within the project. There was rarely a situation where time was wasted for members of staff finding out what they need to do for the day. A group chat could have been created so the members of the project can communicate outside of working hours.

Managing the budget was an issue for me at the start. I struggled to fill the budget up as I was thousands of pounds under the budget. I had to find ways to fill up towards the budget. To fill it up I had to take into consideration what materials were being used. There were different laptops that were being used and they had different fees. In some cases, multiple laptops were required which boosts the cost. I also had to take into account the standard rate of each team member. Each team member had their own standard rate and they work a certain amount of time which also helps boosts the cost. Contractors were paid the same amount as whoever they were covering for. The upgrade to the control hardware and the server also had to be considered also. People were assigned to different roles and the more they work the more they will be paid. Overall, I had not taken into account many things. Once I did, I noticed that the budget was filling up.

Activity 4

Email	
From	Jake Noble (Project Manager)
To	Brenda (Owner of SIS), Haroon (Client)
Subject	Project Close (Mutto System Upgrade)

The main stakeholders held a meeting prior to the start of the project and created the following success criteria;

Measurements of Deliverables Success
- The quality of the product should be at least as expected or if not better quality.
- The project should be completed by the deadline of 13/04/18.
- The whole project was completed under a budget of £18,900 as given by the client. Its final cost was just under the allocated budget.
- The company will see an increase in their Net Savings because of a new system. The estimated net savings are £120,000.
- The business should see a growth in the business because of an increase in sales.

Measurements of Process Success
- Overall, the project was managed properly and successfully by myself, the project manager. The team performed very well and worked with a tight schedule with few problems. They worked well with each other and covered for each other. For example, Robert helped Jenny with some of the testing and design work. There were minimal errors that occurred throughout the project. There was correct and carefully planned scheduling taken place. Appropriate software was used to develop a correct schedule that the project team could follow.

Measurements of Performance Success
- Through the duration of the project, the team had performed well in terms of communication, team work and collaboration. The team communicated on a regular basis both in real life and through e-mail. Members of the team filled in for each other if they were unavailable to do a certain task and they collaborated with each other to get the best results out of a task and to finish a task much quicker.

Upon completion of the project, the deadline set for 13/04/18 was met and the final overall cost of the project was just under the budget provided. The quality of the product should meet the client's expectations and over time, the client should see an increase in the net savings and business growth. The money invested into the system will be made back over time once the system has been handed over to the client.

Project Evaluation/Summary

At the beginning of this project Brenda, the owner of SIS, assigned me the role of Project Manager for this project. My responsibility is to successfully plan, design, monitor and manage the project given to me. Once Brenda had briefed me on the project, I went out and gathered a team for this project and who I feel will help complete this project successfully. I gathered them based on their skills and their ability to work to a tight schedule and work well with deadlines. The first person I recruited was Erik. Erik is the programmer of the team and has had experience in programming and

being a part of a project before. Erik was good to work with because he worked well with others and performed his tasks well. He did experience a minor issue when designing the system. He struggled because he had to help design and start programming some of the system along with working with a tight schedule. Therefore, Jenny and I took over the design whilst Erik programmed the start of the system. Jenny is the Systems Integrator and she also has experience in her role. Jenny was also good to work with because not only was she good at her job but she has good team work skills. She offered to assist others when possible. This proved to be very helpful as we could keep things running smoothly and keep to the schedule. Robert was also recruited to mirror what Jenny was doing to some extent. Robert is the Junior Systems Integrator. Robert performed similar jobs to Jenny and assisted with the testing process. Robert had very little previous experience in working on a project so we had to keep that in mind.

After the briefing, I met with Haroon, the plant manager and client of the project to discuss the specifications of the project. During the meeting we discussed what his requirements were and what he was looking for, what budget he was providing for the system and the deadline for the completion of the project including the handover of the system. I also had to introduce him to the team so he was aware of who was involved and who was getting paid for their work. Once I had met with Haroon, I had to feedback to the team so they understood what the client was looking for.

Throughout the duration of the project there was a good sense of communication within the team. The whole team communicated on a regular basis face to face whilst working on the project and they all got involved through e-mail to provide updates to the team on the project every week. Next time, I would like to have a group chat with the team so we can communicate outside of working hours and weekends. This will help with completing any tasks before deadlines because the team can talk about what needs completing and create a small plan for the upcoming working day.

I had created a Gantt chart in this project to help manage and analyse the budget and money spent on the project. The Gantt chart can show us how much money has been spent as long as I keep updating it. We can also input the SMART objectives and assign how many days it will take to complete. This can tell us if the deadline for the project will be met. The software used to create the Gantt chart is called Project Libre. I used this program because it is free and simple to use. The Gantt chart kept me aware of how much I was spending and I was careful not to go over the budget.

I feel that I had managed risks appropriately and I had a suitable and effective backup plan in place to quickly find a temporary resolve to an issue if required. For instance, a member of staff was absent for a short period of time during the project. I and the other members then took over and continued work that the absent member of staff was in the process of doing at that time. If we was unavailable, a contractor would be needed to fill in for the absent team member. They would be paid the same amount of money as whoever they were temporarily replacing. I probably should have developed a long term backup plan in case of a long term issue occurring and hampering the progress of the project. Luckily, such issue didn't occur.

The final stage is the email or review of the project success. In the section we are looking for three main areas, Success criteria is "There is an accurate summary of how quality criteria were met showing an awareness of the scenario throughout". The second part is review of the project, linking this to the project lifecycle. The third part is summary of lesson learnt. For the success criteria we are expecting the candidate to look at part A of the exam and review if they have met their objectives, and if so how and if not why not, in this case the learner has met this criterion by discussing the success criteria individually and providing examples of how each criterion was met. **Mark Band 3(3)** For the review of the project, after the project has closed, there is opportunity to determine project success candidates expected to give a relevant and well-balanced review in this case the candidate has done. Discussing the various stages of the project lifecycle or elements from each stage, this learner has applied the terminology correct and therefor Mark **band 4 (8-9).** Summary of lesson learnt should inform future projects by completing an analysis on how the project planned and managed effectively, what would you have done differently; in this case, the candidate has mentioned this in parts. Holistically the Activity 4 for the learner fit top mark band

Summary

Based on performance in this examination series, learners offered the following advice:

- Apply their knowledge to as many different scenarios as possible. The exam paper will always contain 4 activities which always be the same just the scenario would be different and therefore this will prepare learners to be able to provide answers to the given context under exam conditions.
- It is advised that centre us project management software there are free website listed below
  - www.projectlibre.org/
  - www.smartsheet.com
  - www.abstractspoon.com
- Develop better understanding of resources, cost and applying techniques to help interpret information for example function points.
- SMART objectives make sure you add comments, time constraints and be more specific to the scenario.
- Communication ensure you mention what will happen during the communication method.

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