

Diploma – Principal Learning Information Technology

Level 2 Unit 5 Technology Systems

Sample Internally Assessed Unit Commentary

Please note that the following internal tasks, responses and moderator commentary are provided as examples only for the purpose of assisting assessors delivering the Diploma Principal Learning. A direct relationship between the marks/commentaries and a unit grade cannot be made at this stage, since grade boundaries will be determined at the Award Meetings at the end of each series.

Centre Number	Candidate Name	Assessor	Total Mark	41/48
	Candidate Number	Moderator	Moderator's Mark	

Assessment Criteria Topic 1: Assemble and install a small-scale technology system (9 marks)

	0-1 mark	2 marks	3 marks	
1	Candidate selected some components for the system and showed some understanding of their role	Selected and installed components, showing understanding of their roles	Correctly selected and installed components, showing a clear understanding of their roles	
	<p>Location of evidence, including page number: <i>Hardware section</i>, pages 13 to 17. A clear understanding is shown of why these parts are necessary and their role in relation to the client's requirements. <i>Hardware section</i> page 20. Again shows understanding and ability to select correct components to meet the client requirements. All components successfully installed.</p> <p>Comments: Although candidate did not specify a complete system, there is no requirement to do so and the components selected met the client requirements completely. A video (<i>Dave building computer</i>) and teacher witness statement (<i>Teacher statement 1</i>) provide other evidence of candidate's ability to install and replace components.</p>			<p>Mark</p> <p>3</p>
2	Attempted to add or replace either internal hardware OR additional device OR applications software	Added or replaced either internal hardware OR additional device AND applications software	Added or replaced internal hardware, additional device and applications software	
	<p>Location of evidence, including page number: <i>Hardware section</i>, pages 13 to 21. An external hard drive was installed on the client's computer and printer was attached to new laptop (additional hardware). Virus checking software was downloaded and installed on new laptop (applications software). Although the candidate could not install the internal component on client computer, video (<i>Dave building computer</i>) and teacher witness statement (<i>Teacher statement 1</i>) show his ability to do this in a systematic way and meet the requirement for internal hardware.</p> <p>Comments:</p>			<p>Mark</p> <p>3</p>

	0-1 mark	2 marks	3 marks
3	Attempted to set up a simple PC network	Set up a simple PC network that shares files and hardware	Set up a simple PC network that shares files, hardware and applications
	<p>Location of evidence, including page number: <i>Hardware section, page 18; Client feedback, page 100 (Scanned documents)</i>. The candidate has set up a network between new laptop and home computer. The network allows file sharing and printing, as well as Internet access through a wireless router. The screenshot evidence is poor, but the client has confirmed the setup. There is no evidence of the network sharing applications. This would be necessary for a third mark to be awarded.</p> <p>Comments:</p>		

Assessment Criteria Topic 2: Design, develop and test simple systems, including programs, to meet identified needs (24 marks)

	0-1 mark	2 marks	3 marks	4 marks
4	Has identified the need for a system	Has clearly described the need for the system		
	<p>Location of evidence, including page number: <i>Project proposal</i>, pages 6 and 7; database section of project, pages 36 and 37. This is agreed by the client (see <i>Scanned documents</i>). The candidate has clearly described the client needs.</p> <p>Comments:</p>			<p>Mark 2</p>
5	Produced limited designs for a system	Produced accurate designs for a system to meet an identified need	Produced accurate and detailed designs for all aspects of a system to meet an identified need	
	<p>Location of evidence, including page number: Database section of project (<i>Claire's contact system</i>), pages 36 to 46. There are designs for input forms, queries, reports, interface and some macros as well as data fields and validation. These designs are accurate and meet the identified client needs. There are some deficiencies which mean the third mark can not be awarded. The form and report designs lack detail and the interface design is not complete. Additional design for some programmed code is found on page 50.</p> <p>Comments:</p>			<p>Mark 2</p>

	0-1 mark	2 marks	3 marks	4 marks
6	Produced a limited test plan to test some of the required manipulation OR output	Produced a test plan to test some of the manipulation AND output	Produced a test plan and provided some test data to test all manipulation and outputs	Produced a test plan and sets of test data to test all manipulation and outputs
	<p>Location of evidence, including page number: The test plan and test data appear in the <i>Testing</i> document, pages 55 to 75. There is a set of normal test data and extreme data is included at various points in the test plan. The test strategy is clearly stated on page 56. The test plan, pages 58 to 79, included tests of interface, queries, macros, validation on forms, reports and program code. The user is also asked to test the usability of the database. All manipulation is checked. Additional tests are planned for the revised database.</p> <p>Comments:</p>			Mark 4
7	Candidate has provided some evidence of testing	The evidence shows that some of the testing was successful	The evidence of testing proves that the interface works and that outputs are correct	The evidence of testing is compared with expected results to prove that the system works as expected
	<p>Location of evidence, including page number: Database section of project (<i>Claire's contact system</i>), page 49 gives some description of functional testing during development and feedback from the client. The <i>Testing</i> document, pages 55 to 77, provides evidence of testing and user feedback. Where the database did not work as expected corrective action has been taken and further evidence of testing the revisions has been provided. This testing proves that the interface works and that outputs are correct. Each test is accompanied by appropriate evidence to show the results of testing where this is possible.</p> <p>Comments:</p>			Mark 4

	0-1 mark	2 marks	3 marks	4 marks
8	Created a single table database in line with the designs	Created a database in line with the designs and business needs	Created a database in line with the designs and business needs. Also carried out some customisation	Created a database in line with the designs and fully customised it to support the business needs
	<p>Location of evidence, including page number: The database section of the project (<i>Claire's contact system</i>), pages 48 to 52, provide some evidence of implementation. The evidence of testing, pages 60 to 81, provides additional evidence. The database files (<i>Claire's EYAT contacts.mdb</i> and <i>Claire's EYAT contacts 2.mdb</i>) provide good evidence of the implementation. Some customisation has been done of the interface using switchboard, macros and programmed code. These all meet the business needs and are in line with the designs. The database is not fully customised, for example by removing unnecessary menu items and toolbars.</p> <p>Comments:</p>			
9	Created a macro to add additional feature OR a shortcut	Created macros to add additional feature AND a shortcut	Created macros to add additional features and shortcuts	Created macros to add additional features and shortcuts that make the software easier to use
	<p>Location of evidence, including page number: Several macros have been created – an AutoExec macro is documented on page 52 of <i>Claire's contact system</i> document, as are macros that provide shortcuts for running queries from the switchboard. Buttons are used to move between forms and to move to a new record, shown on page 43 of the <i>Testing</i> document. These make the software easier to use. There is also a welcome message, shown on page 68 of the <i>Test</i> document, though this was not effective.</p> <p>Comments:</p>			

	0-1 mark	2 marks	3 marks	4 marks
10	Candidate has created a simple script program that uses inputs and outputs and annotated the code	Candidate has created simple script programs that use inputs and outputs and has annotated the code	The purposes of the script programs that have been created have also been stated	
	<p>Location of evidence, including page number: Two Visual Basic programs have been used. These are shown on pages 51 and 52 of <i>Claire's contact system</i> document. The candidate has annotated these programs and has explained their purpose. One has been created as a result of feedback from the client, page 76 of the <i>Test</i> document, Test 17.</p> <p>Comments:</p>			<p>Mark 3</p>

Assessment Criteria Topic 3: Understand the principles of system availability and how to resolve problems within a small-scale technical environment (12 marks)

	0-1 mark	2 marks	3 marks
11	Candidate demonstrated an understanding of system availability issues	Candidate demonstrated an understanding of system availability issues for the business application	Candidate demonstrated a thorough understanding of system availability requirements for the business application
	<p>Location of evidence, including page number: Hardware section of project (<i>Claire's hardware stuff</i>), pages 22 to 31. The candidate has discussed the reasons for using reliable suppliers and equipment, in the context of ensuring as little system down time as possible. The candidate also refers to issues such as ESD damage during incorrect component installation, which demonstrates a thorough understanding. He also discusses various routine maintenance procedures and the reasons for carrying them out, with evidence of having done so. Security is dealt with through virus checkers and non-shared folders. A simple folder structure has been implemented. There is evidence that the candidate has applied a systematic process when problems have occurred, such as those described on pages 20 and 21. Backup is also well described. Some areas have not been adequately covered, such as acceptable service levels. This is the reason that 2 marks have been awarded.</p> <p>Comments:</p>		
12	Candidate demonstrated an understanding of communication issues	Candidate demonstrated an understanding of communication issues for the business application	Candidate demonstrated a thorough understanding of communication requirements for the business application
	<p>Location of evidence, including page number: Page 22 of <i>Claire's hardware stuff</i> demonstrates a limited understanding of the communication issues involved in the context of the EYAT project. Page 94 of the <i>Project review</i> document also shows a limited understanding. Pages 93 and 94 demonstrate that the candidate has a limited understanding of the importance of communication, in this case with the client, in managing change. The candidate kept the client up to date on progress and any required changes to plans and also described the changes made.</p> <p>Comments:</p>		

	0-1 mark	2 marks	3 marks
13	Candidate carried out some security or other routine procedures	Security procedures were carried out with some routine computer maintenance	Candidate planned and carried out routine computer maintenance and effectively carried out and managed security procedures
	<p>Location of evidence, including page number: The hardware section of the project (<i>Claire's hardware stuff</i>), pages 22 to 30, shows a number of security and routine maintenance procedures being carried out. In addition updates and virus checks were scheduled, pages 23, 28 to 30. The routine maintenance procedures were carried out in a logical order in order to make them most effective. Though there is not a formal 'plan', the procedures were carried out in a planned order and virus checking was supplemented by backing up essential data files onto a secure removable medium, page 31. In addition the candidate demonstrated understanding of security procedures by discussing the creation of system restore points, page 22.</p> <p>Comments:</p>		
14	Candidate diagnosed some small scale technical problems and resolved them	The diagnosis and resolution of the small scale technical problems were carried out in a logical way	In addition, the candidate took steps to improve the system
	<p>Location of evidence, including page number: The hardware section of the project (<i>Claire's hardware stuff</i>), pages 18 to 21 show that the candidate has diagnosed some real life problems and resolved the network and router problems, whilst working around the keyboard problem. These problems were approached in a logical way. In addition the teacher has provided evidence of the candidate solving simulated problems (see PS teacher statement). There is further evidence from solving problems that occurred whilst building a computer (see <i>Teacher statement</i>). To achieve the third mark the candidate would, in addition, have needed to show that steps had been taken to improve the systems where problems occurred; for example, by cleaning rollers that caused a paper jam, rather than just removing the jammed paper.</p> <p>Comments:</p>		

Assessment Criteria Topic 4: Seek feedback and identify opportunities for improvement (3 marks)

	0-1 mark	2 marks	3 marks
15	Candidate gathered some feedback, on some aspect of their system, from the business client and users	Candidate gathered feedback on the system from the business client and potential users	Candidate also used the feedback gathered to make changes that improved their system
	<p>Location of evidence, including page number: Feedback was sought at various stages and this was well documented in the <i>Scanned documents</i>, page 100; the <i>Project proposals</i>, signed off by the client, page 7; feedback on designs and initial version of the database, <i>Project Diary</i> pages 87 and 89. In this case the client and user is the same person. This feedback, particularly on database design work and initial version of the implementation were used to make substantial changes that improved the system.</p> <p>Comments:</p>		

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