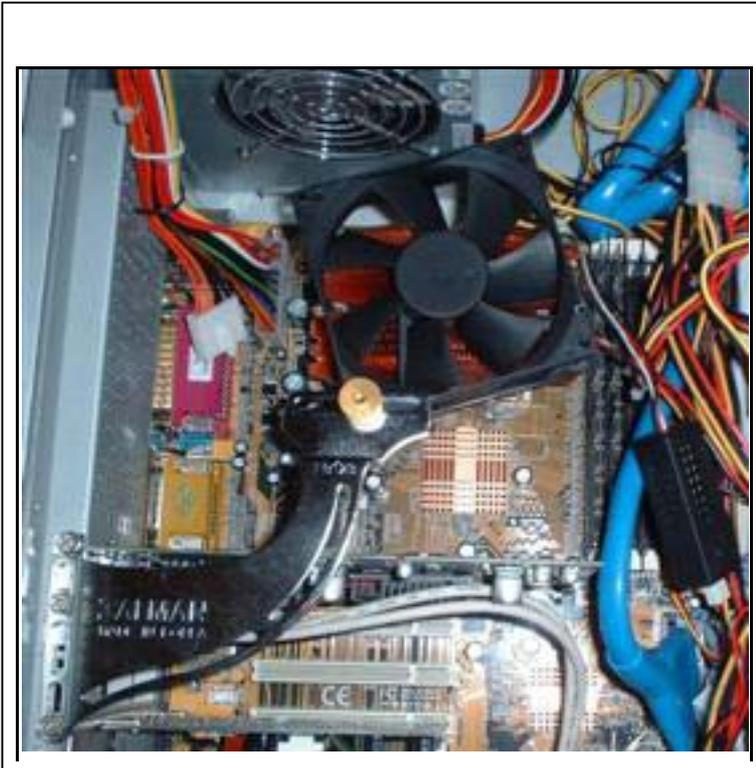


BTEC National

Information Technology



2013/2014

Unit 2: Computer Systems

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Assessment compiled by:

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Assessment evidence

For this unit you will:

Understand the hardware and software components of computer systems

Be able to recommend computer systems for a business purpose

Be able to set up and maintain computer systems

Your portfolio for this unit should include:

Task 1 - Decoding the Jargon [P1, P2, P3 and M1]:

A business manager has asked for a presentation on computer components for staff development purposes.

For **P1**, you should create a diagram or poster that clearly explains the components of a *basic computer system* and their connections to each other. This must be supported by a written report explaining how each component communicates with others.

For **P3**, create a table describing at least four categories of utility software and give at least one example of each category. You must only use third party utility software as examples and not in built tools provided by the operating system.

For **P2**, you explain the purpose of operating systems. This should be a general comment rather than specific to personal computers.

For **M1**, you must review the features and functions of different operating systems. Compare and contrast between at least two selected operating systems, summarising their respective strengths and weaknesses.

Task 2 - The Best Solution [P4, M2, M3 and D2]:

Choosing from the scenarios (**provided below**), you are to recommend a suitable hardware and software configuration for a specific business. You must choose *only one* client in which to make your focus for this assessment task. However, it may be a different scenario from the one you will use in *Task 3*.

For **P4**, you should present the evidence as a report or presentation. The choice of components should be briefly explained but may not make reference to all the user requirements. It is important that the final specification includes all the necessary hardware and software components for the system to work.

For **M2**, you must ensure that the reasons for the choices of components (software or hardware) are clearly explained and referenced to the user need. Any optional extras must be justified.

To achieve **M3**, you should evaluate the performance of a computer system. Check your own computer system and then evaluate performance. Give brief outline of your spec.

For **D2**, you must explain and justify possible improvements that could be made to a computer system (this maybe different from the original scenario).

Task 3 - Setting up the system [P5-8 and D1]:

Choosing from the scenarios (**provided below**), you are to provide evidence of hardware and software installation/configuration for a specific business. You must choose *only one* client in which to make your focus for this assessment task. However, it may be a different scenario from the one you will use in *Task 2*.

For **P5**, you are required to set up a standalone computer system. In doing so you must install *at least one* hardware and *one* software component in a stand-alone system. This is best evidenced with a witness statement or observation record, screen shots and supporting notes. You must use suitable safety equipment/tools and pay due regard to health and safety issues.

For **P6**, you must configure some basic system settings, such as left and right mouse buttons, power saving options, screen resolution, desktop theme, font size, default language setting, default folder locations etc. They may have needed considerable prompting to do so. This is best evidenced with a witness statement or observation record, screen shots with supporting notes.

For **P7**, you must test a configured computer system for functionality. Evidence will be provided by a test plan and subsequent test results. Screen shots may be relevant. Any test failures should be explained, with reasons.

For **P8**, you must undertake routine maintenance tasks on a standalone computer system. Evidence will be provided by a short report with screen grabs.

For **D1**, explain how software utilities can improve the performance of a computer system.

Assignment Dates

Completion Date:

Interim Dates:

Criteria covered	Assessment Title	Scenario	Assessment Method	Assessment first submission date
P1, P2, M1	Decoding the Jargon	A business manager has asked for a presentation on computer components for staff development purposes.	Diagrams Notes Comparative Tables	18 Oct 2013
P3, P4, M2, D2	The Best Solution	You are to recommend a suitable hardware and software configuration for a specific business requirement.	Choice between: Presentation and supporting notes Or Written Report with images	8 Nov 2013
P5-P8, M3, D1	Setting up the System	Install, configure and test system components. Perform routine maintenance.	Witness statement Observation Records Screen Shots Test Records Report	6 Dec 2013

Work must be completed by the dates set for best chance of success. Work must be completed by the submitting student and be their own original work. Other sources of information must be clearly referenced. Any extension for deadlines must be approved by the Faculty Director or Programme Area Manager.

For this assessment you can use a real life client if you wish but in doing so you provide evidence that fit the outlined assessment criteria. Alternatively you can choose from the following scenarios.

Scenario 1 : B. L. Johns Corner Shop

The owner of a local corner shop has limited ICT skills and budget, needs a system to produce his or hers monthly accounts, access the internet to place orders, write letters to suppliers etc

At present the system used by the owner is an 8 bit computer from his childhood (i.e. Commodore 64 which means its 64k of memory not 64bit processor as we have today). This system does have a hard disk and a printer but they are very limited. An order is placed over the telephone and often gets incomplete or incorrect orders. They must bring their system update if he or she is to continue in business.

They have a budget of £1000 for the new system and possible upgrades (storage & printer).

Scenario 2 : Gemini Multimedia Software Development (GMSD)

The company has employed you to recommend a model stand-alone system for its media and administration staff. The model system must be constructed and reasonably price but offers room for upgrades in the future. The system should demonstrate its flexibility for both multimedia and administration/office duties.

The present system involved the administration department using outdated Pentium one powered machines with 20 GB of storage. They also had a local area network with a shared area. The problem here was that they continually had virus and hacker attacks as security never considered. The developers had at present P3 systems much high specification than administration but for security the systems were stand-alone and work had to manually copy from

system to system using floppy and zip drives (a number of trips might be made). They need to speed up this process if they are to become productive and efficient.

Their budget is not limited and they have available funds for digital camera and printer.

Scenario 3 : Mr. Tinkle's Cars

A taxi firm needs an ICT system that will allow them to track the revenue that each vehicle generates. They also want to prepare an in-house website for hosting on the Internet. The system must also track regular customers and keep records of driver details. Bespoke booking software may be developed with visual basic .net. The system will also need to be able to connect to a broadband Internet access.

The present system was paper based and generally involved a person answering the phone and taking the bookings. Another person was also needed to handle the cabs using a radio. The firm wants to modernise their system.

As this company offers equal opportunities to all they must consider including additional equipment to aid disabled users with sight problems, hearing or physical (e.g. some deformity of the hand).

Budget is a £1000 for new system and possible upgrades (printer & memory).

Scenario 4 : Quasar Entertainment Systems

A games company needs a system to develop and compile their video games. The system will be used to produce and demonstrate the software they create. Their games are designed for primarily for PC systems but will be ported onto other platforms such as the XBOX 360, Iphone, PS3, etc. They need to have access to the Internet and networking facilities to be able to communicate internally.

Previous system was not bad but it has simply grown out of date. The hard drives are slow and losing integrity. The system includes many out of date technology and the software is also out of date and no longer supported (e.g. DirectX 5.0, 3D Max 2.5, so on).

Their budget is not limited and they have available funds for digital camera and printer.