**Featherstone High School**



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| Unit Number and Name: | Unit 20: Client Customisation of Web Pages | | |
| Unit Code: | Unit 1: M/601/7261 | Credit Value: | 10 |
| QCF Level: | 3 | Guided Learning Hours: | 60 |
| Assessor: | Mr. Dawkins | | |

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| **Assignment Launch Date** |  | |
| **Task hand in Dates** | Assignment 3: Setting up the System |  |

**Grading Criteria – Unit 2 – Computer Systems**

**Aim and Purpose:** The aim of this unit is to enable learners to understand the components of computer systems and develop the skills needed to recommend appropriate systems for business purposes and set up and maintain computer systems.

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| **To achieve a pass grade you must show that you are able to:** | **To achieve a merit you must show that you are able to:** | **To achieve a distinction you must show that you are able to:** |
| **P5** – set up a standalone computer  system, installing hardware and software components |  |  |
| **P6** – configure a computer system  to meet user needs |  |  |
| **P7** - test a configured computer  system for functionality | **M3** - evaluate the performance of a computer system. | **D2** - explain and justify  improvements that could be  made to a computer system. |
| **P8** - undertake routine  maintenance tasks on a standalone computer system. |  |  |

**Unit 2 – Computer Systems**

On completion of this unit you should be able to:

1. Understand the components of computer systems
2. Be able to recommend computer systems for a business purpose
3. Be able to set up and maintain computer systems.

**Explanation of the Unit 2 – Computer Systems**

At some stage most IT professionals will have to set up and customise a computer system or systems. To do so effectively they will need to understand the components that make up computer systems. The operating system interacts with the hardware and software components in order to make a functioning machine.

In this unit you will consider a range of hardware and come to understand the technical specifications of components. There are a number of different operating systems, despite the dominance of the Microsoft operating system, and you will explore at least one other. In terms of software, the operating system itself often provides utility programmes that assist the user in managing the machine. Other third party software utility programmes such as virus checkers are also used extensively. This unit considers both types of utility software.

IT professionals will often be asked to recommend systems for varied user needs. There are many different manufacturers of computer systems and each manufacturer produces a wide range of models with different specifications. Deciding which particular model is appropriate for a given situation depends on a variety of factors. These factors are explored in this unit so that learners can make informed choices when recommending computer systems.

IT professionals also need to develop the skills required to install and configure computer systems. A large part of this unit will involve practical work in installing hardware components and software, configuring systems to meet specific requirements and testing to ensure a fully functioning system is produced. **Introduction to scenario**

Bodge-IT is an independent company that has ten employees.  The business is based on a Trading Estate where two members of staff produce individual specifications for customers depending on their requirements.  Three members of staff build the computers to the specification originally quoted to the customer.

 Also within the company there are three members of staff who offer after sales support, either over the phone or within the customers business or home.  The last two members of staff are the owner and her secretary.

You are employed as an engineer that give specification and provide after sales service. Your supervisor is Ms Alleyn.

**Assignment 3 – Setting up the System**

**Task 1 – Installing Hardware and Software – P5**

Ms Alleyn wants you to create a two part training video in your native language.

PART 1:

Part 1 should demonstrate how to install one of the following components on a stand-alone computer.

Components:

* Graphics Card
* Sound Card
* CD/DVD drive
* Hard Drive
* NIC Card

Provide clear instruction on:

* The component that will be installed
* The equipment that is needed to install the component
* Health and safety pre-cautions that need to be considered

PART 2:

Show how you have connected the hardware together (equipment eg monitor, printer, modem/router, keyboard, mouse, speakers, microphone).

Demonstrate how to install at least one of the software from the list below:

* An operating system
* An application Software
* Security Software
* Device Driver

And finally demonstrate how to create appropriate folder structure.

The video will be used to train new employees, who speak your native language, you should use English sub-titles. The video should include an introduction, task that you will cover (installing a specific hardware, installing the specific software, creating a folder structure) and thank you. The video should NOT exceed 5 minutes.

Create a YouTube account and upload the video, and upload a copy of the video to the hand-in folder on Fronter.

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| P5: Guidance (Taken from the unit specification)  *Connect and set up*: equipment eg monitor, printer, modem/router, keyboard, mouse, speakers, microphone, RAM, hard drive  *Install hardware*: components eg graphics card, sound card, CD/DVD drive  *Install software*: operating system software eg Windows; applications software eg Microsoft Office; security software eg virus checkers, firewalls; device drivers; create appropriate directory/folder structures  **P5 – Set up a standalone computer system, installing hardware and software components.** |

***What to Submit:***

1. The video and a link on YouTube.

**Task 2 – Configure a computer – P6**

Bodge-IT won a contract to supply the local Primary school with 20 computers. Apart of the contract is to provide training to the on-sight technician on how to configure some settings on the computer. You are required to create a set of instructions (manual or video) that will show the on-sight technician how to do the following.

* BIOS configuration eg setting a BIOS password, editing power management options.
* Editing Anti-virus configurations
* Editing the desktop eg, icon size, font size, colour background, icon choice
* Creating start-up options
* Setting file sharing/permissions
* Creating and reconfiguring application toolbars.

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| P6: Guidance (Taken from the unit specification)  *Configure*: BIOS configuration eg setting a BIOS password, editing power management options; editing anti-virus configurations; editing the desktop eg icon size, font size, colour, background, icon choice; creating start-up options; setting file sharing/permissions; creating and reconfiguring application toolbars  **P6 – Configure a computer system to meet user needs** |

***What to Submit:***

1. Configuring a computer system

**Task 3 – Testing a computer system – P7**

Testing is very important to confirm functionality. Ms. Alleyn has provided you with the following test plan and system to test.

**See Test plan sheet attached in Appendix.**

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| P7: Guidance (Taken from the unit specification)  *Testing*: functionality eg software applications open and work as intended, default folder settings are correct, desktop shortcuts go to the right place, the correct device drivers are installed, the correct paper sizes are set for printing, menu options work as intended, the correct date and time are set  **P7 – Test a configured computer system for functionality** |

***What to Submit:***

1. Test plan and evidence.

**Task 4 – Evaluation of a CS – M3**

This is an extension of P7, you need to evaluate the performance of the computer, by carefully gauging the systems performance against the requirements.

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| M3: Guidance (Taken from the unit specification)  *Testing*: functionality eg software applications open and work as intended, default folder settings are correct, desktop shortcuts go to the right place, the correct device drivers are installed, the correct paper sizes are set for printing, menu options work as intended, the correct date and time are set  **M3 – Evaluate the performance of a computer system.** |

1. Test
2. Improvements
   1. Software
      1. Office Package
      2. Compilers (Java, C++, LISP, Python)
      3. Utility
      4. Web browser
   2. Hardware
3. Fit for Purpose

***What to Submit:***

1. Evaluation

**Task 5 – Improvements – D2**

Based on the evaluation made above, recommend and justify improvements that can be made to the computer system, to make it fit for purpose.

In your recommendation, include any cost and potential benefit to be gained.

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| D2: Guidance (Taken from the unit specification)  *Testing*: functionality eg software applications open and work as intended, default folder settings are correct, desktop shortcuts go to the right place, the correct device drivers are installed, the correct paper sizes are set for printing, menu options work as intended, the correct date and time are set  **D2 – Explain and justify improvements that could be made to a computer system** |

1. Improvements
   1. Software
      1. Office Package
      2. Compilers (Java, C++, LISP, Python)
      3. Utility
      4. Web browser
   2. Hardware
2. Fit for Purpose

***What to Submit:***

1. Recommend and justify

**Appendix**

**Test Plan**

**Purpose of the system:** To be used by a computer science student at Queen Charlotte University. She wants the system to be configured with Ubuntu operating system, Libre Office 3 to be installed, driver for CD ROM, Ethernet cable, sound card, graphics card installed and working, , with the correct date/time setting.

Use the test plan below to complete the test on the given system. Please provide evidence of your test below the table.

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| Test | Expected outcome | Actual outcome | Comment |
| Test that Libre office 3 is installed | Libre Office icon appears on the Application tab, and when you click on this icon the program starts successfully. | Libre Office icon appears on the Application tab and open successfully when clicked |  |
| Test to see that the default folder is set to the user’s home drive in open office |  |  |  |
| Test to see that drivers are installed for the following:  CD ROM, Ethernet Card, Sound Card, Graphics Card, |  |  |  |
| Test to see that the time/Date setting is correct |  |  |  |
| Test to see that the resolution is set to 1080x1024 |  |  |  |

**Evidence**

Test 1

Test 2

Test 3

Test 4

Test 5