

## Assignment front sheet

Qualification		Unit number and title	
Pearson BTEC Higher Nationals in Computing and Systems Development		Unit 2: Computer Systems	
Student name		Assessor name	
		Laura Marulanda-Carter	
Date issued	Completion date	Submitted on	
18 <sup>th</sup> April 2017	13 <sup>th</sup> June 2017		

Assignment title	02-2: Standard System Setup
------------------	-----------------------------

O	Learning outcome (LO)	AC	In this assessment you will have the opportunity to present evidence that shows <b>you are able to:</b>	Task no.	Evidence
LO 3	Be able to build and configure computer systems	3.1	build and configure a computer system to meet a design specification	1	
		3.2	test and document a computer system	2	
LO 4	Be able to undertake routine maintenance on computer systems	4.1	perform routine maintenance tasks on a computer system	3	
		4.2	Upgrade the hardware and software on a computer system.	4	

Learner declaration	
<p>I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.</p> <p>Student signature: _____ Date: _____</p>	

**In addition to the above PASS criteria, this assignment gives you the opportunity to submit evidence in order to achieve the following MERIT and DISTINCTION grades**

<b>Grade Descriptor</b>	<b>Indicative characteristic/s</b>	<b>Contextualisation</b>
<b>M1</b> Identify and apply strategies to find appropriate solutions	Effective judgements have been made	A fully working system has been built and configured with a basic operating system installed on schedule.
<b>M2</b> Select/design and apply appropriate methods/techniques	a range of methods and techniques have been applied	A working system was built with no breaches of health and safety, and no physical or electrical damage to components
<b>M3</b> Present and communicate appropriate findings	a range of methods of presentation have been used and technical language has been accurately used	The system and test videos/photos are easy for anyone to understand and follow
<b>D1</b> Use critical reflection to evaluate own work and justify valid conclusions	the validity of results has been evaluated using defined criteria	The systems performance has been correctly evaluated and suitable applications for the system suggested
<b>D2</b> Take responsibility for managing and organising activities	autonomy/independence has been demonstrated	The videos/photos were produced on schedule with a minimum of direct assistance
<b>D3</b> Demonstrate convergent/lateral/creative thinking	problems have been solved	Any issues, faults or mistakes have been resolved

# Assignment brief

<b>Unit number and title</b>	Unit 2: Computer Systems
<b>Qualification</b>	Pearson BTEC Higher Nationals in Computing and Systems Development
<b>Start date</b>	
<b>Deadline/hand-in</b>	
<b>Assessor</b>	

<b>Assignment title</b>	02-2: Standard System Setup
-------------------------	-----------------------------

## **Purpose of this assignment**

This assignment will provide students with opportunities for understanding the hardware and software components of a basic computer system, and how to build the hardware, install and configure an operating system, and test that the system works.

It will also provide students with opportunities to develop communication skills and experience of using multi-media in websites.

## **Scenario**

Valerian Software is a small software development firm newly established that is looking to develop novel dynamic interactive websites that make use of modern web development best practices.

You have been recently appointed as an IT Support Technician and you are required as part of your job to complete an on-going CPD program which will last two years.

You have been asked to create a web pages as part of a team that will contain videos or a series of images as part of a tutorial that clearly show how to build, install, configure and test a standard Work Station that can be used by software developers at Valerian Software

## **Task 1 – Building, Installation and configuration (LO 3.1)**

You have been tasked with creating a web based video or tutorial that shows the building a standard working system from available components and the installing the chosen operating system. You must create a video or tutorial of the installation and configuration for future workers who will be setting up workstations for other software developers. Include all relevant health and safety precautions. You must install the Windows operating system, and the video or tutorial should illustrate how to repeat the installation in a step by step way. The video/tutorial must be comprehensive as it will be used as a teaching aid for new appointments.

Your video/tutorial should include steps needed to configure the desktop so that the PCs are a standard layout when deployed. This should include appropriate icon size, font size, colour, background, icon choice and screensaver. This is not an inclusive list. Add any other configuration aspects you feel are needed.

## Task 2: Test and Document a Computer System (LO 3.2)

You have been asked to fully test the computer system and record the tests and the results of your tests in the provided form. The-tests should include the following: -

- CPU Performance
- Memory Performance
- Hard Drive Performance
- 2D Graphics Performance
- Available Hard Disk capacity
- Available free memory

## Task 3 (LO 4.1)

You should also investigate security and pc maintenance software such as Norton Security and System Mechanic. Find good technical reviews and select and install the best choice for each of these applications. Again create a video to guide installers. When software installation has been completed carry out and document the following routine maintenance tasks

- Check for and install any software updates or virus definition updates
- Disk clean-up
- Registry clean-up and backup
- Check for Hard Drive bad sectors
- Hard Drive defragmentation

Produce short videos of each maintenance task

## Task 4 (LO 4.2)

You have been asked to upgrade the standard system in the following ways

- Install software to read pdf files, and software to print files to pdf.
- Install and test a printer, scanner or graphics tablet.
- Check what spare hardware components are available such as hard drives, memory, network card, to enhance the system. Install the extra hardware.
- Create shared folders for documents, pictures, videos and music on a second hard drive or a new drive partition.
- Backup the system onto a second drive or data partition.

Produce short videos for each upgrade.

## Task 5 (Distinction only)

Write an evaluation of the overall performance of the completed system and suggest the kind of applications that will run easily, and those that will not.

Evidence checklist	Summary of evidence required by student	Evidence presented
Task 1	A website containing a video of building and configuring a working system	
Task 2	A website containing a video of suitable system tests and their results	
Task 3	A website containing videos of performing each of the routine maintenance tasks.	
Task 4	Videos of upgrading a computer system in various ways	

# Achievement Summary

<b>Qualification</b>	Pearson BTEC Higher Nationals in Computing and Systems Development	<b>Assessor name</b>	Akin Akideinde
<b>Unit Number and title</b>	Unit 02: Computer Systems	<b>Student name</b>	
<b>Criteria Reference</b>	<b>To achieve the criteria the evidence must show that the student is able to:</b>	<b>Achieved ? (tick)</b>	
<b>LO 3.1</b>	Build and configure a computer system to meet a design specification		
<b>LO 3.2</b>	Test and document a computer system		
<b>LO 4.1</b>	Perform routine maintenance tasks on a computer system		
<b>LO 4.2</b>	Upgrade the hardware and software on a computer system.		
<b>Higher Grade achievements (where applicable)</b>			
<b>Grade descriptor</b>	<b>Achieved? (tick)</b>	<b>Grade descriptor</b>	<b>Achieved ? (tick)</b>
<b>M1:</b> Identify and apply strategies to find appropriate solutions		<b>D1:</b> Use critical reflection to evaluate own work and justify valid conclusions	
<b>M2:</b> Select/design and apply appropriate methods/techniques		<b>D2:</b> Take responsibility for managing and organising activities	
<b>M3:</b> Present and communicate appropriate findings		<b>D3:</b> Demonstrate convergent/lateral/ creative thinking	

# Assignment Feedback

**Formative Feedback: Assessor to Student**

**Action Plan**

**Summative feedback**

**Feedback: Student to Assessor**

**Assessor  
Signature**

**Date**

**Student  
Signature**

**Date**