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**	
21st February 2017	18th April 2017		

Assignment title	A02-1 System Specification

LO No	Learning outcome	AC	In this assessment, you will have the opportunity to present evidence that shows **you are able to:**	Task no.	Evidence
LO 1	Understand the function of computer systems	1.1	explain the role of computer systems in different environments	1	
		1.2	explain the hardware, software and peripheral components of a computer system	1	
		1.3	compare different types of computer systems	1	
LO 2	Be able to design computer systems	2.1	produce a system design specification to meet a client's needs	2	
		2.2	evaluate the suitability of a system design specification	2	

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

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		
Grade Descriptor	**Indicative characteristic/s**	**Contextualisation**
M1 Identify and apply strategies to find appropriate solutions	Effective judgements have been made	Suitable system(s) have been chosen, and the best has been recommended on schedule.
M2 Select/design and apply appropriate methods/techniques	a range of sources of information has been used	Good use has been made of websites that are recognised as being of proven authority
M3 Present and communicate appropriate findings	a range of methods of presentation have been used and technical language has been accurately used	The website/report makes good use of images, graphs and technical information
D1 Use critical reflection to evaluate own work and justify valid conclusions	conclusions have been arrived at through synthesis of ideas and have been justified	The correct conclusions were arrived and supported with evidence
D2 Take responsibility for managing and organising activities	autonomy/independence has been demonstrated	Web pages that are based in a variety of information sources and comes to independent conclusions within the agreed timescale.
D3 Demonstrate convergent/lateral/ creative thinking	receptiveness to new ideas is evident	The web pages clearly show an awareness of the latest trends in hardware and software systems

Assignment Brief

Unit number and title	Unit 2: Computer Systems
Qualification	Pearson BTEC Higher Nationals in Computing and Systems Development
Start date	
Deadline/hand-in	
Assessor	Laura Marulanda-Carter

Assignment title	02-1: Game Development System

Purpose of this assignment

This assignment will provide students with opportunities for understanding the basic hardware and software components of a specialised computer system, and how to compare alternative systems and make an informed and well balanced choice between high performance and low cost.

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 site or report that will contain pages that help explain to non-technical personnel the hardware and software components of a computer system, and propose suitable systems for standard workstations that the software developers can use.

Valerian software has Microsoft network servers and workstations. Each workstation must be capable of running the latest versions of Visual Studio.NET, Visual Paradigm, Unity, Adobe Photoshop and Illustrator. The company will also be developing games for PC platforms, in full HD 1080p resolution, and for the Xbox One S at 4K resolution. The games will also use Dolby 7.1 Surround Sound

The managing director does not know much about computer systems, but she is convinced that there may be better options than buying from Dell, particularly for high end games machines. You have been asked to compare the specifications from at least two other suppliers of computer systems. She is hoping that you can suggest an alternative to the most appropriate Dell PC that is either cheaper than Dell, or better than Dell. She would like you to present your findings as a website or report that explains the basic hardware and software components and their functions, and then summarises the specification for three different possible workstations, before making a reasoned recommendation that includes costs.

Task 1 : (AC 1.1, 1.2, 1.3)

Create web pages or a report for the Managing Director that will help her understand the range of computer systems, and their hardware and software components. This part of the website/pages should include the following:-

- A summary of the different hardware and software platforms that are available for users to

play games on.

- A summary of the types of computer systems, and how a typical home games playing system will differ from a games development system.

- A summary of the features and functions of the main hardware component of a suitable computer system and how they affect performance.

- An explanation of the software components of a system including the bios, operating system and essential utilities and security software.

- An summary of the range of possible peripherals that might be useful for games development systems.

Task 2 (AC 2.1, 2.2)
Select the best Dell Games development system for under £2,500/system and then select similar systems from two other suppliers. Produce a summary of these specifications. Evaluate and compare the three systems in terms of price and performance, and make a recommendation. List the reasons for your recommendation, and list other peripherals and software that should be considered as useful for games development,

Task 3 (Merit and Distinction)
References to authoritative sources of information used to support the proposed specifications.
For Distinction the information must be presented as web pages in a website.

Evidence checklist	Summary of evidence required by student	Evidence presented
Task 1	A web site or report that explains the main hardware and software components of a suitable games playing and games development system	
Task 2	A web site or report that compares the specification of three different computer systems suitable for games software development and make a good recommendation supported by good evidence	
Task 3	Web pages or a report with links to authoritative sources of information.	

Achievement Summary

Qualification	Pearson BTEC Higher Nationals in Computing and Systems Development	Assessor name	
Unit Number and title	Unit 2: Computer Systems	**Student name**	

Criteria Reference	To achieve the criteria the evidence must show that the student is able to:	Achieved? (tick)
LO 1.1	explain the role of computer systems in different environments	
LO 1.2	explain the hardware, software and peripheral components of a computer system	
LO 1.3	compare different types of computer systems	
LO 2.1	produce a system design specification to meet a client's needs	
LO 2.2	evaluate the suitability of a system design specification	

Higher Grade achievements (where applicable)			
Grade descriptor	**Achieved? (tick)**	**Grade descriptor**	**Achieved? (tick)**
M1: Identify and apply strategies to find appropriate solutions		**D1:** Use critical reflection to evaluate own work and justify valid conclusions	
M2: Select/design and apply appropriate methods/techniques		**D2:** Take responsibility for managing and organising activities	
M3: Present and communicate appropriate findings		**D3:** 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**	