** LEYTON SIXTH FORM COLLEGE – CENTRE NO: 13409**

**DEPARTMENT: COMPUTING AND IT**

**COURSE: BTEC EXTENDED DIPLOMA IN IT - ACADEMIC YEAR 2012-2013**

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| **Student Name: Student ID:** | | | | | | | |
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| **Unit No:** 28  **Unit Name:** Website Production  **Teacher Name:** Mr B. Akakpo  **Internal Verifier:** Mrs J Niles-Brathwaite  **Date Verified:** 23/11/2014 | | | | | | | |
|  | | | | | | | |
| **Assignment No:** 1  **Assignment Title:** Web architecture and components  **Assignment Given Out:** 03/12/2014 **Assignment Submission Date:** 17/12/2014  **Learning Outcome:** LO1 – Understand web architecture and components | | | | | | | |
| **Task** | **Unit** | **Grading Criteria**  **Reference** | **Grading Criteria** | **Review Date** | **Grade Awarded** | **Date Achieved** | **Page No#** |
| 1 | 28 | P1 | Outline the web architecture and components which enable internet and web functionality | 9/12/2014 |  |  |  |
| 1 | 28 | M1 | Explain the role of web architecture in website communications | 16/12/2014 |  |  |  |
| 1 | 28 | D1 | Explain the role of the TCP/IP protocol and how it links to  application layer protocols | 16/12/2012 |  |  |  |
|  |  |  |  |  |  |  |  |
| **Assignment Rules:** Any work submitted after the deadline may not be marked. | | | | | | | |
| **Student declaration**  I declare that all of the work submitted for this assignment is my own work or, in the case of group work, the work of myself and the other members of the group in which l have worked has not been copied from any source. I understand that if any part of the work submitted for this assignment is found to be plagiarised, none of the work submitted will be allowed to count towards the assessment of the assignment.  Student Signature: Date:  Assessor Signature: Date: | | | | | | | |

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**ASSESSMENT FEEDBACK FORM**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit Number** | 28 | **Unit Title** | | Website Production | | | |
| **Assignment Title** | Web architecture and components | | | | **Resubmission Date** |  | |
| **Assessors Feedback (**please be specific, addressing the assessment and grading criteria**)** | | | | | | | |
| **Assessment Criteria to be addressed** | **Feedback from Assessor** | | | | | | **Achieved Yes/No** |
|  |  | | | | | |  |
| **Literacy Skills assessed for development** | | | | | | | |
| **Literacy issue assessed (please circle)** | | | **Comment for development** | | | | |
| **Structure, meaning, punctuation, spelling, referencing, bibliography, plagiarism or specify** | | |  | | | | |

**Student Signature:** ………………………………………… **Date:** ………..…………….……..

**Assessor Signature:** ………………………………………  **Date:** ……………………………..

**IV Signature:** …………………………………………………  **Date:** ………………..……………

## Scenario

You work for a local web development company and have been asked to visit a director of another company who just started a new business regarding the design and development of the business’s website. You have already been briefed on some of the content requirements:

* Create a name and logo for the business
* the manager would like an interesting homepage containing latest news items as well as a description of the business
* The sales manager has requested an online submission form that customers can request information about products.
* The sales advisors would like a section where they can display the opening hours, how to contact them, locations, frequently asked questions etc.
* The director would like you to use a range of different types of media including video, sound and animation
* An Interactive Photo Gallery for the business
* Products detail pages
* The director would like a minimum of 6 pages in the website and would like you to suggest other pages.

Throughout this project you will meet with your Project Manager (Your Teacher) to clarify the website requirements in more detail and report on your progress.

**Client Needs**

* The client would like the website to be coded with effective meta tags so that it can be visible on various search engines.
* The client has requested the current date and time to be displayed on the website homepage  
  You need to be able to support and maintain the website

**End User Needs:**

* The website will be accessed by a wide range of audience and therefore needs to have a clear and easy navigation system, the text should be easily readable and language that is clear and understandable
* The images should be appropriate and sized in proportion

**Nature of Interactivity**

* Interactive elements to be used: Rollover buttons, sound, video, animation, hotspots, drop-down menus, validation etc.

## 

## Assessment Tasks

Task 1  
  
**P1: outline the web architecture and components which enable internet and web functionality**

The Network Manager has requested you to outline the web architecture and components that allow the internet and websites to function so he has a clear idea of what kind of hardware and software will be required. For P1, You need to compose a brief outline of the web architecture and components which allow the internet and websites to function. You could represent this in a short report with flow diagrams detailing the various stages and processes that information must pass through to get from server to screen.

***Web architecture*:** Internet Service Providers (ISP); web hosting services; domain structure; domain name registrars; worldwide web

***Components:***hardware e.g. web, mail and proxy servers; routers; software e.g. browser, email;

***Protocols:***Transport and addressing e.g. TCP/IP; application layer e.g. HTTP, HTTPS, SMTP

***Web architecture***

* Internet Service Providers (ISP)
* Web hosting services
* Domain structure
* Domain name registrars
* Worldwide web

***Hardware Components***

* Routers
* Web server
* Proxy Server
* Mail server

***Software Components***

* Browser software
* Email software

**M1: explain the role of web architecture in website communications**

In your report for P1 you should go into more detail regarding the way websites move information for communication. You need to discuss current methods of information sharing and movements such as Web 2.0.

***Web functionality:***Web 2.0; blogs; online applications; cloud computing

* **Web 2.0**
* **Cloud Computing**

**D1: explain the role of the TCP/IP protocol and how it links to application layer protocols**

In your report for P1 and M1 you need to give a technical explanation of application layer protocols in relation to the TCP/IP protocol. Use diagrams to aid your explanations.

Transport and addressing e.g. TCP/IP

Application layer e.g. HTTP, HTTPS, SMTP