**Assignment : Web Development**

For Learner Use:

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| Surname of Learner | Karl |
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| Date of Test Given | 11/09/2019 |
| Location / Branch | iStudent Academy, Cape Town |

For Assessors Use:

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| Name of Branch | Cape Town |
| Name of Facilitator | Bradley Van Nelson |
| Name of Assessor | Bradley Van Nelson |
| Assessor Number | RAS/01/2017/0024 |
| Mark Allocation | 69 |
| Mark Obtained |  |
| Competency Status (C / NYC) |  |

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| Unit Standards MICT Seta | 115368 , 115372 |
| Units C&G | 044 |

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| Candidates Signature |  | Date of Submission |  |
| Assessors Signature |  | Date Marked |  |

**Assignment set up:**

This assignment is made up of **four** tasks:

• Task A – Design a five page website

• Task B – Build a functioning five page website

• Task C – Test a functioning five page website

• Task D – Knowledge

**Note: Task D requires written answers to a number of questions, please allow sufficient**

**time to complete this task within the assignment.**

**Grading criteria**

**Pass –** Candidates must meet all of the criteria shown as [ ] and 44 shown as ( ).

**Merit –** Candidates must meet all the criteria shown as [ ] and 51 shown as ( ).

**Distinction–** Candidates must meet all the criteria shown as [ ] and 58 shown as ( ).

**Scenario**

A local IT company has recently been set up in your home town which specialises in building high specification computers for gamers. They also sell computer games.

This company has asked if you could build a website to advertise their products and the top 10 computer games on the market at the moment.

Read all of the instructions carefully and complete the tasks in the order given.

**Task A –** Design a five page website

1 Prior to designing your website it is important that you understand exactly what is required of the website. Firstly, you will need to interview the owner of the computer shop to gain the following information (the assessor will act as the owner):

• the aim and content of the website

• any user requirements

• timescales for completing the website

Once you have this information you will need to produce a short plan that outlines the details you have learned.

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| **INTERVIEW QUESTIONS**  1. What is the image or idea you want to get from seeing your website. - (decent gaming equipment at a reduced price.)  2. Are there any themes you want for the website. - (Affordable rather than cheap.)  3. Do you have any logos or slogans. - (just the name electronic gaming.)  4. Any ideas for the website. - (no up to the website designer.)  5. Are the games sold by you or another retailer that is linked. - (we sell hard copies).  6. would you like any other advertisements on your website. - (no ads.)  7.anything you would like to add. - (just another meeting just before launch) |

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| **WRITTEN PLAN (based on answers)**  A five page website To appear affordable instead of cheap. A combination of dark and light themed will be used. Hardware and games will be sold off this website. |

2 The computer company has initially asked you to design a five page website that advertises the products and the top 10 computer games. The designs need to show the following:

• layout of each page

• a navigation diagram/storyboard

• the format of content including CSS

• any interactive features

• shopping cart

• images

• any animation

***\*The plans can either be hand drawn or drawn using ICT. These will be additional digital or screenshot attachments to be submitted.***

**Task B –** Build a functioning five page website.

1 Using the plans created in task A, build the functioning **five** page website that advertises the products and shows the top 10 computer games.

Ensure your finished website includes the following:

• **five** functioning pages

• images of products and **all** of the games

• navigation between each page

• **two** interactive features

• a functioning shopping cart

• **one** animation.

***\*The actual code will be assessed as well as the functioning website. You need not build the website on a functioning registered domain – it can be local. This must be shown in Task C.***

**Task C –** Test a functioning five page website

1 Now that your website is complete ask the assessor to observe you whilst you complete the following tests:

• functionality testing, open your website in two different web browsers

• test your navigation, demonstrating the functionality of each link

• test your interactive features.

Task D1: Describe **three** hardware and **three** software components that enable access to the web.

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| Software:  1.An Operating system  2.Drivers for a network adapter  3.A browser.  Hardware:  1.A network adapter  2.A motherboard capable of network connectivity  3.A router |

Task D2: Explain the role of the following protocols:

* TCP/IP including IPv6
* HTTP
* SMTP.

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| TCP/IP - TCP/IP stands for Transmission Control Protocol/Internet Protocol. they are protocols used to connect network devices. TCP/IP determine how data and information is packeted, addressed, transmitted, routed and received.  HTTP - stands for Hyper Text Transfer Protocol. HTTP is the protocol that requests and recieves of information from the web.  SMTP - stands for simple mail transfer protocol. SMTP is part of TCP/IP. SMTP moves your mail accross networks by directing where it should go, going from one destination to another being to get to its destination. |

Task D3: Explain the role of the following:

* Internet Service Provider
* Web hosting service
* Domain name registrar.

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| Internet service provider - they are orginaizations that enable you to acess the internet by paying them you get their customer support and they supply you with the setting up hardware if needed,for a extra cost.  web hosting service - A web service is a company that will host websites and online services by letting you use there hardware and servers with many other people who all pay per month for the hosting.  Domain name register - is when you reserve a name on the internet for a certian amount of time you keep the naem as long as you renew the liscence. |

Task D4: Identify and briefly describe **four** types of web functionality.

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| Wiki - Allows people to collaborate online and write content together.  Brochure - the simplist type of funcionality, they typically have only a few pages for a small online pressence.  Portal - a portal brings together information from lots of different sources.  Social media - enables sharing of images ideas anbd videos and encourages it. |

Task D5: Explain the use of **two** different Mark-Up languages.

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| Where HTML (one mark up language) sets the basic information such as the words links and so on, CSS (another mark up language) is used for the asthetics of the webpage things such as colours and spacing. so for a better looking and layed out website it is better to use 2 mark up languages. |

Task D6: Explain the use and functionality of:

* Web runtime environments
* Web application programming languages
* Databases including SQL
* PHP.

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| Web runtime environent - where the operating system provides the application to use computing resources such as processorr and RAM.  web application programing languages - Programing languages that enable you to creat applications to be used over the web.  Databases including SQL - Used to store and sort large amounts of data. Keeps records and information.  PHP - A scripting language that can be embeded in HTML and is executed on the server which keeps everyone being able to see all the code. |

Task D7: Identify **one** typical stack combination that can be used for web development.

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| LAMP  L -Linux  A - Apache  M - MySQL  P - PHP |