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| Pearson  Higher Nationals in | | | |
| Computing | | | |
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| Unit 8: | | Computer Systems Architecture | | |
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| Assignment Brief Number: | | | 1 |
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Higher National Certificate/Diploma in

Computing

Assignment Brief

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| Student Name/ID Number |  |
| **Unit Number and Title** | **8: Computer Systems Architecture** |
| Academic Year |  |
| Unit Tutor |  |
| **Assignment Title** | **1 – Path Education Centre** |
| **Issue Date** |  |
| Submission Date |  |
| IV Name & Date |  |

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| **Submission Format** |
| The submission is in the form of two documents/files:  Training PackageA (contains three documents):  Part 1: A Microsoft® PowerPoint® style presentation, including additional or extended information as notes and presentation handout.  Part 2 : Complete handout about the operating systems and functions  Part 3: A Microsoft® PowerPoint® style presentation, including additional or extended information as notes and presentation handout.  You are required to make use of headings, paragraphs, subsections and illustrations as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. |

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| **Unit Learning Outcomes** |
| LO1 Explain the relationships between hardware components and the subsystems used in a computer system.  LO2 Categorise the key features and services provided by different computer operating systems and hardware. |
| **Assignment Brief and Guidance** |
| ***PATH Education (pvt) Ltd*** is a company that specializes in IT training courses like Computer Networks, Computer Hardware, Linux Professional, and CCNA.**PATH Education** has decided to introduce a NEW training course for **IT Executives called ITET (IT Executive Training)** starting in January 2018.  You have been appointed as an IT Consultant for **PATH Education***.* Your main role is an implement NEW LAB (Practical and Theory) and create Training Package for new **ITET** course.  PATH management will hope maximum 15 students per batch. Once the specification has been accepted you will be required to set up the hardware and software for the **ITET** lab.   1. The PCs should have sufficient hardware requirements. 2. The PCs should have installed required software. 3. There should be at least one printer accessible to all PCs via the network. 4. Wherever possible compact peripheral devices should be used. 5. “Health and Safety is crucial to the effective operation of a computer”. When designing lab must follow **Ergonomics rules.**   You are working as an IT consultant for Path Education. Your line manager has asked you to create new training package.  **Training Package**  You are required to create training package including the following  Part 1 : A Microsoft PowerPoint style presentation that include:   * Computer System Hardware and Subsystems used in the computer system * How the sub systems are connect and organised * Purpose of the CPU and its operations. Assess the CPU dependency and performances   Part 2: Research about the different operating systems and create a handout to deliver on the training session.  The handout should include and explain the following.   * Range of operating systems including the purpose and hardware requirements * Architecture of the operating systems & features * Services provided by the Operating system   Part 3 : A Microsoft PowerPoint style presentation that include :   * Structure of the Operating System * Functions of the Operating System including (memory/Processor/device/File/Security/Performance and Error Management) |
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| Learning Outcomes and Assessment Criteria | | |
| Pass | Merit | Distinction |
| **LO1** Explain the relationships between hardware components and the subsystems used in a computer system | | **LO1 & 2**  **D1** Evaluate the structure and functions of an operating system including memory, processor, device, file, security, performance and error management with regards to functionality, operation and dependency. |
| **P1** Identify the main subsystems of a computer and explain how they are organised and connected.  **P2** Explain the purpose of the Central Processing Unit (CPU) and include details on its operation. | **M1** Review the operation of the CPU and assess its dependency and performance with regards to associated systems and subsystems. |
| **LO2** Categorise the key features and services provided by different computer operating systems and hardware | |
| **P3** Describe a range of different operating systems including the purpose, use and hardware requirements of each.  **P4** Discuss the key features associated with the architecture of an operating system. | **M2** Analyse the services provided by an operating system with regards to user interaction, memory management, file management and hardware support. |