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| Title | **Elaborate world wide web** | | |
| Level | **2** | **Credits** | **7** |

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| Purpose | The competency standard explains the World Wide Web with its history and architecture. It will also enable the learner to differentiate web protocols, types of websites and web threats. |

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| Classification ISCED | 0613 Software and applications development and analysis |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **B1. Discuss different Eras of Web** | **Trainee will be able to:**  **P1.** Memorize the history of world wide web  **P2.** Identify the difference between website and webpage  **P3.** Recognise different types of websites such as:   * Web 1.0 (Read Web) * Web 2.0 (Social Web) * Web 3.0 (Semantic Web)   **P4.** Compare Web 1.0, Web 2.0 and Web 3.0 | **The student will be able to:**  **K1.** Explain the history of world wide web  **K2.**Define a difference between website and web page  **K3.** List down the different types of websites  **K4.** Establish difference between Web 1.0, Web 2.0 and Web 3.0 |
| **B2: Compare static websites with dynamic websites** | **The trainee will be able to:**  **P1.** Identify static website  **P2.** Demonstrate the Workflow of a static website  **P3.** Identify dynamic website  **P4.** Demonstrate the workflow of a dynamic website  **P5.** Classify architecture of a static website  **P6.** Recognise dynamic website  **P7.** Segregate static and dynamic websites | **The trainee will be able to:**  **K1.** Define a static website  **K2.** Explain the workflow of a static website  **K3.** Define a dynamic website  **K4.** Explain the workflow of a dynamic website  **K5.** Elaborate the architectures of static and dynamic websites  **K6.** Enhance the difference between static and dynamic websites |

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| **B3: Elaborate and differentiate web browsers** | **The trainee will be able to:**  **P1.** Identify a web browser  **P2.** Comprehend working of a web browser  **P3.** Demonstrate Installation and usage of different web browsers such as:   * Internet explorer * Mozilla Firefox * Google Chrome * Safari   **P4.** Recognise features/options of different web browsers  **P5.** Compare different web browsers  **P6.** Practise cross browser compatibility of websites | **The trainee will be able to:**  **K1.** Define a web browser  **K2.** Explain the working of a web browser  **K3.** Show how to Install and use different web browsers  **K7.** Illustrate the features/options of different web browsers  **K8.** Describe features of different web browsers  **K9.** Explain the meaning of cross browser compatibility of websites |
| **B4. Compare different types of websites** | **The trainee will be able to:**  **P1.** Categorise different type of websites such as:   * Personal websites * Information websites * Web portals * Webmail * Social networking websites * Blogs * Forums * Wiki websites * Search engines * Community websites * News websites etc. | **The trainee will be able to:**  **K1.** Give details about different types of websites  **K2.** Define working of different types of websites |

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| **B5. Identify different web threats and explain their security measures** | **The trainee will be able to:**  **P1.** Identify different web threats such as:   * Viruses * Computer Worms * Trojans * Malware * SQL Injection * Cross-site Scripting (XSS) * Email Spam * Phishing * Denial-of-service attack (DoS attack)   **P2.** Demonstrate different security measures for different web threats such as:   * Installation of a antivirus software * Usage of antivirus to scan a computer for viruses and removing of viruses. | **The trainee will be able to:**  **K1.** Elaborate what different web threats are and how they work.  **K2.** Give details, which security measures could be taken for different web threats |

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| **B6. Highlight the process of domain registration and web hosting** | **The trainee will be able to:**  **P1.** Search Internet Service Providers (ISPs)  **P2.** Show web hosting process  **P3.** Perform domain registration process  **P4.** Select any ISP for the website  **P5.** Exhibit the process of getting web hosting package from the ISP  **P6.** Select domain registration package from the ISP  **P7.** Demonstrate uploading of website to a web server / web space provided by the ISP  **P8.** Exhibit testing of the uploaded website on a web browser | **The trainee will be able to:**  **K1.** Describe how to search Internet Service Providers (ISPs)  **K2.** Explain the web hosting process  **K3.** Put in plain words the appropriate process of domain registration  **K4.** Define how to choose one of the ISP for website hosting  **K5.** Express how to get the web hosting package from the ISP  **K6.** Explain how to get the domain registration package from the ISP  **K7.** Exhibit the uploading process of the website to the web server / web space provided by the ISP  **K8.** Explicate the process of testing the uploaded website on a web browser |
| **B7. Discuss shopping carts and e-commerce** | **The trainee will be able to:**  **P1.** Understand E-commerce  **P2.** Identify some common business applications of E-commerce such as   * Document automation in supply chain and logistics * Domestic and international payment systems * Enterprise content management * Group buying * Automated online assistants * Instant messaging * Newsgroups * Online shopping and order tracking * Online banking | **The trainee will be able to:**  **K1.** Define and explain E-commerce  **K2.**Tell about some common business applications of E- commerce |

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|  | * Online office suites * Shopping cart software * Teleconferencing * Electronic tickets * Social networking |  |