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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
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