Unit 10: Website Design & Development

Unit code R/615/1633
Unit level 4
Credit value 15

Learning Outcomes
By the end of this unit students will be able to:
LO1 Explain server technologies and management services associated with hosting and managing websites
LO2 Categorise website technologies, tools and software used to develop websites
LO3 Use website technologies, tools and techniques with good design principles to create a multipage website
LO4 Create and use a Test Plan to review the performance and design of a multipage website

Essential Content

LO1 Hosting and website management: Investigate relationships between domain names, DNS services and communication protocols used to access a website / Overview of publishing and managing secure websites, including search engine indexing and ranking.
Different server technologies: Differences between web server hardware, software and host operating systems / Advantages of an integrated database system with regards to expanding website capability / Common web development technologies and frameworks

LO2 Website technologies: Using front-end technologies, presentation layers and client-side programming to build a User Interface (UI) and effect User Experience (UX) / How back-end technologies, application layers and server-side programming can be used to enable personalisation and deliver dynamic content Tools, techniques and software used to develop websites: Improving User Experience (UX) through Rich Internet Application (RIA) design using JavaScript and CSS frameworks and packages / Overview of online content management systems including possible advantages and limitations with regards to design / Using web design and development software to design and build a secure website.

LO3 Establish the client and user requirements: Differentiate client and user requirements from behaviours. Consider how audience and purpose could influence the look and feel of a website / Review accessibility standards and guidelines and their possible impact on design and aesthetics
Research and create good content combined with good design principles to create a multipage website: Introduce and use recognised design principles, incorporating accessibility guidelines to implement an appropriately branded, multipage site / Discuss why and how the quality of content can affect the performance of a website

LO4 Consider factors that influence website performance: Review how intuitive interfaces and actions, user-friendly designs, appropriate graphics, effective navigation and good quality content can help establish user trust and deliver an improved User Experience (UX) / Consider the effects of good and bad search engine optimisation (SEO) and indexing on the performance of a website / W3C Validation (HTML and CSS) and how it influences website design and performance
Establish a Test Plan and use it to assess the performance of a website: Assess the impact of poorly optimised website graphics / Research and conduct Quality Assurance (QA) and usability testing on a multipage website