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| **UNIT SPECIFICATION** |
| **Web Programming**  **Tutor Name: Lavanya Mohan**  **Tutor Contact Details: lavanya@metaverseage.ae** |

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| Web Programming | | |
| **Unit Summary** | This unit introduces students to the underpinning services required to host, manage and access a secure website before introducing and exploring the methods used by designers and developers to blend back-end technologies (server-side) with frontend technologies (client-side). The main purpose of the unit is to create learning skills of web programming by using different platforms and languages. Web development broadly refers to the tasks associated with developing websites for hosting via intranet or the internet. The students can learn the use of CSS3, Java, Jquery, along with HTML5 to make websites interactive. | |
| **Learning Outcomes** | **LO 1**  Explain server technologies and management services associated with hosting and managing websites.  **LO 2**  Plan an appropriate User Experience map and Interface Design for a User Interface concept with a specific target end user in mind and also outline the tests you mean to conduct.  **LO 3**  Build a User Interface concept and test it with users to see if it satisfies their emotions, desires, and attitudes as planned.  **LO 4**  Evaluate user feedback, test results, and insights gained from end-users interacting with your User Interface concept to determine success or failure and steps to improve in future versions. | |
| **Unit Content** | * Understand the hosting and maintaining of the website on real servers. * Understand the features of different text editors. * Understand the concepts of HTML5 language and its elements. * Understand the structure of the web by using different elements. * Understand the concepts of frontend, backend, and online content management systems. * Understand the web layout and structure. * Understand and use videos and audio on the web. * Understand the application of semantic structure. * Understand the concepts of a multi-page website. * Understand the CSS3 by using the different styles. * Understand the graphics in canvas API. * Understand the Java language by using different features on the web. * Understand the concepts of JQuery Understand the testing plan. for effects and animations. | |
| **Teaching & Delivery** | Tuition and guidance should feature flexible approaches to delivering the unit. Formal tuition sessions, whether face to face or online, will identify some of the required, theoretical subject matter. This will help students to work individually, or as part of a group, researching and gathering information about the subject. The Module will be taught through weekly tutorials and will include tutor-led and student-centered activities. Reflective learning based on defined experience situations will be used to promote self-development. Students will likely use tutor- and self-directed study and reflect on their experience and expertise. Up-to-date information and materials are available from many sources such as businesses, the World Wide Web, television and radio broadcasts, broadsheet newspapers and advisory services. | |
| **Assessment** | The following assessment strategies may be adopted to achieve the learning outcomes. | |
| **Portfolio** | **100%** | A collection of a variety of creative digital artefacts developed over the Unit. |
| **Learning Resources** | The recommended sources listed below should be familiar to each tutor and assessor who is delivering this unit. Learners should be made aware of these sources before delivery of this unit, and be fully conversant with these sources upon completion of this unit. | |
| * "Top 15 Most Popular Websites May 2018". eBiz. Retrieved 11 February 2016. * searchenginewatch.com - Google Hits the Billion Monthly Unique Visitors Mark * Rob Pike (2012). Go at Google. Presentation at the ACM Conference on Systems, Programming, Languages, and Applications: Software for Humanity (SPLASH). * "Google's Bigtable". Archived from the original on 2006-06-16. * “Google Waves Goodbye To MySQL In Favor Of MariaDB". readwrite.com. Retrieved 12 December 2014. * "Facebook is using D in production starting today". * "XHP: A New Way to Write PHP". Facebook Engineering. Facebook. * "Fighting spam with Haskell". Facebook Engineering. Facebook. * "MySQL and Database Engineering". * "YouTube Architecture - High Scalability -". Retrieved 13 October 2014. * "Golang Vitess: a database wrapper written in Go as used by Youtube". * "Google buys YouTube for $1.65 billion". 10 October 2006. * "World's Largest Database Running on Postgres". * Brown, E. (2015). Learning JavaScript: JavaScript Essentials for Modern Application Development (e-book). O’Reilly. * Collins, M. (2017). Pro HTML5 with CSS, JavaScript, and Multimedia (e-book). Apress. * Fulton, S. & Fulton, J. (2013). HTML5 Canvas (e-book). O`Reilly. | | |