LIVERPOOL JOHN MOORES UNIVERSITY

Module Proforma

Approved, 2022.02

Summary Information

Module Code	5214COMP
Formal Module Title	Advanced Web Development
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Basma Abdulaimma	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

Learning Methods

Learning Method Type	Hours

Lecture	11
Practical	33

Module Offering(s)

Offering Code	Location	Start Month	Duration
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To present the concepts, methods and techniques used in the development and deployment of web applications and services. To develop the concepts of multi-tier web application development, including: server-side programming, database connectivity and media rich client-side interface development. To introduce wider concepts of web applications such as: legal issues, server hardware and system optimization.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Explain the architectural make-up of web applications.
MLO2	Develop a moderately sized media rich multi-tier web solution from a given set of requirements and data tier solution.
MLO3	Iteratively develop a larger user evaluated media rich multi-tier web solution for a given commercially oriented scenario that utilises local and external data sources.

Module Content

Outline Syllabus

-Anatomy of a Web Application: Multi-tier Models, Client, Server and Service Internet, Intranet and Extranet Architectures. -The Lifecycle of a Web Application: Process, Deployment and Maintenance. -The Data Tier: Databases, SQL and Queries. -The Processing Tier: Language, Logic, Media Generation and Information. -The Client Interface Tier: HTML & CSS, Data Storage and Update, Interface, Media and Interaction.-Information System: Users, Roles, Tasks and Information.-Security of Web Applications -Analysis and Design Methods: Usability and Agile Development Methods. -Testing Web Applications: Automated Tools, Stress Testing and User Evaluation

Module Overview

This module provides you with the concepts, methods, techniques and experience to analyse, design and develop media rich interactive multi-tier Web-based applications. You will learn to develop the concepts of multi-tier web application development, including: server-side programming, database connectivity, and media rich client-side interface development. You will also be introduced to wider concepts of web applications such as: legal issues, serve hardware, and system optimisation.

Additional Information

This module provides the student with the concepts, methods, techniques and experience to analyse, design and develop media rich interactive multi-tier Web-based applications.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Portfolio	Development of Web Application	40	0	MLO2, MLO1
Portfolio	Dev. of Complex Web App.	60	0	MLO3