Innovations in Software Development

Module Information

2022.01, Approved

Summary Information

Module Code	6628YCOM
Formal Module Title	Innovations in Software Development
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
YPC International College (Kolej Antarabangsa YPC)

Learning Methods

Learning Method Type	Hours
Lecture	33
Practical	22

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	To investigate the role and functionality of data warehouses in support of business intelligence. To evaluate the process of extract, transform & loading in the construction of data warehouses. To investigate the differing platforms available for business intelligence reporting. To develop service oriented applications that support business intelligence dashboards.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Investigate the construction of data warehouses in support of business intelligence.
MLO2	2	Design reporting solutions for business intelligence.
MLO3	3	Develop business intelligence dashboards through service oriented applications.

Module Content

Outline Syllabus	Analytical Limitations of Relational Databases Systems Business Intelligence & Analytical Database Multi-Dimensional Modelling Star & Snow Flake Schemas. Cubes Aggregations MOLAP, ROLAP & HOLAP Analytical Extensions to SQL Extract Transform & Loading Reporting Platforms Web Based Reporting Services Thin/Fat Clients & Servers Platforms for Business Intelligence Dashboards Web Services Object Relationship Mapping Object Oriented Programming Presentation of Data
Module Overview	
Additional Information	This module explores a growing area of database systems, that of the analytical database. It explorers the rapid growth of business intelligence data and the complex data models that are needed to support it. The module continues by exploring the platforms and processes that report such data through both web based and service oriented platforms.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Investigation concerning ETL	40	0	MLO1
Artefacts	BI Dashboard Dev	60	0	MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Glyn Hughes	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings