Data Warehousing and Mining

Module Information

2022.01, Approved

Summary Information

Module Code	5126COMP
Formal Module Title	Data Warehousing and Mining
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

Learning Methods

Learning Method Type	Hours
Lecture	33
Practical	22

Module Offering(s)

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

Aims and Outcomes

Aims	To investigate data warehousing in context of business intelligence.To implement the principle models of data warehousing.To utilize the process of extract, transform & loading in the construction of data warehousing.To utilize data mining in the pursuit of effective knowledge discovery and decision making.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate the role of data warehousing in supporting business intelligence.
MLO2	2	Implement effective business intelligence solutions using the principle models of data warehousing.
MLO3	3	Demonstrate the extract, transform & loading process in preparing data.
MLO4	4	Demonstrate effective use of data mining methodologies & technologies.

Module Content

Outline Syllabus	Introducing Business Intelligence & Data Warehousing• Decision Making• OLTP vs OLAPSemantic Models• Multi-Dimensional Model• Tabular ModelPlatforms & ToolsExtract, Transform & LoadingTabular Modelling• DAX Statements & ExpressionsMulti-Dimensional Modelling• Measures & Dimensions• MDX Scripting & QueryingModelling, Visualising & Reporting• PowerBI• Reporting Services
Module Overview	
Additional Information	This module explores two principle models of data warehousing & mining, the long recognised multi-dimensional model and the more recently recognised tabular model. Beginning with a study into the key factors that characterise and differentiate business intelligence systems from database systems, the module continues by exploring the methodologies and technologies that support these two models. This module thusly represents the logical follow-on to NQF5's Database Systems module.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Tabular Models	40	0	MLO1, MLO2, MLO4
Report	Multi-Dimensional Models	60	0	MLO2, MLO3, MLO4

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