Liverpool John Moores University

Title: MULTIMEDIA DATABASES
Status: Definitive
Code: **6013COMP**   (102987)
Version Start Date: 01-08-2011

Owning School/Faculty: Computing and Mathematical Sciences
Teaching School/Faculty: Computing and Mathematical Sciences

Team		Leader
Dhiya Al-Jumeily	emplid	Y

Academic Level:	FHEQ6	**Credit Value:**	12.00	**Total Delivered Hours:**	38.00
Total Learning Hours:	120	**Private Study:**	82		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	12.000
Practical	12.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Assignment, on research, evaluation and report written of Multimedia Databases systems.	25.0	
Exam	AS2	Examination	75.0	2.00

Aims

To understand the characteristics of multimedia data and its use in databases.
To examine the requirements of multimedia database systems, and the problems associated with their provision.

Learning Outcomes

After completing the module the student should be able to:

1 Discuss the characteristics of multimedia data and critically evaluate the difficulties in supporting these in the traditional database models.
2 Compare the use of multimedia data at both client and server components of a database architecture.
3 Evaluate the suitability of the OO model in supporting multimedia data.
4 Identify problems of supporting user requirements in multimedia databases and evaluate proposed solutions.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Multimedia Databases   2   3

Exam   1   2   3   4

Outline Syllabus

Review of relational model and its typical applications. Client-server architecture: interface components and DBMS. Characteristics of multimedia data. Typical applications. Requirements of multimedia databases. Comparison with relational and OO models.
User requirements: user interaction, multimedia, virtual environments. Hypermedia: locating, searching, browsing.
SQL-3 and multimedia objects; multimedia standards (e.g. SGML). Content based queries: characterisation and query-matching; indexing structures.
Operating system and communication system support for multimedia databases.

Learning Activities

Lectures are supported by tutorial exercises. Selected research papers will be used to supplement the topics discussed.

References

Course Material	Book
Author	Apers, P.G.M., Blanken, H.M., Houstma, M.A.W.(eds)
Publishing Year	1997
Title	Multimedia Databases in Perspective
Subtitle	
Edition	
Publisher	Springer
ISBN	3540761098

Course Material	Book
Author	Subrahmanian, V.S.
Publishing Year	1998
Title	Principles of Multimedia Database Systems
Subtitle	
Edition	
Publisher	Morgan Kaufmann
ISBN	1558604669

Course Material	Book
Author	Date, C.J.
Publishing Year	2003
Title	Introduction to Database Systems
Subtitle	
Edition	8th Edition
Publisher	Addison-Wesley
ISBN	0321189566

Course Material	Book
Author	Dunckley, L.
Publishing Year	2002
Title	Multimedia Databases: An Object Relational Approach
Subtitle	
Edition	
Publisher	Addison-Wesley
ISBN	0201788993

Notes

The trend of the increased use of multimedia for both presentation and representation of information is continuing to challenge systems providers. This module examines the issues in providing support for multimedia databases.