

# AN ACADEMIC DIGITAL LIBRARY: DESIGN OF THE UNDERLYING DATABASE STRUCTURE

## Problem

A literature study was undertaken and a research problem identified: no digital academic library exists that is easy to use, has no copyright issues and is optimised for academic use.

## Background

- The project involves the design, creation and testing of the database section of the proposed digital library
- The database must be secure and couple with the user interface seamlessly
- The database interface must provide easy access to relevant information and documents for academic users

## Preliminary Tables

**ARTICLE** (ARTICLE\_ID, TITLE, YEAR\_PUBLISHED, ABSTRACT, ARTICLE\_LINK)  
**AUTHOR** (AUTHOR\_ID, FIRST\_NAME, SURNAME)  
**ASSIGN\_AUTHOR** (ARTICLE\_ID, AUTHOR\_ID)  
**ASSIGN\_KEYWORD** (ARTICLE\_ID, KEYWORD\_ID)  
**KEYWORD** (KEYWORD\_ID, KEYWORD)

## Platform Evaluation Criteria

Manageability  
High Availability and Business Continuity  
Performance and Scalability  
Acquisition and Operation Cost  
Product Support and Updates

## Research Questions

What technology should be used to develop the database?

How will the database couple with the user interface?

What information needs to be stored in the database?

## References

**Draffan**, E.A.B. and **Corbett**, R. 2001. Implementing a Web-accessible database. *The Electronic Library*, 19(5):342-348.

**Papadakis**, I., **Karakoidas**, V. and **Chrissikopoulos**, V. 2002. DocML: a digital library of university data. *Library Hi Tech*, 20(3):378-387.

**Weideman**, M. 2005. FOIOTI: An implementation of the conceptualist approach to Internet searching. *South African Journal of Libraries and Information Science*, 71(1):11-25.



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## Conclusion

It is possible to design a database to meet the specified conditions