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)

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?

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

References

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

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