

CS315:Principles of Database Systems

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Research Catalogue

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Motivation

Catalogue is a database of bibliographic records, an organized digital collection of references to published literature, including journal and newspaper articles, conference proceedings, reports, government and legal publications, patents, books, etc. Students who are new to many research fields but interested in exploring different fields face difficulties in getting reading material to start their research study. Thus, a user friendly interface that enables accurate search results and easy browsing of search results by providing helpful links and suggested search results is desired.

Objectives

- To build an easily maintainable and flexible bibliographic database of Research papers published by the faculty of Computer Science and Engineering Department, Indian Institute of Technology Kanpur
- To build a user-friendly interface to maintain the database.
- To build features of simple and advanced search to find research papers according to search query.
- Incorporate search keys like author name, published date, etc. in advanced search
- Optimize SQL queries to get instant results.

Technologies to be used

- MySQL database management system
- HTML, CSS Bootstrap, Javascript for front-end development.
- PHP for back-end development.

* *Probably, we may switch to some framework or other DBMS like MongoDB.*

Methodology

- Each research paper will be kept in database with DOI (Digital object identifier), which is unique for each paper.
- User can authenticate to our portal using IITK login credentials through IITK server.
- Refine the search result by research field, author, publication date and tags.