

CS 801 Research Proposal Writing Project

1. Write a research proposal for design/implementation and/or performance analysis (based on deterministic modeling, analytical modeling, or simulation).
2. Submit a description of your topic and a list of reference papers. (due 5/12)
3. Description of a research topic, background and problem statement, existing solutions, your solution idea and/or approach with some justification, plans for design/implementation/performance analysis, expected outcome, etc. can be included in the proposal.
4. Size of the final report is between 20 and 35 double-spaced pages. (due 6/9)

Possible Topics

- Database models
- Database access mechanism (such as indexing, hashing, etc)
- Query optimization
- Concurrency control and recovery
- Parallel algorithms for query processing
- Performance evaluation of a DB system
- Distributed database
- Multidatabase
- Multimedia database (e.g. Image/video database)
- Object-Oriented database
- XML database
- Data mining
- Data warehouse
- Other relevant topics

Reference Sources

- IEEE Trans. on Software Engineering
- IEEE Trans. on Knowledge and Data Engineering
- Computer (IEEE Computer Magazine)
- Communications of ACM
- ACM Trans. on Database Systems
- ACM Trans. on Knowledge Discovery from Data
- ACM Trans. on Information Systems
- Information Systems (Journal)
- Data and Knowledge Engineering (Journal)
- Data Mining and Knowledge Discovery (Journal)
- IEEE Tutorials, such as Tutorial on Database Systems, etc.
- Proc. of IEEE Int'l Conf. on Data Engineering
- Proc. of ACM Conf. on Management of Data (SIGMOD Conference)
refer to the volumes of SIGMOD RECORD
- Proc. of ACM Symp. on Principles of Database Systems (PODS)
- Proc. of Very Large Data Bases (VLDB)
- Proc. of Int'l Conf. on Knowledge Discovery and Data Mining
- Knowledge and Information Systems (Journal)
- IEEE Trans. on Parallel and Distributed Systems
- ACM Computing Surveys
- ACM/Springer-Verlag Multimedia Systems