



INTRODUCTION TO DATABASE SYSTEMS

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PRE-REQUISITES : Studying B Tech (computer science) 3rd year Discrete Mathematics and Data Structures

INTENDED AUDIENCE : Any Interested Learners

COURSE OUTLINE :

Databases are the backbone of almost all the digital services and e-governance solutions. Modern businesses and financial systems heavily depend on databases systems and transaction processing for their successful operation. This course introduces the students to the various theoretical and practical principles involved in the design and use of databases systems with the help of database management systems (DBMS) and the SQL Standard.

ABOUT INSTRUCTOR :

Prof. P Sreenivasa Kumar has been a member of the faculty of the CSE Dept for the past two decades. His research interests are: databases, semi-structured data and XML, theory and applications of ontologies. He completed his Masters and PhD from the Department of Computer Science and Automation of Indian Institute of Science, Bangalore.

COURSE PLAN :

- Week 1:** Introduction and part of E/R Model Module
- Week 2:** ER Model Module
- Week 3:** Relational Model Module
- Week 4:** Relational Model Module
- Week 5:** TRC Module and part of SQL Module
- Week 6:** SQL Module
- Week 7:** Indexes Module
- Week 8:** Indexes Module + Query Processing Module
- Week 9:** Normal Forms Module
- Week 10:** Normal Forms Module
- Week 11:** Transaction Processing Module
- Week 12:** Transaction Processing Module