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# DS-306 Data Warehousing and Business Intelligence

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## **Lecture 1: Introduction**

Dr. Khurram Shahzad

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# Objectives of today's lecture

- Setting up the things
- Synchronize DB vocabulary

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# Course Material (Books)

- A. Vaisman, E. Zimanyi. Data Warehouse Systems: Design and Implementation. Springer
- Data Warehousing Fundamentals. A Comprehensive Guide for IT Professionals. by Paulraj Ponniah.
- The Big Data Textbook. By Ghislain Fourny

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# Grading Scheme (most likely)

- Project
- Quizzes
- Mid Term (35 marks)
- Final Term (40 marks)

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# Teaching Methodology

- Illustration
- Case Studies

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# Rules of Business!

- Please
  - ❑ Ringing Phone
  - ❑ Attendance Problem
  - ❑ Sessional Problems
  - ❑ Class Timing

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# Concepts

- Database
- Database Management System
- Relational DB
- Relation vs Table

# Concepts

- Entity
- ERD
- Set theory
- ANSI SPARC Architecture
  - Index



# Concepts

- Conceptual model
- Logical model
  - M-M resolution
- Referential Integrity
- Types of attributes
  - Simple vs Composite attribute
  - Single vs multivalued attribute

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# Concepts

- Redundancy
- Functional dependency
- Normalization
- DB for static applications vs dynamic applications