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UNIT I

Chapter 1 : Basics of Database and Architecture **1-1 to 1-29**

Syllabus : Introduction : Data, Database and its purpose, Characteristics of the database, file system vs. database approach, Different types of Database, Advantages and disadvantages of database systems., **Concepts of database :** Components of database – Hardware, Software, People, Procedure. Database Product, Data abstraction, Database languages – Data Definition Language (DDL), Data Manipulation Language (DML), Data Control Language (DCL), Data independence – Logical and Physical Independence, Data integrity., **Architecture of database :** Three Level Architecture for a Database System – Database (Data) Tier, Application (Middle) Tier and User (Presentation) Tier.

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Chapter 2 : Data Models & Database Types **2-1 to 2-21**

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Syllabus : Entities, Entity set, Relationships., Representation of entities, attributes, relationship attributes, relationship set., Generalization, aggregation, Structure of relational Database and different types of keys. Expressing M : N relation, Shortcomings of ER Model, Enhanced ER (EER) model; sub class, super class, Specialization and Generalization.

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