

Software systems

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I. OVERVIEW

A. *Analysing software systems*

- Aspects to consider:
 - System high-level functions
 - System nodes
 - Types of data managed and processed
 - Data movement within the system
- Usually expressed with pictures

B. *Modelling data (Database)*

- Data is always stored, transformed and analysed
- **Abstract Data Model** used to understand process
- **Database theory** creates the Abstract Data Model
- Database theory considers:
 - Important entities in Database
 - **Attributes** of these entities
 - **Relationships** between these entities
- **Entity modelling** formally expresses database theory
- **Database systems** implements the Abstract Data Model

C. *Moving data (Network)*

- Process of data moving between nodes
- **Network models** defines the type of network structure
- **Network protocol** and **API** implements the model