Data Base Lab01

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Basic Tasks

a. Entity: Something of the real word.

b. Entity type: Generalization of similar entity.

c. Entity instance: Examples of entity type.

d. Optional: a non-mandatory relationship or attribute.

e. Mandatory: mandatory relationship or attribute.

f. Cardinality: The numerical characteristics of relationships between entities.

3.A data model is an abstraction of data characteristics and serves as a framework for teaching database management.The structural framework used in database systems to provide means for information representation and manipulation.

The importance of data modelling:

(1)Data modeling can help consolidate scattered data into a clear structure, making it easier to understand and manage.Data modeling can provide a unified view by defining entities, attributes, and relationships, making the organization and connections of data clearer and more visible.

(2)Data modeling can help identify and resolve data quality issues.By defining data standards and constraints, data modeling can ensure the consistency, accuracy, and completeness of the data.It can help identify errors, redundancies, and inconsistencies in the data, and provide corresponding data cleaning and validation rules.

(3)Data modeling provides the foundation for data analysis.By modeling data in a structured form, it becomes easier to apply analytical methods such as statistics and machine learning to extract valuable information and insights.

Medium Tasks

Graph 1/2/4/5/6

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