Data abstraction is a concept in database management that involves hiding unnecessary details from users, allowing them to interact with the system in a simplified manner.

There are three levels of data abstraction:

1. Physical Level:
    - *What:* Describes how the data is actually stored in the database.
    - *Details:* Involves complex low-level data structures.
    - *Example:* Knowing the details of file storage, disk structures, or data storage formats.
2. Logical Level:
    - *What:* Describes what data is stored in the database and the relationships between the data.
    - *Details:* Focuses on a small number of relatively simple structures.
    - *Example:* Understanding the entities, attributes, and relationships in a relational database without delving into specific storage details.
3. View Level:
    - *What:* The highest level of abstraction, presenting a simplified, user-specific view of the database.
    - *Details:* Provides a subset of the entire database relevant to a specific user or application.
    - *Example:* A user interface showing only certain fields or records based on a user’s role or specific needs.

Explanation in Simpler Terms:

- Physical Level: Imagine you have a library. At the physical level, it’s like knowing

exactly where each book is stored on each shelf in the library.

- Logical Level: Now, think of the logical level as understanding what types of books are in the library (e.g., fiction, non-fiction) and how they are categorized, without worrying about the specific shelf location of each book.
- View Level: Finally, the view level is like someone walking into the library and seeing a curated display of books on a special shelf – tailored to their interests. They only see what's relevant to them, and they don't need to know all the intricate details of the library's organization.

Related posts:

1. What is database management system (DBMS) ? What are the tasks performed by users in DBMS ?
2. What are the advantages and disadvantages of DBMS ?
3. What do you understand by database users ? Describe the different types of database users.
4. Who are data administrators ? What are the functions of database administrator ?OR Discuss the role of database adinistrator.
5. Explain the differences between physical level,conceptual level and view level of data abstraction.
6. Explain the difference between database management system (DBMS) and file system.
7. Discuss the architecture of DBMS. What are the types of DBMS architecture ?
8. What are data models ? Briefly explain different types of data models.
9. Describe data schema and instances.
10. Describe data independence with its types
11. Describe the classification of database language. Which type of language is SQL ?
12. Explain DBMS interfaces. What are the various DBMS interfaces ?

13. What is ER model ? What are the elements of ER model ? What are the notations of ER diagram ?
14. What do you understand by attributes and domain ?Explain various types of attributes used in conceptual data model.
15. Construct an ER diagram for University system.
16. Construct an ER diagram for the registrar’s office
17. Explain the primary key, super key, foreign key and candidate key with example. OR Define key. Explain various types of keys.
18. What do you mean by a key to the relation ? Explain the differences between super key, candidate key and primary key.
19. Explain generalization, specialization and aggregation. OR Compare generalization, specialization and aggregation with suitable examples.
20. What is Unified Modeling Language ? Explain different types of UML.
21. What is relational model ? Explain with example.
22. Explain constraints and its types.
23. Consider the following relations:
24. What are the additional operations in relational algebra ?
25. Explain integrity constraints.
26. Explain the following constraints : i. Entity integrity constraint. ii. Referential integrity constraint. iii. Domain constraint.
27. Describe mapping constraints with its types.
28. Explain how a database is modified in SQL. OR Explain database modification.
29. Discuss join and types with suitable example. Define join. Explain different types of join.
30. Describe the SQL set operations