

Explain the difference between database management system (DBMS) and file system.

Database Management System (DBMS) and File System:

| | DBMS | File System |
|--|--|---|
| Level of Data Abstraction | Lowest level | Middle level |
| Description of Data Storage | Describes how data is actually stored in the database | Describes what data is stored in the database |
| Detail of Data Structures | Describes complex low-level data structures in detail | Describes the structure of the whole database and hides details of physical storage structure |
| User Awareness of Complexity | User is not aware of the complexity of the database | User is not aware of the complexity of the database |
| User Procedures | User is not required to write procedures | User is not required to write procedures |
| Data Representation | Gives an abstract view of data, hiding details | Gives an abstract view of data, hiding details |
| Crash Recovery Mechanism | Provides a crash recovery mechanism, protecting data from system failure | No crash recovery mechanism, data may be lost in case of system failure |
| Protection Mechanism | Provides a good protection mechanism | It is very difficult to protect a file |
| Efficiency in Data Storage and Retrieval | Can efficiently store and retrieve data | Cannot efficiently store and retrieve data |

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| Concurrent Access | Takes care of concurrent access using some form of locking | Concurrent access has many problems like redirection, deletion, or updating without proper mechanisms |

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 administrator.
5. What is data abstraction ? Explain different levels of abstraction.
6. Explain the differences between physical level, conceptual level and view level of data abstraction.
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.

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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