Advantages of DBMS:

1. No Data Duplication:
    - *Advantage:* DBMS prevents the same data from being stored in multiple places, reducing redundancy and ensuring data consistency.
2. Data Sharing:
    - *Advantage:* Authorized users can easily share and access data, promoting collaboration within an organization.
3. Easy Maintenance:
    - *Advantage:* DBMS is centrally managed, making it easier to update and maintain data, reducing the workload on individual users.
4. Time Savings:
    - *Advantage:* Development time is reduced as DBMS provides tools and features to efficiently handle data, improving productivity.
5. Backup and Recovery:
    - *Advantage:* Automatic backup systems protect data from hardware or software failures, and quick recovery options help restore lost data.
6. Multiple User Interfaces:
    - *Advantage:* DBMS offers different interfaces, such as graphical and application program interfaces, making it accessible to various users.

Disadvantages of DBMS:

1. Cost of Hardware and Software:
    - *Disadvantage:* Running a DBMS requires powerful hardware and software, which can be expensive.
2. Large Size:

- *Disadvantage:* DBMS occupies significant disk space and memory, demanding substantial resources for efficient operation.

3. Complexity:
    - *Disadvantage:* Implementing and managing a database system adds complexity to the overall IT structure.
4. Higher Impact of Failure:
    - *Disadvantage:* If a database fails due to issues like power outages or corruption, it can lead to significant data loss since all data is stored in a centralized database.

Related posts:

1. What is database management system (DBMS) ? What are the tasks performed by users in DBMS ?
2. What do you understand by database users ? Describe the different types of database users.
3. Who are data administrators ? What are the functions of database administrator ?OR Discuss the role of database adinistrator.
4. What is data abstraction ? Explain different levels ofabstraction.
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