Set Intersection Operation (\bigcap) :

- This operation returns a relation with tuples that exist in both input relations.
- Written as $r \square s = r (r s)$, where represents set difference.
- In simpler terms, it gives you common elements between two sets.

Natural Join Operation ([]):

- Combines two relations based on matching attributes.
- Forms a cartesian product, applies a selection on common attributes, and removes duplicates.
- Denoted by the join symbol [].
- In simpler terms, it's like combining two sets where certain attributes are equal.

Division Operation (÷):

- Denoted by the symbol ÷.
- Given two relations, $r \div s$ produces a relation on the schema R S.
- A tuple is in the result if it satisfies specific conditions related to projection and matching attributes.
- Essentially, it represents a kind of filtering or extracting operation based on certain conditions.

Assignment Operation (\leftarrow):

- Denoted by the symbol \leftarrow .
- Similar to assignment in programming languages, it allows you to store the result of a relational algebra expression into a variable.

• Useful for simplifying complex expressions and improving readability.

These operations provide a way to manipulate and combine relations in a relational database, helping to express more complex queries and operations.

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. 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. Explain the difference between database management system (DBMS) and file system.
- 8. Discuss the architecture of DBMS. What are the types of DBMS architecture ?
- 9. What are data models ? Briefly explain different types of data models.
- 10. Describe data schema and instances.
- 11. Describe data independence with its types
- 12. Describe the classification of database language. Which type of language is SQL?
- 13. Explain DBMS interfaces. What are the various DBMS interfaces ?
- 14. What is ER model ? What are the elements of ER model ? What are the notations of ER diagram ?
- 15. What do you understand by attributes and domain ?Explain various types of attributes used in conceptual data model.

- 16. Construct an ER diagram for University system.
- 17. Construct an ER diagram for the registrar's office
- Explain the primary key, super key, foreign key and candidate key with example. OR Define key. Explain various types of keys.
- 19. What do you mean by a key to the relation ? Explain the differences between super key, candidate key and primary key.
- 20. Explain generalization, specialization and aggregation. OR Compare generalization, specialization and aggregation with suitable examples.
- 21. What is Unified Modeling Language ? Explain different types of UML.
- 22. What is relational model ? Explain with example.
- 23. Explain constraints and its types.
- 24. Consider the following relations:
- 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