Basic Level (Beginner)

1. **What is SQL?**
   SQL (Structured Query Language) is a standard programming language used to interact with relation
2. **What is a Database?**
   A database is an organized collection of data, stored and managed electronically, allowing efficient s
3. **What are the types of SQL commands?**
   SQL commands are categorized into five types: DDL (Data Definition Language), DML (Data Manipu
4. **What is Primary Key?**
   A Primary Key is a column or set of columns that uniquely identifies each row in a table. It does not a
5. **What is Foreign Key?**
   A Foreign Key is a column or set of columns in one table that refers to the Primary Key in another tab
6. **What is UNIQUE Key?**
   A UNIQUE Key is a constraint ensuring all values in a column (or combination of columns) are distinc
7. **What is the difference between Primary Key and UNIQUE Key?**
   A Primary Key uniquely identifies each row, does not allow NULLs, and there's only one per table. A
8. **What is NOT NULL constraint?**
   The NOT NULL constraint ensures that a column cannot have NULL values, enforcing that every row
9. **What is Default Constraint?**
   The Default Constraint provides a default value for a column when no value is explicitly specified dur
10. **What is the difference between DELETE, TRUNCATE, and DROP?**
    * **DELETE:** Removes specific rows based on a WHERE clause, is slow, can be rolled back, and
    * **TRUNCATE:** Removes all rows from a table, is faster than DELETE, cannot be rolled back, an
    * **DROP:** Deletes the entire table, including its data and structure, is the fastest, and cannot be r
11. **What is the difference between WHERE and HAVING?**
    * **WHERE:** Filters individual rows *before* grouping, is a row-level filter, and is applied before GR
    * **HAVING:** Filters groups *after* grouping, is a group-level filter, and is applied after GROUP BY
12. **What are Joins in SQL?**
    Joins in SQL are used to combine data from two or more tables based on a related column between
13. **What is INNER JOIN?**
    INNER JOIN combines rows from two or more tables based on a matching condition, returning only t
14. **What is LEFT JOIN?**
    LEFT JOIN returns all records from the left table and the matching records from the right table. If no
15. **What is RIGHT JOIN?**
    RIGHT JOIN returns all records from the right table and the matching records from the left table. If no
16. **What is FULL JOIN?**
    FULL JOIN returns all records from both tables, combining matching rows and displaying NULL when
17. **What is Self Join?**
    Self Join is a type of join where a table is joined with itself to compare rows within the same table, oft
18. **What is Cross Join?**
    Cross Join returns the Cartesian product of two tables, combining every row from the first table with e
19. **What is Union and Union All?**
    UNION and UNION ALL combine the result sets of two or more SELECT statements.
    * **UNION:** Removes duplicate rows, is slower, and sorts the result.
    * **UNION ALL:** Includes duplicate rows, is faster, and does not sort the result.
20. **What is the difference between UNION and UNION ALL?**
    UNION removes duplicates and sorts results, making it slower. UNION ALL includes duplicates and d
21. **What is Normalization?**
    Normalization is the process of organizing data in a database to reduce redundancy and improve dat
22. **What is Denormalization?**
    Denormalization is the process of combining tables or adding redundant data to improve read perfor
23. **What is the difference between CHAR and VARCHAR?**
    * **CHAR:** Fixed-length character data type, always uses the specified length, and pads spaces. F

    *   **VARCHAR:** Variable-length character data type, uses only the space required for actual data,
24. **What is the difference between SQL and MySQL?**
    *   **SQL:** A standard programming language (Structured Query Language) used to manage and m
    *   **MySQL:** A Relational Database Management System (RDBMS) developed by Oracle that uses
25. **What is Auto Increment in SQL?**
    Auto Increment is a property in SQL that automatically generates a unique sequential number for a c

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English translation: The provided text only contained English, so no translation is needed.