

SQL Interview Questions & Answers

1. What is SQL?

Answer: Structured Query Language used to manage relational databases.

2. Difference between SQL and MySQL?

Answer: SQL: language; MySQL: relational database software.

3. What is a primary key?

Answer: Unique identifier for a table record.

4. What is a foreign key?

Answer: Column linking to primary key in another table.

5. Explain JOIN types.

Answer: INNER, LEFT, RIGHT, FULL joins combine tables.

6. What is normalization?

Answer: Organizing tables to reduce redundancy.

7. Difference between clustered and non-clustered index?

Answer: Clustered: sorts table data; Non-clustered: separate index.

8. What is a view?

Answer: Virtual table created by query.

9. What is a stored procedure?

Answer: Precompiled SQL code block.

10. What is a trigger?

Answer: SQL code executed automatically on events.

11. Explain ACID properties.

Answer: Atomicity, Consistency, Isolation, Durability.

12. What is a transaction?

Answer: Unit of work that must be committed or rolled back.

13. What is a subquery?

Answer: Query within a query.

14. What is GROUP BY?

Answer: Aggregates rows sharing a column value.

15. What is HAVING clause?

Answer: Filters groups after aggregation.

16. Difference between DELETE and TRUNCATE?

Answer: DELETE: row-by-row; TRUNCATE: fast table clear.

17. What is indexing?

Answer: Technique to speed up queries.

18. What is a union vs union all?

Answer: Union removes duplicates; union all keeps all.

19. What is a schema?

Answer: Database structure definition.

20. Explain foreign key constraints.

Answer: Maintains referential integrity between tables.