# 80+ SQL Interview Questions

*These questions cover about Database, Relational Database, and SQL operations. These are for Beginner and Medium Levels. The curated questions are both conceptual and practice-oriented. You can take advantage of these questions during interview preparations and practicing SQL as well.*

# What topics will we cover?

➊ Introduction to RDBMS

➋ Normalisation

➌ Introduction to SQL

➍ Tables and Fields

➎ Constraints

➏ DDL

➐ DML & DQL

➑ Joins

# Introduction to RDBMS



➊

➀ What is a database?

➁ What are the different types of databases?

➂ What is a DBMS?

➃ What is the difference between a database and a DBMS?

➄ What is RDBMS?

➅ Name a few popular RDBMS vendors.

➆ What is the ACID property in a database?

# Normalisation



➋

➀ What is normalisation?

➁ Why is normalisation necessary?

➂ What are the disadvantages of not performing normalisation?

➃ What are the different normal forms (NF)?

➄ What is denormalisation?

# Introduction to SQL



➌

➀ What is SQL?

➁ What is the use of SQL?

➂ Is SQL a programming language?

➃ What are the different parts of SQL?

Or,

➄ Group SQL commands into different parts.

➅ What is DDL?

➆ What is DML?

➇ What is DQL?

➈ What is DCL?

➉ What is TCL?

# Tables and Fields



➍

➀ What is a Table?

➁ What is a field in a Table?

➂ Write a SQL command to create a Table.

➃ How do you change the name of a Table?

➄ How to truncate a table?

➅ How to drop a table?

# Constraints



➎

➀ What is a constraint?

➁ What are the different levels of constraints?

➂ Give examples of various constraints.

➃ What is a primary key?

➄ What is a unique key?

➅ Difference between a primary key and a unique key.

➆ What is a foreign key?

➇ What is NULL value?

➈ What is NOT NULL constraint?

➉ Is blank space or Zero (0) same as NULL?

# DDL



➏

➀ Give some examples of DDL commands.

➁ Write the syntax for creating a table

➂ How to specify the default value for a column?

➃ How to specify a foreign key?

➄ How to specify a unique key?

➅ How to specify multiple columns as the primary key?

➆ What different constraints can you add to a column while creating a table?

➇ How to create a copy of a table? (both structure and data).

➈ You have 'n' tables and asked to create a separate table that will contain a few columns from these tables with data being copied.

➉ What is SELECT INTO used for? (In SQL Server)

➀➀ Difference between ALTER and RENAME.

➀➁ Can a previously nullable column be altered to a NOT NULL column? If so, explain the steps.

# DML & DQL



➐

➀ How do you insert rows into a table?

➁ What are the different syntaxes for inserting records into a table?

➂ What is the syntax to insert multiple records at a time?

➃ How to update data in a table?

➄ How to delete a row in a table?

➅ Difference between DELETE and TRUNCATE?

➆ Explain how DML operations are performed on a View.

Or,

➇ Are Views used only for SELECT queries?

➈ How to fetch rows from a table?

➉ What is a query condition? How to write it in SQL?

➀➀ How to sort the fetched records?

➀➁ What is grouping? How to write in SQL?

➀➂ How to find how many records are being fetched?

➀➃ How to find the maximum and minimum value for a field in fetched records?

➀➄ How to sum values in a field for all records?

# Joins



➑

➀ What is a join in SQL?

➁ What are the different types of joins?

➂ What is Inner Join?

➃ What is Left Outer Join?

➄ What is Right Outer Join?

➅ What is Full Outer Join?

➆ What is Cross Join?

➇ What is a Self Join?

➈ What is Equi Join?

➉ What is Natural Join?

➀➀ Explain semi-join.

➀➁ Explain anti-join.

➀➂ Given a query in Cross Join, convert it into an Inner Join.

➀➃ Given a query in Right Outer Join, convert it into a Left Outer Join.

➀➄ Convert an Inner Join into an Equi Join.

Or,

➀➅ What is required to convert an Inner Join into an Equi Join?

➀➆ What should be taken care of to improve the performance of queries containing Joins.

# Disclaimer

⬘ The questions covered here are both conceptual and practical. You should practice and solve problems to become a skilled programmer.

⬙ I don't claim that only these types of questions are asked during interviews.