

# 25 Lecture - CS403

## Important Subjective

### 1. **What is SQL? Explain the different components of SQL.**

Answer: SQL stands for Structured Query Language, it is used to manage relational databases. The different components of SQL include Data Definition Language (DDL), Data Manipulation Language (DML), Data Control Language (DCL), and Transaction Control Language (TCL).

### **Define the term 'Schema' in SQL.**

Answer: A Schema in SQL is a logical container for a database that allows users to logically group the objects such as tables, views, indexes, etc. It is a collection of database objects, including tables, indexes, and views.

### **What is a subquery in SQL?**

Answer: A subquery is a query that is nested inside another SQL statement. It is also known as an inner query, and it is usually placed inside a parenthesis.

### **What is a view in SQL?**

Answer: A view is a virtual table that is based on the result of an SQL statement. Views are not physical tables; they are derived from one or more tables or views.

### **What is a trigger in SQL?**

Answer: A trigger in SQL is a set of SQL statements that are executed automatically in response to a specified event. A trigger can be used to implement a variety of actions, such as inserting, updating, or deleting data in a table.

### **What is normalization in SQL?**

Answer: Normalization in SQL is the process of organizing data in a database so that data is stored in the most efficient way possible. The main objective of normalization is to minimize data redundancy and improve data integrity.

### **What is a primary key in SQL?**

Answer: A primary key in SQL is a column or set of columns in a table that uniquely identifies each row in the table. The primary key can be a single column or a combination of columns.

### **What is a foreign key in SQL?**

Answer: A foreign key in SQL is a column or set of columns in a table that refers to the primary key of another table. It is used to establish a relationship between two tables.

### **What is the difference between WHERE and HAVING clause in SQL?**

Answer: The WHERE clause is used to filter records before they are grouped, while the HAVING clause is used to filter records after they have been grouped.

### **What is an index in SQL?**

Answer: An index in SQL is a data structure that is used to improve the speed of data retrieval operations on a table. It is similar to an index in a book that allows you to quickly find

information. An index is created on one or more columns of a table.