

# 38 Lecture - CS403

## Important Subjective

1. **What is an ordered index in a database?**

Answer: An ordered index is a type of index used to store data in a specific order based on one or more columns. This allows for faster retrieval of data based on the order of the index.

**How are ordered indices implemented in a database?**

Answer: Ordered indices can be implemented using a B-tree or a similar data structure.

**What is a primary key index in a database?**

Answer: A primary key index is an index that includes only unique values of a particular column and is used to enforce the uniqueness constraint on that column.

**What is a clustered index in a database?**

Answer: A clustered index is an index that stores data in a specific order based on a particular column, allowing for fast retrieval of data in that order.

**What is the difference between a clustered index and a non-clustered index?**

Answer: A clustered index stores data in a specific order, while a non-clustered index does not. Non-clustered indexes are used to speed up data retrieval operations for non-clustered queries.

**How do ordered indices improve query performance?**

Answer: Ordered indices allow for faster retrieval of data based on the order of the index, making it useful for range queries and sorting operations.

**What is the downside of using too many ordered indices in a database?**

Answer: Using too many ordered indices can increase storage requirements and slow down insert and update operations.

**Can multiple ordered indices be created on the same table in a database?**

Answer: Yes, multiple ordered indices can be created on the same table in a database.

**What is a composite index in a database?**

Answer: A composite index is an index that is based on multiple columns.

**How can index fragmentation affect database performance?**

Answer: Index fragmentation can slow down data retrieval operations, making it important to regularly defragment and maintain ordered indices.