24 Lecture - CS403

Important Mcqs

1. **What is vertical partitioning in a database?**
   A) Dividing tables horizontally
   B) Dividing tables vertically
   C) Dividing data into multiple databases
   D) None of the above
   Answer: B) Dividing tables vertically

   Which of the following is a benefit of vertical partitioning?
   A) Improved data redundancy
   B) Improved data consistency
   C) Improved query performance
   D) Reduced storage space
   Answer: C) Improved query performance

   What is another name for vertical partitioning?
   A) Row partitioning
   B) Column partitioning
   C) Table partitioning
   D) None of the above
   Answer: B) Column partitioning

   When is vertical partitioning particularly useful?
   A) When a database contains a large number of rows
   B) When a database contains a small number of columns
   C) When certain columns are accessed more frequently than others
   D) When a database is used for infrequent data access
   Answer: C) When certain columns are accessed more frequently than others

   Which of the following is a potential drawback of vertical partitioning?
   A) Increased storage space
   B) Reduced query performance
   C) Increased data redundancy
   D) Reduced data consistency
   Answer: A) Increased storage space

   What is the main goal of vertical partitioning?
   A) To improve data redundancy
   B) To improve query performance
   C) To improve data consistency
   D) To reduce storage space
   Answer: B) To improve query performance

   Which of the following is an example of vertical partitioning?
   A) Splitting a table into multiple tables based on a date range

B) Splitting a table into multiple tables based on location
C) Splitting a table into multiple tables based on column values
D) None of the above
Answer: C) Splitting a table into multiple tables based on column values

What is a potential challenge of managing a vertically partitioned database?
A) Ensuring data consistency across partitions
B) Managing large amounts of data within a single table
C) Maintaining sufficient storage capacity
D) None of the above
Answer: A) Ensuring data consistency across partitions

Which of the following is a benefit of vertical partitioning in a distributed database?
A) Improved query performance
B) Improved data redundancy
C) Improved data consistency
D) None of the above
Answer: A) Improved query performance

What is a key consideration when deciding whether to use vertical partitioning?
A) The number of rows in the database
B) The number of columns in the database
C) The access patterns for the data
D) The amount of available storage space
Answer: C) The access patterns for the data