

45 Lecture - CS403

Important Mcqs

1. What is locking in a database management system?

- a. A mechanism to prevent transactions from accessing shared resources
- b. A mechanism to prevent transactions from accessing only exclusive resources
- c. A mechanism to allow transactions to access shared resources simultaneously
- d. A mechanism to allow transactions to access exclusive resources simultaneously

Answer: a

Which of the following is not a type of lock?

- a. Shared lock
- b. Exclusive lock
- c. Read lock
- d. Write lock

Answer: c

What is the purpose of a shared lock?

- a. To allow multiple transactions to read the same resource simultaneously
- b. To prevent multiple transactions from reading the same resource simultaneously
- c. To allow multiple transactions to write to the same resource simultaneously
- d. To prevent multiple transactions from writing to the same resource simultaneously

Answer: a

What is the purpose of an exclusive lock?

- a. To allow multiple transactions to read the same resource simultaneously
- b. To prevent multiple transactions from reading the same resource simultaneously
- c. To allow multiple transactions to write to the same resource simultaneously
- d. To prevent multiple transactions from writing to the same resource simultaneously

Answer: d

What is a deadlock?

- a. A situation where two or more transactions are waiting for each other to release locks
- b. A situation where a transaction is waiting for a lock that is held by another transaction
- c. A situation where a transaction is waiting for a lock that has already been released
- d. A situation where a transaction is waiting for a resource that is not available

Answer: a

What is a timeout in locking?

- a. A mechanism to release a lock after a specified time period
- b. A mechanism to acquire a lock after a specified time period
- c. A mechanism to prevent a transaction from acquiring a lock
- d. A mechanism to prevent a transaction from releasing a lock

Answer: a

What is the purpose of lock escalation?

- a. To reduce the number of locks held by a transaction

- b. To increase the number of locks held by a transaction
- c. To release all locks held by a transaction
- d. To prevent a transaction from acquiring any locks

Answer: a

What is the difference between a shared lock and an exclusive lock?

- a. A shared lock allows multiple transactions to read the same resource, while an exclusive lock prevents multiple transactions from writing to the same resource simultaneously
- b. A shared lock allows multiple transactions to write to the same resource simultaneously, while an exclusive lock prevents multiple transactions from reading the same resource simultaneously
- c. A shared lock allows multiple transactions to access the same resource simultaneously, while an exclusive lock prevents any other transactions from accessing the resource until the lock is released
- d. A shared lock allows a transaction to access a resource exclusively, while an exclusive lock allows multiple transactions to access the same resource simultaneously

Answer: c

What is the purpose of lock granularity?

- a. To determine the size of the resource that will be locked
- b. To determine the type of lock that will be used
- c. To determine the duration of the lock
- d. To determine the transaction that will hold the lock

Answer: a

What is the purpose of a lock manager in a database management system?

- a. To manage the acquisition and release of locks
- b. To manage the execution of transactions
- c. To manage the storage of data
- d. To manage the retrieval of data

Answer: a