

DBMS final Qns analysis

Part A

- Domain constraint Create ~~***~~ (Give SQL DDL definition)
- tests that must be made to preserve Referential Integrity: for delete/update ~~***~~ operation.
- Identify the types of functional dependencies.
- trigger and assertion ~~***~~ define (code).
- 1NF to 3NF ~~***~~
- different authorization techniques could deployed to the user and revoked.
- Armstrong Axioms helpful in Normalization ~~***~~
- different Security level to protect database
- Draw authorization graph.

Part B

- Construct B+ tree, Insert and delete in B+ tree
- Assess the quality of an index using index evaluation metrics
- Transaction ACID properties ***
- Lock-based protocol support concurrency control
- How deadlock and starvation occur in lock-based protocol.
- How the shadow copy technique works ***
- Transaction rotates *** rotate diagram ***
- multilevel indexing preferable *
- How could resolve problem of Skew. *
- How could Lock manager handle starvation
- write equivalent Schedule ($T_1 T_2$ scheduled). *
- why Concurrency is important
- Compare homogenous and heterogeneous *
- Two phase locking protocol ensures conflict serializability

Part B

- Compare Primary and Secondary Indices *

- Explain multilevel indexing

- A transaction should not 4 properties to be successful transaction. Explain

- Solve problems of concurrency in traj

How the database can be designed to avoid the above problems

Transaction isolation levels

Serializable level indexing technique

How could we solve the problem of 2 phase

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(It is a schedule)

How could we solve the problem of 2 phase