

# Quizlet

## TRANSACTION MANAGEMENT (WEEK 8)

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### Key concepts:

Data    Hard Disk    Periods

### Terms in this set (37)

transaction

a logical unit of work composed of one or more SQL statements

consistent database state	all data integrity constraints are satisfied
ACID (transaction properties)	Atomicity, Consistency, Isolation, Durability
Atomicity	requires all parts of a transaction to be treated as a single, indivisible, logical unit of work (All parts of a transaction must be completed or the entire transaction is aborted)
Consistency	All data integrity constraints are satisfied
isolation	data item used by one transaction is not available to others until the first one ends
durability	ensures that once transaction changes are done and committed, they cannot be undone or lost (even in the event of a system failure)
serializability	When the transaction can be serialized to achieve the same result
serialized transaction	when one transaction executes all operations concurrently before the next transaction begins
write through	when the database memory is immediately updated by the transaction during execution

transaction log	A feature used by the DBMS to keep track of all transaction operations that update the database.
REDO list	transactions that were committed after the checkpoint that can be redone
UNDO list	transactions that were not committed by the time of failure
Checkpoints	every 15-20 minutes the results of committed transactions are logged, as well as a checkpoint record
what happens at the time of a system failure?	oracle rolls back uncommitted transactions and rolls forward transactions transactions committed after the previous checkpoints

**THIS SET IS OFTEN IN FOLDERS WITH...****Database concepts  
(Week 1)**

31 terms

☐ harriettemellor**THE RELATIONAL MODEL  
(WEEK 2)**

16 terms

☐ harriettemellor**ER MODEL (WEEK 3)**

28 terms

☐ harriettemellor**NORMALISATION (WEEK  
5)**

14 terms

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