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Session

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Synonyms

[Database interaction](#)

Definition

A database session is sequence of interactions between a client and a database server. The session captures the state of the client's in-flight SQL commands.

Key Points

The session state may contain database objects, such as table cursor, or temporary relations that are accessible only within the session. For efficiency, some database engines maintain session state per connection rather than per client. In this case, it is called connection state.

A client expects to see the effects of its previous updates to the database. This concept is called session consistency [1] and is illustrated in the following example. A client issues a transaction to buy a book. Then, it sends a subsequent transaction to see the list of ordered books. Session consistency requires the list to contain that book which the client bought. Session consistency is trivial to implement in a centralized database system, but becomes harder in a distributed database system [2].

Cross-References

- [Connection](#)
- [Strong Consistency Models for Replicated Data](#)

Recommended Reading

1. Daudjee K, Salem K. Lazy database replication with ordering guarantees. In: Proceedings of the 20th International Conference on Data Engineering; 2004. p. 424–35.
2. Krikellas K, Elnikety S, Vagena Z, Hodson O. Strongly consistent replication for a bargain. In: Proceedings of the 26th International Conference on Data Engineering; 2010. p. 52–63.