Managing Basic Isolation Levels

Gerald Britton

IT SOLUTIONS DESIGNER, SQL SERVER SPECIALIST

@GeraldBritton www.linkedin.com/in/geraldbritton

Overview

Introducing isolation levels

Anomalies

READ UNCOMMITTED (NOLOCK)

READ COMMITTED
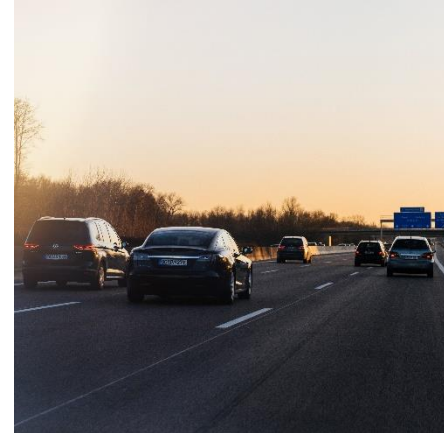
REPEATABLE READ

SERIALIZABLE

SNAPSHOT

Introducing Isolation Levels

READ UNCOMMITTED

READ COMMITTED
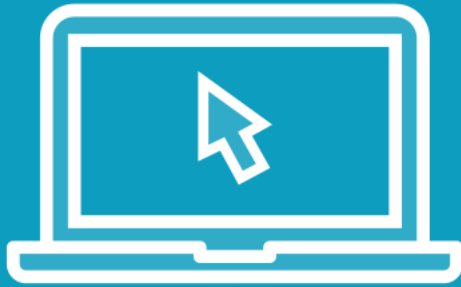
REPEATABLE READ

SERIALIZABLE

Understanding Read Anomalies

Dirty reads

(not committed)

Non-repeatable reads

(don't see the same row twice)

Phantom reads

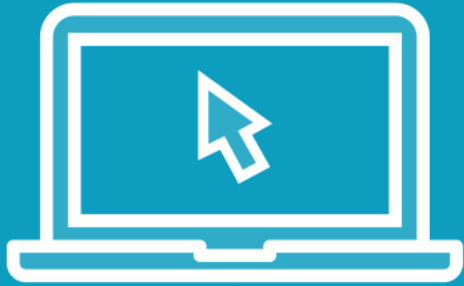**(new rows from another session)**

Demo

READ UNCOMMITTED

(NOLOCK)

Schema stability lock (Sch-S)
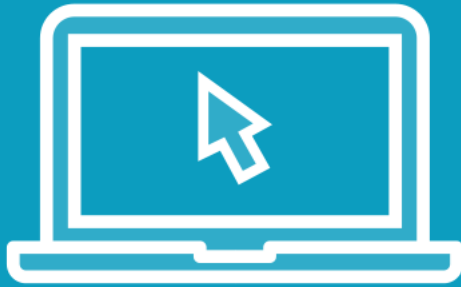
Why use it?

When *not* to use it?

SELECT * FROM Orders.Orders
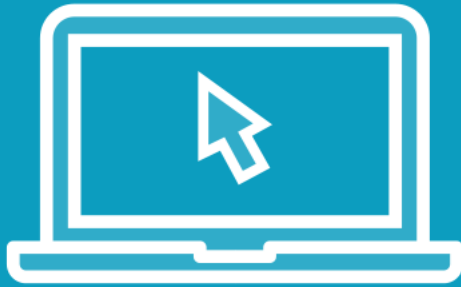   WITH (READUNCOMMITTED);

Demo

READ COMMITTED

Demo

REPEATABLE READ

Phantom Read?

Demo

SERIALIZABLE

Summary

Isolation Levels

READ UNCOMMITTED

READ COMMITTED

REPEATABLE READ

SERIALIZABLE

Anomalies

Lower concurrency due to locking

Pessimistic concurrency