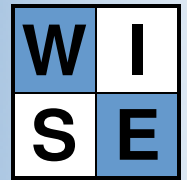


- COURSE CODE:** SQSSNA
- COURSE TITLE:** SQL Server 2005/2008 – Snapshot Isolation
- AUDIENCE:** Developers, programmers and database administrators.
- PREREQUISITES:** At least six (6) months of relational database experience.
- DURATION:** 1 day
- SUMMARY:** This presentation details how to use SQL Server's isolation levels for lock avoidance and read consistency, mainly in OLTP environments.
- OBJECTIVES:** Upon completion of this presentation, the participant should understand SQL Server's:
- Concurrency controls
  - Isolation levels
  - Snapshot isolation
  - Row versioning
  - Isolation level usage and good practices
  - How to monitor isolation levels
- FORMAT:** Lecture



## 1. REVIEW OF ISOLATION LEVEL FUNDAMENTALS

- Prior to SQL Server 2005
- Per SQL Server 2005
- Optimistic vs. pessimistic locking
- Snapshot isolation advantages/disadvantages
- Row versioning advantages/disadvantages
- Typical uses of snapshot isolation

## 2. SQL SERVER ISOLATION LEVELS

- Read uncommitted
- Read committed (with locks)
- Read committed (with snapshot)
- Repeatable read
- Snapshot
- Serializable

## 3. ROW VERSIONING

- Definition
- When to use read committed
- Advantages/disadvantages of row versioning
- When to use snapshot versioning

## 4. SNAPSHOT ISOLATION & ROW VERSIONING

- Definition
- How enables
- How it works
- Using lock hints
- When to use
- How to monitor and tune