

# Special Topics in SQL Server: Optimization

Course Objectives .....	1
Introduction.....	2
Performance and Indexes .....	2
Execution Plan .....	4
Which Columns Should You Index? .....	9
Selectivity Ratio.....	9
Statistics of Indexes .....	11
Individual Column Indexes or Composite Indexes.....	13
Index Hints.....	15
Index Tips .....	16
Good Queries and Bad .....	17
Exercise 1 .....	24
Functions.....	25
Exercise 2.....	28
Locking .....	29
Shared Locks.....	29
Update Locks .....	29
Exclusive Locks .....	30
Intent Locks .....	30
Schema Locks .....	30
Bulk Update Locks .....	30
Reducing Lock Contention .....	30
Exercise 3.....	32
SQL Server Profiler .....	33
Defining a Trace .....	33
Exercise 4.....	38
Showplan.....	39
Analyzing Stored Procedures.....	39
Appendix A: Sample Tables .....	42
Sales .....	43
Appendix B: Showplan Definitions .....	46
Appendix C: Solutions to Exercises .....	48