

SQLskills Online Immersion Event

IEQuery: Immersion Event on Fixing Slow Queries,
Inefficient Code, and Caching/Statistics Problems

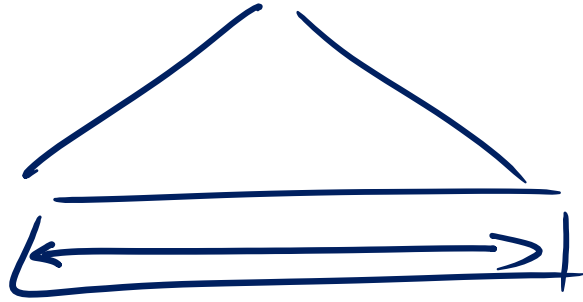
**Part III: How to Differentiate Caching / Statistics
problems and SOLVE THEM!**

WHITEBOARD DRAWING
+ Session Setting Slide

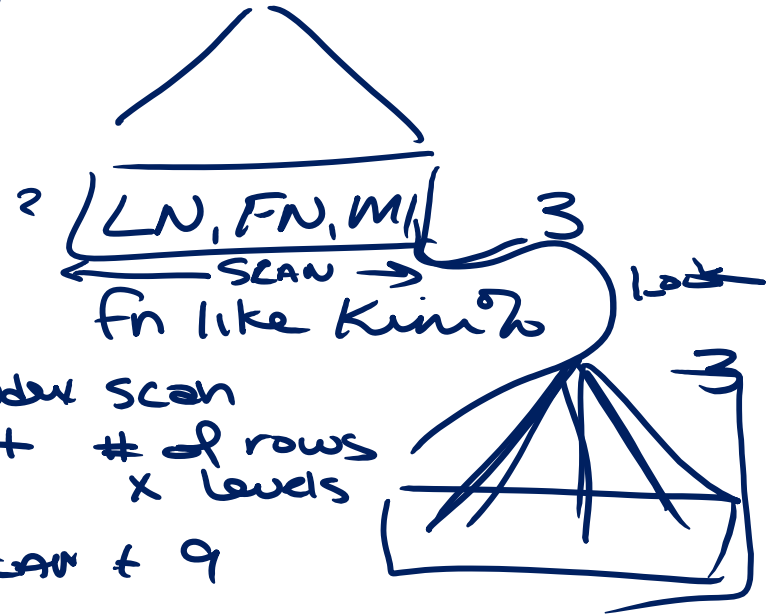
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Column-level distribution from left-based density subsets...

This relates to the demo... I showed that even though the left-based density describes last names as NOT unique BUT the combination of last name & first name IS unique – that doesn't imply anything about first names alone. I could have created a data set of firstnames of Kima, Kimb, Kimc and then multiplied that with last names (Tripp, Randal, Smith) and I would have had similar statistics for last name alone and for the combination of last name, first name. SQL Server does NOT gamble on this – SQL Server creates column level statistics on first name.

Session Settings and Client Connectivity

| SET Options | Required for Perf Features | Default Server Value | SSMS | SQLCMD | SQL Server Agent | Default OLE DB and ODBC Value | Default DB-Library Value | .NET / Your App |
|---|----------------------------|----------------------|------|------------|------------------|-------------------------------|--------------------------|-----------------|
| ANSI_DEFAULTS ² | NO | OFF | OFF | OFF | OFF | OFF | OFF | ? |
| ANSI_NULL_DFLT_ON ² | NO | OFF | ON | ON | ON | ON | OFF | ? |
| ANSI_NULLS ^{1, 3} | YES = ON | OFF | ON | ON | ON | ON | OFF | ? |
| ANSI_PADDING ^{2, 3} | YES = ON | ON | ON | ON | ON | ON | OFF | ? |
| ANSI_WARNINGS ² | YES = ON | OFF | ON | ON | ON | ON | OFF | ? |
| ARITHABORT ² | YES = ON | ON | ON | OFF | OFF | OFF | OFF | ? |
| CONCAT_NULL_YIELDS_NULL ^{2, 3} | YES = ON | OFF | ON | ON | ON | ON | OFF | ? |
| NUMERIC_ROUNDABORT ² | YES = OFF | OFF | OFF | OFF | OFF | OFF | OFF | ? |
| QUOTED_IDENTIFIER ¹ | YES = ON | OFF | ON | OFF | OFF | ON | OFF | ? |

(2) If different than existing plan in cache, will be recompiled and added to the plan cache; performance may vary at execution.

(3) In a future version of SQL Server, these options will always be ON and any applications that explicitly set the option to OFF will produce an error. Avoid using this feature in new development work and plan to modify applications that currently use this feature.