Execution Plan

Index Scan

Select All

Missing covering index

Filtered Index: CREATE NONCLUSTERED INDEX IX\_optItems\_isActive optItem (is\_active) WHERE is\_active = 1

Table Scan

May need clustered index or covering index.

Select All or close: it’s faster than non-clustered index.

Clustered Index Scan

Similar to Table Scan but in general, it’s still faster than Table Scan due to not all rows need to be searched and rows in a table with clustered index are sorted (if ORDER BY is used).

Key Lookup ( Bookmark lookup) and RID (Record Identifier lookup)

Missing columns in index

Index Seek

Fast

Clustered Index Seek

Fastest

Icon Details:

I/O and CPU cost are more for query optimizer

Number of Executions: depends on how you write the query

Actual Number of Rows vs Estimated Number of Rows: statistics is outdated

Create Index

Columns in JOIN and WHERE should be included in regular columns

Columns in SELECT should be included in INCLUDE

Columns in GROUP BY or ORDER BY should be included in INCLUDE but in regular columns if they are important and have

EXISTS vs IN

TABLE VARIABLE vs TEMP TABLE

Select item\_id, max(extra\_text\_1)

From eBaseline

If extra\_text\_1 is less than 900 bytes, it is ok. If it is more than 900 bytes, it will increase scan count drastically.