Free Your Spark App from the clutches of *'spark.sql.shuffle.partitions'*

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Curse of 'spark.sql.shuffle.partitions'

Although one can tune 'spark.sql.shuffle.partitions' per Spark application, there is no inbuilt facility to tune shuffle partitions per shuffle stage.

Computation and amount of shuffle data varies from one shuffle stage to another within a single execution instance of a Spark application.

Therefore, the optimum number of shuffle partitions may be different from one shuffle stage to another.

However, all shuffle stages are locked to shuffle partitions as dictated by 'spark.sql.shuffle.partitions.

Mitigation strategies

- Hardcoded Adjustment of Partitions using explicit partitioning only transformations

- Configurable Adjustment of Partitions using explicit partitioning only transformations

- Enabling Dynamic Coalescing of Adaptive Query Execution (AQE).