Parallel Streams

Parallel streams allow you to perform operations on collections in parallel, thus potentially speeding up data processing.

The key advantages of parallel streams are:

- Improved performance on multi-core CPUs.

- Simplified code for concurrent processing.

- Automatic workload distribution among available threads.

Why a parallel stream may not always be faster than a serial stream

- Parallel streams introduce some overhead, such as the need to create and manage multiple threads. This overhead can be significant for small arrays.

- Parallel streams need to synchronize their operations to ensure that the results are correct. This synchronization can also add overhead, especially for small arrays.