

The graph shows how increasing the number of threads affects execution time. At first, adding more threads makes a big difference, especially up to 4 threads, where we see the biggest speedup. However, after that, the improvements slow down, and by the time we reach 16 threads, the execution time actually starts to go up a bit. This happens because managing too many threads creates overhead, and each thread is doing less work, so the benefit of adding more threads gets canceled out. Overall, the project shows that while multithreading can boost performance, there's a point where adding more threads doesn't help and can even slow things down.