

- Notes:

The assignment involved porting a C++ PointN class to Java, implementing single-threaded and multithreaded merge sort algorithms for n-dimensional points. We validated correctness through tests and measured execution times. The report details successful conversion, algorithm implementation, and a comparative analysis of single and multithreaded sorting performance.

Also we used the concept of threads in Java to implement merge sort. Analysed how it affects the performance when we use multithreading rather than using a single thread.

- Report:

Implemented merge sort in Java.

Porting the code from cpp to java was quite challenging as there was complete change in the syntax and adapting to that was quite fun. Ensuring the functionalities of the classes were quite complex.

Implementing Multi-Threading merge sort was quite testing and required patience and also thread management.

Using 4 threads on my device saw a huge difference in the performance when switched from single threaded merge sort, it took less than half the time in running the program in multi threading.