Parallel Programming

Assignmnet 1 – Open MultiProcessing (OpenMP)

Q3 ) DAXPY Loop

In this task the maximum speedup is obtained at different values for number of threads as the amount of parallelization keeps varying. On an average the maximum speedup is obtained at 4 threads parallelisation. The speedup keeps increasing from 2 to 4 and then it decreases as the number of threads further increase, and finally it stagnates at a particular speedup, after which increasing the number of threads doesn’t affect the speed up anymore. This happens because the L3 cache that is shared acts as a bottleneck to the process thus preventing the speedup to further increase.

Q4) Matrix Multiply