Assignment 4: Openmp:

1.prefix sum:

Followed two sweep approach :

First forward sweep and then back ward sweep used open mp to implement the following algorithm images are inserted down below.

The plots are not showing high speed ups because the loopy nature of open mp dependency graph is different from task reperesentation of dependency graph that is when we implement the program in loopy open mp changes the dependency graph lot different than what we expect that is the number of dependencies become lot higher so no speedups.

2.Merge sort:

Not able to parallelize the merge sort I tried my level best however not able to do it so I implemented the serial merge and make the program loopy without using recursion by handling all corner cases and edge cases.The serious reason is merge procedure not able to parallelize this procedure so not able to get speed ups.

1.Top down and bottom up: 

