Write the prefix sum algorithm to calculate the accumulated sum of an input array (of size greater than 1 mil) use streams to distribute data among different streams.

You are required to implement the prefix sum algorithm using different methods and compare their performance:

1. Compare work efficient and work inefficient implementations.
2. Compare work efficient algorithm but using different memories:
   1. Pageable memory
   2. Unified memory
   3. Zero mapped memory
   4. Pinned memory
3. Use streams to distribute the data among different streams
4. (BOUNS) compare between thread coarsening and using streams