

## **MULTITHREADING**

**(Q.1,2,3 & 9 are from previous fork assignment questions which are to be implemented in multithreaded fashion)**

1. Generate Armstrong number generation within a range.
2. Ascending Order sort and Descending order sort.
3. Implement a multithreaded version of binary search. By default, you can implement a search for the first occurrence and later extend to support multiple occurrence (duplicated elements search as well)
4. Generation of Prime Numbers upto a limit supplied as Command Line Parameter.
5. Computation of Mean, Median, Mode for an array of integers.
6. Implement Merge Sort and Quick Sort in a multithreaded fashion.
7. Estimation of PI Value using Monte carlo simulation technique (refer the internet for the method..) using threads.

### **Optional:**

8. Computation of a Matrix Inverse using Determinant, Cofactor threads, etc.
9. Read upon efficient ways of parallelizing the generation of Fibonacci series and apply the logic in a multithreaded fashion to contribute a faster version of fib series generation.
10. Longest common sub sequence generation problem using threads.