

# **Assignment Questions**

## **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 subsequence generation problem using threads.**