**Write programs for the followings:**

**Assignment 1:** Exponential versus Polynomial Running time solution of any problem(chosen by you).

**Assignment 2:** To create Heaps and priority queue.

**Assignment 3:** Counting sort.

**Assignment 4:** Merge Sort.

**Assignment 5:** Fraction Knapsack algorithm.

**Assignment 6:** Matrix Chain Multiplication /Longest Common Subsequence algorithm.

**Assignment 7:** Graph representation and traversal (BFS/DFS any one).

**Assignment 8:** Find the Kth smallest element in worst case linear time.

**Assignment 9:** Randomized Quick Sort.

**Assignment 10:** Convex Hull computation from a given set of n points in 2D.