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.