



Hashtables Assignment

1. Implement Maps using Hashtables
2. Write an efficient function for extracting unique characters from a given string.
3. You are given with an array of integer contain number in no particular order. Write a program find the longest possible sequence of consecutive numbers using the numbers from the array. Best solution takes $O(n)$ time. □E.g.

Input = [2,12,9,16,10,5,3,20,25,11,1,8,6] Output=[8,9,10,11,12]

□Input = [15, 13, 23, 21, 19, 11, 16] Output = [15, 16]

4. Given an array find the number which comes with maximum frequency. It must work in $O(n)$ time complexity.
 - a. For a sorted array
 - b. For an unsorted array
5. Given an array find all pairs of elements whose difference is equal to a given number k . i.e. find number of possible combinations of i & j , s.t. $a[i] - a[j] = k$