

1. Write a program to print no of comparisons done to search a key in i. linear search ii. binary search
2. Create array of employees and search employee by i. empid ii. name
3. find the first non-repeating element: Input: { 1, 2, 3, -1, 2, 1, 0, 4, -1, 7, 8 } Output: 3
4. to find rank of an element in a stream of integers. rank: rank of a given integer "x", in stream is "total no. of ele's less than or equal to x (including x).  
  
Input: { 10, 20, 15, 3, 4, 4, 1 } Output: Rank of 4 is: 4
5. Implement binary search algorithm if array is sorted in descending order.
6. Implement linear search algorithm to find the nth occurrence of the given element. If nth occurrence is not found, return -1. int linearSearch(int[] arr, int key, int n); Example: arr = {88, 33, 66, 99, 11, 77, 22, 55, 11};
  - if key = 11 and n = 2, then return index 8
  - if key = 11 and n = 1, then return index 4
  - if key = 11 and n = 3, then return index -1
7. Write a function to return number of comparisons for a bubble sort. Write another function to return number of swapping for bubble sort. Compare result for the same input array
8. Modify the insertion sort algorithm to sort the array in descending order
9. Write a function to sort employees by their salary.