Q.1. What are the types of searching? Write the C code of the searching techniques with an example?
Q.2. Write 2 real world use cases of Binary search.
Q.3. Write the C programs with for Insertion sort, bubble sort, and selection sort for an array of integers
Q.4. Analyze the complexities of the these sorting algorithms
Q.5. Explain why Insertion Sort is considered efficient for nearly sorted arrays
Q.6. Modify the Insertion Sort algorithm to sort in descending order.
Q.7. Compare Selection Sort with Bubble Sort in terms of comparisons and swaps.
Q.8. Describe a real-world scenario where Linear Search would be more suitable than Binary Search.
Q.9 Modify the Linear Search function to return the number of occurrences of a given element in an array.
Q.10 Implement a recursive version of Binary Search and compare it with the iterative version.
Q.11. What will the Binary Search function return if the element is not found in the array?