**Data File Structures**

**Lab File**



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Roll No - 53

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Q 2. Write a C Program to implement Linear Search

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Q 5. Write a C Program to implement a Stack and its operations using an array

Q 6. Write a C Program to implement a Queue using an array

Q 7. Write a C Program to find factorial of a given number n using:

(i) Recursion

(ii) Iteration

Q 8. Write a C Program to find Fibonacci term of a given index n using

(i) Recursion

(ii) Iteration

Q 9. Write a C Program to implement Binary Search

Q 10. Write a C Program to implement Insertion Sort

Q 11. Write a C Program to implement Selection Sort

Q 12. Write a C Program to

(i) To create a Linked List of Integers

(ii) To insert an integer at the end of the list

(iii) To delete first element of the list

(iv) To reverse the links of the given Linked List

Q 13. Write a C Program to implement Merge Sort

Q 14. Write a C Program to implement Quick Sort

Q 15. Write a C Program to implement a Queue using two Stacks

Q 16. Write a C Program to

(i) To input a Binary Tree from the user

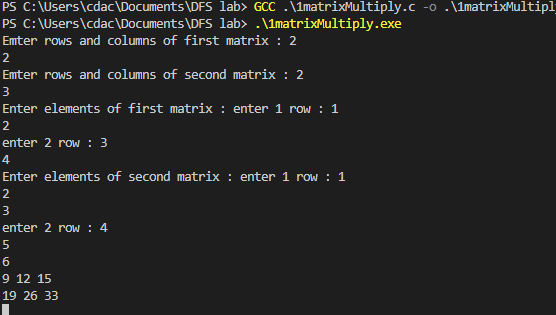
(ii) Preorder Traversal

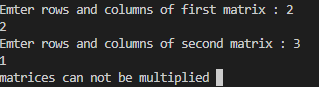
(iii) Inorder Traversal

(iv) Postorder Traversal

1. Write a program to show multiplication of 2 matrices in C.

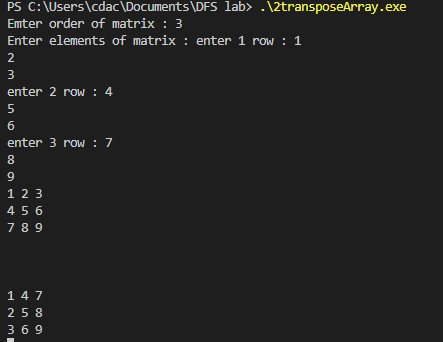
**OUTPUT :**

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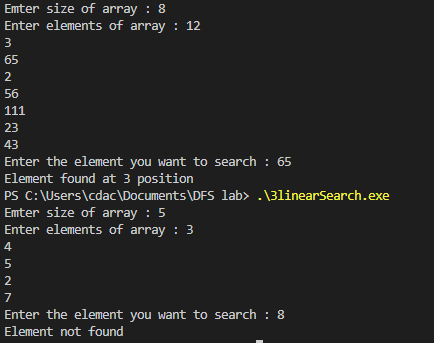
2. Write a Program in C to transpose a square matrix .

**OUTPUT:**

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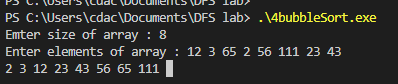
3. Write a program in C to implement Linear Search.

**OUTPUT:**

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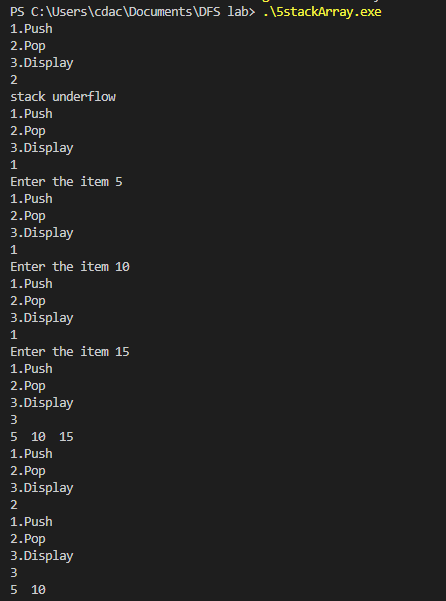
4. write a program in C to implement Bubble Sort.

**OUTPUT:**



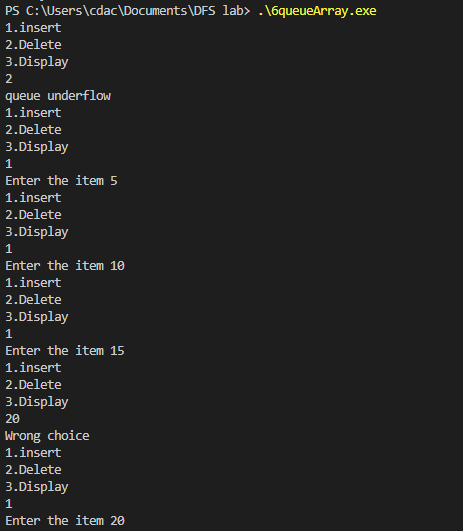
5. Write a program to implement a stack and its operations using an array in C.

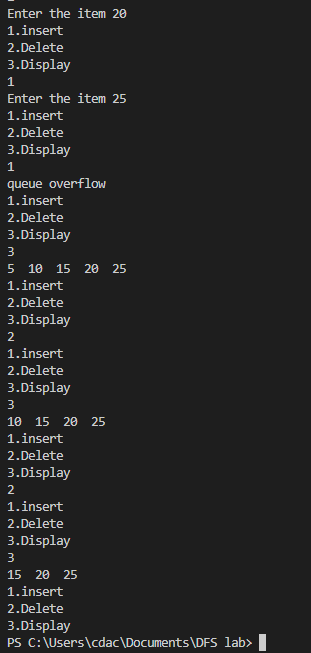
**OUTPUT:**



6. Write a program to implement a Queue and its operations using an array.

**OUTPUT:**

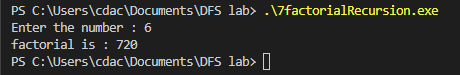
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7. Write C program to find factorial of n using :

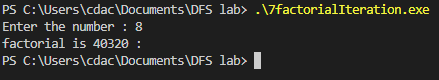
(i)Recursion

**OUTPUT:**

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(ii) Iteration

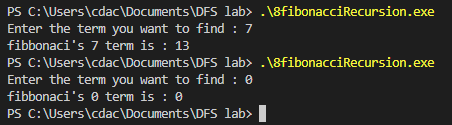
**OUTPUT:**



8. Write C programs to compute nth Fibonacci using :

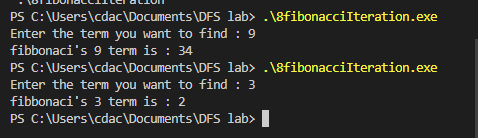
(i) Recursion

**OUTPUT:**



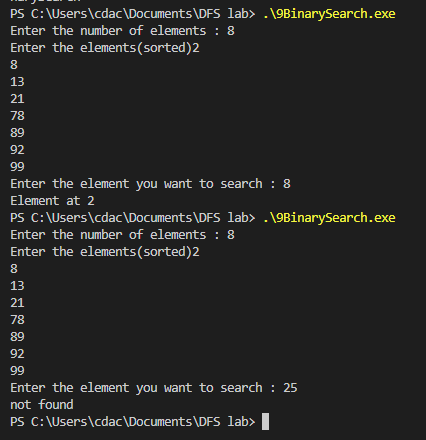
(ii) Iteration

**OUTPUT:**

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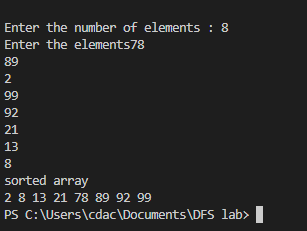
9. Write a program in C to implement Binary Search.

**OUTPUT:**



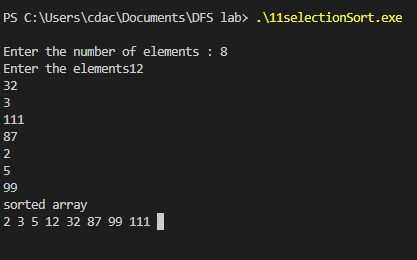
10. Write a program in C to implement Insertion sort.

**OUTPUT:**

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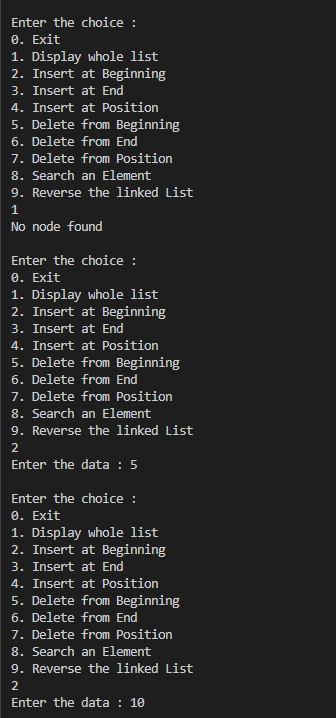
11 . Write a program in C to implement Selection Sort.

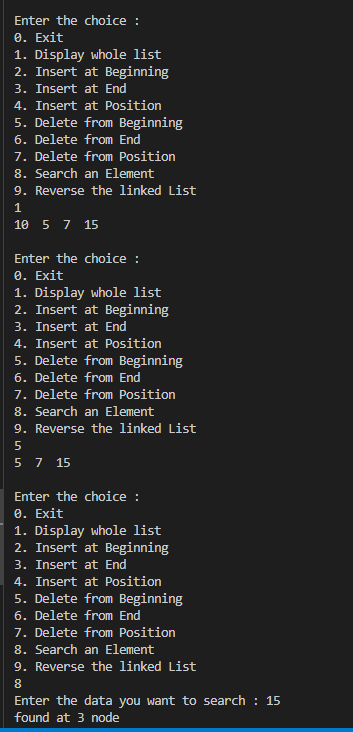
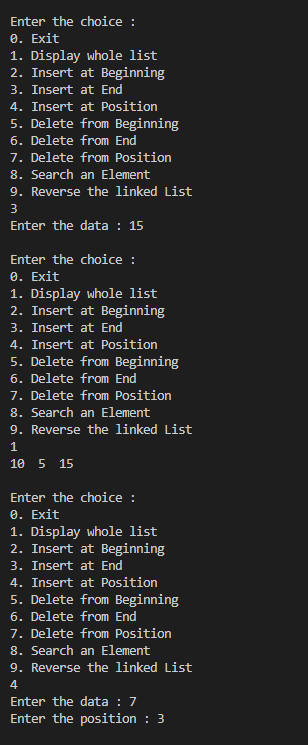
**OUTPUT:**

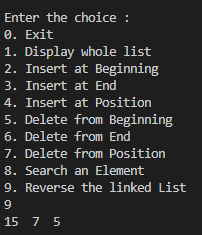
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12. Write a program to implement linked list and its operations in C.

**OUTPUT:**

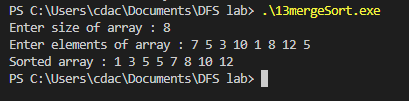
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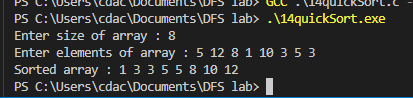
13. Write a program in C to implement merge sort.

**OUTPUT:**



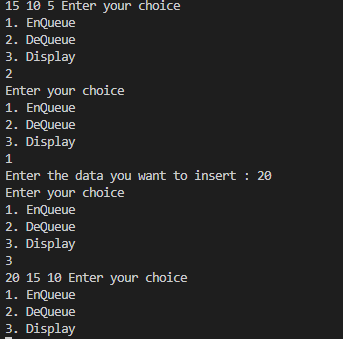
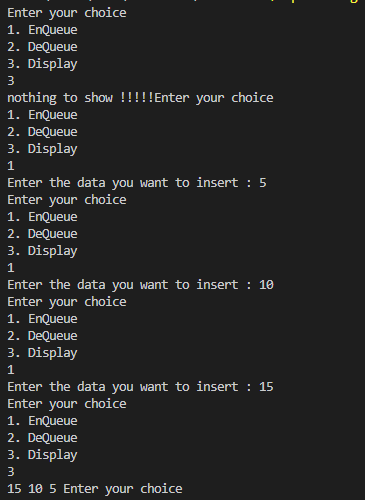
14. Write a program in C to implement quick sort.

**OUTPUT:**

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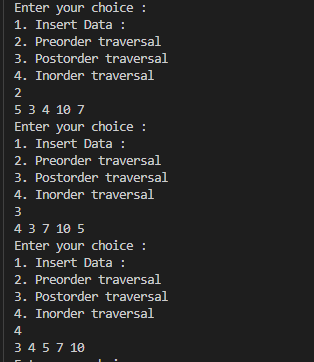
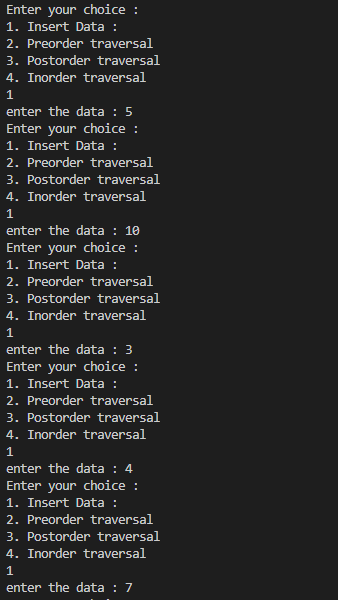
15. write a program in C to implement a queue using 2 stacks.

**OUTPUT:**



16. Write a program in C to show Tree traversal.

**OUTPUT:**

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