

Ramakrishna Mission Vidyamandira

(An Autonomous College Under University of Calcutta)

Computer Science (Honors) Semester II 2024

Paper: 2CMSCOC 1 Practical

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| **Submitted by** |
| Class Roll Number: 340  Registration Number:  B.Sc.  2th Semester  Batch: 2023-27 |

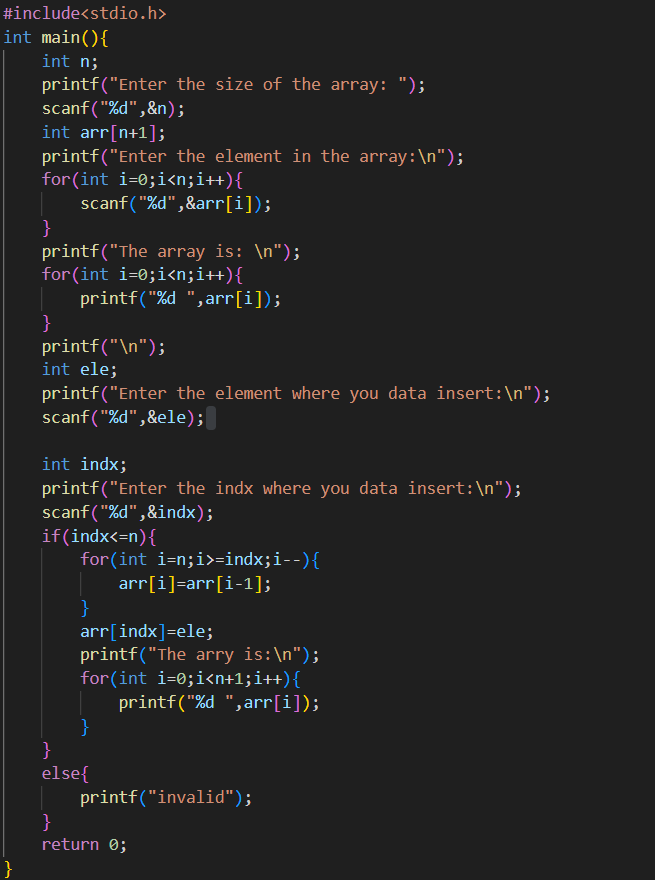
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| **SI NO.** | **ASSIGNMNET STATEMENT** | **D-O-A** | **D-O-S** | **SIGNATURE** |
|  | Write a program to insert an element at desired position in an array. |  |  |  |
| 2. | Write a program to delete an element at desired position in an array. |  |  |  |
| 3. | Write a program a Sparse matrix as a user input and create Triplet. |  |  |  |
| 4. | Write a program to create a Stack and implement is operation push, pop, empty, full, peek and display. |  |  |  |
| 5. | Write a program infix to postfix. |  |  |  |
| 6. | Evaluating postfix Expression in Stack. |  |  |  |
| 7. | Write a program Tower of Hanoi. |  |  |  |
| 8. | Write a program a Linear Queue. |  |  |  |
| 9. | Write a program to implementation a Circular Queue. |  |  |  |
| 10. | Write a program to implement of insertion Sort. |  |  |  |
| 11. | Write a program to implement of Selection Sort. |  |  |  |
| 12. | Write a program to implement of Bubble Sort. |  |  |  |
| 13. | Write a program to implement of Linear Search. |  |  |  |
| 14. | Write a program to implement of Binary Search. |  |  |  |
| 15. | Create a Binary Tree and perfrom a Inorder Traversal. |  |  |  |
| 16. | Create a Binary Tree and perfrom a Preorder Traversal. |  |  |  |
| 17. | Create a Binary Tree and perfrom a Postorder Traversal. |  |  |  |
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| NOTE: |  |  |  |  |
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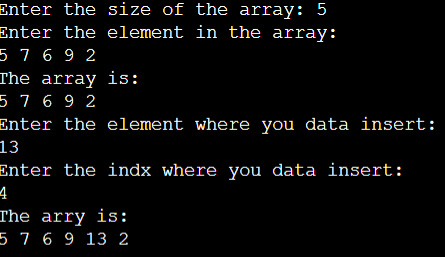
**INDEX**

**Question:1**

**Statement:** Write a program to insert an element at desired position in an array.

**Source Code:**

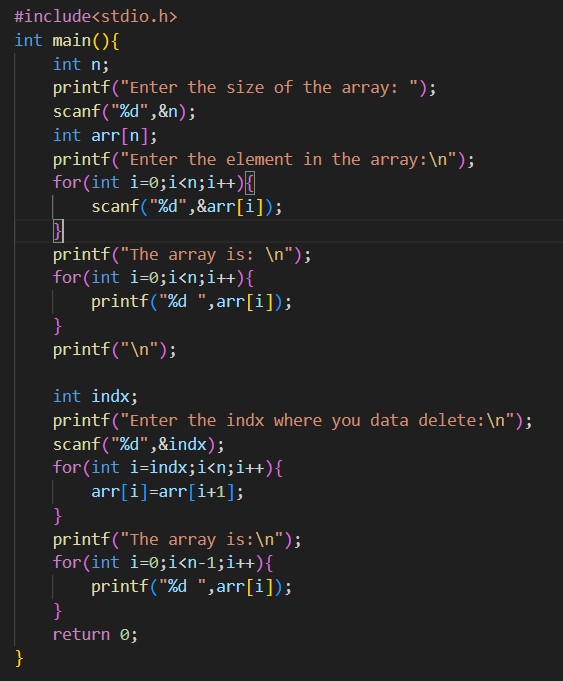


**Output:**

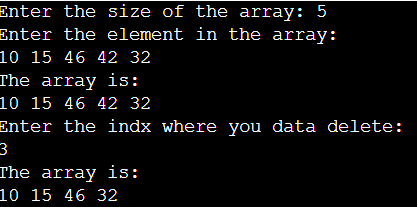
**Question:2**

**Statement:** Write a program to delete an element at desired position in an array.

**Source Code:**

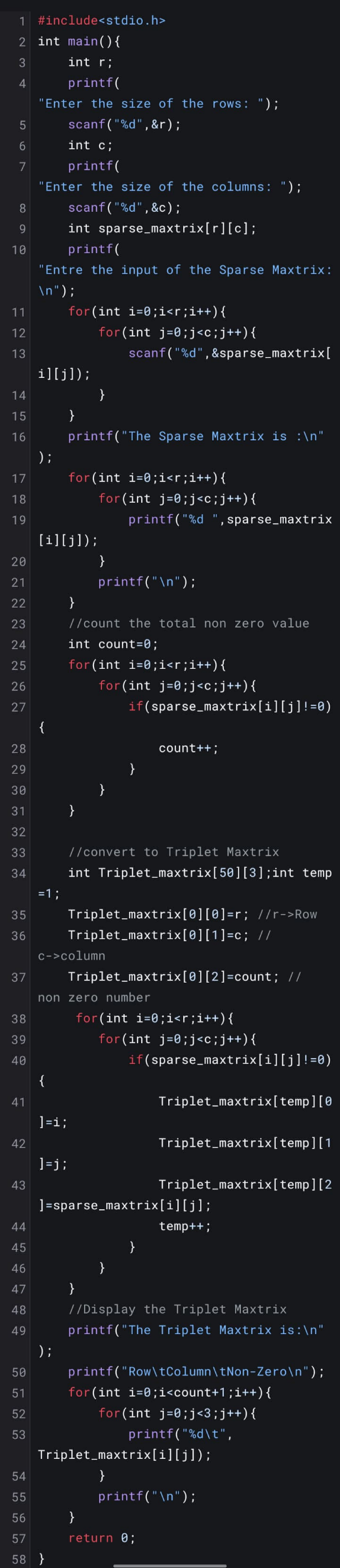
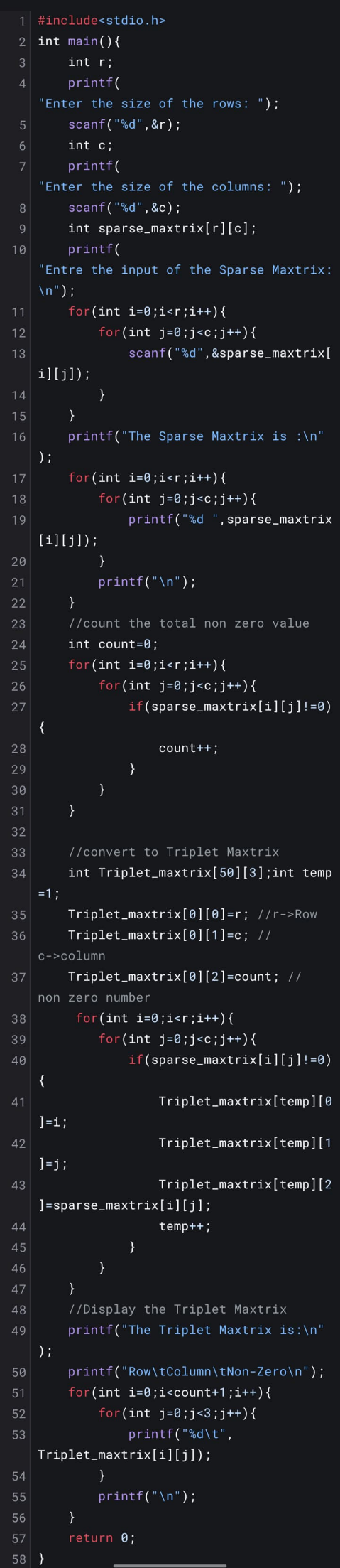


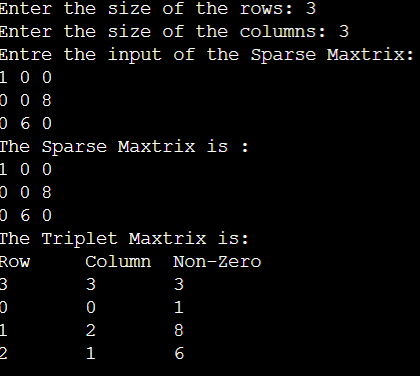
**Output:**



**Question:3**

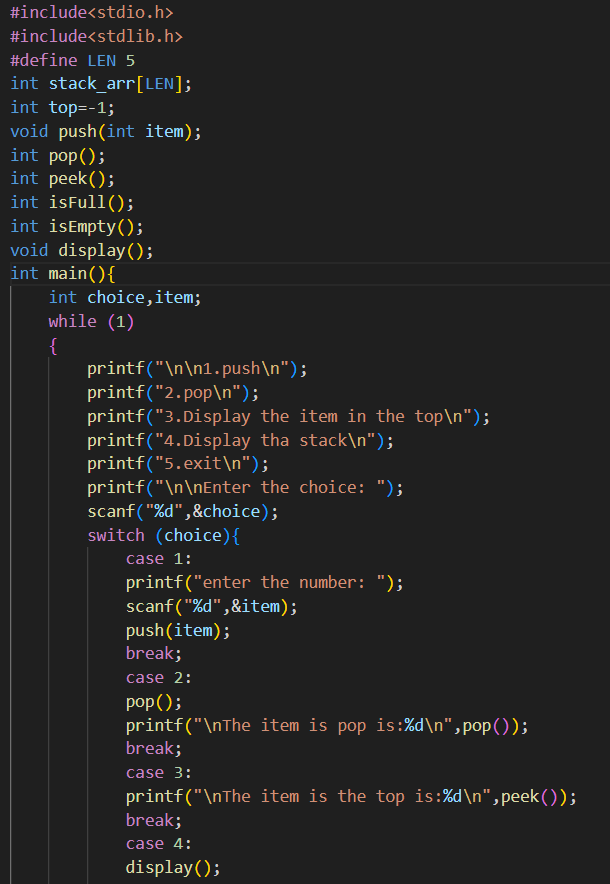
**Statement:** Write a program a Sparse matrix as a user input and create Triplet.

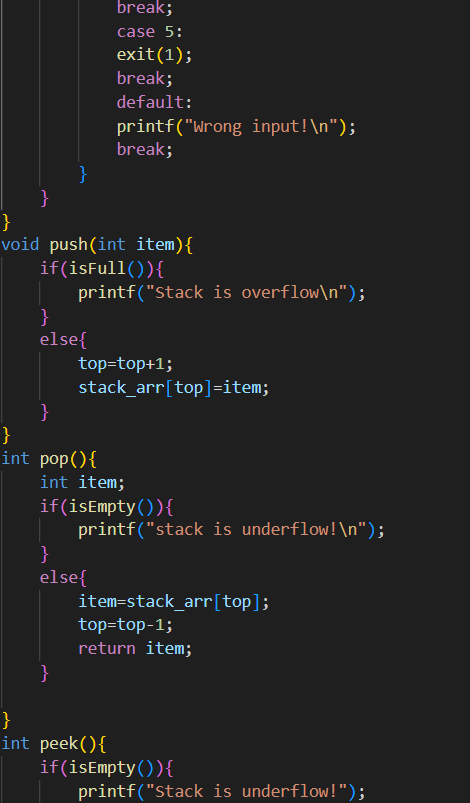
**Source Code:**

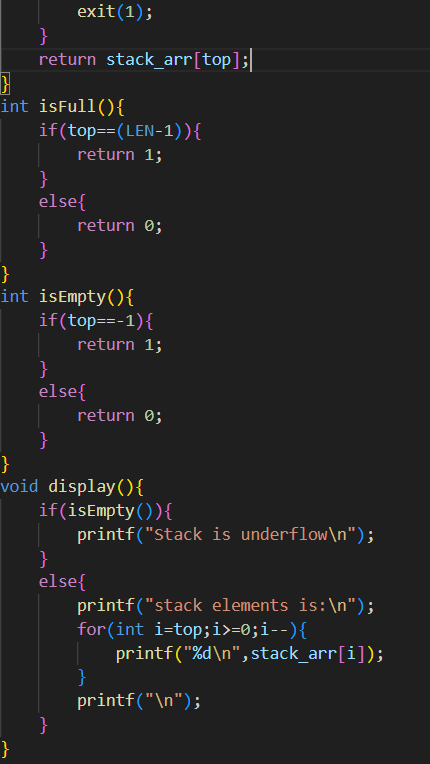
**Output**

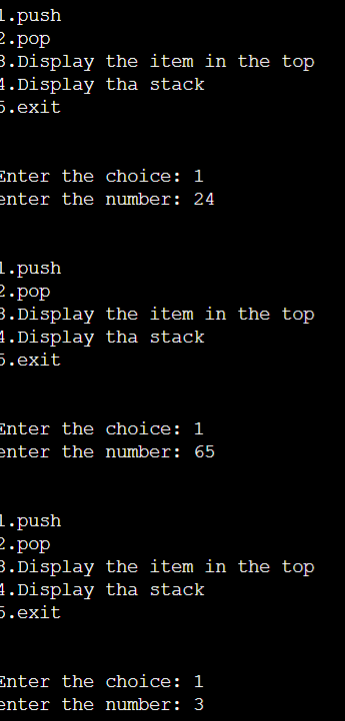
**Question:4**

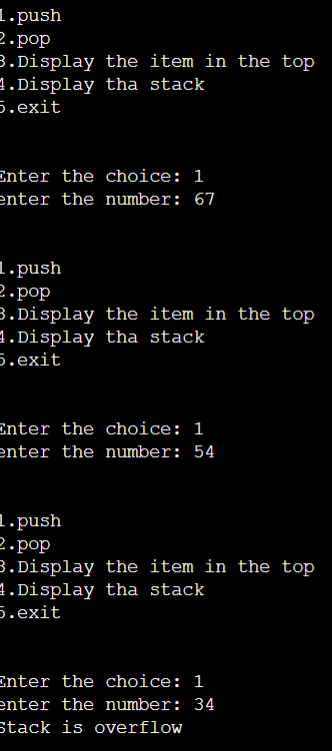
**Statement:** Write a program to create a Stack and implement is operation push, pop, empty, full, peek and display.

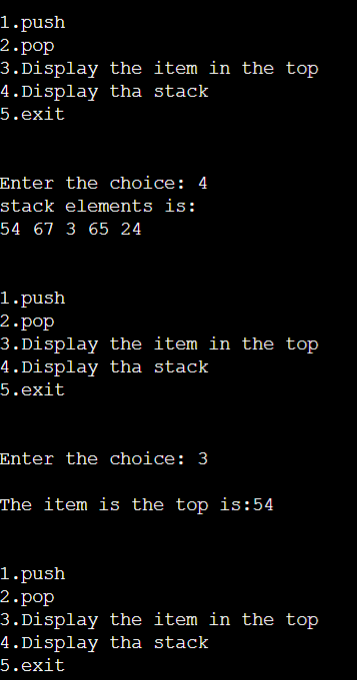
**Source Code:**

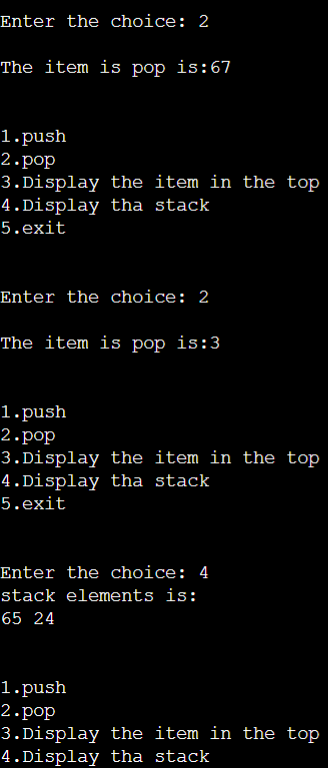
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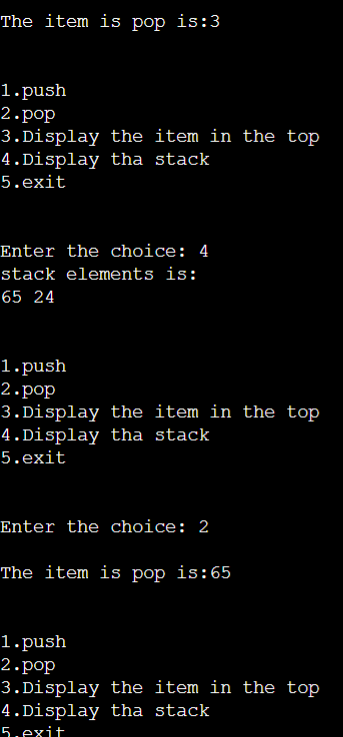
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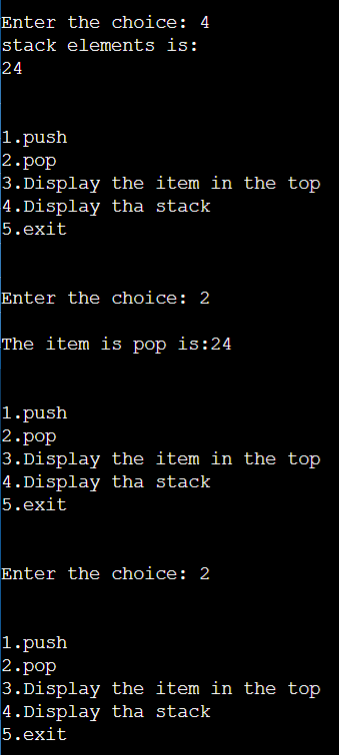
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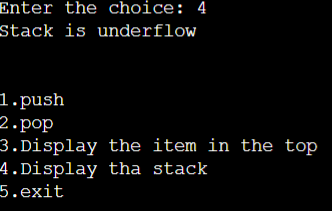
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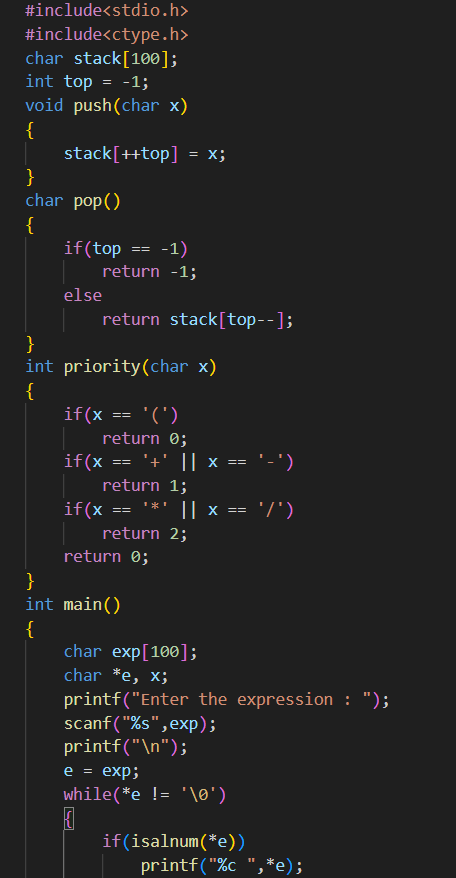
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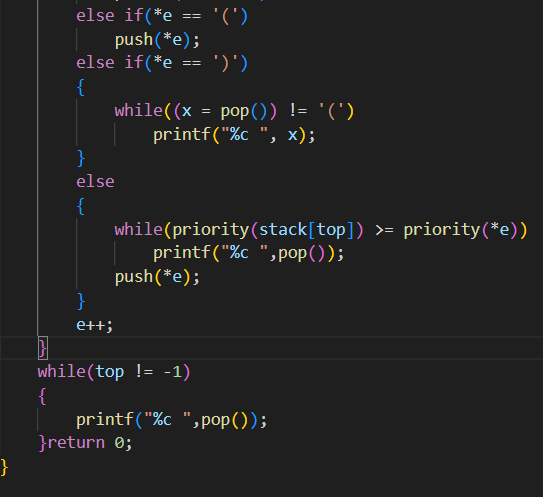
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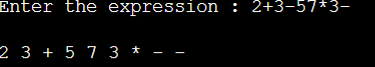
**Question:5**

**Statement:** Write a program infix to postfix.

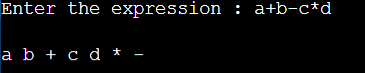
**Source Code:**

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**Output:**

**Case-1:**

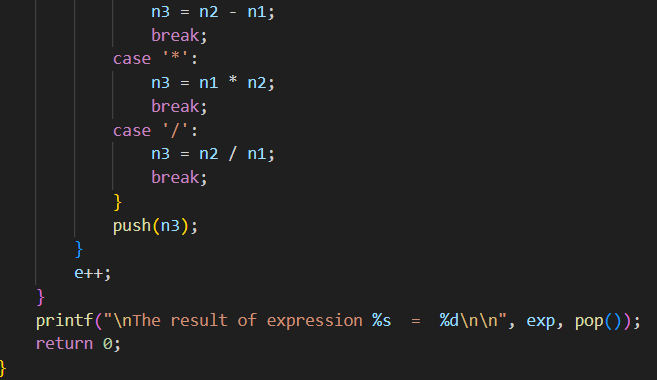
**Case-2:**

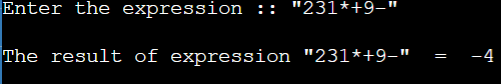


**Question:6**

**Statement:** Evaluating postfix Expression in Stack.

**Source Code:**

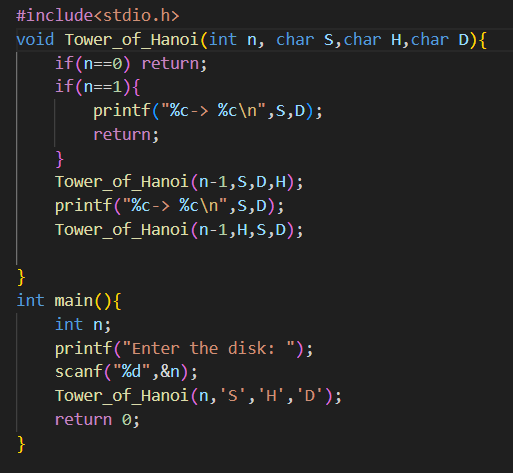
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**Output:**

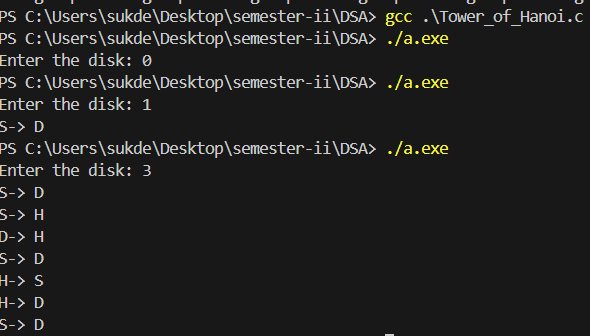
**Question:7**

**Statement:** Write a program Tower of Hanoi.

**Source Code:**

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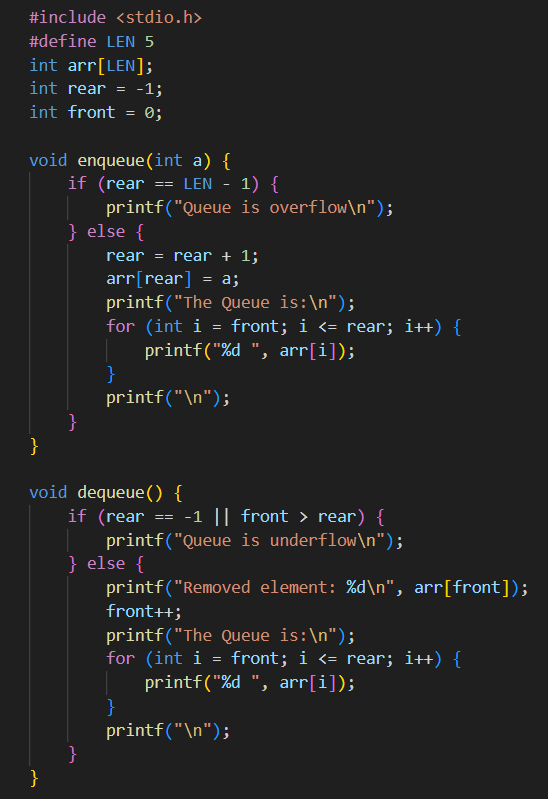
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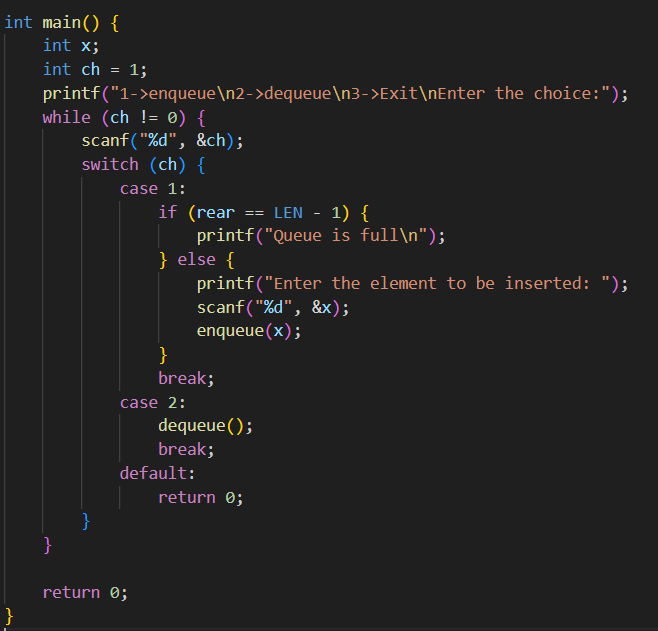


**Question:8**

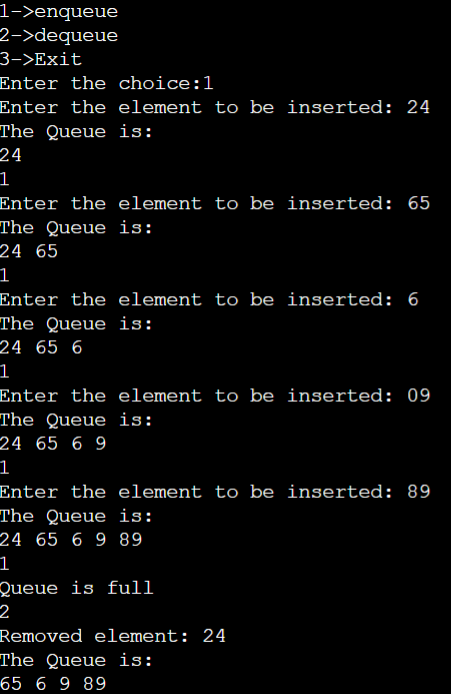
**Statement:** Write a program a Linear Queue.

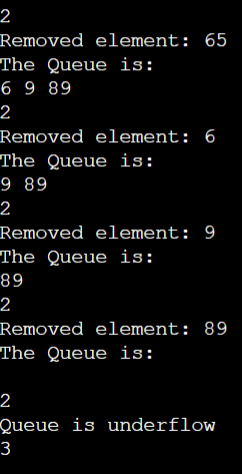
**Source Code:**





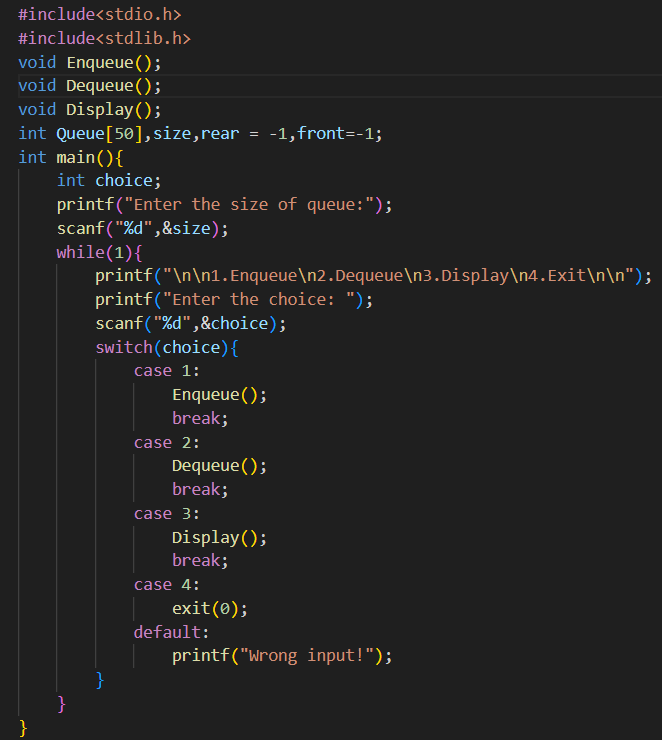
**Output:**

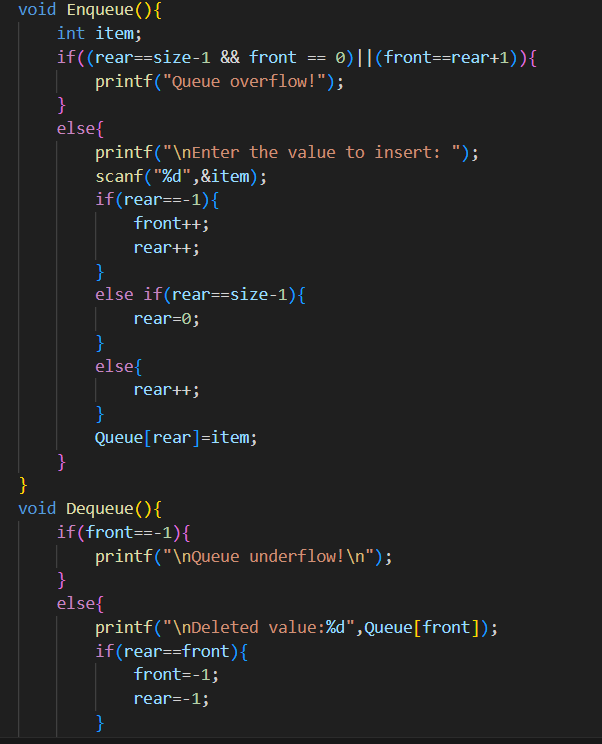


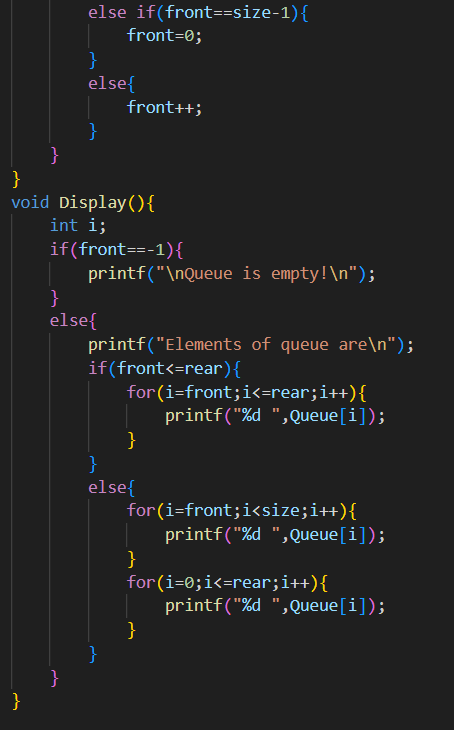
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**Statement:** Write a program to implementation a Circular Queue.

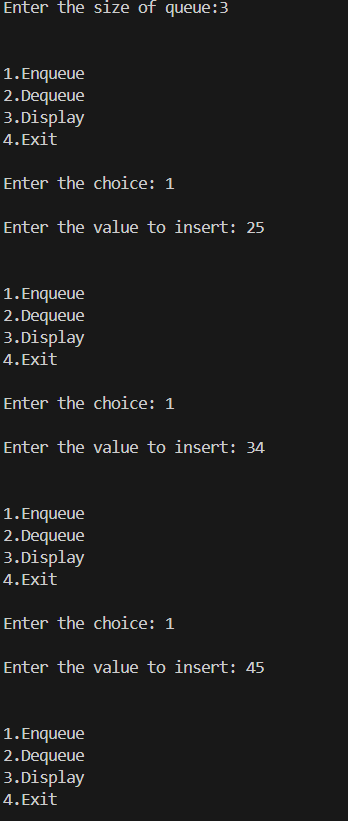
**Source Code:**

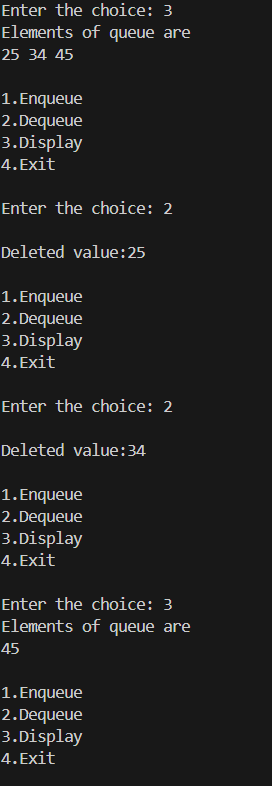
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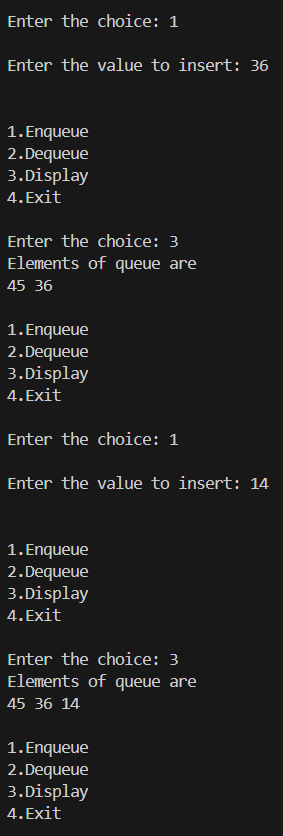
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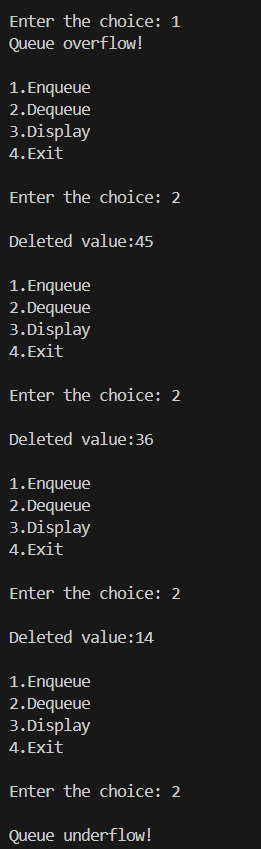
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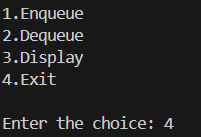
**Output:**





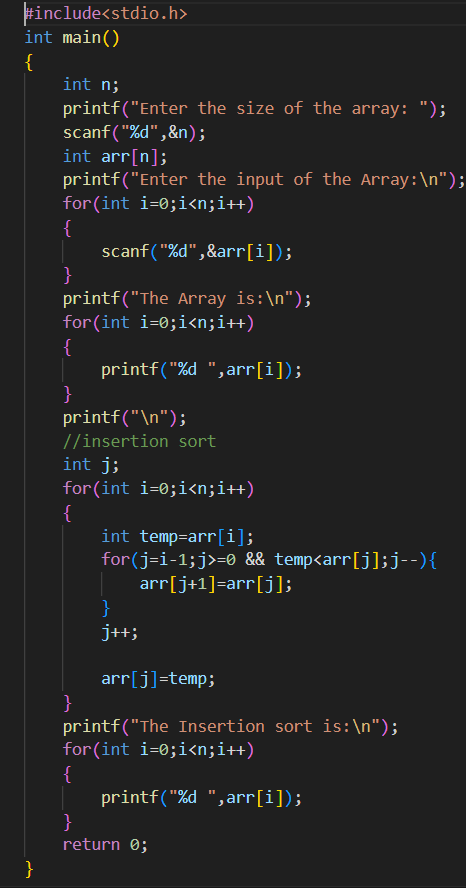


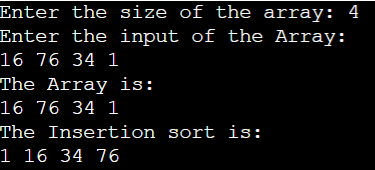




**Question:10**

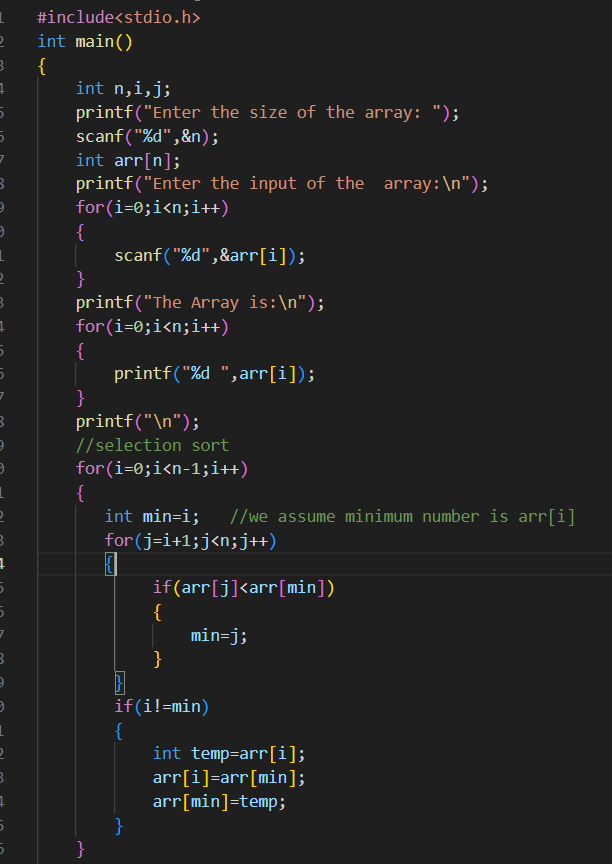
**Statement:** Write a program to implement of insertion Sort.

**Source Code:**

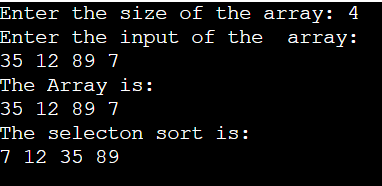
**Output:**

**Question:11**

**Statement:** Write a program to implement of Selection Sort.

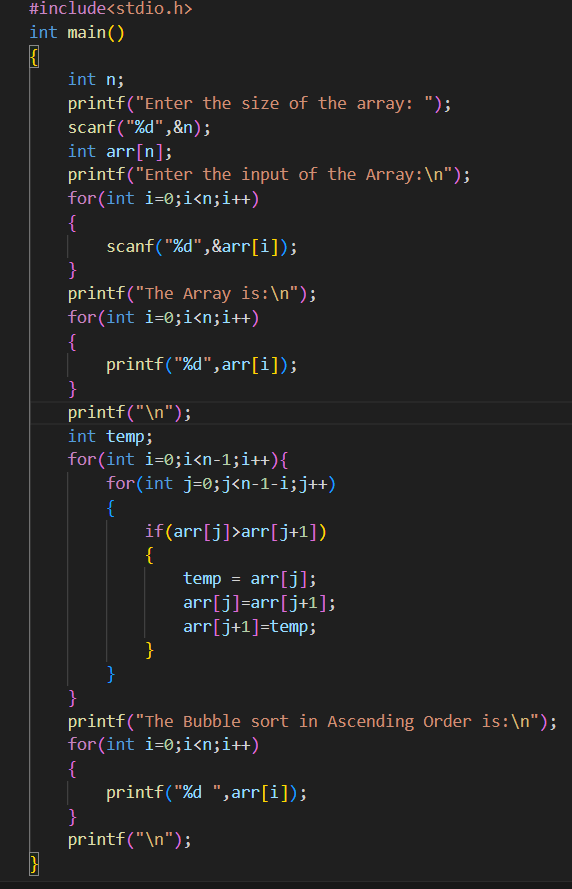
**Source Code:**

**Output:**

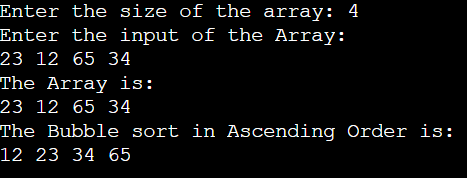


**Question:12**

**Statement:** Write a program to implement of Bubble Sort.

**Source Code:**

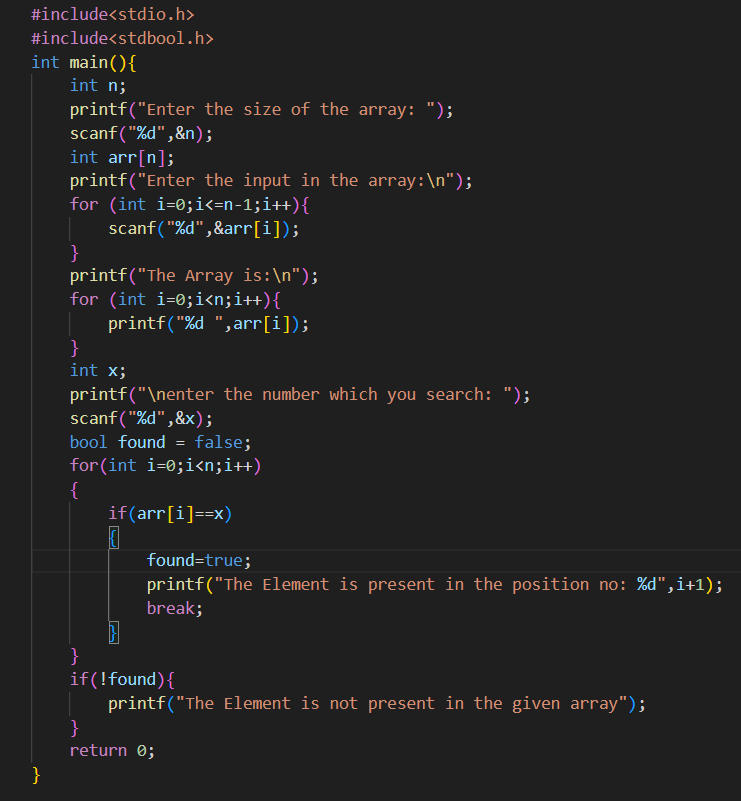
**Output:**



**Question:13**

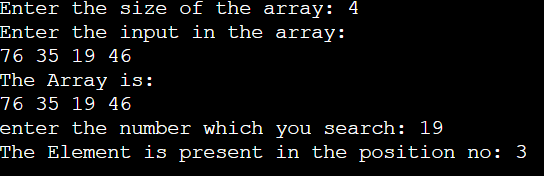
**Statement:** Write a program to implement of Linear Search.

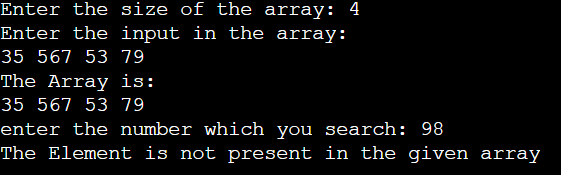
**Source Code:**

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**Output:**

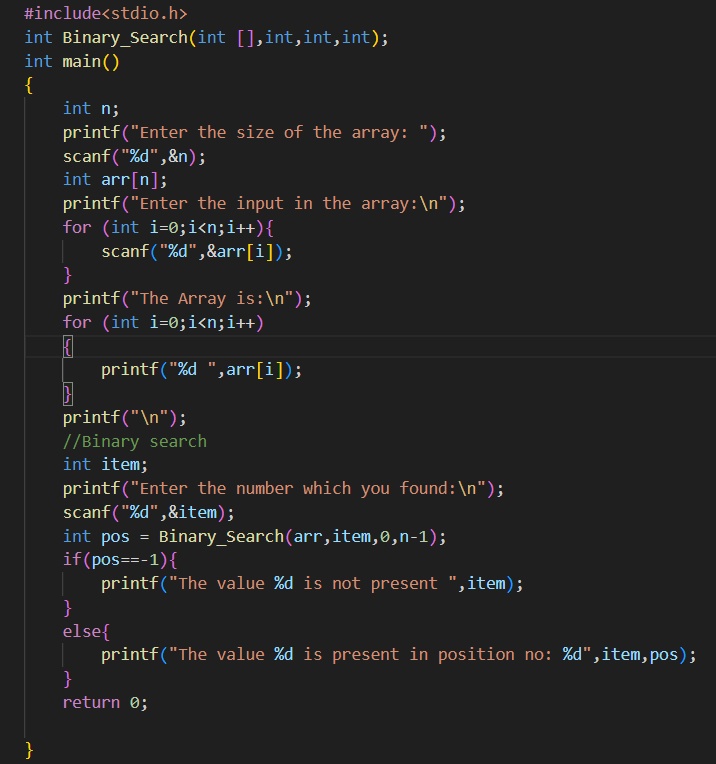
**Case-1:**

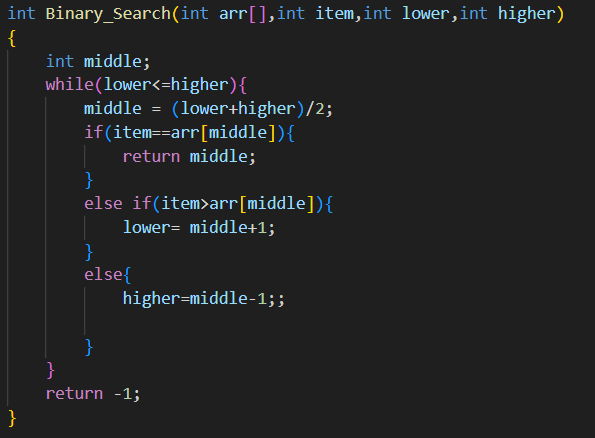


**Case-2:**

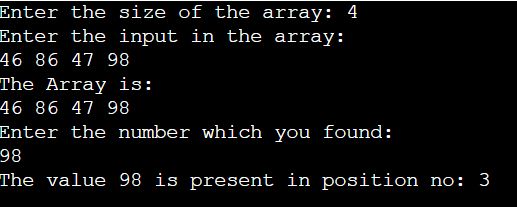
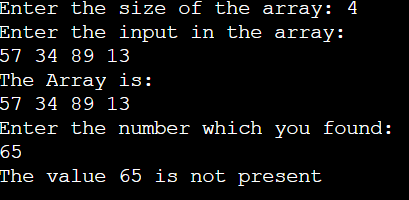
**Question:14**

**Statement:** Write a program to implement of Binary Search.

**Source Code:**

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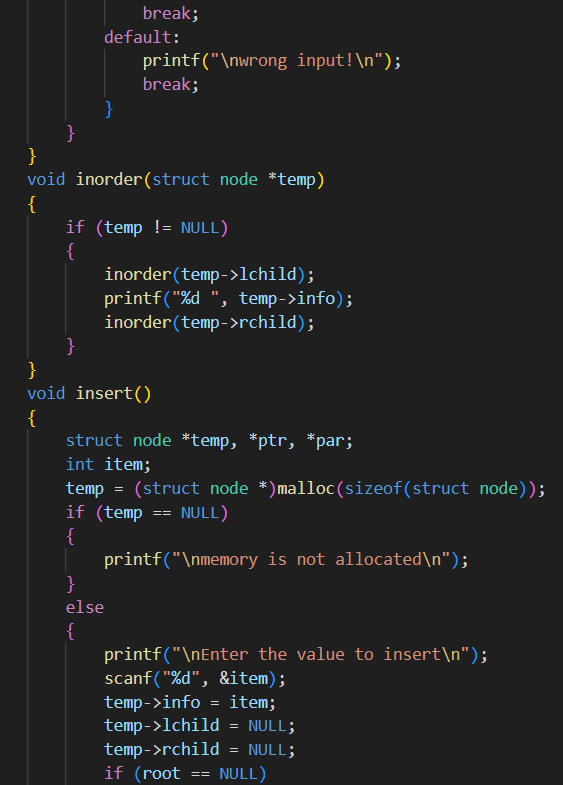
**Output:**

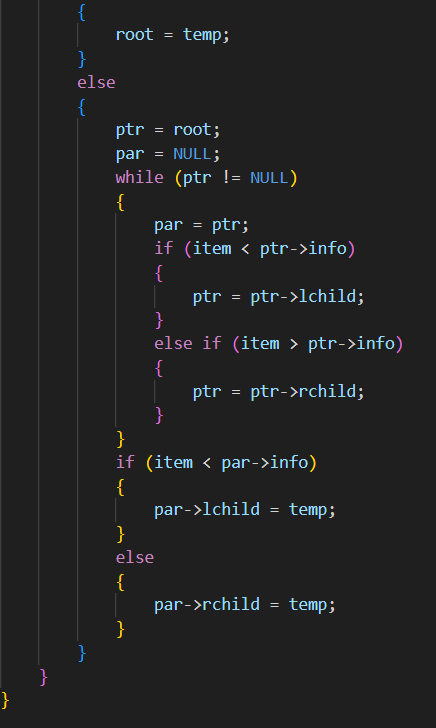
**Case-1: Case-2:**

**Question:15**

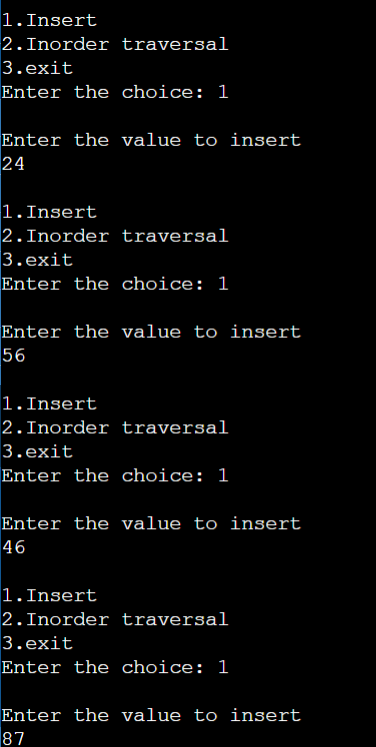
**Statement:** Create a Binary Tree and perfrom a Inorder Traversal.

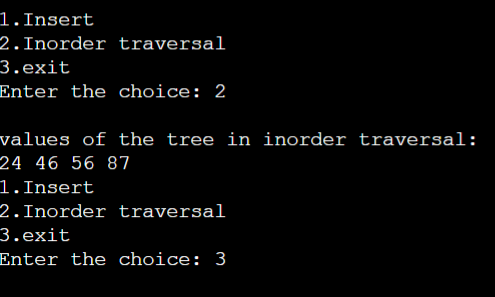
**Source Code:**

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**Output:**

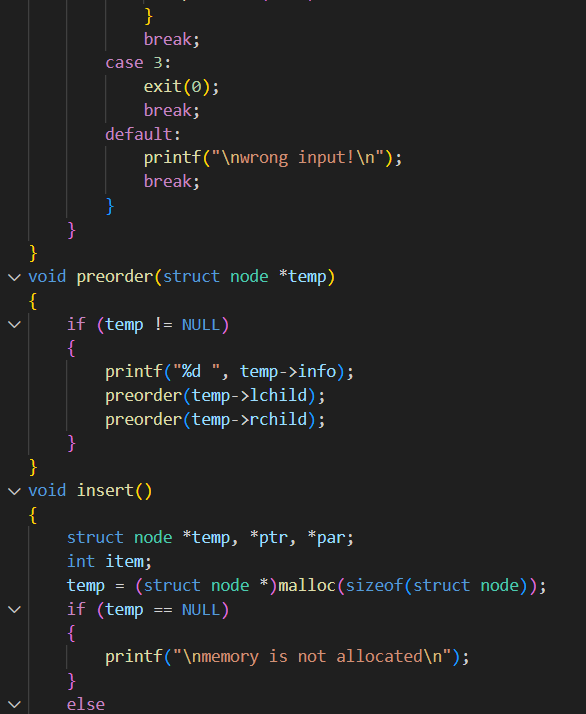


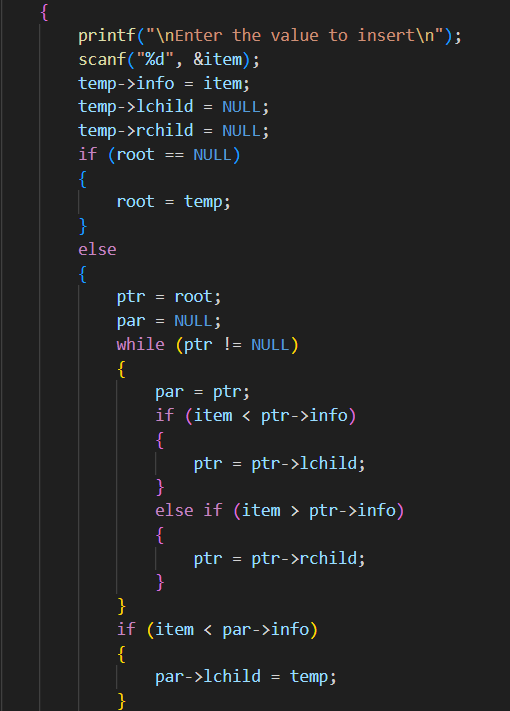


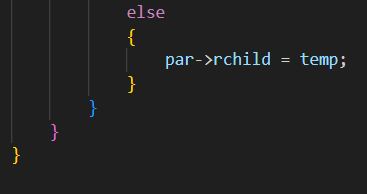
**Question:16**

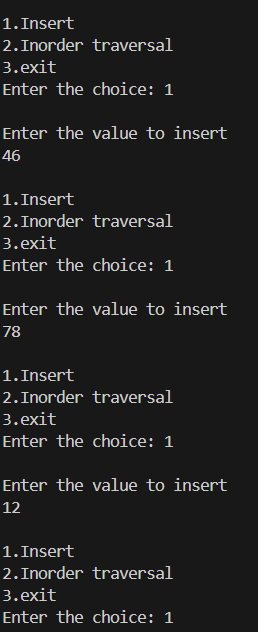
**Statement:** Create a Binary Tree and perfrom a Preorder Traversal.

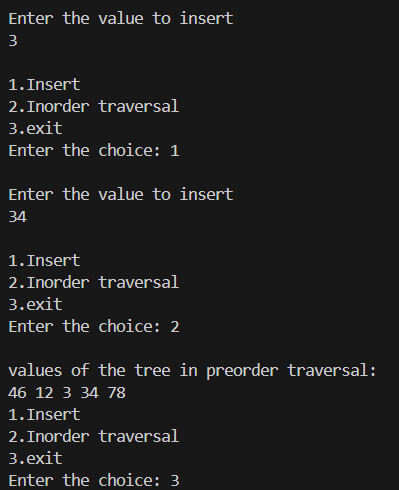
**Source Code:**

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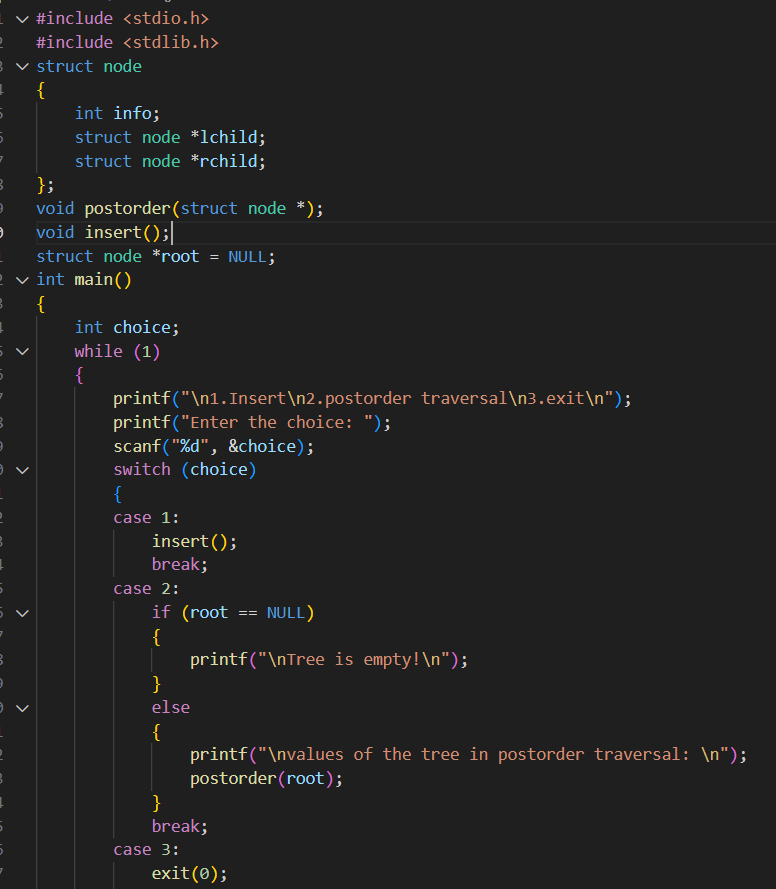
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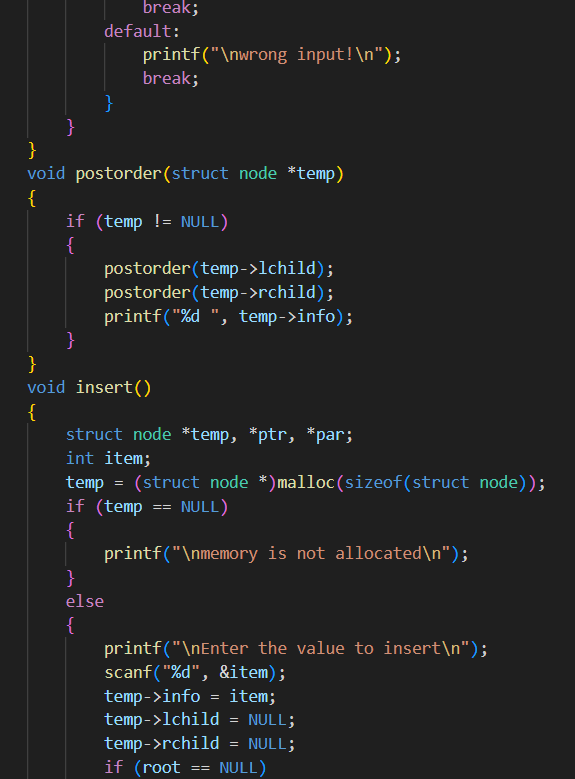
**Output:**

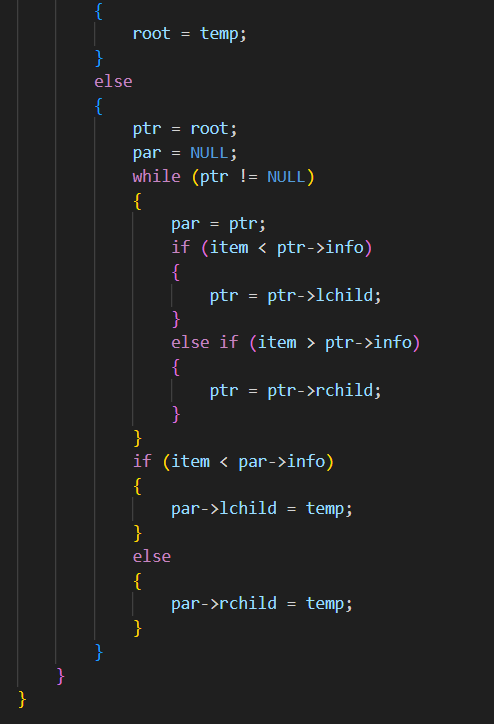
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**Question:17**

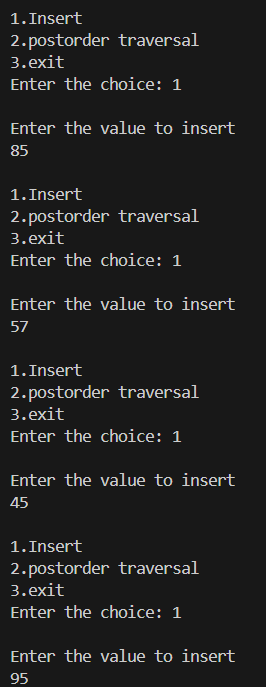
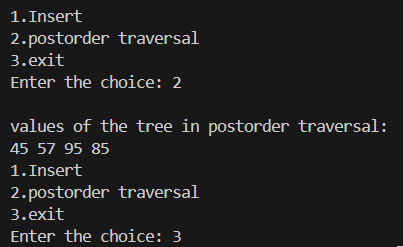
**Statement:** Create a Binary Tree and perfrom a postorder Traversal.

**Source Code:**

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**Output:**

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