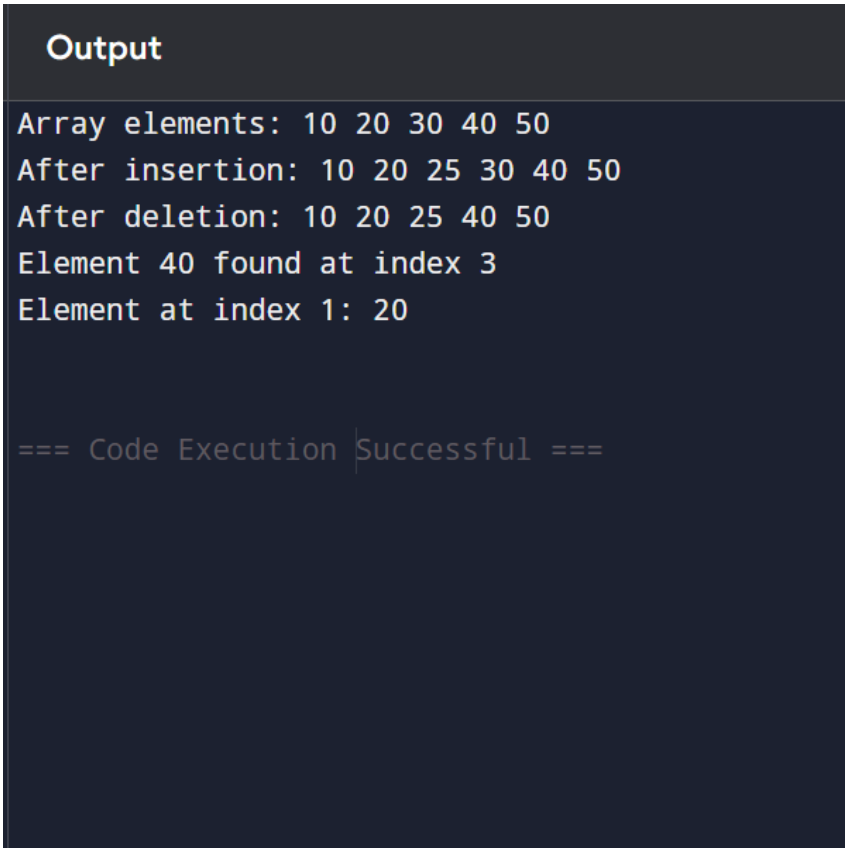
```
#include <stdio.h>
int main() {
    int arr[10] = {10, 20, 30, 40, 50};
    int size = 5;
    int i;
    printf("Array elements: ");
    for (i = 0; i < size; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");
    for (i = size - 1; i >= 2; i--) {
        arr[i + 1] = arr[i];
    }
    arr[2] = 25;
    size++;
    printf("After insertion: ");
    for (i = 0; i < size; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");
    int index = 3;
    for (i = index; i < size - 1; i++) {
        arr[i] = arr[i + 1];
    }
    size--;
    printf("After deletion: ");
    for (i = 0; i < size; i++) {
```

```
        printf("%d ", arr[i]);
    }
    printf("\n");
    int key = 40;
    int found = -1;
    for (i = 0; i < size; i++) {
        if (arr[i] == key) {
            found = i;
            break;
        }
    }
    if (found != -1)
        printf("Element %d found at index %d\n", key, found);
    else
        printf("Element not found\n");
    printf("Element at index 1: %d\n", arr[1]);
    return 0;
}
```

Output:


Output
Array elements: 10 20 30 40 50
After insertion: 10 20 25 30 40 50
After deletion: 10 20 25 40 50
Element 40 found at index 3
Element at index 1: 20
=== Code Execution Successful ===