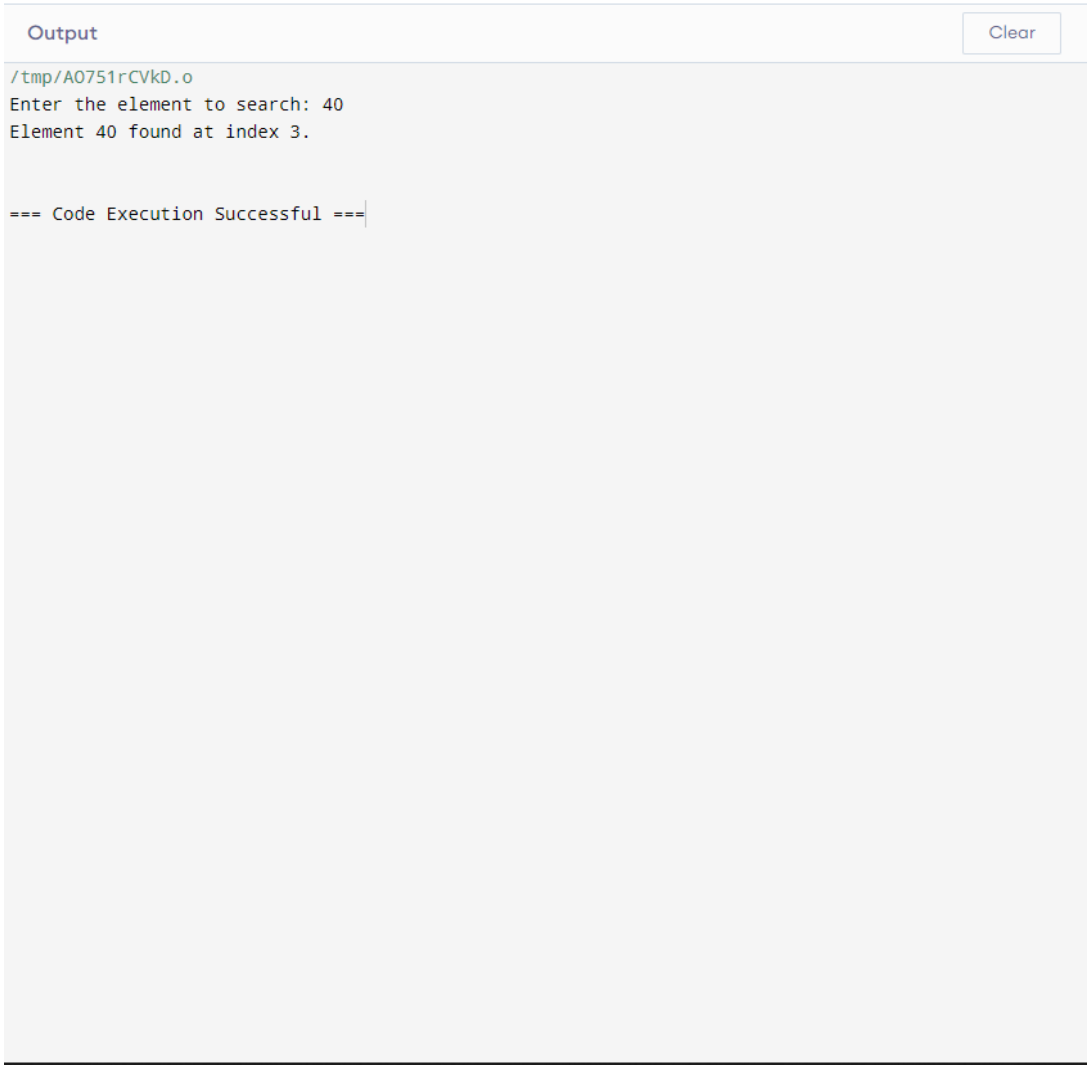
**Write a c program to find elements using array**

**CODE:**

```
#include <stdio.h>
int linearSearch(int arr[], int size, int target) {
   for (int i = 0; i < size; i++) {
      if (arr[i] == target) {
         return i;
      }
   }
   return -1;
}
int main() {
   int arr[] = {10, 20, 30, 40, 50};
   int size = sizeof(arr) / sizeof(arr[0]);
   int target;

   printf("Enter the element to search: ");
   scanf("%d", &target);

   int result = linearSearch(arr, size, target);

   if (result != -1) {
      printf("Element %d found at index %d.\n", target, result);
   } else {
      printf("Element %d not found in the array.\n", target);
   }
```

```
    return 0;
}
```

**OUTPUT:**

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**Write a c program to find element using linklist**

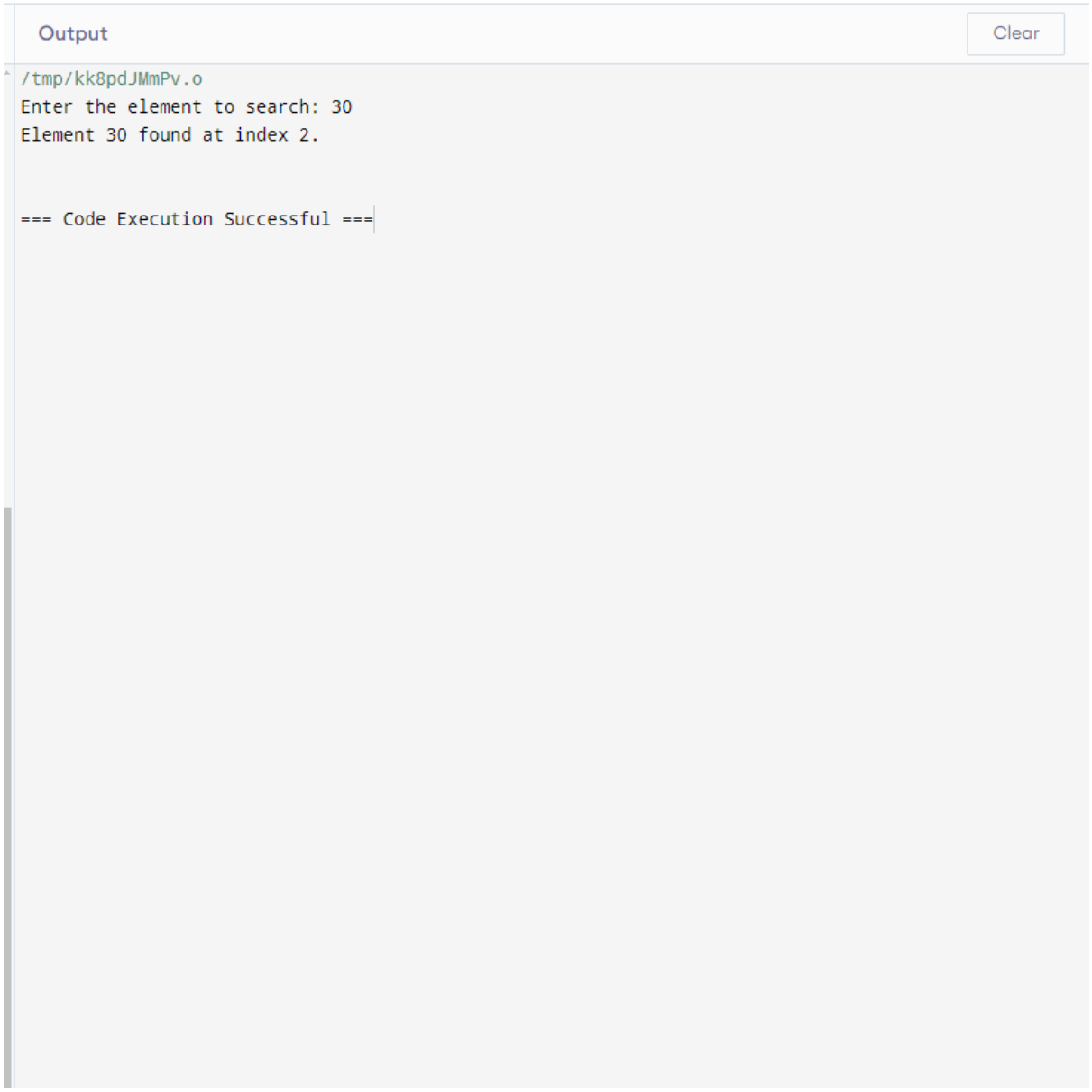
**CODE:**

```
#include <stdio.h>
#include <stdlib.h>
struct Node {
    int data;
```

```
    struct Node* next;
};
struct Node* createNode(int data) {
    struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
    newNode->data = data;
    newNode->next = NULL;
    return newNode;
}

int search(struct Node* head, int target) {
    struct Node* current = head;
    int index = 0;

    while (current != NULL) {
        if (current->data == target) {
            return index;
        }
        current = current->next;
        index++;
    }

    return -1;
}

int main() {
    struct Node* head = createNode(10);
```

```
    head->next = createNode(20);
    head->next->next = createNode(30);
    head->next->next->next = createNode(40);
    head->next->next->next->next = createNode(50);

    int target;
    printf("Enter the element to search: ");
    scanf("%d", &target);

    int result = search(head, target);

    if (result != -1) {
        printf("Element %d found at index %d.\n", target, result);
    } else {
        printf("Element %d not found in the linked list.\n", target);
    }
    struct Node* current = head;
    struct Node* nextNode;
    while (current != NULL) {
        nextNode = current->next;
        free(current);
        current = nextNode;
    }

    return 0;
}
```

**OUTPUT:**


Output
Clear
/tmp/kk8pdJMmPv.o
Enter the element to search: 30
Element 30 found at index 2.
=== Code Execution Successful ===