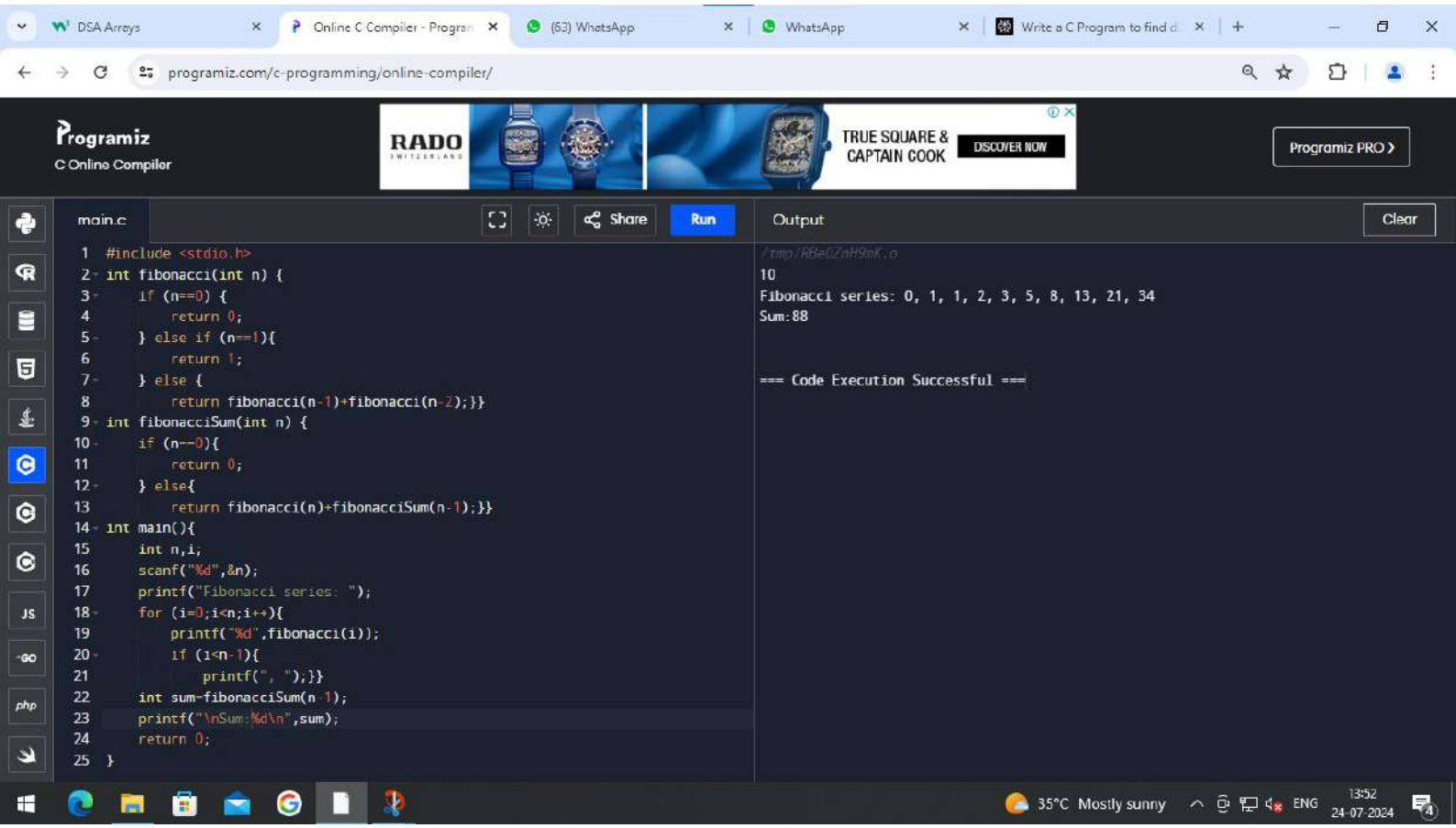
DSA Arrays
Online C Compiler - Program
(63) WhatsApp
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Write a C Program to find d
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C Online Compiler
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Programiz PRO
main.c
Share
Run
Output
Clear
#include <stdio.h>
int fibonacci(int n) {
if (n==0) {
return 0;
} else if (n==1){
return 1;
} else {
return fibonacci(n-1)+fibonacci(n-2);}}
int fibonacciSum(int n) {
if (n==0){
return 0;
} else{
return fibonacci(n)+fibonacciSum(n-1);}}
int main(){
int n,i;
scanf("%d",&n);
printf("Fibonacci series: ");
for (i=0;i<n;i++){
printf("%d",fibonacci(i));
if (i<n-1){
printf(", ");}}
int sum=fibonacciSum(n-1);
printf("\nSum:%d\n",sum);
return 0;
}
/tmp/RBeUZnH9mK.o
10
Fibonacci series: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34
Sum:88
=== Code Execution Successful ===
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ENG
13:52
24-07-2024

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main.c

Share | Run

```c
#include <stdio.h>
int linear_search(int arr[], int n, int x) {
    for (int i = 0; i < n; ++i) {
        if (arr[i] == x)
            return i;
    }
    return -1;
}
int main() {
    int arr[] = {1, 5, 6, 7, 9, 10};
    int n = sizeof(arr) / sizeof(arr[0]);
    int x1 = 6;
    int x2 = 11;
    int index1 = linear_search(arr, n, x1);
    if (index1 != -1)
        printf("Element found at location %d\n", index1);
    else
        printf("Element not found\n");
    int index2 = linear_search(arr, n, x2);
    if (index2 != -1)
        printf("Element found at location %d\n", index2);
    else
        printf("Element not found\n");

    return 0;
}

```

Output | Clear

```
/tmp/4tYCRMNfog.o
Element found at location 2
Element not found


=== Code Execution Successful ===
```

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Programiz
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main.c

Share | Run | Output | Clear

```c
#include <stdio.h>
int binary_search(int arr[], int n, int x) {
    int left = 0;
    int right = n - 1;
    while (left <= right) {
        int mid = left + (right - left) / 2;
                if (arr[mid] == x)
            return mid;
                if (arr[mid] < x)
            left = mid + 1;
        else
            right = mid - 1;}
        return -1;}
int main() {
    int arr[] = {1, 5, 6, 7, 9, 10};
    int n = sizeof(arr) / sizeof(arr[0]);
    int x1 = 6;
    int x2 = 11;
        int index1 = binary_search(arr, n, x1);
    if (index1 != -1)
        printf("Element found at location %d\n", index1);
    else
        printf("Element not found\n");
    int index2 = binary_search(arr, n, x2);
    if (index2 != -1)
        printf("Element found at location %d\n", index2);
    else
        printf("Element not found\n");
    return 0; }
```

```
/tmp/OBIAOPLuh6.o
Element found at location 2
Element not found


=== Code Execution Successful ===
```

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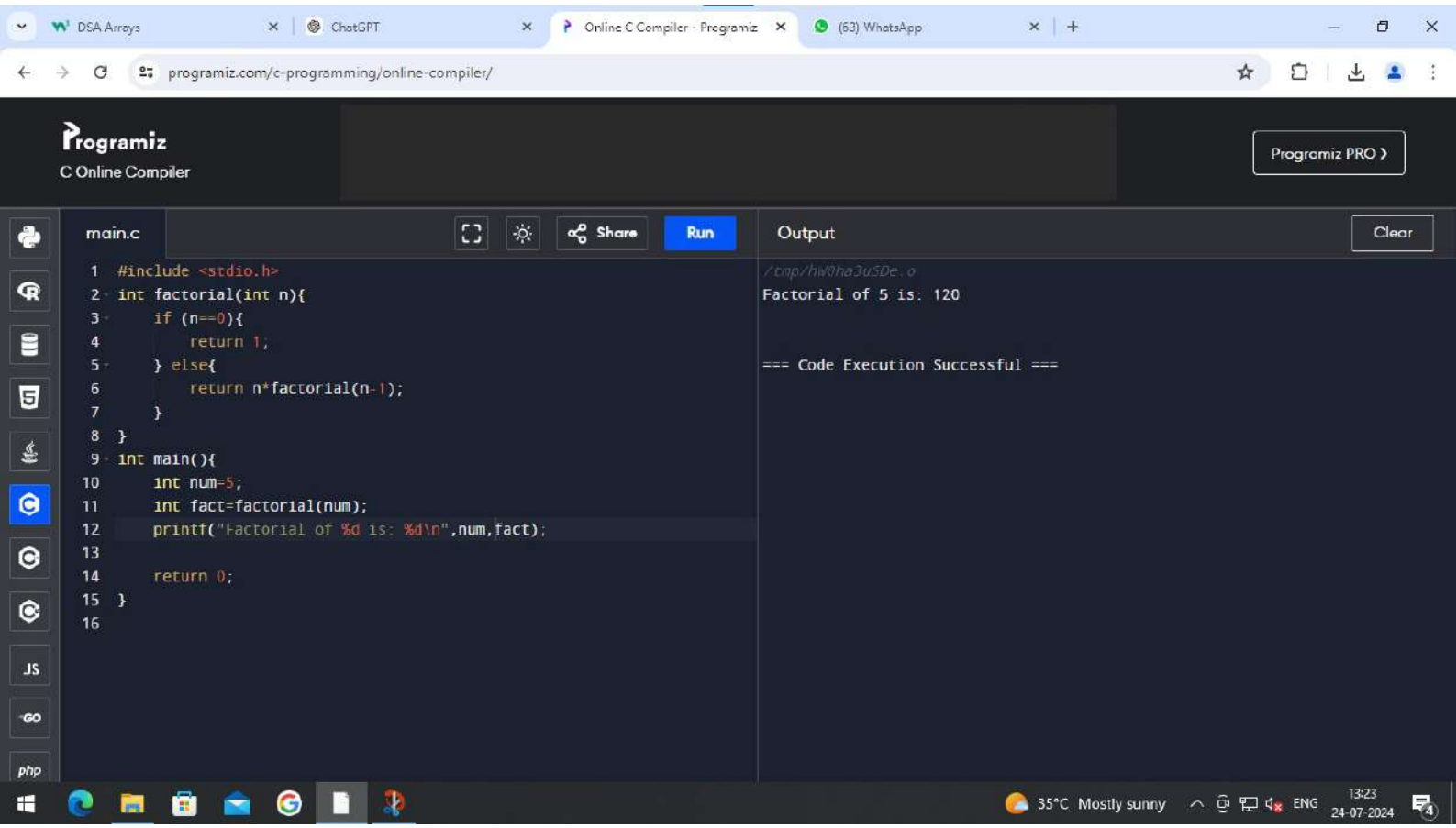
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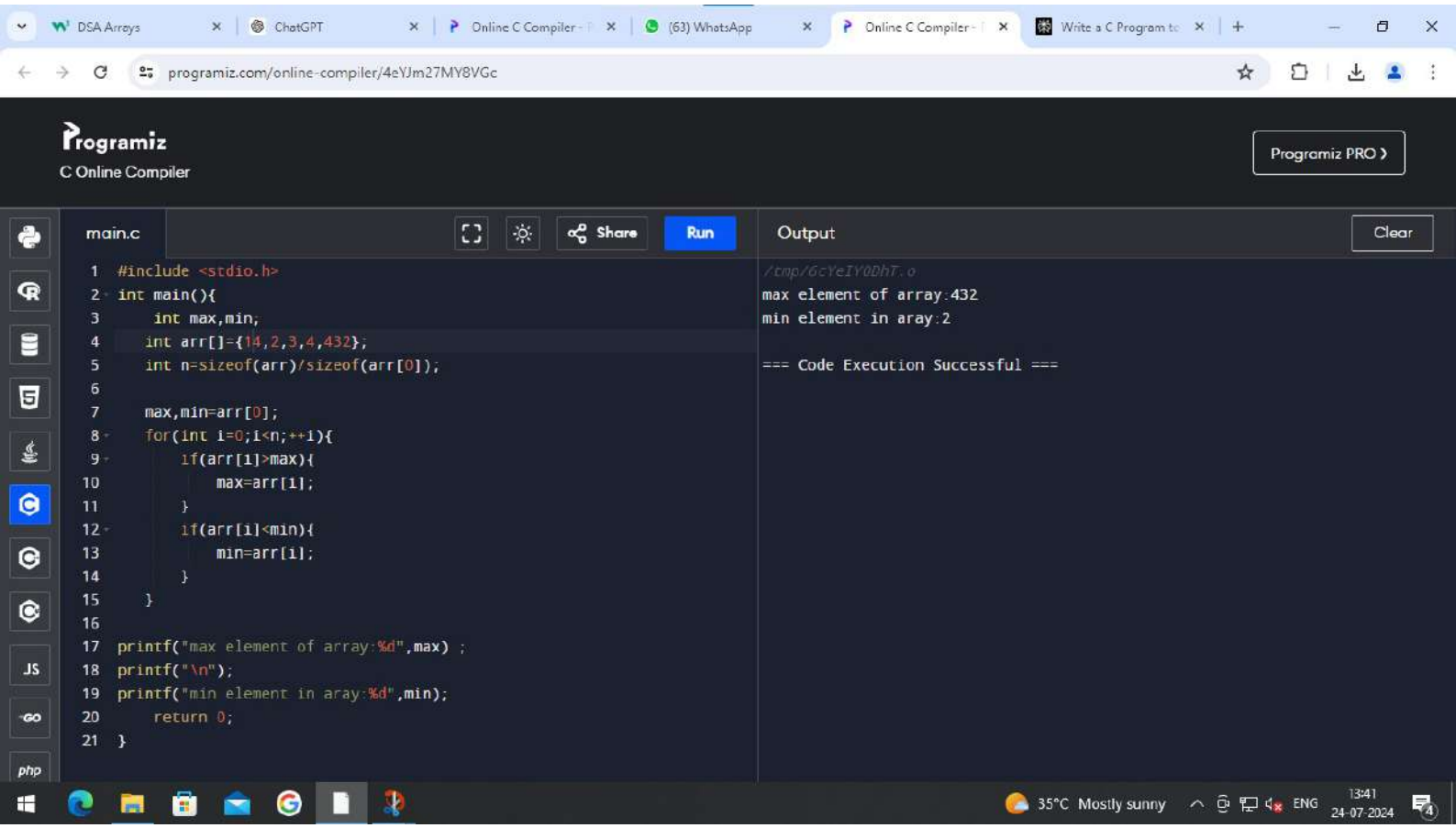
Programiz
C Online Compiler
Programiz PRO
main.c
Share
Run
Output
Clear
#include <stdio.h>
int factorial(int n){
if (n==0){
return 1;
} else{
return n*factorial(n-1);
}
}
int main(){
int num=5;
int fact=factorial(num);
printf("Factorial of %d is: %d\n",num,fact);
return 0;
}
/tmp/hW0ha3u5De.o
Factorial of 5 is: 120
=== Code Execution Successful ===
35°C Mostly sunny
ENG
13:23
24-07-2024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Online C Compiler -
Write a C Program to
programiz.com/online-compiler/4eYJm27MY8VGc
Programiz
C Online Compiler
Programiz PRO
main.c
Share
Run
Output
Clear
#include <stdio.h>
int main(){
int max,min;
int arr[]={14,2,3,4,432};
int n=sizeof(arr)/sizeof(arr[0]);
max,min=arr[0];
for(int i=0;i<n;++i){
if(arr[i]>max){
max=arr[i];
}
if(arr[i]<min){
min=arr[i];
}
}
printf("max element of array:%d",max) ;
printf("\n");
printf("min element in aray:%d",min);
return 0;
}
/tmp/6cYeIY0DhT.o
max element of array:432
min element in aray:2
=== Code Execution Successful ===
35°C Mostly sunny
ENG
13:41
24-07-2024

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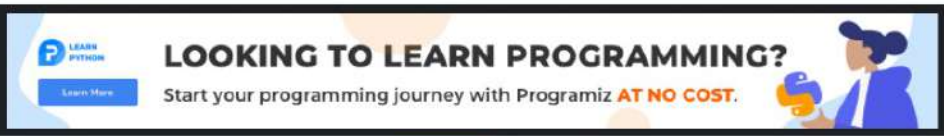
Programiz
C Online Compiler



Programiz PRO ›

main.c

Share | Run

```c
#include <stdio.h>
int main(){
    int arr[]={1,2,3,3,4,5,6};
    int size=sizeof(arr)/sizeof(arr[0]);
    for(int i=0;i<size;++i){
        printf("%d",arr[i]);
        printf("\n");

    }
    for(int i=0;i<size;i++){
        for(int j=i+1;j<size;j++){
            if(arr[i]==arr[j]){
                printf("duplicate:%d",arr[i]);
            }
        }
    }
    return 0;
}
```

Output | Clear

```
/tmp/27gkn6FrWI.o
1
2
3
3
4
5
6
duplicate:3

=== Code Execution Successful ===
```

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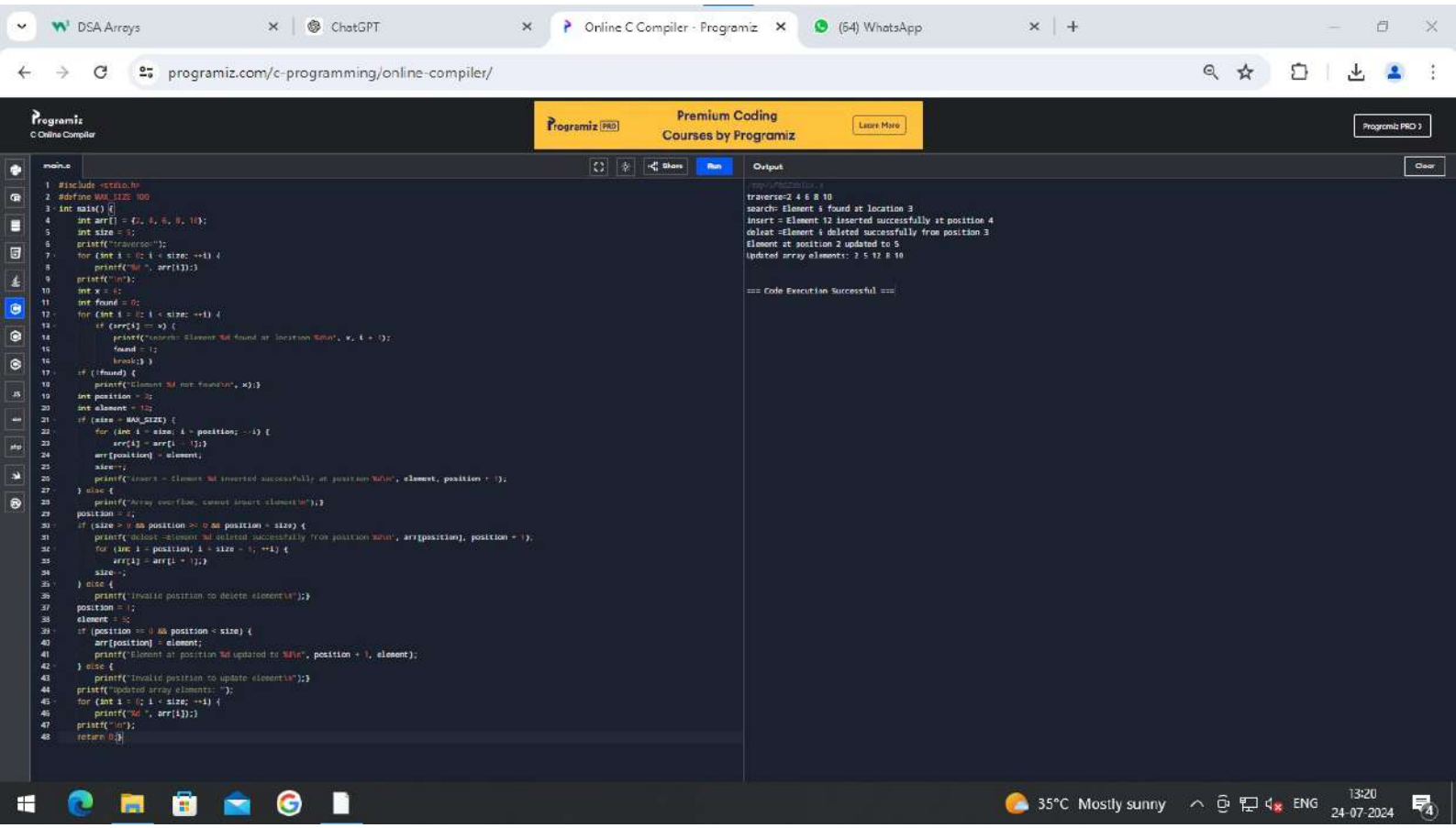
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main.c
Share
Run
Output
Clear
#include <stdio.h>
#define MAX_SIZE 100
int main() {
int arr[] = {2, 4, 6, 8, 10};
int size = 5;
printf("traverse=");
for (int i = 0; i < size; ++i) {
printf("%d ", arr[i]);}
printf("\n");
int x = 6;
int found = 0;
for (int i = 0; i < size; ++i) {
if (arr[i] == x) {
printf("search= Element %d found at location %d\n", x, i + 1);
found = 1;
break;} }
if (!found) {
printf("Element %d not found\n", x);}
int position = 3;
int element = 12;
if (size < MAX_SIZE) {
for (int i = size; i > position; --i) {
arr[i] = arr[i - 1];}
arr[position] = element;
size++;
printf("insert = Element %d inserted successfully at position %d\n", element, position + 1);
} else {
printf("Array overflow, cannot insert element\n");}
position = 3;
if (size > 0 && position >= 0 && position < size) {
printf("delest =Element %d deleted successfully from position %d\n", arr[position], position + 1);
for (int i = position; i < size - 1; ++i) {
arr[i] = arr[i + 1];}
size--;
} else {
printf("Invalid position to delete element\n");}
position = 1;
element = 5;
if (position >= 0 && position < size) {
arr[position] = element;
printf("Element at position %d updated to %d\n", position + 1, element);
} else {
printf("Invalid position to update element\n");}
printf("Updated array elements: ");
for (int i = 0; i < size; ++i) {
printf("%d ", arr[i]);}
printf("\n");
return 0;}
traverse=2 4 6 8 10
search= Element 6 found at location 3
insert = Element 12 inserted successfully at position 4
delest =Element 6 deleted successfully from position 3
Element at position 2 updated to 5
Updated array elements: 2 5 12 8 10
=== Code Execution Successful ===
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ENG
13:20
24-07-2024