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1)c program to find greatest number

```
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("enter the values: ");
    scanf("%d",&a);
    scanf("%d",&b);
    scanf("%d",&c);
    if(a>b)
    {
        if(a>c)
        {
            printf("a is greatest");
        }
        else
        {
            printf("c is greatest");
        }
    }
    else
    {
        if(b>c)
        {
            printf("b is greatest");
        }
        else
        {
            printf("c is greatest");
        }
    }
}
```

enter the values: 4
5
6
c is greatest

Process exited after 5.241 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Errors: 0
Warnings: 0
Output Filename: C:\Users\durga\OneDrive\Documents\greatest among 3 num.exe
Output Size: 322.60640625 Kib
Compilation Time: 0.25s

2)c program to add 2 numbers

```
#include<stdio.h>
void main()
{
    int a,b,c;
    a=10;
    b=5;
    c=a+b;
    printf("%d",c);
}
```

15

Process exited after 0.04952 seconds with return value 2
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Errors: 0
Warnings: 0
Output Filename: C:\Users\durga\OneDrive\Documents\addition.exe
Output Size: 322.6142570125 Kib
Compilation Time: 0.27s

3)c program to check the given number is even or odd

```
1 #include<stdio.h>
2 int main()
3 {
4     int num;
5     printf("enter num: ");
6     scanf("%d",&num);
7
8     if(num%2==0){
9         printf("%d is even number",num);
10    }
11    else{
12        printf("%d is odd num",num);
13    }
14    return 0;
15 }
```

enter num: 4
4 is even number

Process exited after 3.325 seconds with return value 0
Press any key to continue . . .

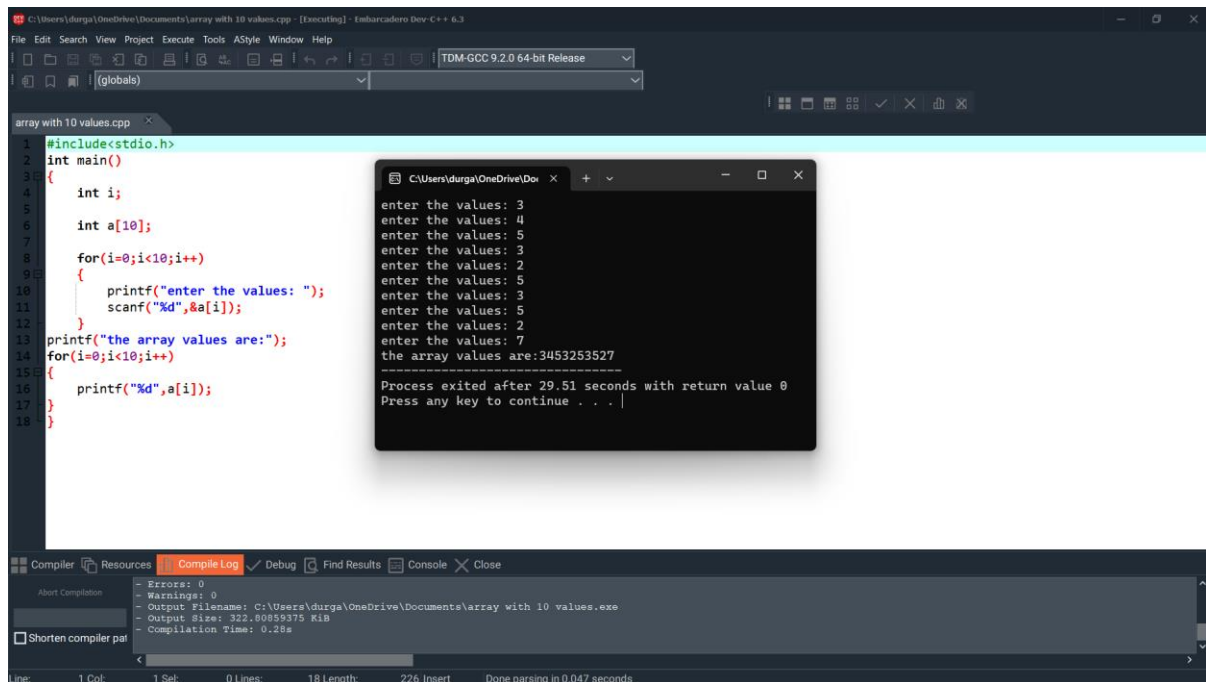
4)c program to write sum of arrays

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,a[4],sum=0;
5     for(i=0;i<4;i++)
6     {
7         printf("enter the values");
8         scanf("%d",&a[i]);
9         sum=sum+a[i];
10    }
11
12    printf("%d",sum);
13
14
15
16 }
```

enter the values3
enter the values4
enter the values5
enter the values6
18

Process exited after 9.386 seconds with return value 0
Press any key to continue . . .

5)c program to print array with 10 values



The screenshot shows an IDE with a C program named 'array with 10 values.cpp'. The program prompts the user to enter 10 values, stores them in an array, and then prints them. The execution window shows the user entering the values 3, 4, 5, 3, 2, 5, 3, 5, 2, and 7, followed by the printed array values: 3453253527. The compiler output at the bottom shows no errors or warnings.

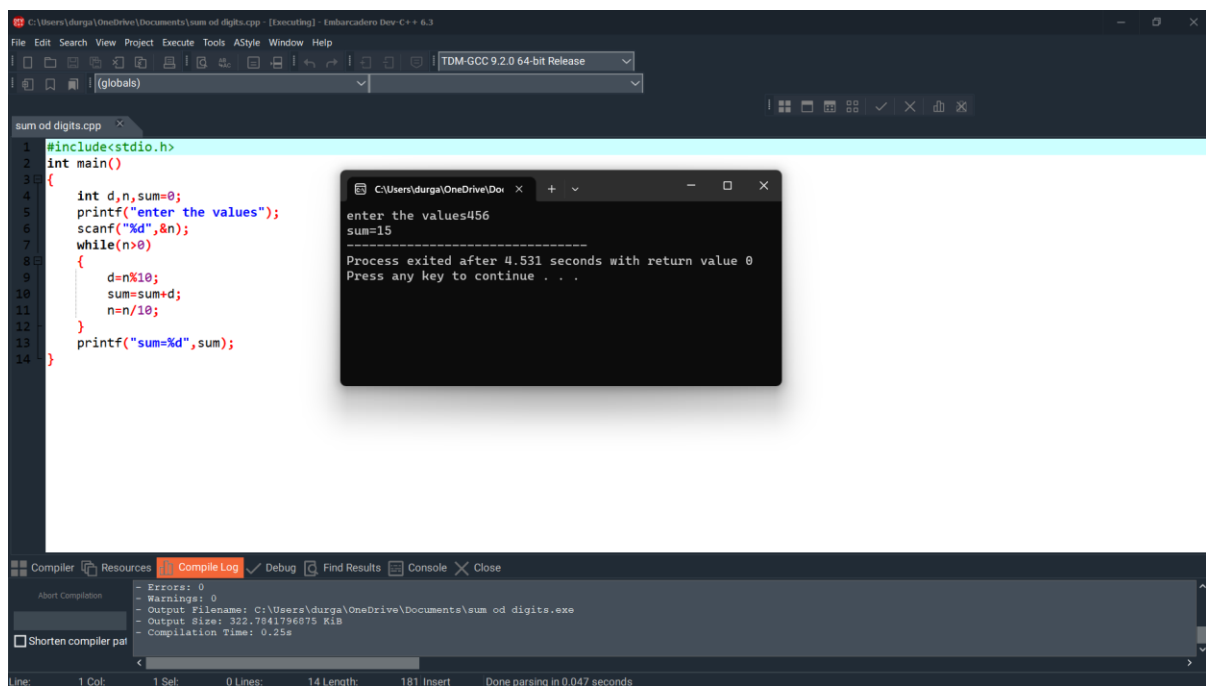
```
1 #include<stdio.h>
2 int main()
3 {
4     int i;
5     int a[10];
6     for(i=0;i<10;i++)
7     {
8         printf("enter the values: ");
9         scanf("%d",&a[i]);
10    }
11    printf("the array values are:");
12    for(i=0;i<10;i++)
13    {
14        printf("%d",a[i]);
15    }
16 }
```

enter the values: 3
enter the values: 4
enter the values: 5
enter the values: 3
enter the values: 2
enter the values: 5
enter the values: 3
enter the values: 5
enter the values: 2
enter the values: 7
the array values are:3453253527

Process exited after 29.51 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Output Filename: C:\Users\durga\OneDrive\Documents\array with 10 values.exe
Output Size: 322.60859375 KiB
Compilation Time: 0.28s

6)c program to find sum of digits



The screenshot shows an IDE with a C program named 'sum od digits.cpp'. The program prompts the user to enter a number, calculates the sum of its digits using a while loop, and prints the result. The execution window shows the user entering 456, with the calculated sum being 15. The compiler output at the bottom shows no errors or warnings.

```
1 #include<stdio.h>
2 int main()
3 {
4     int d,n,sum=0;
5     printf("enter the values");
6     scanf("%d",&n);
7     while(n>0)
8     {
9         d=n%10;
10        sum=sum+d;
11        n=n/10;
12    }
13    printf("sum=%d",sum);
14 }
```

enter the values456
sum=15

Process exited after 4.531 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Output Filename: C:\Users\durga\OneDrive\Documents\sum od digits.exe
Output Size: 322.7841796875 KiB
Compilation Time: 0.25s

7)c program to get 5 values from user and sum of it

The screenshot shows a C++ IDE with a file named "5 values from user and sum of it.cpp". The code is as follows:

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,n,sum=0;
5     i=1;
6     while(i<=5)
7     {
8         printf("enter the values");
9         scanf("%d",&n);
10        sum=sum+n;
11        i++;
12    }
13    printf("sum of values=%d",sum);
14    return 0;
15 }
```

A terminal window shows the execution output:

```
enter the values5
enter the values6
enter the values7
enter the values8
enter the values9
sum of values=34
-----
Process exited after 4.903 seconds with return value 0
Press any key to continue . . .
```

The IDE's compiler log at the bottom shows no errors or warnings, and the output filename is "5 values from user and sum of it.exe".

8)c program to print first n numbers in reverse using do while

The screenshot shows a C++ IDE with a file named "first n numbers in rev using do while.cpp". The code is as follows:

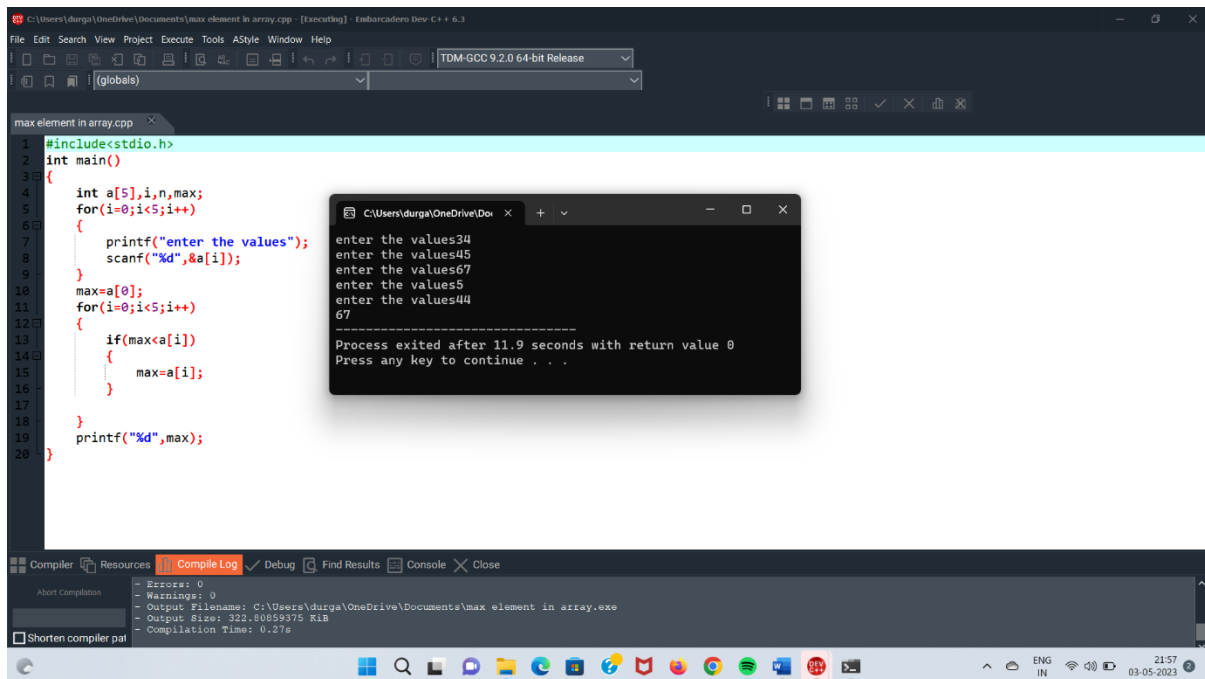
```
1 #include<stdio.h>
2 int main()
3 {
4     int i,n;
5     printf("enter the no.of values: ");
6     scanf("%d",&n);
7
8     do{
9         printf("%d",n);
10        n--;
11    }while(n>0);
12 }
```

A terminal window shows the execution output:

```
enter the no.of values: 5
54321
-----
Process exited after 2.28 seconds with return value 0
Press any key to continue . . .
```

The IDE's compiler log at the bottom shows no errors or warnings, and the output filename is "first n numbers in rev using do while.exe".

9) c program to print max element in array



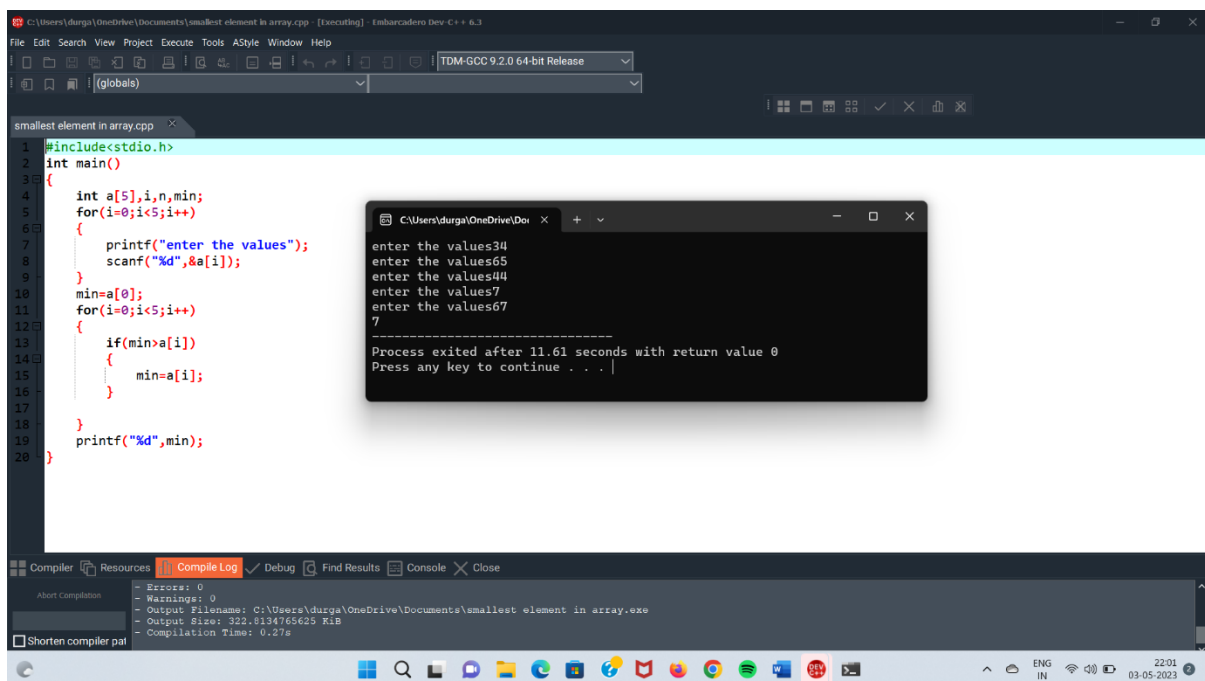
```
1 #include<stdio.h>
2 int main()
3 {
4     int a[5],i,n,max;
5     for(i=0;i<5;i++)
6     {
7         printf("enter the values");
8         scanf("%d",&a[i]);
9     }
10    max=a[0];
11    for(i=0;i<5;i++)
12    {
13        if(max<a[i])
14        {
15            max=a[i];
16        }
17    }
18    printf("%d",max);
19 }
20 }
```

enter the values34
enter the values45
enter the values67
enter the values5
enter the values44
67

Process exited after 11.9 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Compile Log: 0 errors, 0 warnings
Output Filename: C:\Users\durga\OneDrive\Documents\max element in array.exe
Output Size: 322.80859375 KiB
Compilation Time: 0.27s

10) c program to print min element in array



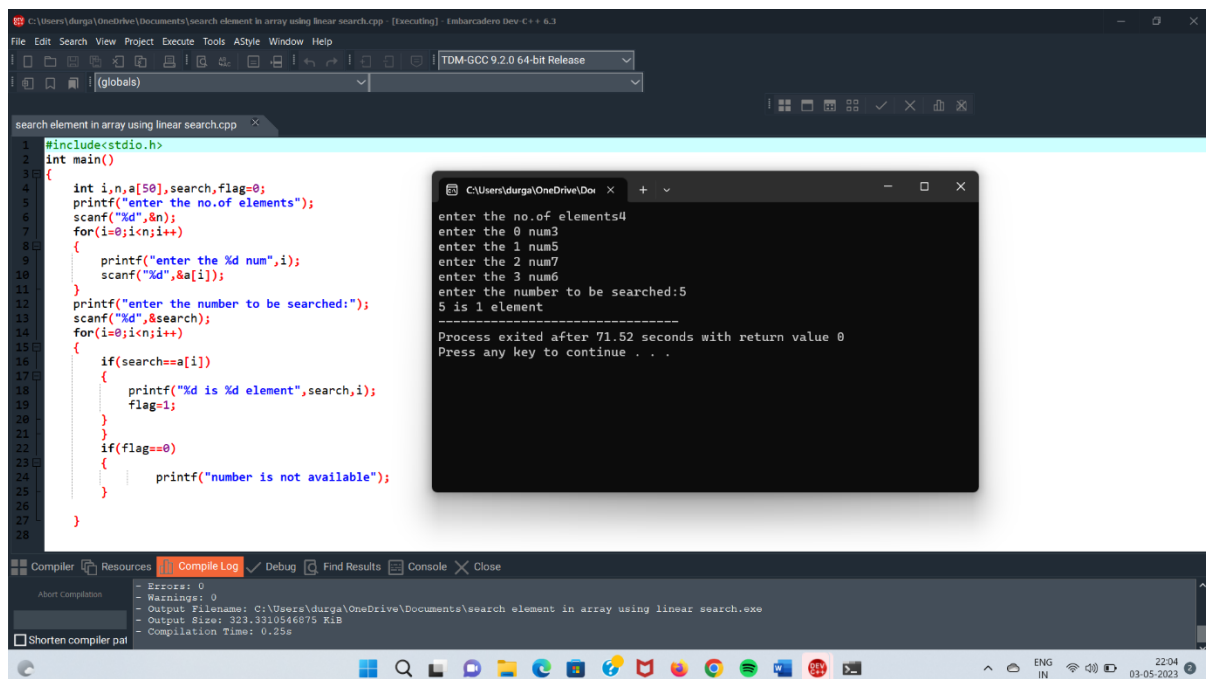
```
1 #include<stdio.h>
2 int main()
3 {
4     int a[5],i,n,min;
5     for(i=0;i<5;i++)
6     {
7         printf("enter the values");
8         scanf("%d",&a[i]);
9     }
10    min=a[0];
11    for(i=0;i<5;i++)
12    {
13        if(min>a[i])
14        {
15            min=a[i];
16        }
17    }
18    printf("%d",min);
19 }
20 }
```

enter the values34
enter the values65
enter the values44
enter the values7
enter the values67
7

Process exited after 11.61 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Compile Log: 0 errors, 0 warnings
Output Filename: C:\Users\durga\OneDrive\Documents\smallest element in array.exe
Output Size: 322.8134765625 KiB
Compilation Time: 0.27s

11)search element in array using linear search



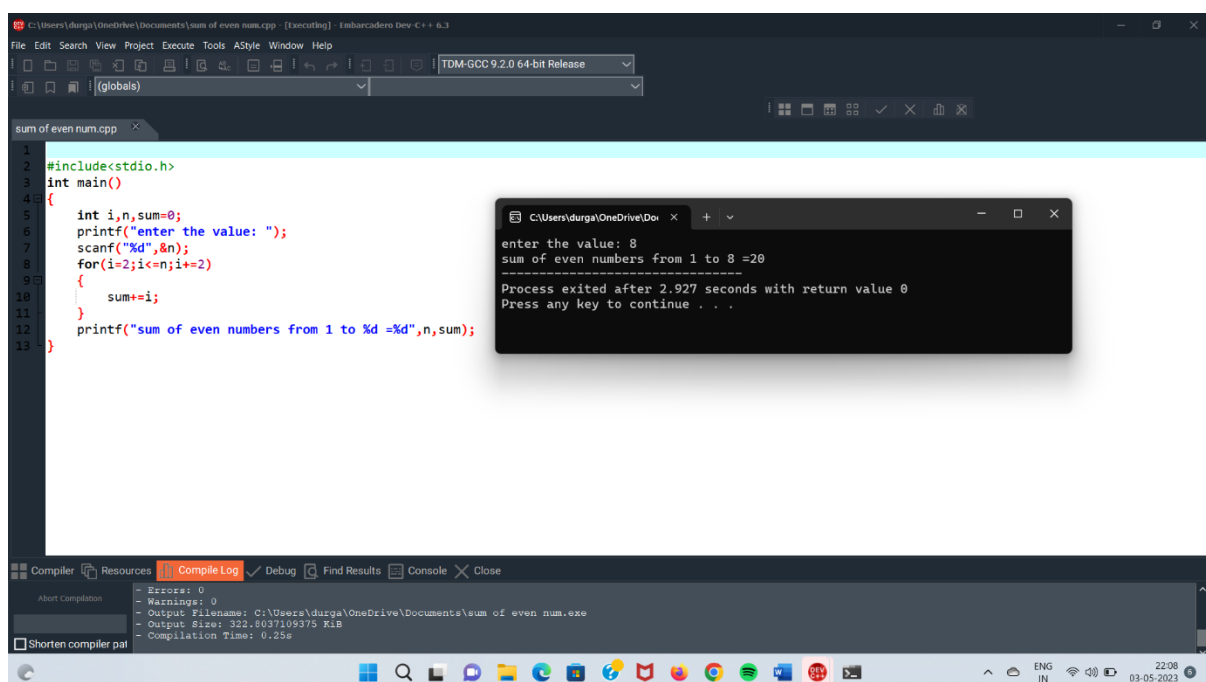
The screenshot shows a C++ IDE with a file named "search element in array using linear search.cpp". The code implements a linear search algorithm. It prompts the user to enter the number of elements, then enters each element into an array. It then prompts for a search value and iterates through the array to find it. If found, it prints the index; otherwise, it prints "number is not available".

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,n,a[50],search,flag=0;
5     printf("enter the no.of elements");
6     scanf("%d",&n);
7     for(i=0;i<n;i++)
8     {
9         printf("enter the %d num",i);
10        scanf("%d",&a[i]);
11    }
12    printf("enter the number to be searched:");
13    scanf("%d",&search);
14    for(i=0;i<n;i++)
15    {
16        if(search==a[i])
17        {
18            printf("%d is %d element",search,i);
19            flag=1;
20        }
21        if(flag==0)
22        {
23            printf("number is not available");
24        }
25    }
26 }
27
28
```

The execution output shows the user entering 4 elements: 3, 5, 7, 6, and searching for 5. The output is "5 is 1 element".

```
enter the no.of elements4
enter the 0 num3
enter the 1 num5
enter the 2 num7
enter the 3 num6
enter the number to be searched:5
5 is 1 element
-----
Process exited after 71.52 seconds with return value 0
Press any key to continue . . .
```

12)c program to find sum of even number from 1 to n



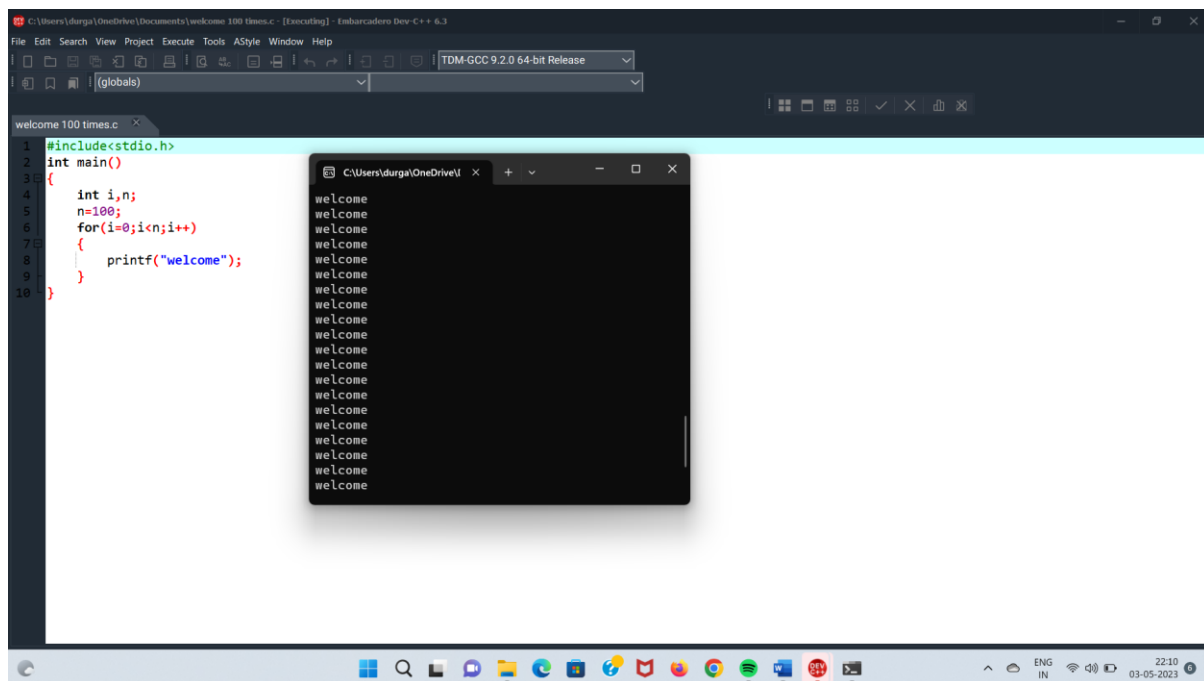
The screenshot shows a C++ IDE with a file named "sum of even num.cpp". The code prompts the user to enter a value 'n', then calculates the sum of even numbers from 1 to n using a for loop. It prints the sum.

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,n,sum=0;
5     printf("enter the value: ");
6     scanf("%d",&n);
7     for(i=2;i<=n;i+=2)
8     {
9         sum+=i;
10    }
11    printf("sum of even numbers from 1 to %d =%d",n,sum);
12 }
13
```

The execution output shows the user entering 8, and the output is "sum of even numbers from 1 to 8 =20".

```
enter the value: 8
sum of even numbers from 1 to 8 =20
-----
Process exited after 2.927 seconds with return value 0
Press any key to continue . . .
```

13)c program to print welcome 100 times

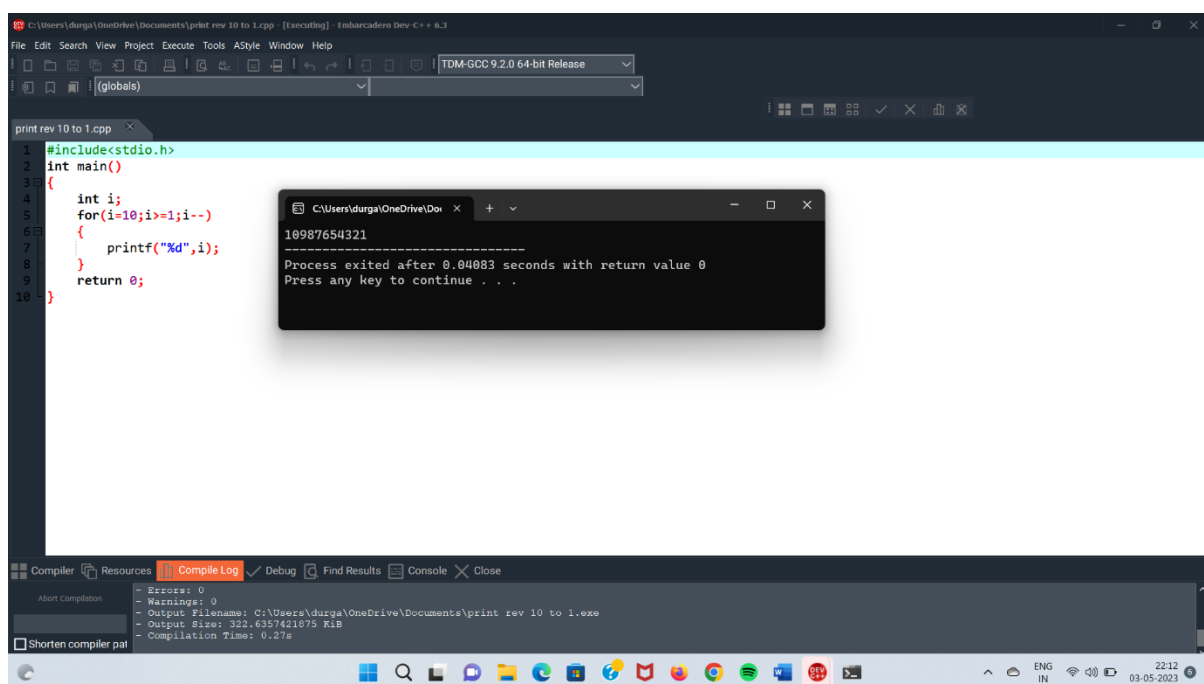


The screenshot shows a C++ IDE with a file named 'welcome 100 times.c'. The code is as follows:

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,n;
5     n=100;
6     for(i=0;i<n;i++)
7     {
8         printf("welcome");
9     }
10 }
```

A terminal window is open, displaying the output of the program: 'welcome' printed 100 times, one on each line.

14)c program to print reverse 10 to 1



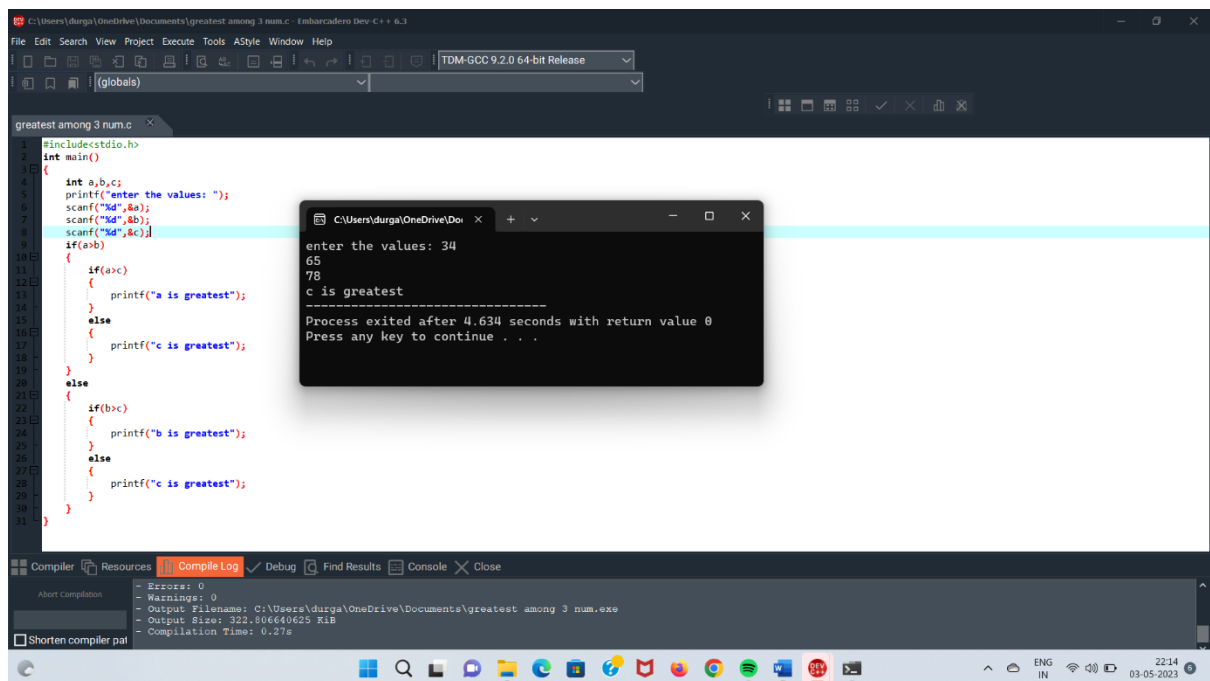
The screenshot shows a C++ IDE with a file named 'print rev 10 to 1.cpp'. The code is as follows:

```
1 #include<stdio.h>
2 int main()
3 {
4     int i;
5     for(i=10;i>=1;i--)
6     {
7         printf("%d",i);
8     }
9     return 0;
10 }
```

A terminal window is open, displaying the output of the program: '10987654321'. Below the output, it says 'Process exited after 0.04083 seconds with return value 0' and 'Press any key to continue . . .'. At the bottom of the IDE, the 'Compiler' tab is active, showing the following compilation details:

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\durga\OneDrive\Documents\print rev 10 to 1.exe
- Output Size: 322,635,742,175 KiB
- Compilation Time: 0.27s

15)c program to find greatest among 3 numbers



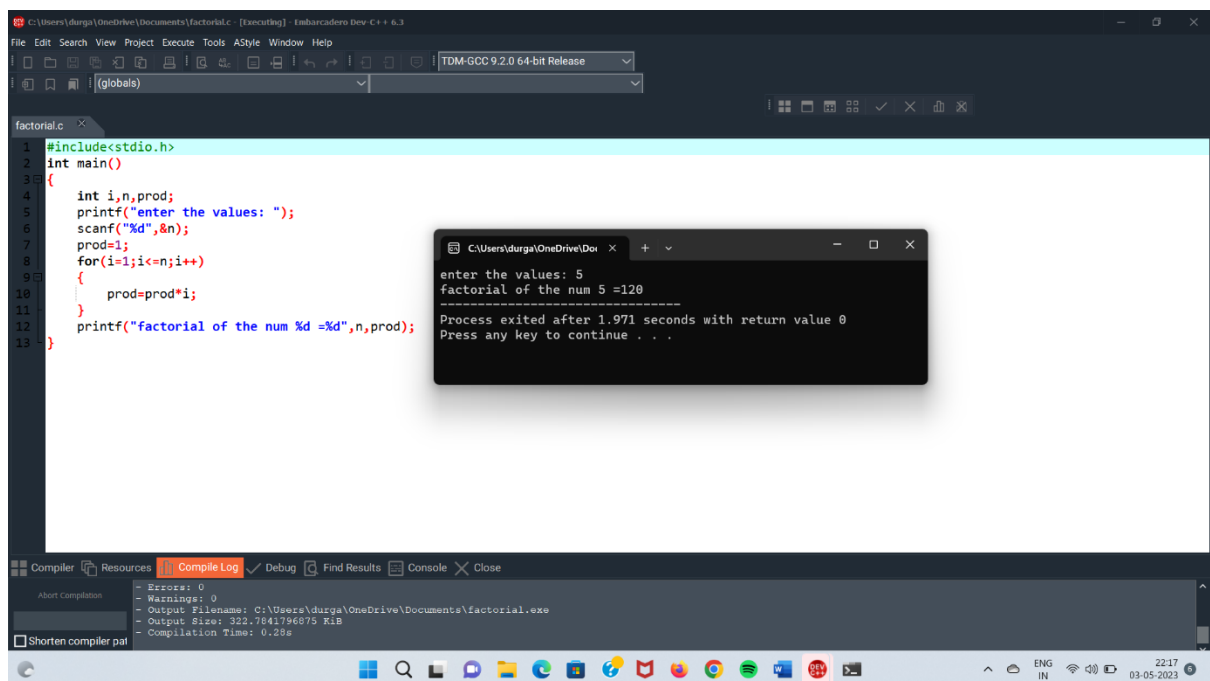
```
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("enter the values: ");
    scanf("%d",&a);
    scanf("%d",&b);
    scanf("%d",&c);
    if(a>b)
    {
        if(a>c)
        {
            printf("a is greatest");
        }
        else
        {
            printf("c is greatest");
        }
    }
    else
    {
        if(b>c)
        {
            printf("b is greatest");
        }
        else
        {
            printf("c is greatest");
        }
    }
}
```

enter the values: 34
65
78
c is greatest

Process exited after 4.634 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Compile Log: ✓ Debug
Find Results: Console X Close
About Compilation: - Errors: 0
- Warnings: 0
- Output Filename: C:\Users\durga\OneDrive\Documents\greatest among 3 num.exe
- Output Size: 322.806640625 KiB
- Compilation Time: 0.27s
Shorten compiler path

16)c program to find factorial of given number



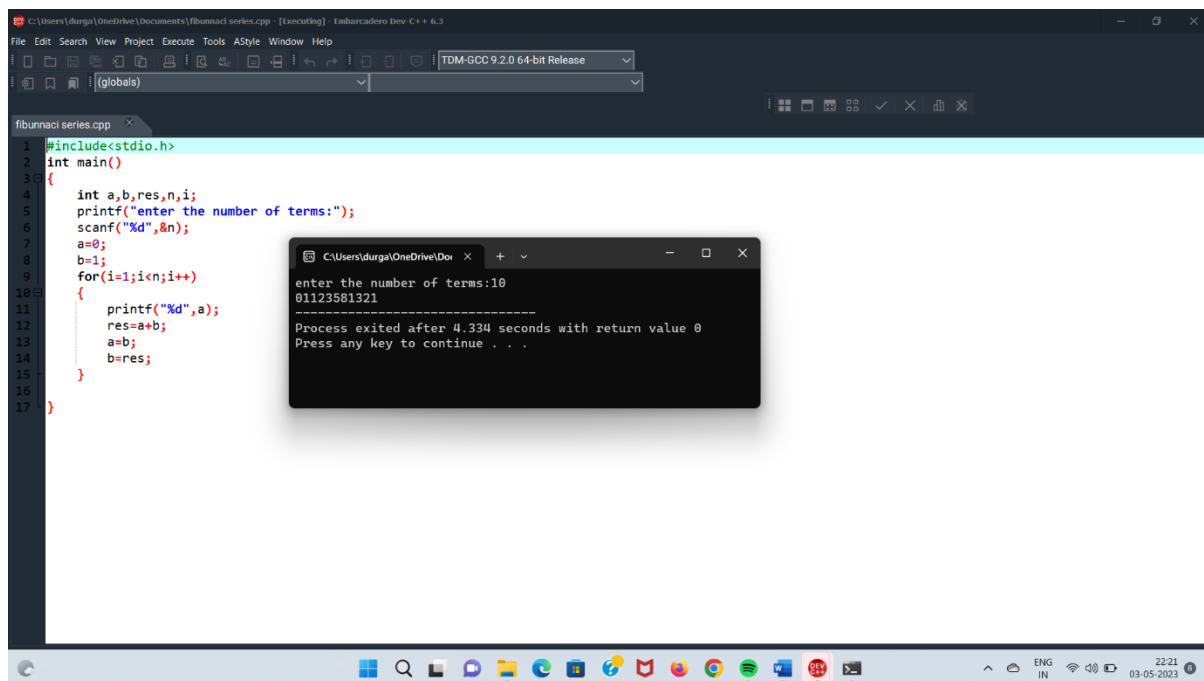
```
#include<stdio.h>
int main()
{
    int i,n,prod;
    printf("enter the values: ");
    scanf("%d",&n);
    prod=1;
    for(i=1;i<=n;i++)
    {
        prod=prod*i;
    }
    printf("factorial of the num %d =%d",n,prod);
}
```

enter the values: 5
factorial of the num 5 =120

Process exited after 1.971 seconds with return value 0
Press any key to continue . . .

Compiler: TDM-GCC 9.2.0 64-bit Release
Compile Log: ✓ Debug
Find Results: Console X Close
About Compilation: - Errors: 0
- Warnings: 0
- Output Filename: C:\Users\durga\OneDrive\Documents\factorial.exe
- Output Size: 322.7841796875 KiB
- Compilation Time: 0.28s
Shorten compiler path

17) c program to find fibunnaci series



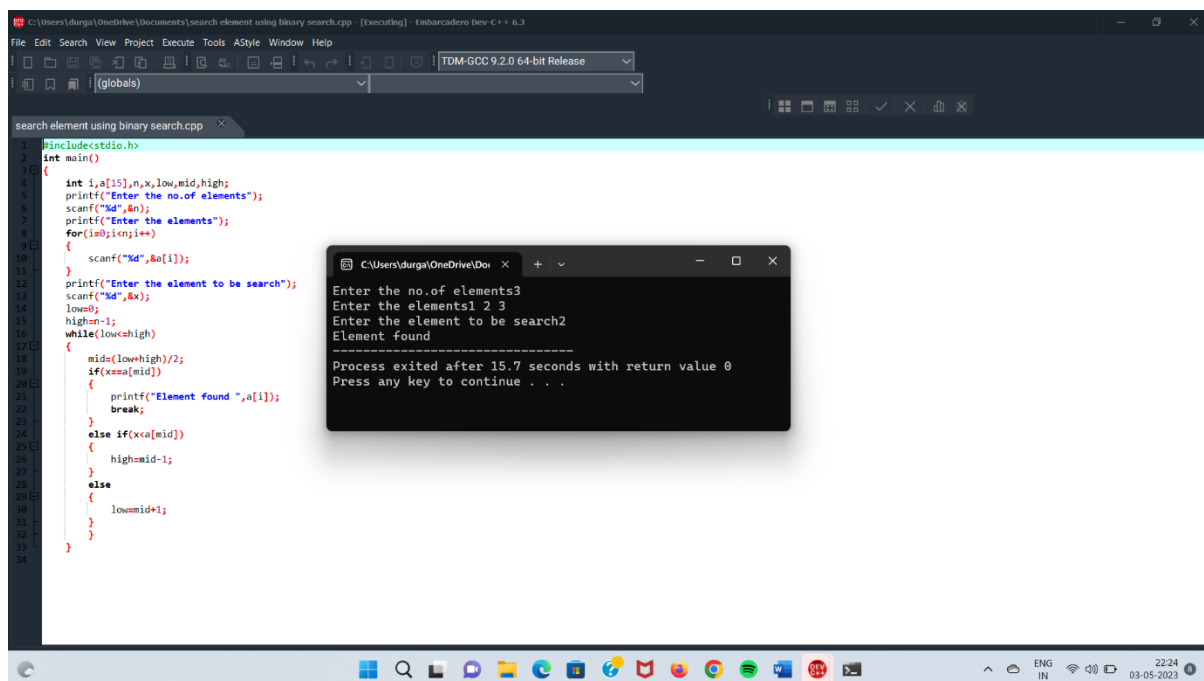
The screenshot shows a C++ IDE with a file named `fibunnaci series.cpp`. The code is as follows:

```
1 #include<stdio.h>
2 int main()
3 {
4     int a,b,res,n,i;
5     printf("enter the number of terms:");
6     scanf("%d",&n);
7     a=0;
8     b=1;
9     for(i=1;i<n;i++)
10     {
11         printf("%d",a);
12         res=a+b;
13         a=b;
14         b=res;
15     }
16 }
17 }
```

The execution output is shown in a separate window:

```
enter the number of terms:10
01123581321
-----
Process exited after 4.334 seconds with return value 0
Press any key to continue . . .
```

18)c program to search element in array using binary search



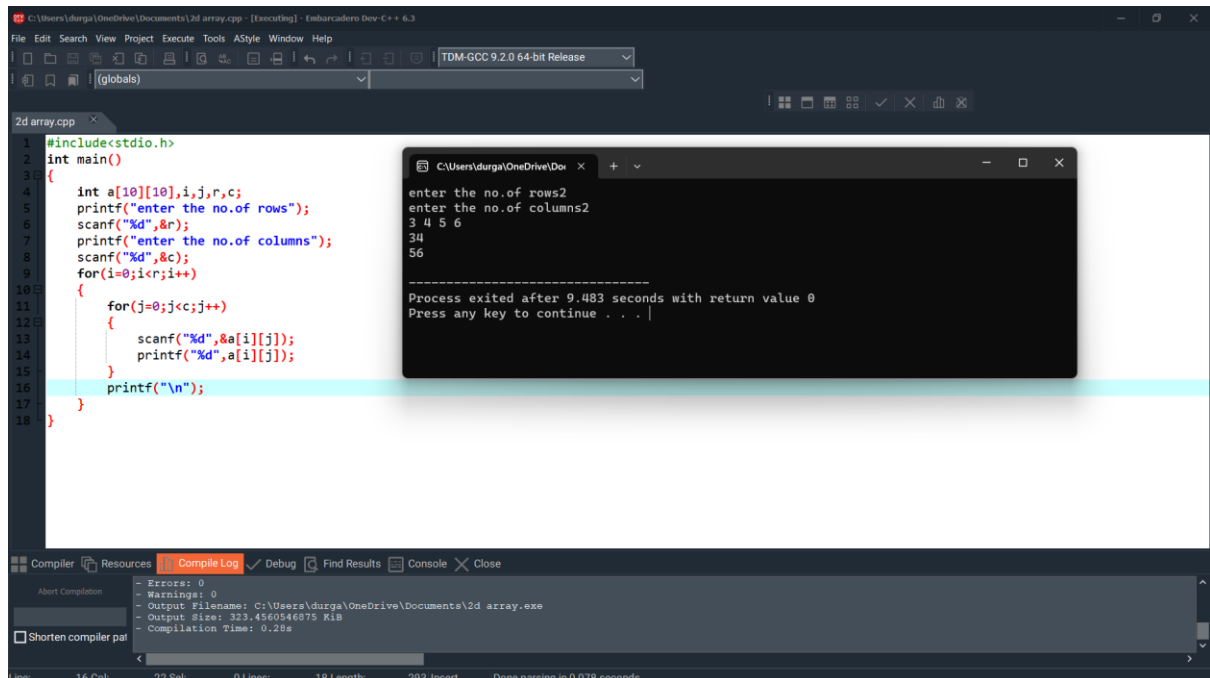
The screenshot shows a C++ IDE with a file named `search element using binary search.cpp`. The code is as follows:

```
1 #include<stdio.h>
2 int main()
3 {
4     int i,a[15],n,x,low,mid,high;
5     printf("Enter the no. of elements");
6     scanf("%d",&n);
7     printf("Enter the elements");
8     for(i=0;i<n;i++)
9     {
10         scanf("%d",&a[i]);
11     }
12     printf("Enter the element to be search");
13     scanf("%d",&x);
14     low=0;
15     high=n-1;
16     while(low<high)
17     {
18         mid=(low+high)/2;
19         if(x==a[mid])
20         {
21             printf("Element found ",a[mid]);
22             break;
23         }
24         else if(x<a[mid])
25         {
26             high=mid-1;
27         }
28         else
29         {
30             low=mid+1;
31         }
32     }
33 }
34 }
```

The execution output is shown in a separate window:

```
Enter the no. of elements3
Enter the elements1 2 3
Enter the element to be search2
Element found
-----
Process exited after 15.7 seconds with return value 0
Press any key to continue . . .
```

19) initialization and printing of 2D array



The screenshot shows a C++ IDE with a file named `2d array.cpp`. The code defines a 2D array `a` of size `10x10` and prompts the user to enter the number of rows and columns. The user enters 3 rows and 6 columns. The program then prints the array elements row by row. The output window shows the input and the resulting 3x6 array.

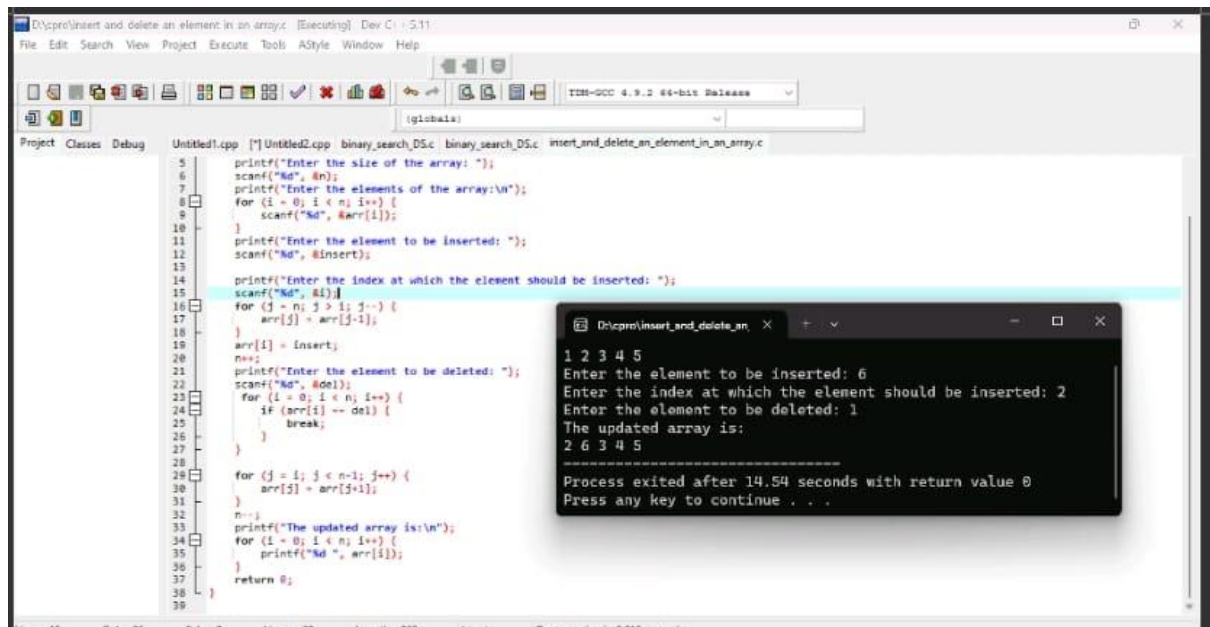
```
#include<stdio.h>
int main()
{
    int a[10][10],i,j,r,c;
    printf("enter the no.of rows");
    scanf("%d",&r);
    printf("enter the no.of columns");
    scanf("%d",&c);
    for(i=0;i<r;i++)
    {
        for(j=0;j<c;j++)
        {
            scanf("%d",&a[i][j]);
            printf("%d",a[i][j]);
        }
        printf("\n");
    }
}
```

Output:

```
enter the no.of rows2
enter the no.of columns2
3 4 5 6
34
56

Process exited after 9.483 seconds with return value 0
Press any key to continue . . .
```

20)insert and delete elements in array



The screenshot shows a C++ IDE with a file named `insert_and_delete_an_element_in_an_array.c`. The code prompts the user to enter the size of the array, the elements, the element to be inserted, and the index at which the element should be inserted. The user enters 5 elements, 6 as the element to be inserted, and 2 as the index. The program then prints the updated array. The output window shows the input and the resulting array after insertion.

```
#include<stdio.h>
int main()
{
    printf("Enter the size of the array: ");
    scanf("%d",&n);
    printf("Enter the elements of the array:\n");
    for(i=0;i<n;i++)
    {
        scanf("%d",&arr[i]);
    }
    printf("Enter the element to be inserted: ");
    scanf("%d",&insert);
    printf("Enter the index at which the element should be inserted: ");
    scanf("%d",&i);
    for(j=n;j>i;j--)
    {
        arr[j] = arr[j-1];
    }
    arr[i] = insert;
    n++;
    printf("Enter the element to be deleted: ");
    scanf("%d",&del);
    for(i=0;i<n;i++)
    {
        if(arr[i] == del)
        {
            break;
        }
    }
    for(j=i;j<n-1;j++)
    {
        arr[j] = arr[j+1];
    }
    n--;
    printf("The updated array is:\n");
    for(i=0;i<n;i++)
    {
        printf("%d ",arr[i]);
    }
    return 0;
}
```

Output:

```
1 2 3 4 5
Enter the element to be inserted: 6
Enter the index at which the element should be inserted: 2
Enter the element to be deleted: 1
The updated array is:
2 6 3 4 5

Process exited after 14.54 seconds with return value 0
Press any key to continue . . .
```