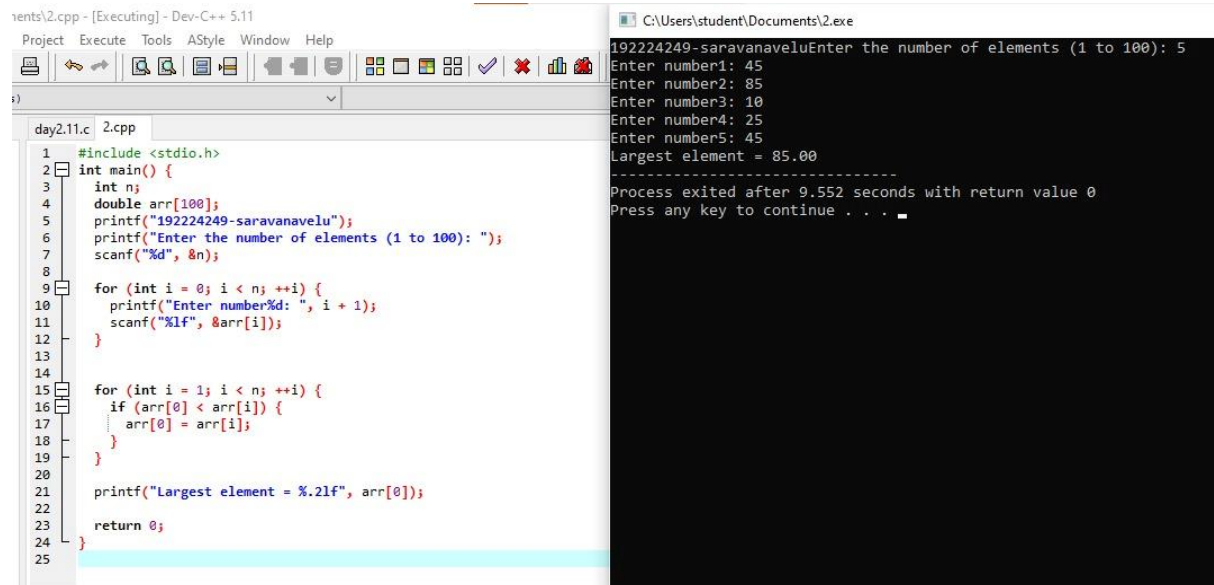


1.

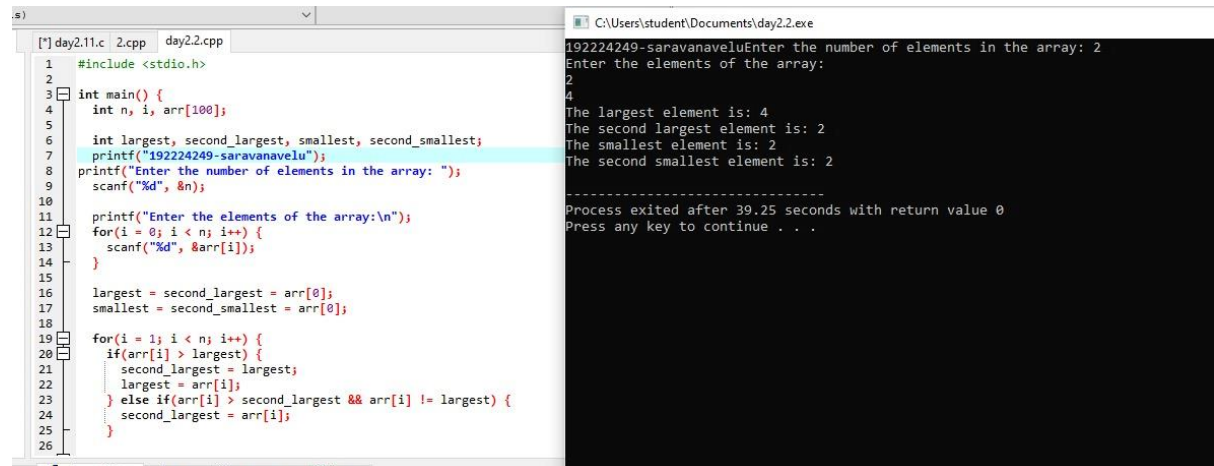


```
1 #include <stdio.h>
2 int main() {
3     int n;
4     double arr[100];
5     printf("192224249-saravanavelu");
6     printf("Enter the number of elements (1 to 100): ");
7     scanf("%d", &n);
8
9     for (int i = 0; i < n; ++i) {
10        printf("Enter number%d: ", i + 1);
11        scanf("%lf", &arr[i]);
12    }
13
14    for (int i = 1; i < n; ++i) {
15        if (arr[0] < arr[i]) {
16            arr[0] = arr[i];
17        }
18    }
19
20    printf("Largest element = %.2lf", arr[0]);
21
22    return 0;
23 }
24
25
```

C:\Users\student\Documents\2.exe

192224249-saravanaveluEnter the number of elements (1 to 100): 5  
Enter number1: 45  
Enter number2: 85  
Enter number3: 10  
Enter number4: 25  
Enter number5: 45  
Largest element = 85.00  
-----  
Process exited after 9.552 seconds with return value 0  
Press any key to continue . . .

2.

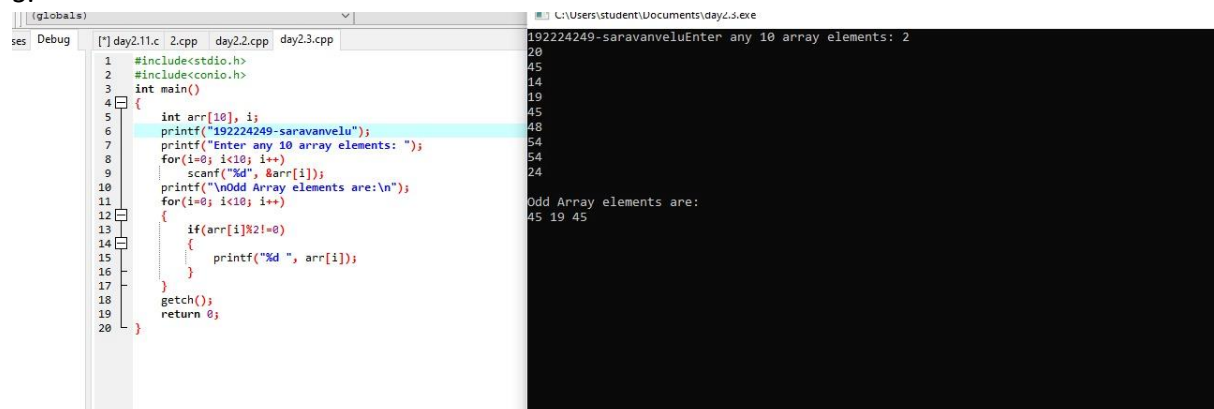


```
1 #include <stdio.h>
2
3 int main() {
4     int n, i, arr[100];
5
6     int largest, second_largest, smallest, second_smallest;
7     printf("192224249-saravanavelu");
8     printf("Enter the number of elements in the array: ");
9     scanf("%d", &n);
10
11    printf("Enter the elements of the array:\n");
12    for(i = 0; i < n; i++) {
13        scanf("%d", &arr[i]);
14    }
15
16    largest = second_largest = arr[0];
17    smallest = second_smallest = arr[0];
18
19    for(i = 1; i < n; i++) {
20        if(arr[i] > largest) {
21            second_largest = largest;
22            largest = arr[i];
23        } else if(arr[i] > second_largest && arr[i] != largest) {
24            second_largest = arr[i];
25        }
26    }
27
28    printf("The largest element is: %d\n", largest);
29    printf("The second largest element is: %d\n", second_largest);
30    printf("The smallest element is: %d\n", smallest);
31    printf("The second smallest element is: %d\n", second_smallest);
32
33    return 0;
34 }
```

C:\Users\student\Documents\day2.2.exe

192224249-saravanaveluEnter the number of elements in the array: 2  
Enter the elements of the array:  
2  
4  
The largest element is: 4  
The second largest element is: 2  
The smallest element is: 2  
The second smallest element is: 2  
-----  
Process exited after 39.25 seconds with return value 0  
Press any key to continue . . .

3.



```
1 #include<stdio.h>
2 #include<conio.h>
3 int main()
4 {
5     int arr[10], i;
6     printf("192224249-saravanavelu");
7     printf("Enter any 10 array elements: ");
8     for(i=0; i<10; i++)
9         scanf("%d", &arr[i]);
10    printf("\nOdd Array elements are:\n");
11    for(i=0; i<10; i++)
12    {
13        if(arr[i]%2!=0)
14        {
15            printf("%d ", arr[i]);
16        }
17    }
18    getch();
19    return 0;
20 }
```

C:\Users\student\Documents\day2.3.exe

192224249-saravanaveluEnter any 10 array elements: 20  
45  
14  
19  
45  
48  
54  
54  
24  
7  
Odd Array elements are:  
45 19 45

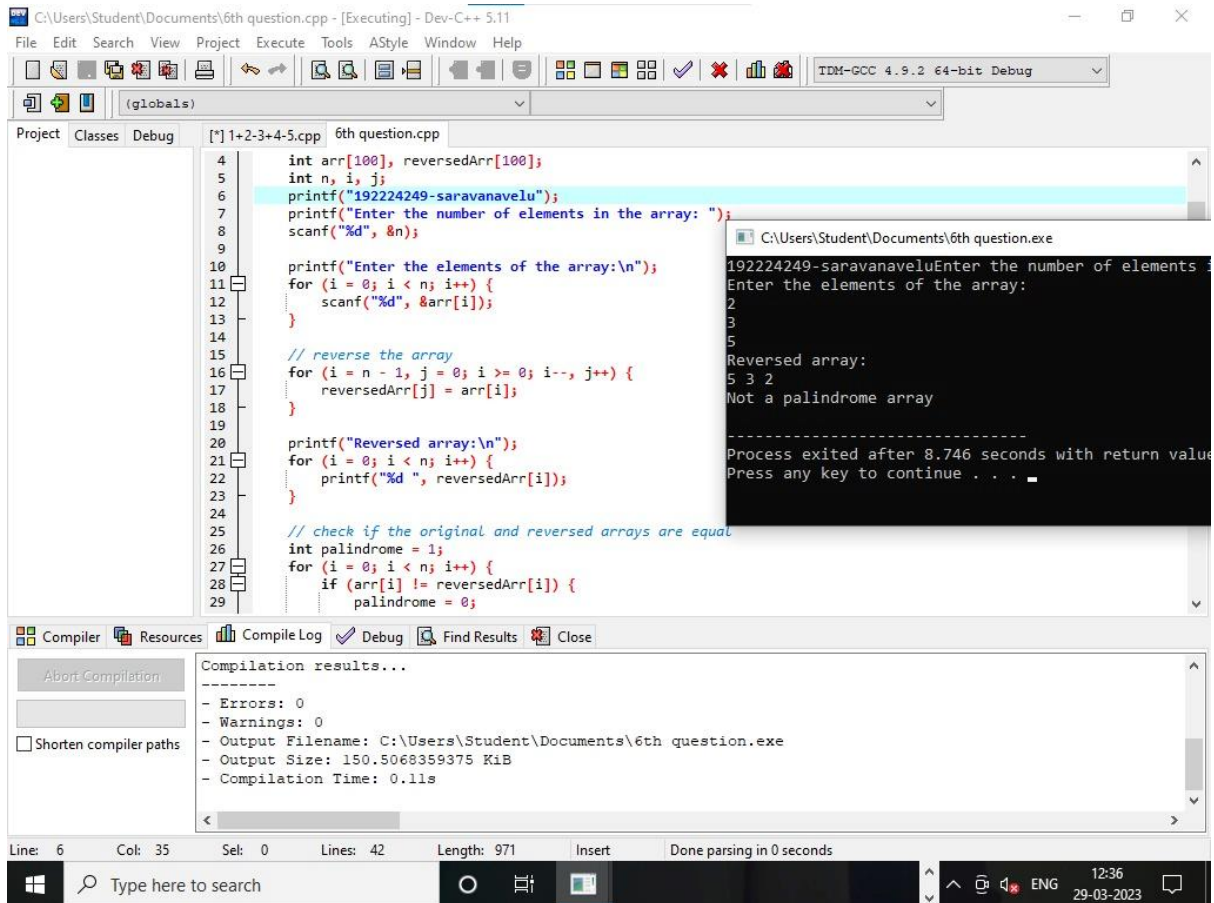
4.

```
1 #include <stdio.h>
2 #define MAX_SIZE 100
3
4 int main()
5 {
6     int arr[MAX_SIZE];
7     printf("192224249-saravanavelu");
8     int i, size, pos;
9
10    printf("Enter size of the array : ");
11    scanf("%d", &size);
12    printf("Enter elements in array : ");
13    for(i=0; i<size; i++)
14    {
15        scanf("%d", &arr[i]);
16    }
17
18    printf("Enter the element position to delete : ");
19    scanf("%d", &pos);
20
21    if(pos < 0 || pos > size)
22    {
23        printf("Invalid position! Please enter position between 0 and %d", size);
24    }
25    else
26    {
27        for(i=pos-1; i<size-1; i++)
28        {
29            arr[i] = arr[i + 1];
30        }
31        size--;
32    }
33    printf("\nElements of array after delete are : ");
```

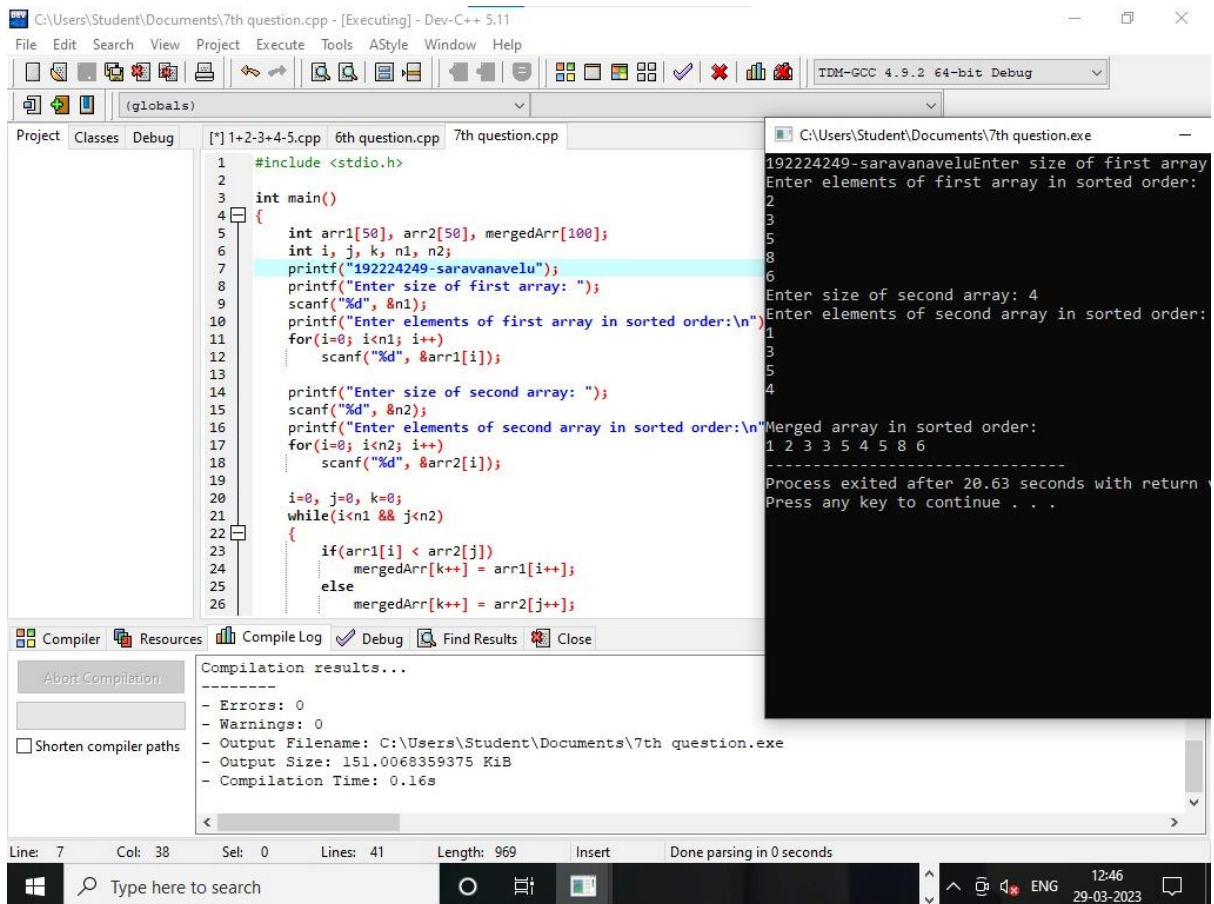
5.

```
1 #include <stdio.h>
2
3 int main() {
4     int arr[100], n, i, j, k;
5     printf("192224249-saravanavelu");
6
7     printf("Enter the size of the array: ");
8     scanf("%d", &n);
9
10    printf("Enter the elements of the array: ");
11    for (i = 0; i < n; i++) {
12        scanf("%d", &arr[i]);
13    }
14
15    for (i = 0; i < n; i++) {
16        for (j = i+1; j < n; j++) {
17            if (arr[j] == arr[i]) {
18                for (k = j; k < n; k++) {
19                    arr[k] = arr[k+1];
20                }
21                n--;
22            }
23            else {
24                j++;
25            }
26        }
27    }
28
29    printf("Array after removing duplicates: ");
30    for (i = 0; i < n; i++) {
```

6.



7.



8.

The screenshot shows the Dev-C++ IDE with the file `8 question.cpp` open. The code is as follows:

```

1 #include<stdio.h>
2 int main (){
3     int i,n,a[100],count=0;
4     printf("192224249-saravanavelu");
5     printf("enter size:");
6     scanf("%d",&n);
7     printf("enter elements\n");
8     for(i=0;i<n;i++){
9         scanf("%d",&a[i]);
10    }
11    for(i=0;i<n;i++){
12        if(a[i]==2){
13            continue;
14        }
15        else if(a[i]%2==0){
16            count++;
17        }
18    }
19    if(count>2){
20    }
21    printf("total composite number are: %d",count);
22 }

```

The output window shows the following text:

```

C:\Users\Student\Documents\8 question.exe
192224249-saravanaveluenter size:4
enter elements
2
4
5
6
total composite number are: 2
-----
Process exited after 4.026 seconds with return value 0
Press any key to continue . . .

```

The compilation results window shows:

```

Compilation results...
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Student\Documents\8 question.exe
- Output Size: 150.0068359375 KiB
- Compilation Time: 0.13s

```

9.

The screenshot shows the Dev-C++ IDE with the file `9 question.cpp` open. The code is as follows:

```

2 #include <conio.h>
3
4
5 int main()
6 {
7     int a[1000],i,n,c=0;
8     printf("192224249-saravanavelu");
9     printf("Enter size of the array : ");
10    scanf("%d", &n);
11
12    printf("Enter elements in array : ");
13    for(i=0; i<n; i++)
14    {
15        scanf("%d", &a[i]);
16    }
17
18    for(i=0; i<n; i++)
19    {
20        if(a[i] < 0)
21            c++;
22    }
23
24    printf(" count of negative numbers in array: %d",c);
25
26
27    return 0;

```

The output window shows the following text:

```

Select C:\Users\Student\Documents\9 question.exe
192224249-saravanaveluEnter size of the array : 5
Enter elements in array : 5
1
2
3
4
count of negative numbers in array: 0
-----
Process exited after 6.647 seconds with return value
Press any key to continue . . .

```

The compilation results window shows:

```

Compilation results...
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Student\Documents\9 question.exe
- Output Size: 149.837890625 KiB
- Compilation Time: 0.13s

```

11.



```
1 #include <stdio.h>
2
3
4 int main() {
5     printf("192224249-sarvanavelu");
6     public int __cdecl printf (const char * __restrict__ _Format, ...)
7     int n = sizeof(arr) / sizeof(arr[0]);
8     int search_element = 23;
9     int i;
10
11     for (i = 0; i < n; i++) {
12         if (arr[i] == search_element) {
13             printf("Given element %d is found at %d th position\n", search_element, i+1);
14             break;
15         }
16     }
17
18     if (i == n) {
19         printf("Given element %d is not found in the array\n", search_element);
20     }
21     return 0;
22 }
```

C:\Users\user\Desktop\assignment 2.exe  
Given element 23 is found at 5 th position  
-----  
Process exited after 0.0346 seconds with return value 0  
Press any key to continue . . .

12.

```
1 #include <stdio.h>
2
3 int main() {
4     printf("192224249-sarvan velu");
5
6     int arr[] = {16, 18, 27, 16, 23, 21, 19};
7     int length = sizeof(arr) / sizeof(arr[0]);
8     int sum = 0;
9
10    for (int i = 0; i < length; i++) {
11        sum += arr[i];
12    }
13
14    double average = (double) sum / length;
15
16    printf("Sum = %d\n", sum);
17    printf("Average = %.21f\n", average);
18
19    return 0;
20 }
```

E:\ejvjeueWC.exe  
192224249-sarvan veluSum = 140  
Average = 20.00  
-----  
Process exited after 0.01833 seconds with return value 0  
Press any key to continue . . . |

Compiler Resources Compile Log Debug Find Results Close  
Compilation results...  
-----  
- Errors: 0  
- Warnings: 0  
- Output Filename: E:\ejvjeueWC.exe  
- Output Size: 127.931640625 KiB  
- Compilation Time: 0.33s

13.

```
1 #include <stdio.h>
2
3 int main() {
4     printf("192224249-sarvan velu");
5     public int __cdecl printf (const char * __restrict__ _Format, ...)
6     printf("Enter the order of matrix: ");
7     scanf("%d", &n);
8     printf("Enter the matrix elements:\n");
9     for (i=0; i<n; i++) {
10         for (j=0; j<n; j++) {
11             scanf("%d", &matrix[i][j]);
12         }
13     }
14     printf("The diagonal elements are: ");
15     for (i=0; i<n; i++) {
16         printf("%d ", matrix[i][i]);
17         sum += matrix[i][i];
18     }
19     printf("\nSum of diagonal elements = %d", sum);
20     return 0;
21 }
```

C:\Users\user\Desktop\13 question.exe  
Enter the order of matrix: 2  
Enter the matrix elements:  
4  
5  
6  
7  
The diagonal elements are: 4 7  
Sum of diagonal elements = 11  
-----  
Process exited after 10.72 seconds with return value 0  
Press any key to continue . . .

14

```

1 #include <stdio.h>
2
3 int main() {
4     int arr[] = { 4, 2, 8, 1, 5 };
5     printf("192224249 savorana");
6     public int __cdecl printf(const char * __restrict__, ...)
7     int max = arr[0];
8     int min = arr[0];
9
10    for(int i = 1; i < n; i++) {
11
12        if(arr[i] > max) {
13            max = arr[i];
14        }
15
16        if(arr[i] < min) {
17            min = arr[i];
18        }
19    }
20
21    printf("Maximum value in array: %d\n", max);
22    printf("Minimum value in array: %d\n", min);
23
24    return 0;
25 }

```

Output window:

```

192224249 savoranaMaximum value in array: 8
Minimum value in array: 1
-----
Process exited after 0.01827 seconds with return value 0
Press any key to continue . . .

```

Compilation results...

```

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\student\Documents\daa c++\soumil1.exe
- Output Size: 128.431640625 KiB
- Compilation Time: 0.11s

```

15.

```

1 #include <stdio.h>
2 #include <string.h>
3
4 int main() {
5     print("192224249-sarvanavelu")
6
7     char statement[100];
8     int count = 0, i;
9     printf("Enter a statement: ");
10    gets(statement);
11    for(i=0; statement[i]!='\0'; i++) {
12        if(statement[i]=='a' || statement[i]=='e' || statement[i]=='i' || statement[i]=='o' || statement[i]=='u' || statement[i]=='A' || statement[i]=='E' || statement[i]=='I' || statement[i]=='O' || statement[i]=='U') {
13            count++;
14        }
15    }
16    printf("Number of vowels = %d", count);
17    return 0;
18 }

```

Output window:

```

Enter a statement: i have a dog
Number of vowels = 5
-----
Process exited after 13.06 seconds with return value 0
Press any key to continue . . .

```

16.

```

1 #include <stdio.h>
2 #include <string.h>
3
4 int main() {
5     char str[100];
6     int i, len, flag = 1;
7
8     printf("Enter a string: ");
9     printf("192224249 saravanavelu");
10    public int __cdecl printf(const char * __restrict__, ...)
11    len = strlen(str);
12
13    for (i = 0; i < len/2; i++) {
14        if (str[i] != str[len-i-1]) {
15            flag = 0;
16            break;
17        }
18    }
19
20    if (flag)
21        printf("%s is a Palindrome", str);
22
23    return 0;
24 }

```

Output window:

```

Enter a string: 192224249 saravanaveluABEEBA
"ABEEBA" is a Palindrome
-----
Process exited after 10.47 seconds with return value 0
Press any key to continue . . .

```

Compilation results...

```

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\student\Desktop\sudheer soumil2.exe
- Output Size: 128.62109375 KiB
- Compilation Time: 0.13s

```

17.

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

```

1 #include <stdio.h>
2 #include <string.h>
3
4 int main() {
5     printf("192224249-sravan velu");
6     char str1[100], str2[100];
7
8     printf("Enter the first string: ");
9     fgets(str1, 100, stdin);
10
11    printf("Enter the second string: ");
12    fgets(str2, 100, stdin);
13
14    str1[strcspn(str1, "\n")] = '\0';
15    str2[strcspn(str2, "\n")] = '\0';
16
17    strcat(str1, str2);
18
19    printf("Concatenated string = %s", str1);
20
21    return 0;
22 }
23

```

The output window shows the following text:

```

192224249-sravan veluEnter the first string: sanfoundry
Enter the second string: programming
Concatenated string = sanfoundryprogramming
-----
Process exited after 31.16 seconds with return value 0
Press any key to continue . . .

```

18.

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

```

1 #include <stdio.h>
2
3 int main() {
4     char str1[100], str2[100];
5     int i = 0, flag = 0;
6
7     printf("Enter first string: ");
8     printf("192224249 saravana");
9
10    public int __cdecl printf(const char * __restrict __Format, ...)
11
12    printf("Enter second string: ");
13    scanf("%s", str2);
14
15    while (str1[i] != '\0' || str2[i] != '\0') {
16        if (str1[i] != str2[i]) {
17            flag = 1;
18            break;
19        }
20        i++;
21    }
22
23    if (flag == 0)
24        printf("Strings are equal.\n");
25    else
26        printf("Strings are not equal.\n");
27

```

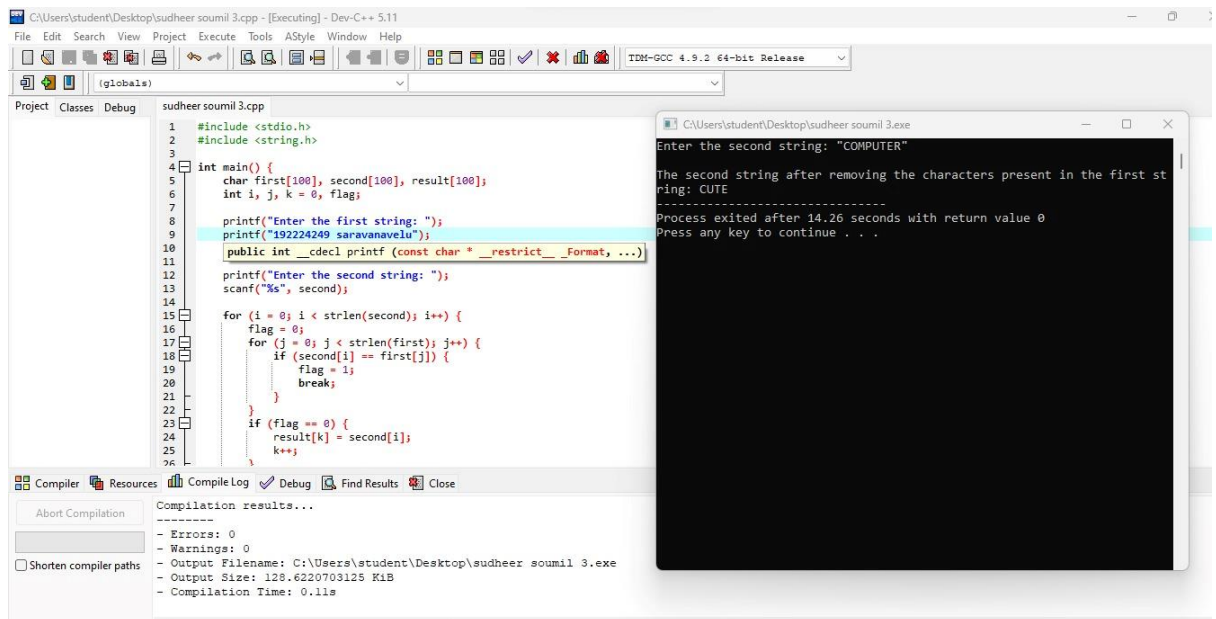
The output window shows the following text:

```

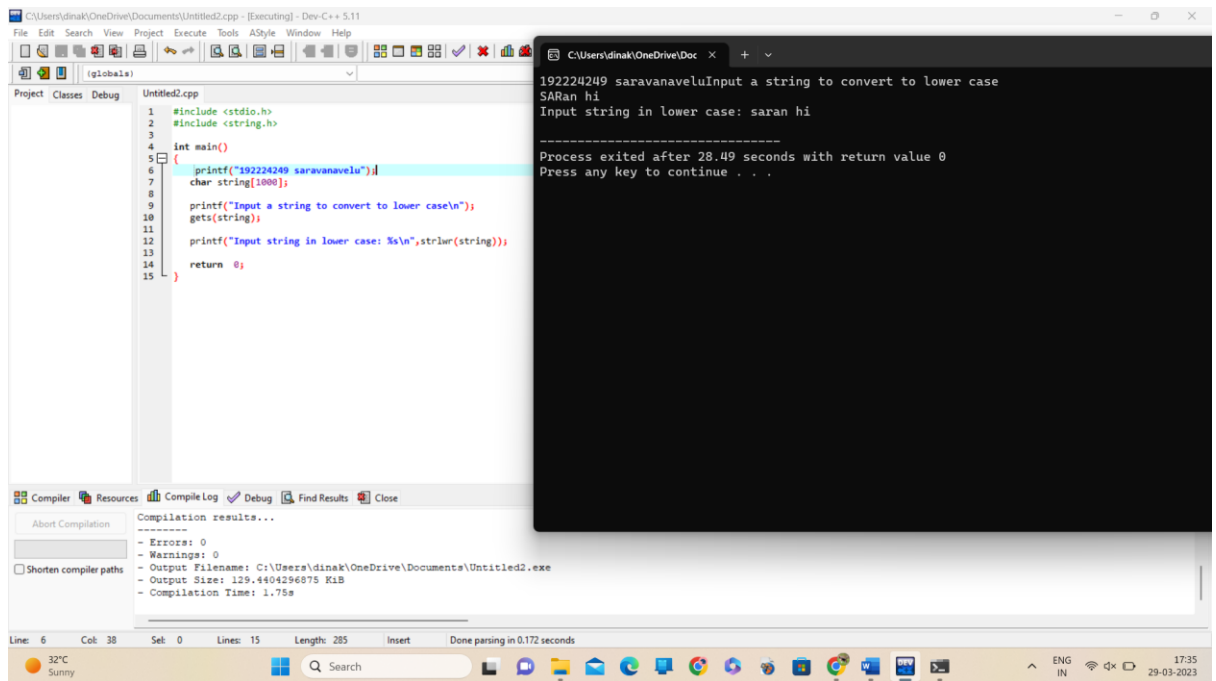
C:\Users\student\Documents\daa c++\soumill.exe
Enter first string: 192224249 saravana"wow"
Enter second string: "wow"
Strings are equal.
-----
Process exited after 17.32 seconds with return value 0
Press any key to continue . . .

```

19.



20.





21.

The screenshot shows a C++ IDE with a file named 'Untitled2.cpp'. The code in the file is as follows:

```
1 #include <stdio.h>
2 int main() {
3     printf("192224249 saravanaveluLength of the string: 18");
4     char s[] = "Programming is fun";
5     int i;
6
7     for (i = 0; s[i] != '\0'; ++i);
8
9     printf("Length of the string: %d", i);
10    return 0;
11 }
12
```

The IDE's output window shows the following text:

```
192224249 saravanaveluLength of the string: 18
-----
Process exited after 16.26 seconds with return value 0
Press any key to continue . . .
```

The IDE's status bar at the bottom shows 'Line: 3 Col: 38 Sel: 0 Lines: 12 Length: 229 Insert Done parsing in 0.016 seconds'. The Windows taskbar at the bottom shows the date and time as '17:39 29-03-2023'.