

## Lab Report 05 by 0432410005101088

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1. Write a C code to read and print elements of an array
2. Write a C code to print all negative elements in an array
3. Write a C code to find sum and average of all array elements in an array
4. Write a C code to find maximum and minimum element in an array
5. Write a C code to find a value from an array with its position
6. Write a C code to copy all values from an array into another array
7. Write a C code to insert a values to a specific position
8. Write a C code to delete a values to a specific position

```
01.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x 01.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N;
6     printf("Size of Array: ");
7     scanf("%d",&N);
8     int a[N];
9     printf("Input %d elements of Array: \n",N);
10    for(int i =1; i<=N; i++)
11    {
12        scanf("%d",&a[i]);
13    }
14    printf("\nThe read elements are:\n");
15    for(int i =1; i<=N; i++)
16    {
17        printf("%d\n",a[i]);
18    }
19
20    return 0;
21 }
22
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 10, Col 18, Pos 182 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 10
Input 10 elements of Array:
1 2 3 4 5 6 7 8 9 10

The read elements are:
1
2
3
4
5
6
7
8
9
10

Process returned 0 (0x0) execution time : 12.809 s
Press any key to continue.
|
```

```
02.c - Code::Blocks 20.03
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Start here x 02.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N,count = 0;
6     printf("Size of Array: ");
7     scanf("%d",&N);
8     int a[N];
9     printf("Input %d elements of Array: \n",N);
10    for(int i =1; i<=N; i++)
11    {
12        scanf("%d",&a[i]);
13        if(a[i]<0)
14        {
15            count++;
16        }
17    }
18    if(count==0)
19    {
20        printf("no negative elements found");
21    }
22    else
23    {
24        printf("\nThe negative elements are:\n");
25        for(int i = 1; i<=N; i++)
26        {
27            if(a[i]<0)
28            {
29                printf("%d\n",a[i]);
30            }
31        }
32    }
33
34
35    return 0;
36 }
37
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 16, Col 10, Pos 302 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 5
Input 5 elements of Array:
-1
2
3
-4
5

The negative elements are:
-1
-4

Process returned 0 (0x0) execution time : 48.629 s
Press any key to continue.
|
```

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 5
Input 5 elements of Array:
1 2 3 4 5
no negative elements found
Process returned 0 (0x0) execution time : 12.037 s
Press any key to continue.
|
```

```
03.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x 03.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N;
6     float sum = 0, avg = 0;
7     printf("Size of Array: ");
8     scanf("%d", &N);
9     float a[N];
10    printf("Input %d elements of Array:
11    \n", N);
12    for(int i = 1; i <= N; i++)
13    {
14        scanf("%f", &a[i]);
15        sum = sum + a[i];
16    }
17    avg = sum/N;
18    printf("Sum is %.3f\nAverage is
19    %.3f\n", sum, avg);
20
21    return 0;
22 }
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 5, Col 11, Pos 46 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 5
Input 5 elements of Array:
1
2
3
4
5
Sum is 15.000
Average is 3.000

Process returned 0 (0x0) execution time : 5.503 s
Press any key to continue.
|
```

```
04.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x 04.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N, max = 0, min = 0;
6     printf("Size of Array: ");
7     scanf("%d",&N);
8     float a[N];
9     printf("Input %d elements of Array: \n",N);
10    for(int i =1; i<=N; i++)
11    {
12        scanf("%f",&a[i]);
13    }
14
15    max = a[1], min = a[1];
16    for(int i =2; i<=N; i++)
17    {
18        if(a[i]>max)
19        {
20            max = a[i];
21        }
22        if(a[i]<min)
23        {
24            min = a[i];
25        }
26    }
27    printf("Max is %d\nMin is %d\n",max,min);
28
29    return 0;
30 }
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

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		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 10, Col 21, Pos 205 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS x + v
Size of Array: 5
Input 5 elements of Array:
1
11
111
1111
2
Max is 1111
Min is 1

Process returned 0 (0x0) execution time : 28.112 s
Press any key to continue.
|
```

```
05.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x 05.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N, value, count =0;
6     printf("Size of Array: ");
7     scanf("%d",&N);
8     float a[N];
9     printf("Input %d elements of Array: \n",N);
10    for(int i =1; i<=N; i++)
11    {
12        scanf("%f",&a[i]);
13    }
14    printf("Value to find?\nInput: ");
15    scanf("%d",&value);
16    printf("\nResult:\n\n");
17    for(int i = 1; i<=N; i++)
18    {
19        if(a[i]==value)
20        {
21            printf("Found %d in Position %d\n", value, i);
22            count++;
23        }
24    }
25    if(count==0)
26    {
27        printf("value not found.\n");
28    }
29
30    return 0;
31 }
32
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

File	Line	Message
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		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 12, Col 27, Pos 246 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS x + v
Size of Array: 5
Input 5 elements of Array:
12 33 46 71 99
Value to find?
Input: 46

Result:

Found 46 in Position 3

Process returned 0 (0x0) execution time : 30.622 s
Press any key to continue.
```

```
"G:\My Drive\Varsity 2023\CS x + v
Size of Array: 5
Input 5 elements of Array:
1 2 3 4 5
Value to find?
Input: 6

Result:

value not found.

Process returned 0 (0x0) execution time : 8.717 s
Press any key to continue.
|
```

```
06.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x 06.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N, value, count =0;
6     printf("Size of Array: ");
7     scanf("%d",&N);
8     float a[N],b[N];
9     printf("Input %d elements of Array: \n",N);
10    for(int i =1; i<=N; i++)
11    {
12        scanf("%f",&a[i]);
13    }
14    printf("\nCopying elements of the 1st array:\n");
15    for(int i =1; i<=N; i++)
16    {
17        printf("%.1f (copied to element b[%d])\n",a[i],i);
18        b[i]=a[i];
19    }
20    printf("\nElements of 2nd array:\n");
21    for(int i =1; i<=N; i++)
22    {
23        printf("b[%d] = %.1f\n",i,b[i]);
24    }
25
26
27    return 0;
28 }
29
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 13, Col 6, Pos 258 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 5
Input 5 elements of Array:
1
2
3
4
5

Copying elements of the 1st array:
1.0 (copied to element b[1])
2.0 (copied to element b[2])
3.0 (copied to element b[3])
4.0 (copied to element b[4])
5.0 (copied to element b[5])

Elements of 2nd array:
b[1] = 1.0
b[2] = 2.0
b[3] = 3.0
b[4] = 4.0
b[5] = 5.0

Process returned 0 (0x0) execution time : 7.687 s
Press any key to continue.
|
```

```
07.c - Code::Blocks 20.03
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Start here x 07.c x
1 #include<stdio.h>
2
3 int main()
4 {
5     int N, i, value, position;
6     printf("Size of Array: ");
7     scanf("%d", &N);
8     int a[N];
9     printf("\ninsert value?\nInput: ");
10    scanf("%d", &value);
11    printf("\nto position?\nInput: ");
12    scanf("%d", &position);
13    if(position<=N)
14    {
15        i = position;
16        a[i] = value;
17        printf("%d was inserted to array element
a[%d]\n\nResult: a[%d] = %d\n", value, position,
position, a[i]);
18    }
19    else
20    {
21        printf("[ Invalid position or array size ]\n");
22    }
23
24
25    return 0;
26 }
27
```

Logs & others

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File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 17, Col 114, Pos 455 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 5
insert value?
Input: 66
to position?
Input: 3
66 was inserted to array element a[3]
Result: a[3] = 66
Process returned 0 (0x0) execution time : 31.104 s
Press any key to continue.
```

```
"G:\My Drive\Varsity 2023\CS" x + v
Size of Array: 5
insert value?
Input: 5
to position?
Input: 6
[ Invalid position or array size ]
Process returned 0 (0x0) execution time : 15.239 s
Press any key to continue.
```



```
08.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Start here x 07.c x 08.c x

1 #include<stdio.h>
2
3 int main()
4 {
5     int N, i, position;
6     printf("Size of Array: ");
7     scanf("%d", &N);
8     int a[N];
9     printf("Input %d elements/values of Array: \n",
10 N);
11     for(int i =1; i<=N; i++)
12     {
13         scanf("%d", &a[i]);
14     }
15     printf("\nDelete value from position?\nInput:");
16     scanf("%d", &position);
17     a[position]= 0;
18     printf("modified array elements:\n");
19     for(int i =1; i<=N; i++)
20     {
21         printf("%d\n", a[i]);
22     }
23     return 0;
24 }
25
```

Logs & others

Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck/Vera++ x CppCheck/Vera++ messages x Cs

File	Line	Message
		=== Build file: "no target" in "no project" (compiler: unknown) ===
		=== Build finished: 0 error(s), 0 warning(s) (0 minute(s), 0 second(s)) ===

G:\My D... C/C++ Windows (CR+LF) WINDOWS-1252 Line 11, Col 6, Pos 218 Insert Read/Write default

```
"G:\My Drive\Varsity 2023\CS" x + v

Size of Array: 5
Input 5 elements/values of Array:
1
2
3
4
5

Delete value from position?
Input: 5
modified array elements:
1
2
3
4
0

Process returned 0 (0x0) execution time : 14.859 s
Press any key to continue.
|
```