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## **Assignment 7**

### **1) Find minimum and maximum number in array.**

```
#include <stdio.h>

int main() {

int arr[100], n, i;

int min, max;

printf("Enter number of elements in the array: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i = 0; i < n; i++) {

scanf("%d", &arr[i]);

}min = max = arr[0];

for(i = 1; i < n; i++) {

if(arr[i] < min)

min = arr[i];

if(arr[i] > max)

max = arr[i];

}

printf("Minimum element: %d\n", min);

printf("Maximum element: %d\n", max);

return 0;
```

}

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page title is "Online C Compiler - Programiz". The main content area is divided into two panels. The left panel, titled "main.c", contains the following C code:

```
1 #include <stdio.h>
2 int main() {
3     int arr[100], n, i;
4     int min, max;
5     printf("Enter number of elements in the array: ");
6     scanf("%d", &n);
7     printf("Enter %d elements:\n", n);
8     for(i = 0; i < n; i++) {
9         scanf("%d", &arr[i]);
10        min = max = arr[0];
11        for(i = 1; i < n; i++) {
12            if(arr[i] < min)
13                min = arr[i];
14            if(arr[i] > max)
15                max = arr[i];
16        }
17        printf("Minimum element: %d\n", min);
18        printf("Maximum element: %d\n", max);
19        return 0;
20    }
21 }
```

The right panel, titled "Output", shows the execution results:

```
Enter number of elements in the array:
4
Enter 4 elements:
4 5 2 1
Minimum element: 1
Maximum element: 5

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

At the bottom of the browser window, there is a Windows taskbar showing the date and time as 3:34 PM on 4/19/2025, and the system language as ENG IN.

## 2] Search the given number in array.

```
#include <stdio.h>
```

```
int main() {
```

```
int arr[100], n, i, key, found = 0;
```

```
printf("Enter number of elements in the array: ");
```

```
scanf("%d", &n);
```

```
printf("Enter %d elements:\n", n);
```

```

for(i = 0; i < n; i++) {

scanf("%d", &arr[i]);

}

printf("Enter number to search: "); scanf("%d", &key);

for(i = 0; i < n; i++) {

if(arr[i] == key) {

printf("Number %d found at position %d (index %d)\n", key, i+1, i);

found = 1;

}

}

if(!found) {

printf("Number %d not found in the array.\n", key);

}

return 0;

}

```

The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The page displays the Programiz Online Compiler interface. On the left, the C source code is shown, and on the right, the output of the program is displayed.

**Source Code (main.c):**

```

1 #include <stdio.h>
2 int main() {
3     int arr[100], n, i, key, found = 0;
4     printf("Enter number of elements in the array: ");
5     scanf("%d", &n);
6     printf("Enter %d elements:\n", n);
7     for(i = 0; i < n; i++) {
8         scanf("%d", &arr[i]);
9     }
10    printf("Enter number to search: "); scanf("%d", &key);
11    for(i = 0; i < n; i++) {
12        if(arr[i] == key) {
13            printf("Number %d found at position %d (index %d)\n", key, i+1, i);
14            found = 1;
15        }
16    }
17    if(!found) {
18        printf("Number %d not found in the array.\n", key);
19    }
20    return 0;
21 }
22
23

```

**Output:**

```

Enter number of elements in the array: 2
Enter 2 elements:
3 4
Enter number to search: 3
Number 3 found at position 1 (index 0)

```

Below the output, it says "=== Code Execution Successful ===".

At the bottom of the browser window, there is a Windows taskbar showing the date and time as 3:37 PM on 4/19/2025, and the system language is set to English (IN).

### **3) Find sum of all numbers.**

```
#include <stdio.h>

int main() {

    int arr[5] = {11, 22, 33, 44, 55};

    int sum = 0;

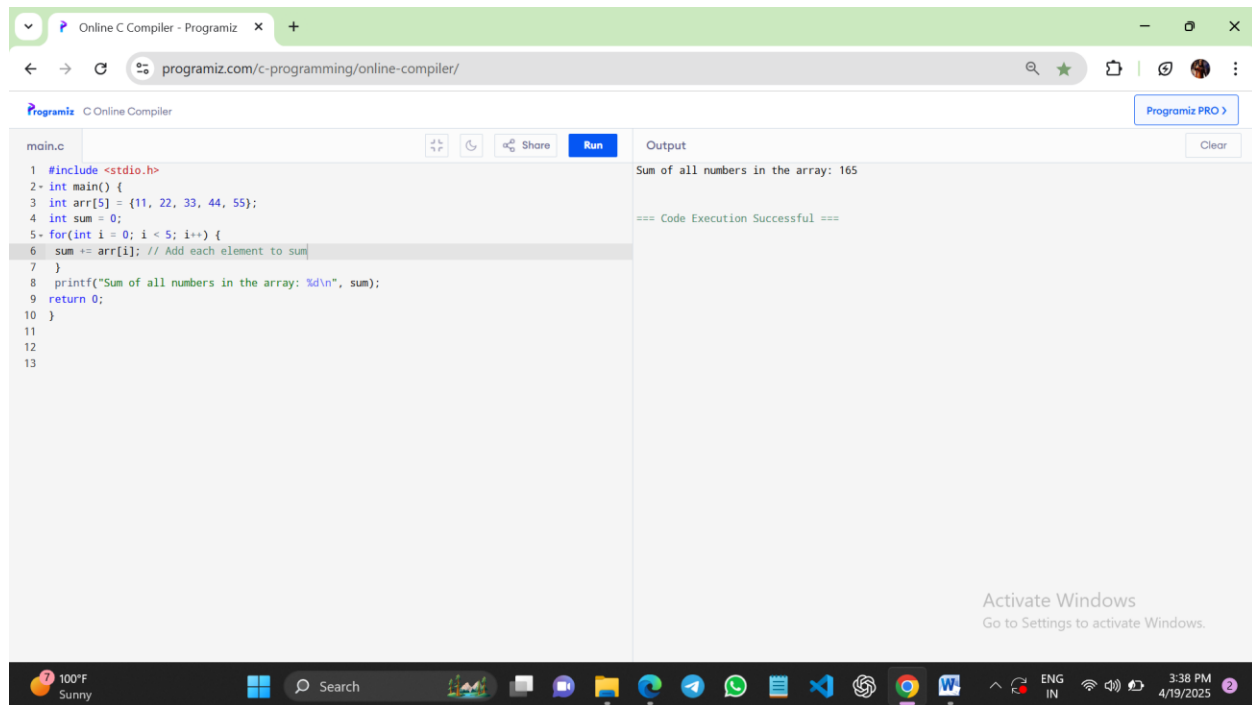
    for(int i = 0; i < 5; i++) {

        sum += arr[i]; // Add each element to sum

    }printf("Sum of all numbers in the array: %d\n", sum);

    return 0;

}
```



#### 4} Find odd and even among the numbers.

```
#include <stdio.h>
```

```
int main() {
```

```
int arr[5] = {11, 22, 33, 44, 55};
```

```
printf("Even numbers in the array:\n");
```

```
for(int i = 0; i < 5; i++) {
```

```
if(arr[i] % 2 == 0) {
```

```
printf("%d ", arr[i]);
```

```
}
```

```
}
```

```
printf("\nOdd numbers in the array:\n");
```

```
for(int i = 0; i < 5; i++) {
```

```
if(arr[i] % 2 != 0) {
```

```

printf("%d ", arr[i]);

    }

}

return 0;

}

```

The screenshot shows the Programiz Online C Compiler interface. The code editor on the left contains a C program that defines an array of 5 elements: {11, 22, 33, 44, 55}. It uses a for loop to iterate through the array. Inside the loop, it checks if the current element is even (arr[i] % 2 == 0). If even, it prints the element. If odd, it prints the element. The output window on the right shows the results: "Even numbers in the array: 22 44" and "Odd numbers in the array: 11 33 55". The status bar at the bottom indicates "Code Execution Successful".

```

main.c
1 #include <stdio.h>
2 int main() {
3     int arr[5] = {11, 22, 33, 44, 55};
4     printf("Even numbers in the array:\n");
5     for(int i = 0; i < 5; i++) {
6         if(arr[i] % 2 == 0) {
7             printf("%d ", arr[i]);
8         }
9     }
10    printf("\nOdd numbers in the array:\n");
11    for(int i = 0; i < 5; i++) {
12        if(arr[i] % 2 != 0) {
13            printf("%d ", arr[i]);
14        }
15    }
16    return 0;
17 }
18
19
20

```

Output

```

Even numbers in the array:
22 44
Odd numbers in the array:
11 33 55

=== Code Execution Successful ===

```

Activate Windows  
Go to Settings to activate Windows.

100°F Sunny 3:39 PM 4/19/2025

## 5} Print alternate elements in array.

```

#include <stdio.h>

int main() {

int arr[100], n, i;

printf("Enter number of elements in the array: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

for(i = 0; i < n; i++) {

```

```

scanf("%d", &arr[i]);

}

printf("\nAlternate elements in the array are:\n");

for(i = 0; i < n; i += 2) {

printf("%d ", arr[i]);

}

printf("\n");

return 0;

}

```

## 6) Accept array and print only prime numbers of array.

```

#include <stdio.h>

int isPrime(int num) {

int i;

if (num <= 1)

return 0;

for (i = 2; i * i <= num; i++) {

if (num % i == 0)

return 0;

}

return 1;

}

int main() {

int arr[100], n, i;

printf("Enter number of elements in the array: ");

scanf("%d", &n);

```

```

printf("Enter %d elements:\n", n);

for(i = 0; i < n; i++) {

    scanf("%d", &arr[i]);

}

printf("\nPrime numbers in the array are:\n");

for(i = 0; i < n; i++) {

    if (isPrime(arr[i])) {

        printf("%d ", arr[i]);

    }

    printf("\n");

return 0;

}

```

**7] Take two array and add sum in third array Example- arr[5]= {1,2, 3, 4,5}  
brr[5]={10,20,30, 40, 50} crr[5]={11,22,33,44,55}**

```

include <stdio.h>

int main() {

    int arr[5] = {1, 2, 3, 4, 5};

    int brr[5] = {10, 20, 30, 40, 50};

    int crr[5];

    for(int i = 0; i < 5; i++) {

        crr[i] = arr[i] + brr[i];

    }

    printf("Sum of arr and brr into crr:\n");

    for(int i = 0; i < 5; i++) {

        printf("crr[%d] = %d\n", i, crr[i]);

    }

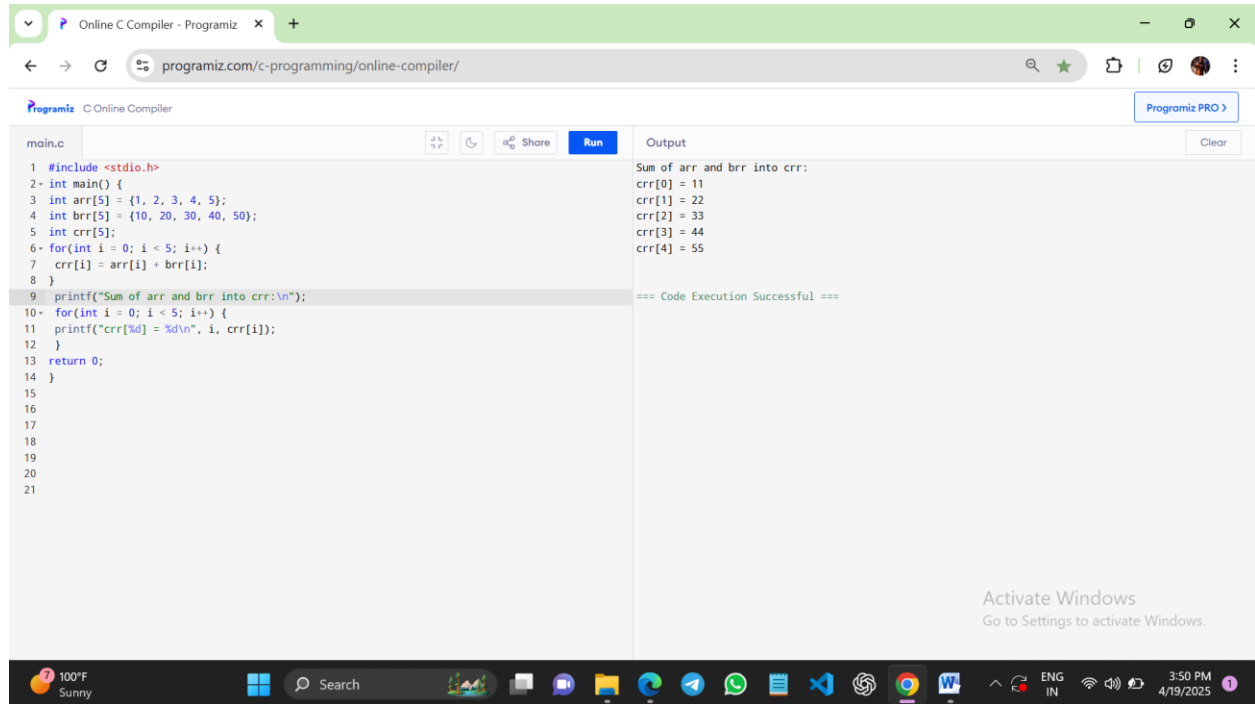
}

```



return 0;

}



The screenshot shows a web browser window with the URL `programiz.com/c-programming/online-compiler/`. The browser's address bar and tabs are visible at the top. The main content area is divided into two panels. The left panel, titled 'main.c', contains the following C code:

```
1 #include <stdio.h>
2 int main() {
3     int arr[5] = {1, 2, 3, 4, 5};
4     int brr[5] = {10, 20, 30, 40, 50};
5     int crr[5];
6     for(int i = 0; i < 5; i++) {
7         crr[i] = arr[i] + brr[i];
8     }
9     printf("Sum of arr and brr into crr:\n");
10    for(int i = 0; i < 5; i++) {
11        printf("crr[%d] = %d\n", i, crr[i]);
12    }
13    return 0;
14 }
```

The right panel, titled 'Output', displays the results of the program's execution:

```
Sum of arr and brr into crr:
crr[0] = 11
crr[1] = 22
crr[2] = 33
crr[3] = 44
crr[4] = 55

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

At the bottom of the browser window, a Windows taskbar is visible, showing the system clock as 3:50 PM on 4/19/2025, along with various application icons and system status indicators.

}

## 8} Merge two arrays

```
#include <stdio.h>

int main() {

    int arr1[50], arr2[50], merged[100];

    int n1, n2, i, j;

    scanf("%d", &n1);

    printf("Enter %d elements for first array:\n", n1);

    for(i = 0; i < n1; i++) {

        scanf("%d", &arr1[i]);

    }

    printf("Enter number of elements in second array: ");

    scanf("%d", &n2);

    printf("Enter %d elements for second array:\n", n2);

    for(i = 0; i < n2; i++) {

        scanf("%d", &arr2[i]);

    }

    for(i = 0; i < n1; i++) {

        merged[i] = arr1[i];

    }

    for(j = 0; j < n2; j++) {

        merged[i + j] = arr2[j];

    }

    printf("\nMerged array:\n");

    for(i = 0; i < n1 + n2; i++) {

        printf("%d ", merged[i]);
```

```
}  
  
printf("\n");  
  
return 0;  
  
}
```

### **9]. Reverse the given array.**

```
#include <stdio.h>  
  
int main() {  
  
    int arr[100], n, i;  
  
    printf("Enter number of elements in the array: ");  
  
    scanf("%d", &n);  
  
    printf("Enter %d elements:\n", n);  
  
    for(i = 0; i < n; i++) {  
  
        scanf("%d", &arr[i]);  
  
    }    printf("\nReversed array:\n");  
  
    for(i = n - 1; i >= 0; i--) {  
  
        printf("%d ", arr[i]);  
  
    } printf("\n");  
  
    return 0;  
  
}
```

## 10] Sort the array.

```
#include <stdio.h>

int main() {

int arr[100], n, i, j, temp;

printf("Enter number of elements in the array: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

    for(i = 0; i < n; i++) {

        scanf("%d", &arr[i]);
    }for(i = 0; i < n - 1; i++) {

        for(j = 0; j < n - i - 1; j++) {

            if(arr[j] > arr[j + 1]) {

                // Swap arr[j] and arr[j + 1]

                temp = arr[j];

                arr[j] = arr[j + 1];

                arr[j + 1] = temp;

            }

        }

    }

printf("\nSorted array in ascending order:\n");

for(i = 0; i < n; i++) {

printf("%d ", arr[i]);

}

printf("\n");

return 0;
```

}