

PROGRAMMING FUNDAMENTALS

LAB 7 (ARRAYS AND LOOPS)

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24K – 0530

Q1)

```
q1.c
File Edit View

#include <stdio.h>

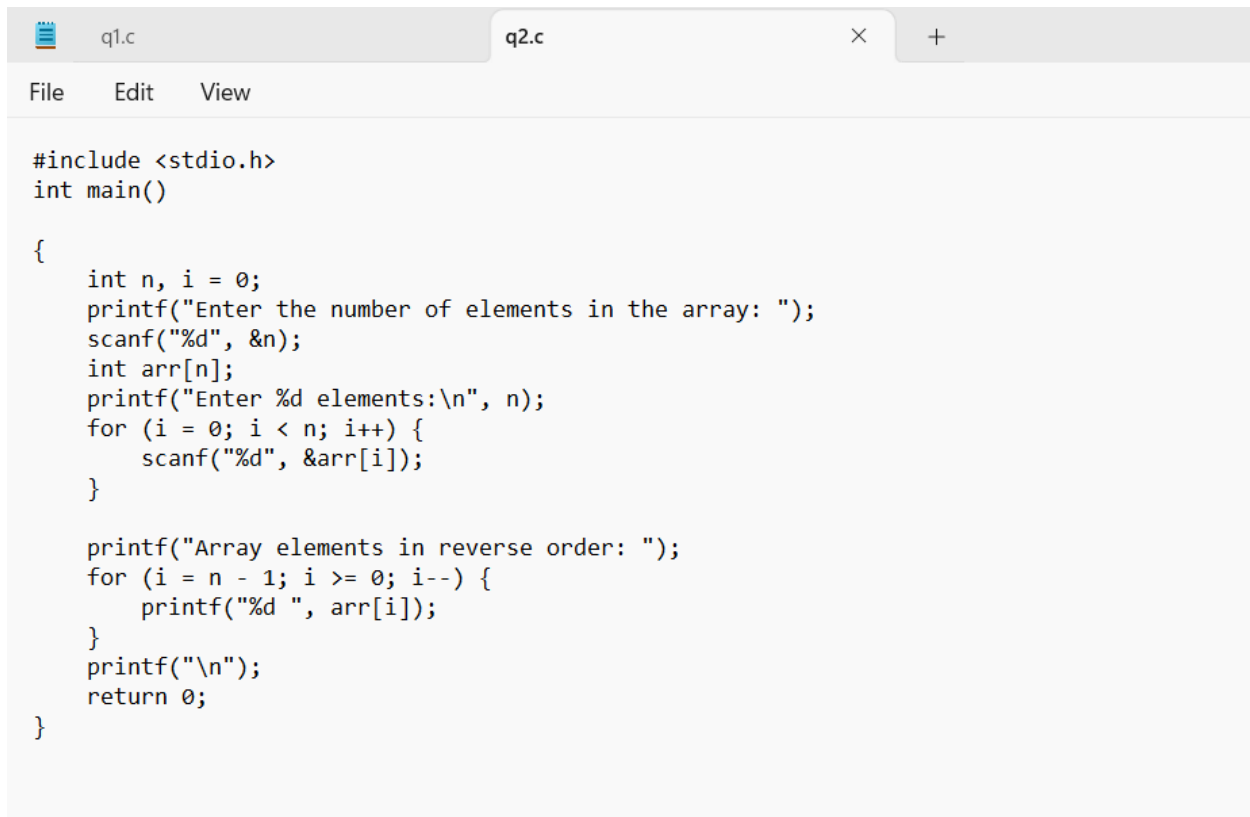
int main() {
    int n, i, sum = 0;
    printf("Enter the number of elements in the array: ");
    scanf("%d", &n);
    int arr[n];
    printf("Enter %d elements:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
        sum += arr[i];
    }

    printf("Sum of array elements: %d\n", sum);
    return 0;
}
```

```
C:\Users\Hp\Documents\pflal
Enter the number of elements in the array: 5
Enter 5 elements:
1
3
4
5
1
Sum of array elements: 14

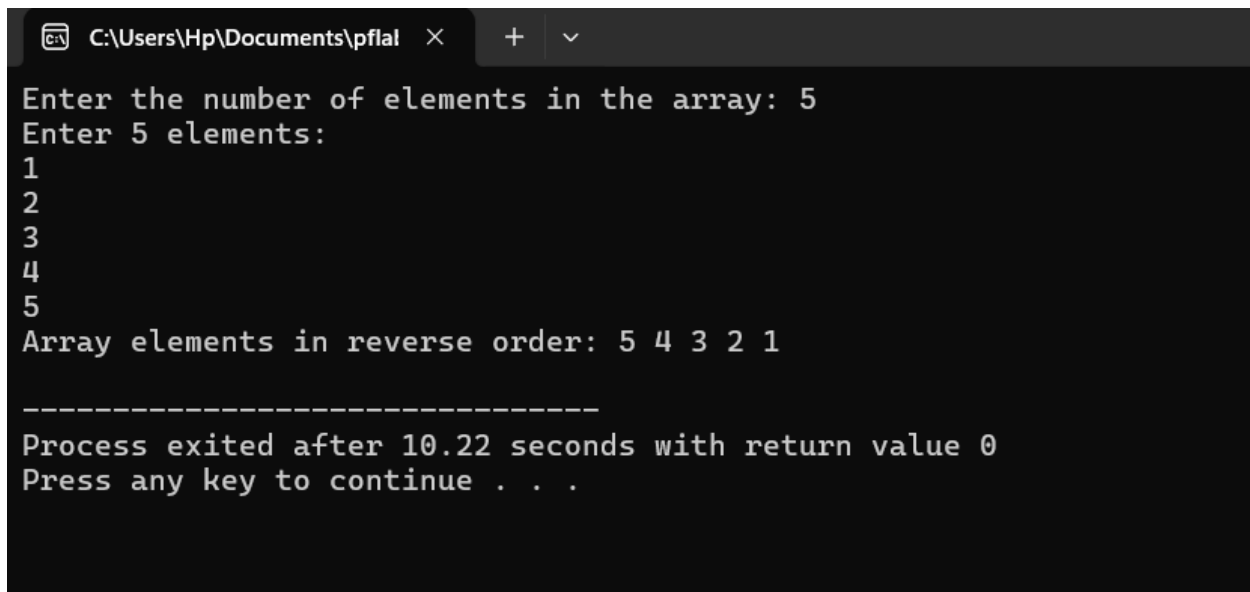
-----
Process exited after 13.13 seconds with return value 0
Press any key to continue . . . |
```

Q2)



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

    printf("Array elements in reverse order: ");
    for (i = n - 1; i >= 0; i--) {
        printf("%d ", arr[i]);
    }
    printf("\n");
    return 0;
}
```



```
C:\Users\Hp\Documents\pflal > Enter the number of elements in the array: 5
Enter 5 elements:
1
2
3
4
5
Array elements in reverse order: 5 4 3 2 1

-----
Process exited after 10.22 seconds with return value 0
Press any key to continue . . .
```

Q3)

```
q1.c  q2.c  q3.c  ×  +
File  Edit  View

#include<stdio.h>
int main()

{
    int n;
    printf("Enter the number of elements in the array: ");
    scanf("%d", &n);
    int arr[n];
    printf("Enter %d elements:\n", n);
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }
    int min = arr[0];
    int max = arr[0];
    for (int i = 1; i < n; i++) {
        if (arr[i] < min) {
            min = arr[i];
        }
        else if (arr[i] > max) {
            max = arr[i];
        }
    }
    printf("Minimum number: %d\n", min);
    printf("Maximum number: %d\n", max);

    return 0;
}
```

```
C:\Users\Hp\Documents\pf1al  ×  +  ∨

Enter the number of elements in the array: 10
Enter 10 elements:
4
1
6
8
10
21
8
9
2
6
Minimum number: 1
Maximum number: 21

-----
Process exited after 32.34 seconds with return value 0
Press any key to continue . . . |
```

Q4)

```
q1.c q2.c q3.c q4.c
File Edit View

#include <stdio.h>

int main() {
    int n;
    printf("Enter array size: ");
    scanf("%d", &n);
    int arr[n];
    printf("Enter %d elements:\n", n);
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    int count[5] = {0};
    for (int i = 0; i < n; i++) {
        count[arr[i]]++;
    }

    int first = 1;
    printf("Number ");
    for (int i = 0; i < n; i++) {
        if (count[i] > 1) {
            if (!first) {
                printf(" and ");
            }
            printf("%d", i);
            first = 0;
        }
    }
    if (!first) {
        printf(" occur more than once.\n");
    }
    else {
        printf("no duplicates found.\n");
    }
    return 0;
}
```

```
C:\Users\Hp\Documents\pf1al
Enter array size: 5
Enter 5 elements:
2
3
1
2
3
Number 2 and 3 occur more than once.

-----
Process exited after 6.718 seconds with return value 0
Press any key to continue . . . |
```