Experiment No: 01

Experiment Name: Operations in Array

Objective: To learn how to store data in an array and display it in reverse order by traversing the array from end to start and performing multiplication

Task No: 01

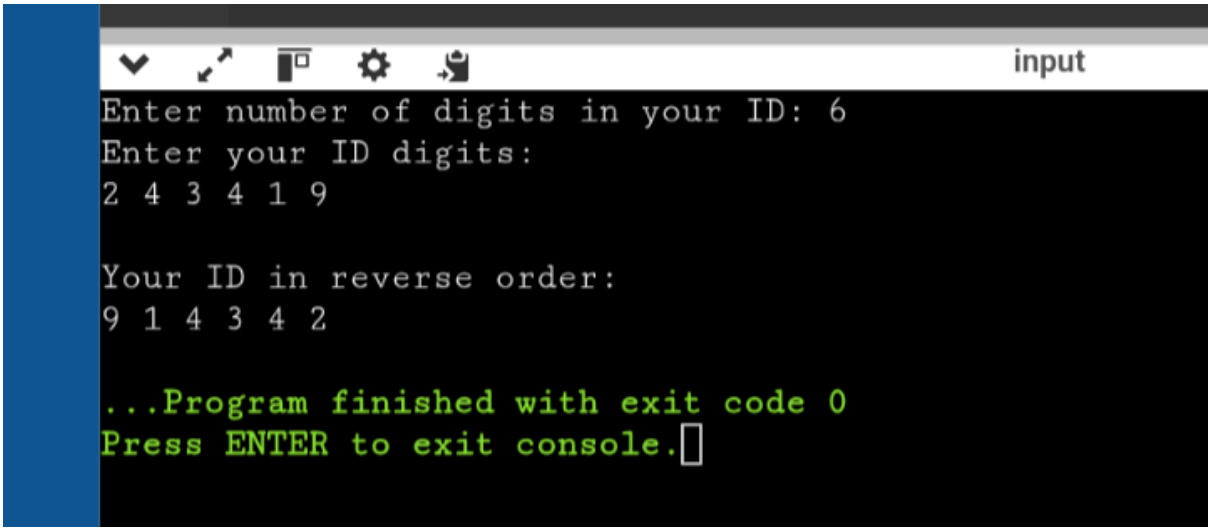
Problem Statement: Input your own ID as an array and print the array in reverse order.

Source Code (C):

main.c

```c
#include <stdio.h>

int main() {
    int n, i;

    // Task 1: Input ID digits
    printf("Enter number of digits in your ID: ");
    scanf("%d", &n);

    int arr1[n];
    printf("Enter your ID digits:\n");
    for(i = 0; i < n; i++) {
        scanf("%d", &arr1[i]);
    }

    // Print ID in reverse order
    printf("\nYour ID in reverse order:\n");
    for(i = n - 1; i >= 0; i--) {
        printf("%d ", arr1[i]);
    }

    return 0;
}
```

Output:

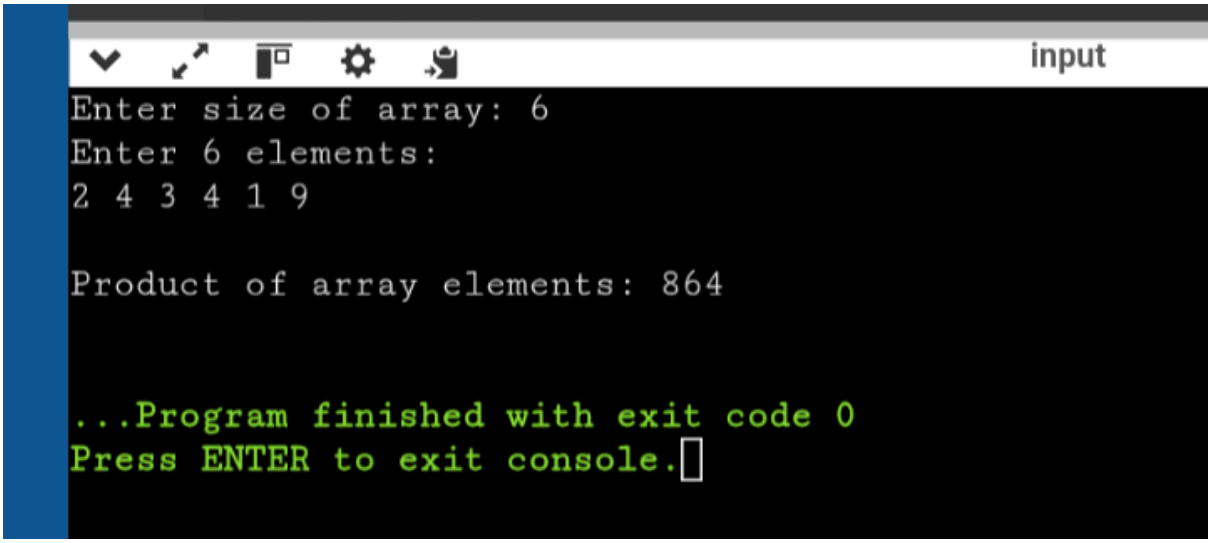


Task No: 02

Problem Statement: Input an array from the user. Find the product of the elements of the array.

Source Code (C):

Output:



Discussion: In this experiment, I learned how to efficiently manipulate arrays through different operations. By printing my ID in reverse order, I gained a clear understanding of array indexing and traversing arrays backward. The second task, calculating the product of array elements, reinforced the importance of initializing a variable correctly and iterating through all elements without errors. These tasks demonstrated how arrays can store and process multiple values systematically. I also observed how proper handling of loops ensures accurate results, even with larger datasets. Overall, this experiment strengthened my logical thinking and practical skills in array operations, laying a strong foundation for more advanced programming challenges.