

Arrays - DS

An *array* is a type of data structure that stores elements of the same type in a contiguous block of memory. In an array, , of size N , each memory location has some unique index, i (where $0 \leq i < N$), that can be referenced as $A[i]$ or A_i .

Reverse an array of integers.

Note: If you've already solved our C++ domain's *Arrays Introduction* challenge, you may want to skip this. **Example**

$A = [1, 2, 3]$

Return $[3, 2, 1]$.

Function Description

Complete the function *reverseArray* in the editor below.

reverseArray has the following parameter(s):

- *int A[n]*: the array to reverse

Returns

- *int[n]*: the reversed array

Input Format

The first line contains an integer, N , the number of integers in A .

The second line contains N space-separated integers that make up A .

Constraints

- $1 \leq N \leq 10^3$
- $1 \leq A[i] \leq 10^4$, where $A[i]$ is the i^{th} integer in A

Sample Input 0

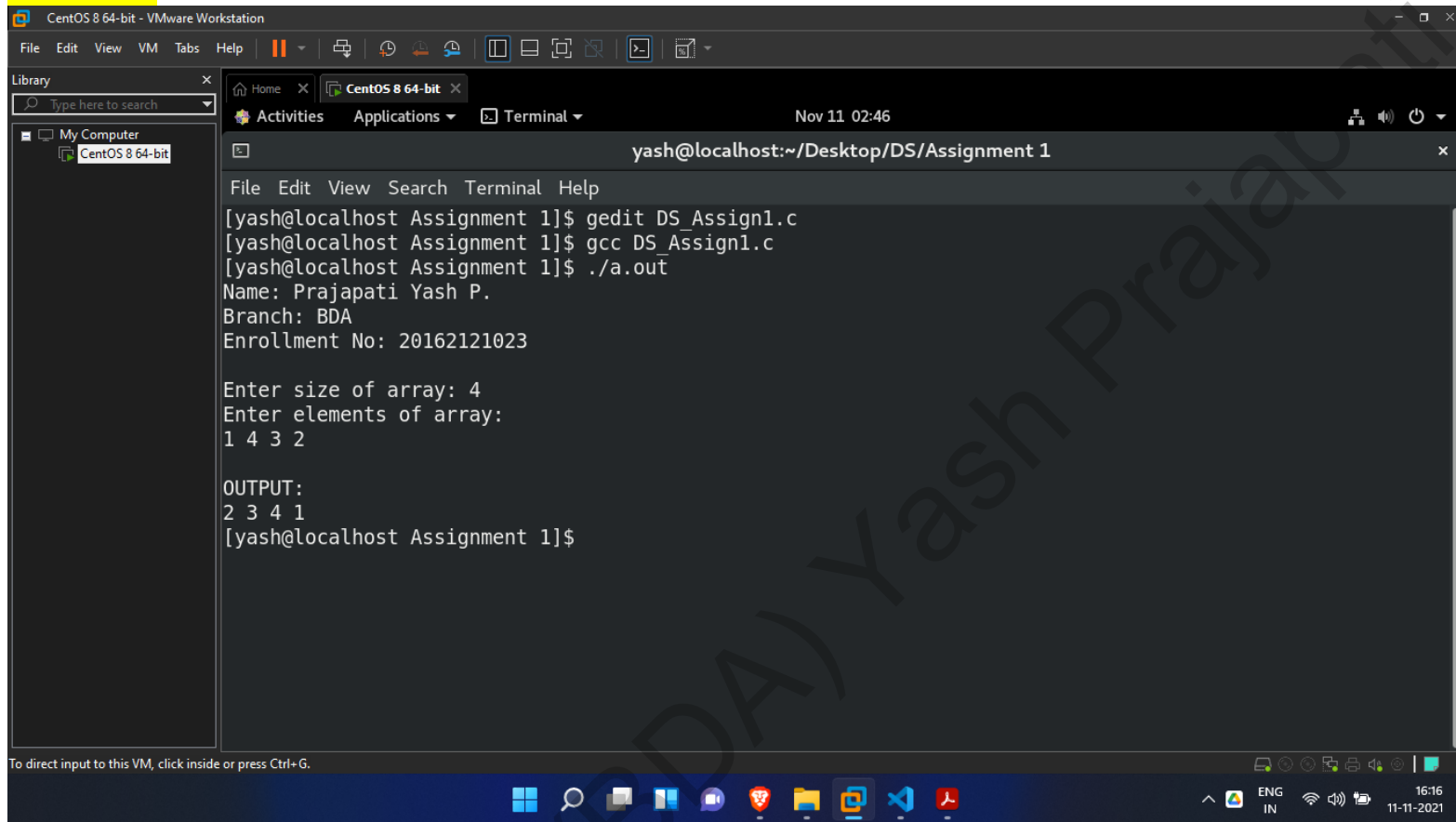
```
4
1 4 3 2
```

Sample Output 0

```
2 3 4 1
```

CODE:

```
#include<stdio.h>
void reversearray(int prajapati[],int a)
{
    int i=0;
    printf("\nOUTPUT:\n");
    for(i=a-1;i>=0;i--)
    {
        printf("%d ", prajapati[i]);
    }
}
int main()
{
    printf("Name: Prajapati Yash P.\nBranch: BDA\nEnrollment No: 20162121023\n");
    int n,i;
    printf("\nEnter size of array: ");
    scanf("%d",&n);
    int yash[n];
    printf("Enter elements of array:\n");
    for(i=0;i<n;i++)
    {
        scanf("%d",&yash[i]);
    }
    reversearray(yash,n);
    printf("\n");
}
```

OUTPUT:

```
CentOS 8 64-bit - VMware Workstation
File Edit View VM Tabs Help
Library
Type here to search
My Computer
CentOS 8 64-bit
CentOS 8 64-bit
Nov 11 02:46
yash@localhost:~/Desktop/DS/Assignment 1
File Edit View Search Terminal Help
[yash@localhost Assignment 1]$ gedit DS_Assign1.c
[yash@localhost Assignment 1]$ gcc DS_Assign1.c
[yash@localhost Assignment 1]$ ./a.out
Name: Prajapati Yash P.
Branch: BDA
Enrollment No: 20162121023

Enter size of array: 4
Enter elements of array:
1 4 3 2

OUTPUT:
2 3 4 1
[yash@localhost Assignment 1]$
```

To direct input to this VM, click inside or press Ctrl+G.