**PROGRAM 8- C program to implement Array operations such as Insert, Delete and Display.**

#include<stdio.h>

int main(){

int a[100],n,d,i,choice,ans = 1;

printf("Enter How many elements you want to insert : ");

scanf("%d",&n);

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

printf("Enter : ");

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

}

printf("\nWhat operation do you want to perform : \n");

printf("1.Insert \n2.Delete \n3.Display\n");

while(ans){

printf("Enter your Choice : ");

scanf("%d",&choice);

if(choice == 1){

int pos,e;

printf("Enter at which position do you want to insert the Element : ");

if(!(scanf("%d",&pos)) || pos <= 0 || pos > n){

printf("Invalid Input!!\n");

}

else{

printf("Enter the element : ");

scanf("%d",&e);

for(i = n - 1 ;i >= pos-1 ;i--){

a[i + 1] = a[i];

}

a[pos - 1] = e;

n++;

printf("\nthe array after insertion is : \n");

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

printf("%d\t",a[i]);

}

printf("\n");

}

}

else if(choice == 2){

int pos;

printf("At which Position do you want to Delete : ");

if(!(scanf("%d",&pos)) || pos <= 0 || pos > n){

printf("Invalid Input!!\n");

}

else{

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

a[i] = a[i+1];

}

printf("\nthe array after deletion is : \n");

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

printf("%d\t",a[i]);

}

printf("\n");

}

}

else if(choice == 3){

printf("The Elements in the array are : \n");

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

printf("%d\t",a[i]);

}

printf("\n");

}

else{

printf("Enter Invalid Input!!");

printf("\n");

}

printf("\nDo you want to Continue ? ");

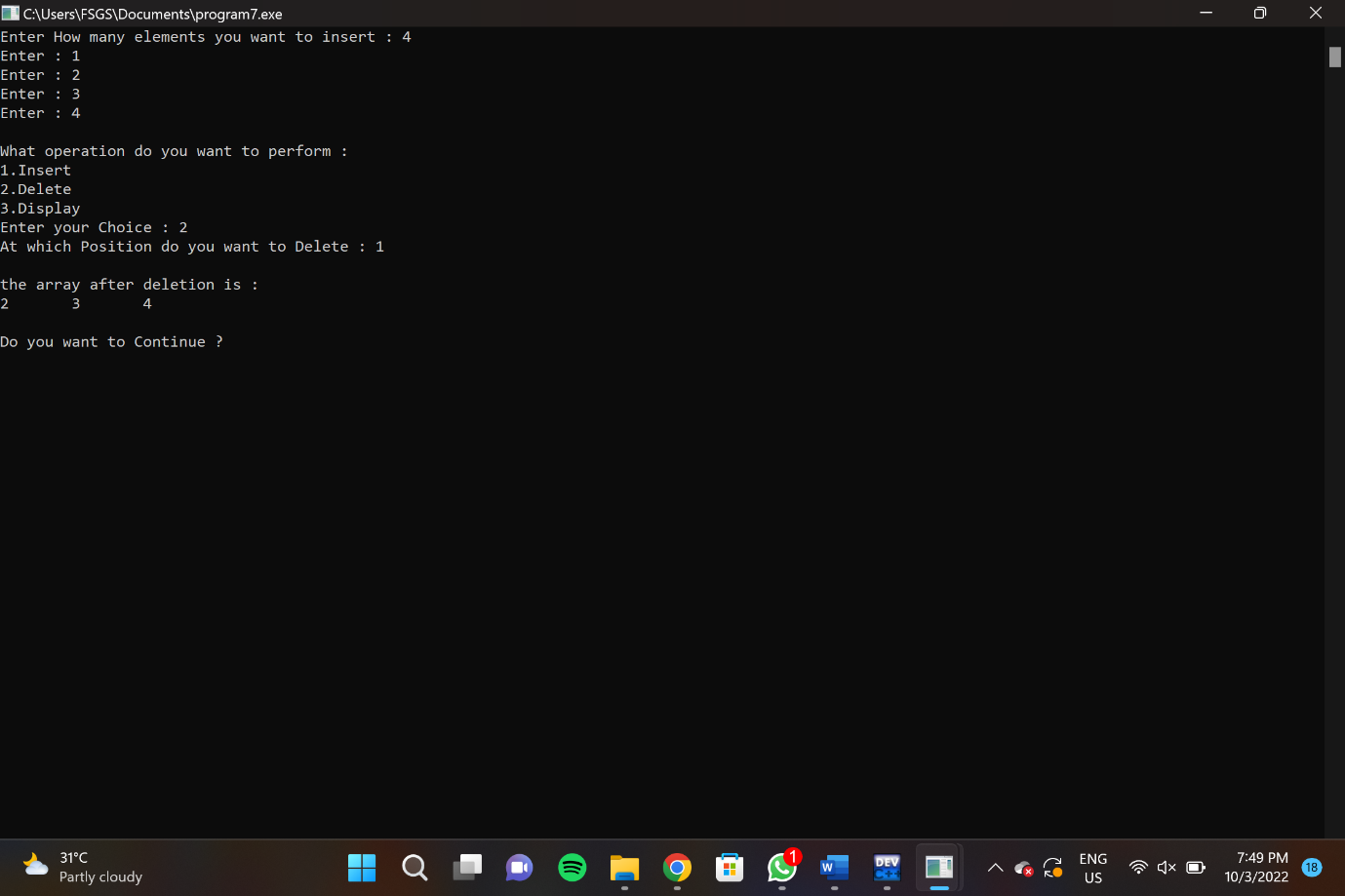
scanf("%d",&ans);

}

return 0;

}

**OUTPUT:**

****