**Write a program in C to copy the elements of one array into another array**

#include <stdio.h>

main()

{

int arr1[100], arr2[100];

int i, n;

printf("\n\nCopy the elements one array into another array :\n");

printf("----------------------------------------------------\n");

printf("Input the number of elements to be stored in the array :");

scanf("%d",&n);

printf("Input %d elements in the array :\n",n);

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

{

printf("element - %d : ",i);

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

}

/\* Copy elements of first array into second array.\*/

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

{

arr2[i] = arr1[i];

}

/\* Prints the elements of first array \*/

printf("\nThe elements stored in the first array are :\n");

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

{

printf("% 5d", arr1[i]);

}

/\* Prints the elements copied into the second array. \*/

printf("\n\nThe elements copied into the second array are :\n");

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

{

printf("% 5d", arr2[i]);

}

printf("\n\n");

}

Sample Output:

Copy the elements one array into another array :

----------------------------------------------------

Input the number of elements to be stored in the array :3

Input 3 elements in the array :

**Write a program in C to count the total number of duplicate elements in an array.**

#include <stdio.h>

int main()

{

int arr[100];

int n,mm=1,ctr=0;

int i, j;

printf("Input the number of elements to be stored in the array :");

scanf("%d",&n);

printf("Input %d elements in the array :\n",n);

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

{

printf("element - %d : ",i);

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

}

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

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

if (arr[i] == arr[j]) {

ctr++;

break;

}

}

}

printf("Total number of duplicate elements found in the array: %d\n", ctr);

return 0;

}

Sample Output:

Input the number of elements to be stored in the array :5

Input 5 elements in the array :

element - 0 : 1

element - 1 : 1

element - 2 : 2

element - 3 : 3

element - 4 : 3

Total number of duplicate elements found in the array: 2

**Write a program in C to find the maximum and minimum elements in an array.**

#include <stdio.h>

main()

{

int arr1[100];

int i, mx, mn, n;

printf("\n\nFind maximum and minimum element in an array :\n");

printf("--------------------------------------------------\n");

printf("Input the number of elements to be stored in the array :");

scanf("%d",&n);

printf("Input %d elements in the array :\n",n);

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

{

printf("element - %d : ",i);

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

}

mx = arr1[0];

mn = arr1[0];

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

{

if(arr1[i]>mx)

mx = arr1[i];

if(arr1[i]<mn)

mn = arr1[i];

}

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

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

}

Sample Output:

Find maximum and minimum element in an array :

--------------------------------------------------

Input the number of elements to be stored in the array :3

Input 3 elements in the array :

element - 0 : 45

element - 1 : 25

element - 2 : 21

Maximum element is : 45

Minimum element is : 21

**Write a program in C to separate odd and even integers into separate arrays.**

#include <stdio.h>

main()

{

int arr1[10], arr2[10], arr3[10];

int i,j=0,k=0,n;

printf("\n\nSeparate odd and even integers in separate arrays:\n");

printf("------------------------------------------------------\n");

printf("Input the number of elements to be stored in the array :");

scanf("%d",&n);

printf("Input %d elements in the array :\n",n);

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

{

printf("element - %d : ",i);

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

}

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

{

if (arr1[i]%2 == 0)

{

arr2[j] = arr1[i];

j++;

}

else

{

arr3[k] = arr1[i];

k++;

}

}

printf("\nThe Even elements are : \n");

for(i=0;i<j;i++)

printf("%d ",arr2[i]);

printf("\nThe Odd elements are :\n");

for(i=0;i<k;i++)

printf("%d ", arr3[i]);

printf("\n\n");

}

Sample Output:

Separate odd and even integers in separate arrays:

------------------------------------------------------

Input the number of elements to be stored in the array :5

Input 5 elements in the array :

element - 0 : 25

element - 1 : 47

element - 2 : 42

element - 3 : 56

element - 4 : 32

The Even elements are :

42 56 32

The Odd elements are :

25 47

**Write a program in C to insert the values in the array (sorted list).**

#include <stdio.h>

main()

{

int arr1[100],i,n,p,inval;

printf("\n\nInsert New value in the sorted array :\n");

printf("-----------------------------------------\n");

printf("Input the size of array : ");

scanf("%d", &n);

printf("Input %d elements in the array in ascending order:\n",n);

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

{

printf("element - %d : ",i);

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

}

printf("Input the value to be inserted : ");

scanf("%d",&inval);

printf("The exist array list is :\n");

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

printf("% 5d",arr1[i]);

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

{

if(inval<arr1[i])

{

p = i;

break;

}

else

p=i+1;

}

for(i=n+1;i>=p;i--)

arr1[i]= arr1[i-1];

arr1[p]=inval;

printf("\n\nAfter Insert the list is :\n");

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

printf("% 5d",arr1[i]);

printf("\n");

}

Insert New value in the sorted array :

-----------------------------------------

Input the size of array : 6

Input 6 elements in the array in ascending order:

element - 0 : 2

element - 1 : 5

element - 2 : 7

element - 3 : 11

element - 4 : 9

element - 5 : 6

Input the value to be inserted : 8

The exist array list is :

2 5 7 11 9 6

After Insert the list is :

2 5 7 8 11 9 6

--------------------------------

Process exited after 33.18 seconds with return value 10

Press any key to continue . . .

**Write a program in C to delete an element at a desired position from an array.**

#include <stdio.h>

main(){

int arr1[50],i,pos,n;

printf("\n\nDelete an element at desired position from an array :\n");

printf("---------------------------------------------------------\n");

printf("Input the size of array : ");

scanf("%d", &n);

printf("Input %d elements in the array in ascending order:\n",n);

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

{

printf("element - %d : ",i);

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

}

printf("\nInput the position where to delete: ");

scanf("%d",&pos);

i=0;

while(i!=pos-1)

i++;

while(i<n){

arr1[i]=arr1[i+1];

i++;

}

n--;

printf("\nThe new list is : ");

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

printf(" %d",arr1[i]);

printf("\n\n");

}

Delete an element at desired position from an array :

---------------------------------------------------------

Input the size of array : 5

Input 5 elements in the array in ascending order:

element - 0 : 1

element - 1 : 2

element - 2 : 3

element - 3 : 4

element - 4 : 5

Input the position where to delete: 3

The new list is : 1 2 4 5

**Write a program in C to copy one string to another string**

#include <stdio.h>

main()

{

char str1[100], str2[100];

int i;

printf("\n\nCopy one string into another string :\n");

printf("-----------------------------------------\n");

printf("Input the string : ");

fgets(str1, sizeof str1, stdin);

/\* Copies string1 to string2 character by character \*/

i=0;

while(str1[i]!='\0')

{

str2[i] = str1[i];

i++;

}

//Makes sure that the string is NULL terminated

str2[i] = '\0';

printf("\nThe First string is : %s\n", str1);

printf("The Second string is : %s\n", str2);

printf("Number of characters copied : %d\n\n", i);

}

Sample Output:

Copy one string into another string :

-----------------------------------------

Input the string : This is a string to be copied.

The First string is : This is a string to be copied.

The Second string is : This is a string to be copied.

Number of characters copied : 31

**Write a program in C to count the total number of words in a string.**

#include <stdio.h>

#define str\_size 100 //Declare the maximum size of the string

main()

{

char str[str\_size];

int i, wrd;

printf("\n\nCount the total number of words in a string :\n");

printf("------------------------------------------------------\n");

printf("Input the string : ");

fgets(str, sizeof str, stdin);

i = 0;

wrd = 1;

/\* loop till end of string \*/

while(str[i]!='\0')

{

if(str[i]==' ' || str[i]=='\n' || str[i]=='\t')

{

wrd++;

}

i++;

}

printf("Total number of words in the string is : %d\n", wrd-1);

}

Copy

Sample Output:

Count the total number of words in a string :

------------------------------------------------------

Input the string : This is w3resource.com

Total number of words in the string is : 3

#include <stdio.h>

main()

{

char str1[100];

char newString[10][10];

int i,j,ctr;

printf("\n\n Split string by space into words :\n");

printf("---------------------------------------\n");

printf(" Input a string : ");

fgets(str1, sizeof str1, stdin);

j=0; ctr=0;

for(i=0;i<=(strlen(str1));i++)

{

// if space or NULL found, assign NULL into newString[ctr]

if(str1[i]==' '||str1[i]=='\0')

{

newString[ctr][j]='\0';

ctr++; //for next word

j=0; //for next word, init index to 0

}

else

{

newString[ctr][j]=str1[i];

j++;

}

}

printf("\n Strings or words after split by space are :\n");

for(i=0;i < ctr;i++)

printf(" %s\n",newString[i]);

return 0;

}

Copy

Sample Output:

Split string by space into words :

---------------------------------------

Input a string : this is a test string

Strings or words after split by space are :

this

is

a

test

string