TITLE 19

Write a C program that takes an array and returns a new array with unique elements of the first array

OBJECTIVE:

To find the unique elelments.

PROBLEM STATEMENT:

In this problem we need to input the size of the array and input the numbers of this array and return a new array with the unique elements of the array.

ALGORITHM:

START

INPUT: Read the input from keyboard

COMPUTATION: All the elements are entered in an array

DISPLAY: Prints the unique elements

STOP

PROGRAM:

#include <stdio.h>

#define MAX\_SIZE 100

int main()

{

int arr[MAX\_SIZE], freq[MAX\_SIZE];

int size, i, j, count;

printf("Enter size of array: ");

scanf("%d", &size);

printf("Enter elements in array: ");

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

{

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

freq[i] = -1;

}

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

{

count = 1;

for(j=i+1; j<size; j++)

{

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

{

count++;

freq[j] = 0;

}

}

if(freq[i] != 0)

{

freq[i] = count;

}

}

printf("\n Unique elements in the array are: ");

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

{

if(freq[i] == 1)

{

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

}

}

return 0;

}

OUTPUT:

Enter size of array:

3

Enter elements in array:

1 2 4 6 3

Unique elements in the array are: 1 2 4