**Logic to print negative elements in array**

Displaying negative, positive, prime, even, odd or any special number doesn’t requires special skills. You only need to know how to display array elements and how to check that special number.

Step by step descriptive logic to display all negative elements in array.

1. Declare and input elements in array.
2. Run a loop from 0 to N-1 (where *N* is array size). The loop structure should look like for(i=0; i<N; i++).
3. For each element in array, if current element is negative i.e. if(array[i] < 0) then print it.

**Program to print negative elements in array**

**/\* C program to print all negative elements in array \*/**

**#include <stdio.h>**

**main()**

**{**

**int arr[100]; // Declare array of MAX\_SIZE**

**int i, N;**

**/\* Input size of the array \*/**

**printf("Enter size of the array : ");**

**scanf("%d", &N);**

**/\* Input elements in the array \*/**

**printf("Enter elements in array : ");**

**for(i=0; i<N; i++)**

**{**

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

**}**

**printf("\nAll negative elements in array are : ");**

**for(i=0; i<N; i++)**

**{**

**/\* If current array element is negative \*/**

**if(arr[i] < 0)**

**{**

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

**}**

**}**

**}**

**Logic to remove element from array**

Array is a linear data structure. It provides index based fast mechanism to access its elements. But insertion or deletion from an array is a costly operation.

Literally speaking there isn’t anything such as deleting element from array. In general you copy elements of the array towards left. Suppose I say you need to delete the 2nd element from given array. You will do it as.

Step by step descriptive logic to remove element from array.

1. Move to the specified location which you want to remove in given array.
2. Copy the next element to the current element of array. Which is you need to perform array[i] = array[i + 1].
3. Repeat above steps till last element of array.
4. Finally decrement the size of array by one.

**Program to delete element from array**

**/\* C program to delete an element from array at specified position \*/**

**#include <stdio.h>**

**main()**

**{**

**int arr[100];**

**int i, size, pos;**

**/\* Input size and element in array \*/**

**printf("Enter size of the array : ");**

**scanf("%d", &size);**

**printf("Enter elements in array : ");**

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

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

**printf("Enter the element position to delete : ");**

**scanf("%d", &pos);**

**if(pos < 0 || pos > size)**

**printf("Invalid position! Please enter position between 1 to %d", size);**

**else**

**{**

**for(i=pos-1; i<size-1; i++)**

**arr[i] = arr[i + 1];**

**size--;**

**printf("\nElements of array after delete are : ");**

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

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

**}**

**}**

**Logic to find second largest element**

Step by step descriptive logic to find second largest element in array.

1. Input size and elements in array, store it in some variable say size and arr.
2. Declare two variables max1 and max2 to store first and second largest elements. Store minimum integer value in both i.e. max1 = max2 = INT\_MIN.
3. Iterate though all array elements, run a loop from 0 to size - 1. Loop structure should look like for(i=0; i<size; i++).
4. Inside loop, check if current array element is greater than max1, then make largest element as second largest and current array element as largest. Say, max2 = max1 and max1 = arr[i].
5. Else if the current array element is greater than max2 but less than max1 then make current array element as second largest i.e. max2 = arr[i].

**Program to find second largest element in array**

**/\*\* \* C program to find second largest number in an array \*/**

**#include <stdio.h>**

**#include <limits.h> // For INT\_MIN**

**main()**

**{**

**int arr[100], size, i;**

**int max1, max2;**

**/\* Input size of the array \*/**

**printf("Enter size of the array (1-1000): ");**

**scanf("%d", &size);**

**/\* Input array elements \*/**

**printf("Enter elements in the array: ");**

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

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

**max1 = max2 = INT\_MIN;**

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

**{**

**if(arr[i] > max1)**

**{**

**max2 = max1;**

**max1 = arr[i];**

**}**

**else if(arr[i] > max2 && arr[i] < max1)**

**max2 = arr[i];**

**}**

**printf("First largest = %d\n", max1);**

**printf("Second largest = %d", max2);**

**}**