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**Home Assignment**

**Program 3**

**Question:**

WAP to find the largest number and count the occurrence of the largest number in an array of n integers using a single loop.

**Code:**

#include<stdio.h>

#include<stdlib.h>

typedef struct

{

int size,max,c;

}use;

//we made the structure

int main()

{

use\* e1=(use\*) malloc(sizeof(use\*));

printf("\nEnter the size of the array\n");

scanf("%d",&e1->size);

//we got the size of array

int arr[e1->size];

//array created

printf("\nEnter the elements of the array\n");

for(int i=0;i<e1->size;i++)

{

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

}

//got the elements of the array

int \*ptr=arr;

//pointer created

e1->max=arr[0];

//we created the variables to store max

e1->c=0;

//here the frequency will be stored

for(int i=0;i<e1->size;i++)

{

if(e1->max<=\*(ptr+i))

{

e1->max=\*(ptr+i);

}

}

//found the max element of the array

for(int i=0;i<e1->size;i++)

{

if(e1->max==\*(ptr+i))

{

e1->c++;

}

}

//found thecount of the max element of the array

printf("\nMax Element\tFrequency\n");

printf(" %d\t\t %d\n",e1->max,e1->c);

return 0;

}

//end of main method

**Output:**

