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**Home Assignment**

**Program 4**

**Question:**

You are given an array of 0s and 1s in random order. Segregate 0s on the left side and 1s on the right side of the array. Traverse array only once.

**Code:**

#include<stdio.h>

#include<stdlib.h>

typedef struct

{

int size;

}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);

int arr[e1->size];

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

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

{

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

}

int \*ptr=arr;

//we created the pointer

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

{

for(int j=i+1;j<e1->size;j++)

{

if(\*(ptr+i)>=\*(ptr+j))

{

int temp=\*(ptr+j);

\*(ptr+j)=\*(ptr+i);

\*(ptr+i)=temp;

}

}

}

//array is sorted

printf("\n");

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

{

printf("%d\t",\*(ptr+i));

}

//array printed

return 0;

}

//end of main method

**Output:**

