***PROGRAM:***

#include <stdio.h>

#include<conio.h>

#define MAX 100

#define SHOWPASS

void print(int\*a,int n)

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

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

}

void radix\_sort(int\*a,int n)

{

{

int i;

int i,b[MAX],m=0,exp=1;

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

{

if(a[i]>m)

m=a[i];

}

while(m/exp>0)

{

int box[10] ={0};

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

box[a[i] / exp%10]++;

for (i=1;i<10;i++)

box[i]+= box[i-1];

for (i=n-1;i>=0;i--)

b[--box[a[i]/exp%10]]=a[i];

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

a[i] = b[i];

exp \*= 10;

#ifdef SHOWPASS

printf("\n\nPASS : ");

print(a,n);

#endif // SHOWPASS

}

}

void main()

{

int arr[MAX];

int i,num;

printf("\nRADIX SORT");

printf("\nEnter total elements (num<%d) : ", MAX);

scanf("%d", &num);

printf("\nEnter %d Elements : ",num);

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

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

printf("\nARRAY :");

printf(&arr[0],num);

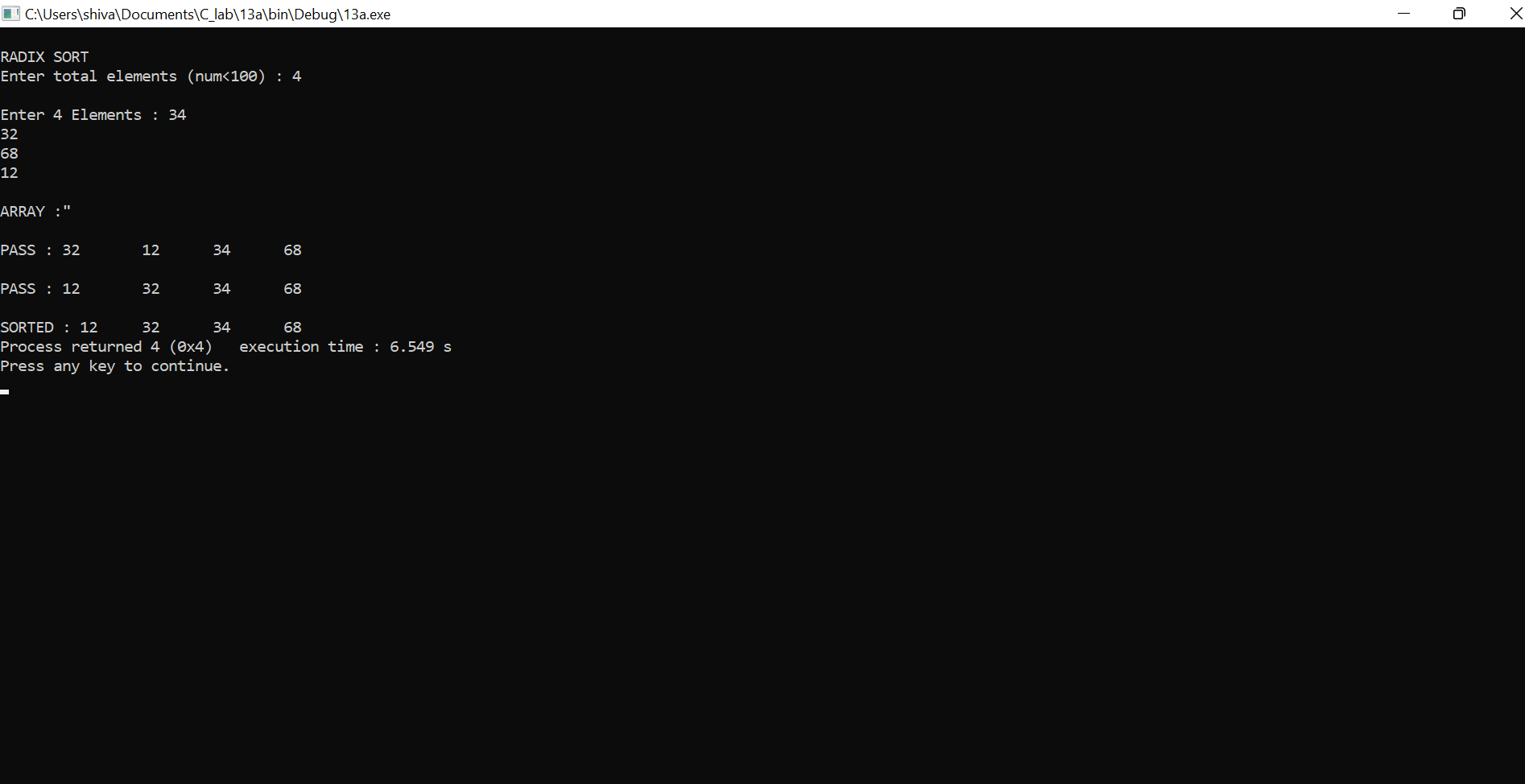
radix\_sort(&arr[0],num);

printf("\n\nSORTED : ");

print(&arr[0], num);

}

***OUTPUT:***

******