***PROGRAM:***

#include <stdio.h>

void binary\_search();

int a[50], n, item, loc, beg, mid, end, i;

void main()

{

printf("\nEnter size of an array: ");

scanf("%d", &n);

printf("\nEnter elements of an array in sorted form:\n");

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

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

printf("\nEnter ITEM to be searched: ");

scanf("%d", &item);

binary\_search();

}

void binary\_search()

{

beg = 0;

end = n-1;

mid = (beg + end) / 2;

while ((beg<=end) && (a[mid]!=item))

{

if (item < a[mid])

end = mid - 1;

else

beg = mid + 1;

mid = (beg + end) / 2;

}

if (a[mid] == item)

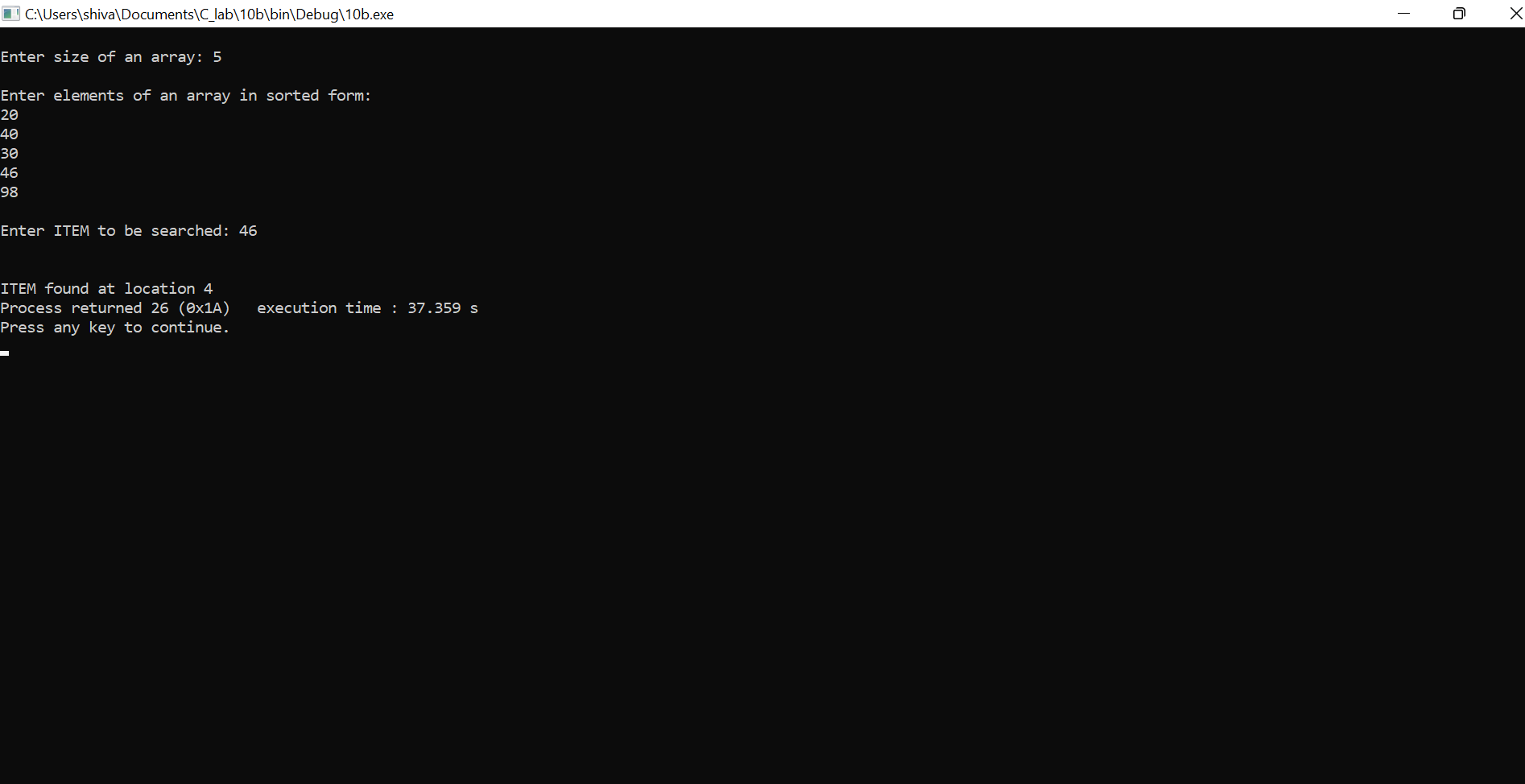
printf("\n\nITEM found at location %d", mid+1);

else

printf("\n\nITEM doesn't exist");

}

***OUTPUT:***

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