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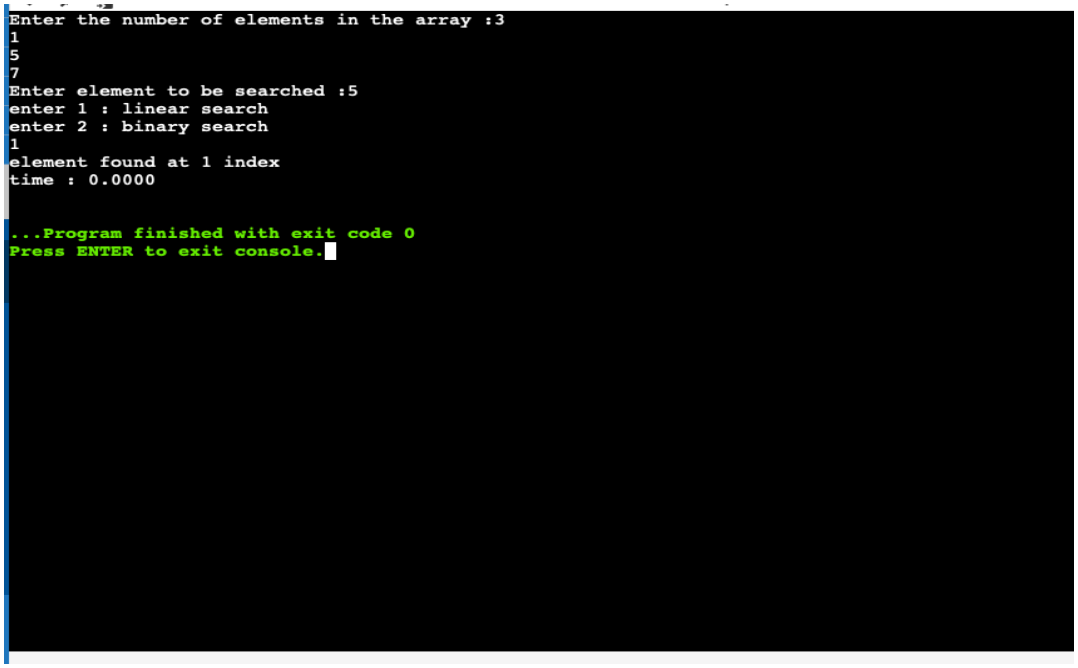
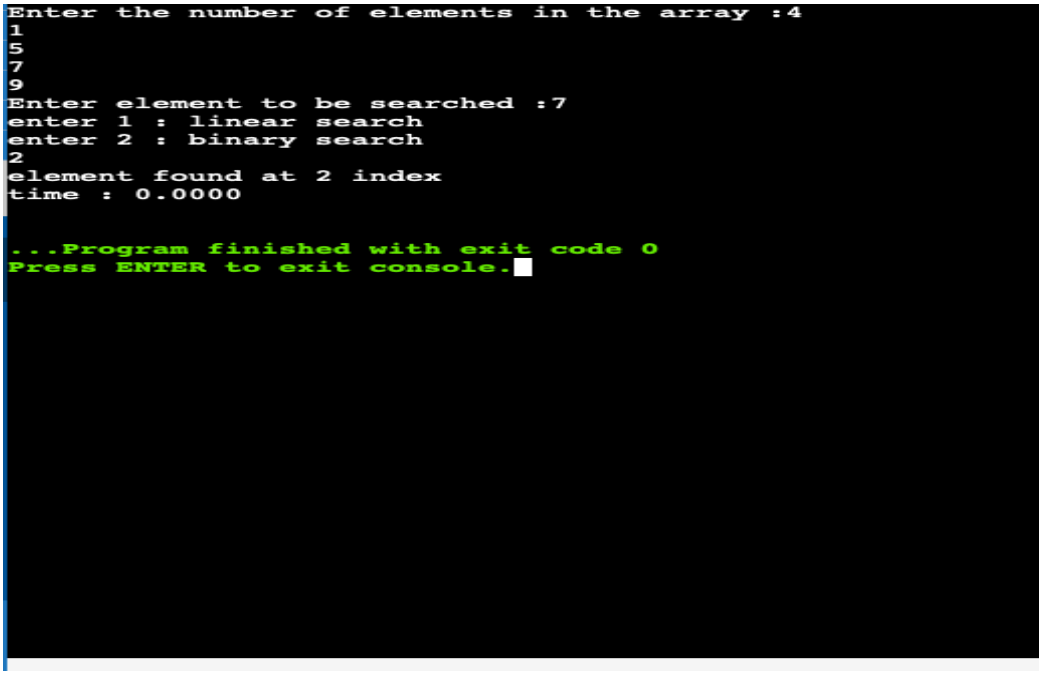
```
#include <stdio.h>


#include <time.h>
   if(l>h){
       return -1;
   }
   if(arr[l]!=ele){
       return linearSearch(arr, ++l, h, ele);
   }
   else{
       return l;
   }
   return -1;
}
int binarySearch(int arr[],int l,int h,int ele){
   int mid=(l+h)/2;
   if(arr[mid]==ele){
       return mid;
   }
   else if(ele>arr[mid]){
       l=mid+1;
       return binarySearch(arr, l, h, ele);
   }
   else{
       h=mid-1;
       return binarySearch(arr, l, h, ele);
   }
   return -1;
```

```
}


int main( ){
   int arr[30],n,i,ele,opt,pos;
   time_t start,end;
   printf("Enter the number of elements in the array :");
   scanf("%d",& n);
   for(i=0;i<n;i++){
       scanf("%d",& arr[i]);
   }
   printf("Enter element to be searched :");
   scanf("%d",& ele);
   printf("enter 1 : linear search\nenter 2 : binary search\n");
   scanf("%d",& opt);
   if(opt==0){
       start=time(NULL);
       pos=linearSearch(arr,0,n-1,ele);
       end=time(NULL);
   }
   else{
       start=time(NULL);
       pos=binarySearch(arr,0,n-1,ele);
       end=time(NULL);
   }
   printf("element found at %d index\n",pos);
   printf("time : %.4f\n",difftime(end, start));
}
```


Enter the number of elements in the array :3
1
5
7
Enter element to be searched :5
enter 1 : linear search
enter 2 : binary search
1
element found at 1 index
time : 0.0000
...Program finished with exit code 0
Press ENTER to exit console.


Enter the number of elements in the array :4
1
5
7
9
Enter element to be searched :7
enter 1 : linear search
enter 2 : binary search
2
element found at 2 index
time : 0.0000
...Program finished with exit code 0
Press ENTER to exit console.