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| 9) | Write a C program to search a number using Binary Search method |

#include <stdio.h>

int main()

{

int i,j,a,first,last,middle,n,search,array[100];

printf("Enter number of elements\n");

scanf("%d",&n);

printf("Enter the elements\n");

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

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

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

for (j = i + 1; j < n; ++j){

if (array[i] > array[j]){

a = array[i];

array[i] = array[j];

array[j] = a;

}

}

}

printf("The numbers in ascending order is:\n");

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

printf("%d ",array[i]);

}

printf("\nEnter value to find\n");

scanf("%d",&search);

first=0;

last=n-1;

middle=(first+last)/2;

while(first<=last)

{

if (array[middle]<search){

first=middle+1;

}

else if (array[middle]==search){

printf("%d found at location %d.\n",search,middle+1);

break;

}

else{

last=middle-1;

}

middle=(first+last)/2;

}

if (first>last)

{

printf("Not found! %d isn't present in the list.\n",search);

}

}

