Binary Search By Divide and Conquer

```
#include <stdio.h>

int bSearch(int arr[], int N, int x);

int main()
{
   int num,index;
	int arr[] = { 1, 2, 3, 4, 5, 9 };
	printf("Which number you want to search from : \n1\n2\n3\n4\n5\n9\n");
	scanf("%d",&num);

	int n = sizeof(arr)/sizeof(arr[0]);
	index = bSearch(arr, n, num);

	if (index != -1)
		printf("found at index %d", index);
	else
		printf("not found");

	return 0;
}
int bSearch(int arr[], int N, int x)
{
	int first = 0, last = N - 1;
	while (first <= last)
	{
		int mid = (first + last)/2;
		if (x == arr[mid])
			return mid;
		else if (x < arr[mid])
			last = mid - 1;
		else
			first = mid + 1;
	}
	return -1;
}
```