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1:
2: #include<stdio.h>
3: struct Array
4: {
5:     int A[10];
6:     int size;
7:     int length;
8: };
9: void Display(struct Array arr)
10: {
11:     int i;
12:     printf("\nElements are\n");
13:     for(i=0;i<arr.length;i++)
14:         printf("%d ",arr.A[i]);
15: }
16: void swap(int *x,int *y)
17: {
18:     int temp=*x;
19:     *x=*y;
20:     *y=temp;
21: }
22: int BinarySearch(struct Array arr,int key)
23: {
24:     int l,mid,h;
25:     l=0;
26:     h=arr.length-1;
27:     while(l<=h)
28:     {
29:         mid=(l+h)/2;
30:         if(key==arr.A[mid])
31:             return mid;
32:         else if(key<arr.A[mid])
33:             h=mid-1;
34:         else
35:             l=mid+1;
36:     }
37:     return -1;
38: }
39: int RBinSearch(int a[],int l,int h,int key)
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40: {
41:
42:     int mid=0;
43:     if(l<=h)
44:     {
45:         mid=(l+h)/2;
46:         if(key==a[mid])
47:             return mid;
48:         else if(key<a[mid])
49:             return RBinSearch(a,l,mid-1,key);
50:     }
51:     else
52:         return RBinSearch(a,mid+1,h,key);
53:     return -1;
54: }
55: int main()
56: {
57:     struct Array arr1={{2,3,9,16,18,21,28,32,35},10,9};
58:     printf("%d",BinarySearch(arr1,16));
59:     Display(arr1);
60:     return 0;
61: }
```