8/2/24, 5:52 PM Course

```
© BinarySe...
                                                                                                                                                                     Submit
           #include<stdio.h>
        v int·main()·{
                 int \cdot a[20], \cdot i, \cdot j, \cdot n, \cdot key, \cdot flag \cdot = \cdot 0, \cdot low, \cdot high, \cdot mid, \cdot temp;
 3
                 printf("Enter · value · of · n · : · ");
 4
 5
                 scanf("%d", .&n);
                 for \cdot (int \cdot i \cdot = 0 \cdot; \cdot i \cdot n \cdot; \cdot i + + \cdot) \cdot { \cdot // \cdot Complete \cdot the \cdot code \cdot in \cdot for
 6
 7
                        printf("Enter element for a[%d] :: ", i);
                        scanf("%d", &a[i]); // Complete the statement
 8
 9
                 printf("Enter key element : ");
10
                 scanf("%d", &key);
11
                 // Bubble sort process
12
                 for \cdot (int \cdot i \cdot = 0 \cdot; \cdot i \cdot = n \cdot; \cdot i + + \cdot) \cdot { \cdot // \cdot Complete \cdot the \cdot code \cdot in \cdot for
13
                        for \cdot (\cdot int \cdot j \cdot = 0 \cdot ; \cdot j < n-1; \cdot j++) \cdot \{\cdot // \cdot Complete \cdot the \cdot code \cdot in \cdot for
14
15
                              if \cdot (\cdot a[j] \cdot \cdot \cdot a[j+1]) \cdot \{\cdot / / \cdot Write \cdot the \cdot condition \cdot part
16
                                    temp · = · a[j]; · // · Complete · the · statement
                                    a[j] \cdot = \cdot a[j+1]; \cdot // \cdot Complete \cdot the \cdot statement
17
                                    a[j+1] \cdot = \cdot temp \cdot ; \cdot // \cdot Complete \cdot the \cdot statement
18
                              }
19
20
                        }
21
                 }
                 printf("After · sorting · the · elements · in · the · array · are \n");
22
                 for \cdot (int \cdot i \cdot = 0 \cdot; \cdot i \cdot n \cdot; \cdot i + + \cdot) \cdot { \cdot // \cdot Complete \cdot the \cdot code \cdot in \cdot for
23
24
                        printf("Value of a[%d] = %d\n", i, a[i]);
25
                 }
26
                 low⋅=0⋅;⋅//⋅Complete⋅the⋅statement
                 high ⋅= n ⋅ -1; ⋅// ⋅ Complete ⋅ the ⋅ statement
27
28
                 while · ( · low<=high) · { · // · Complete · the · condition · part · in · while
29
                       mid \cdot = \cdot (low \cdot + \cdot high)/2 \cdot ; \cdot // \cdot Complete \cdot the \cdot statement
30
                       if · ( · a[mid] · == · key) · { · // · Write · the · condition · part
31
                              flag = \cdot \cdot 1; \cdot / / \cdot Complete \cdot the \cdot statement
32
                              break;
33
                        } · else · if · ( · a[mid] < key) · { · // · Write · the · condition · part
34
                              low \cdot = \cdot mid \cdot +1; \cdot // \cdot Complete \cdot the \cdot statement
35
                        } · else · if · ( · a[mid] > key) · { · // · Write · the · condition · part
36
                              high = · mid-1; · // · Complete · the · statement
37
                        }
38
                 }
                 if \cdot (\cdot flag \cdot == 1) \cdot \{\cdot / / \cdot Write \cdot the \cdot condition \cdot part \}
39
                        printf("The key element %d is found at the position %d\n", key, mid);
40
41
                 } · else · {
42
                        printf("The Key element %d is not found in the array\n", key);
43
44
                 return 0;
45
  > Terminal
```