8/2/24, 5:54 PM Course

```
BinarySe...
                                                                                                  Submit
                                                                                                                Debugger
          #include<stdio.h>
 1
 2
       void·main()·{
 3
                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;
                printf("Enter · value · of · n · : · ");
 4
                                                                                                                III Plots
 5
                scanf("%d", -&n);
 6
 7
                // Write the code to read an array of elements
                for(int\cdoti\cdot=0\cdot;\cdoti\cdot<\cdotn\cdot;\cdoti++)
 8
 9
                {
                      printf("Enter · element · for · a[%d] · : · " · , · i);
10
                      scanf("%d" · , · &a[i]);
11
                }
12
13
                printf("Enter · key · element · : · ");
14
15
                scanf("%d", &key);
16
17
                for(int\cdoti\cdot=\cdot0\cdot;\cdoti\cdotn\cdot;\cdoti++)
18
19
                {
                      for(int\cdotj\cdot=\cdot0\cdot;\cdotj<\cdotn-1;\cdotj++)
20
21
                      {
                            if(a[j].>.a[j+1])
22
23
                             \cdot \cdot \cdot \cdot \text{temp} \cdot = \cdot a[j+1];
24
25
                            \cdot \cdot \cdot \cdot a[j+1] \cdot = \cdot a[j];
                            ····a[j]·=·temp;
26
27
28
                      }
29
                }
30
31
                // Write the code to sort the elements using any sorting
          technique
32
33
                printf("After · sorting · the · elements · in · the · array · are \n");
34
35
                // Write the code to display the elements
36
                for(int\cdoti\cdot=0\cdot;\cdoti\cdotn\cdot;\cdoti++)
37
38
                      printf("Value · of · a[%d] · = · %d\n" · , i · , · a[i] · );
39
40
                }
41
                low \cdot = \cdot 0; \cdot / / \cdot Complete \cdot the \cdot statement
42
                high = ·n-1 ·; ·// · Complete · the · statement
43
                                                                             < Prev
                                                                                       Reset
                                                                                                Submit
                                                                                                           Next >
```

```
45
46
             //·Write·the·code·to·search·an·element·using·binary·search·
47
        process
48
49
50
             while(low<= high)</pre>
51
             {
52
                  mid = (low+high)/2;
                  if(a[mid] -= - key)
53
54
                  {
                      flag·=1;
55
56
                      break;
57
                  }
58
                  else if(key>a[mid])
59
60
                      low \cdot = \cdot mid + 1;
61
62
                  }
                  else
63
64
                  {
                      high \cdot = \cdot \text{mid} - 1;
65
66
                  }
             }
67
68
69
             if · (flag · == 1 · · ) · { · // · Write · the · condition · part
70
71
                  printf("The key element %d is found at the position %d\n",
        ·key·,·mid);·//·Complete·the·statement
72
             } else {
73
                  printf("The Key element %d is not found in the
74
75
        array\n",key); \( // \cdot Complete \cdot the \cdot statement \)
76
        }
 > Terminal
```