WEEK 9:

What is the worst case complexity of selection sort? a) O(nlogn)	1 point
b) O(logn) c) O(n)	
© d) O(n²)	
Yes, the answer is correct. Score: 1	
Accepted Answers: d) O(n²)	
3/ O(1-)	
What is the best case and worst case complexity of ordered linear search?	1 point
a) O(nlogn), O(logn)	
b) O(logn), O(nlogn)	
0 c) O(n), O(1)	
® d) O(1), O(n)	
Yes, the answer is correct. Score: 1	
Accepted Answers: d) O(1), O(n)	
3) Given an array arr = {12, 34, 47, 62, 85, 92, 95, 99, 105} and key = 34; what are the mid values (corresponding array elements) generated in the first and second iterations?	1 point
a) 85 and 12	
® b) 85 and 34	
o) 62 and 34	
d) 62 and 47	
Yes, the answer is correct. Score: 1	
Accepted Answers:	
b) 85 and 34	
When the Binary search is best applied to an array?	1 point
a) For very large size array	
b) When the array is sorted	
c) When the array elements are mixed data type	
d) When the array is unsorted	
Yes, the answer is correct. Score: 1	
Accepted Answers:	
b) When the array is sorted	
5) Consider the array A[]= {5,4,9,1,3} apply the insertion sort to sort the array. Consider the cost associated with each sort is 25 rupees, what is the total cost of the insertion sort for sorting the entire array?	1 point
a) 25	
O b) 50	
® c) 75	
O d) 100	
Yes, the answer is correct. Score: 1	

```
8) Consider an array of elements arr[5]= (5,4,3,2,1), what are the steps of insertions done while doing insertion sort in the array.
      a) 45321
34521
23451
12345
   b) 54312
54123
51234
12345
       c) 43215
         32154
21543
15432
      d) 45321
23451
34521
12345
  Yes, the answer is correct.
Score: 1
   Accepted Answers:
    a) 45321
        34521
23451
12345
        What will be the output of the following C code? #include <stdio.h>
                                                                                                                                              1 point
        #if A == 1
#define B 0
        #clse
#define B 1
       #endif
        int main()
          printf("%d", B);
         return 0;
    a)0
    ® b) 1
   ○ c) 01
   od) None of the above
  Yes, the answer is correct.
Score: 1
  Accepted Answers:
b) 1
                                                                                                                                              1 point
        What will be the output?
        #include <stdio.h>
        #define a 10
        int main()
        printf("%d ", a);
        int a=50;
printf("%d ", a);
         return 0;
        }
    a) 10 10
   Б) 10 50
   Oc) 50 50
   d) Compilation error
  Yes, the answer is correct.
```

Write a program to print all the locations at which a particular element (taken as input) is found in a list and also print the total number of times it occurs in the list. The location starts from 1.

For example if there are 4 elements in the array

5

If the element to search is 5 then the output will be

- 5 is present at location 1
- 5 is present at location 3
- 5 is present 2 times in the array.

Private Test Cases used for evaluation input Expected Output

Actual Output

Status

7
38
38 38 is present at location 1.\n
98 38 is present at location 4.\n
38 is present at location 4.\n
38 is present at location 6.\n
38 is present at location 6.\n
38 is present at location 7.\n
39 is present at location 7.\n
38 is present at location 7.\n
39 is present at location 7.\n
30 is present at location 1.\n
30 is present at location 1.

The due date for submitting this assignment has passed

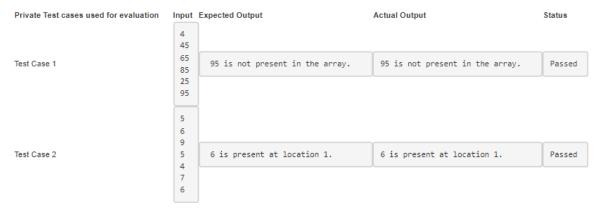
2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-09-27, 09:42 IST

Your last recorded submission was :

Write a C program to search a given element from a 1D array and display the position at which it is found by using linear search function. The index location starts from 1.



The due date for submitting this assignment has passed.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-09-27, 09:54 IST

Your last recorded submission was :

```
#include <stdio.h>
int linear_search(int[], int, int);
int main()

{
    int array[100], search, c, n, position;
    /* search - element to search, c - counter, n - number of elements in array,
    position - The position in which the element is first found in the list. */
          scanf("%d", &n); // Number of elements in the array is read from the test case data
          for (c = 0; c < n; c++) scanf("%d", &array[c]); //Elements of array is read from the test data
 11
12
 13
14
15
16
17
          scanf("%d", &search); //Element to search is read from the test case data
          /* Use the following in the printf statement to print the output
printf("%d is not present in the array.", search);
printf("%d is present at location %d.", search, position+1); //As array[0] has the position 1
 18
23 if(se

24 {

25 pr

26 f=1

27 }

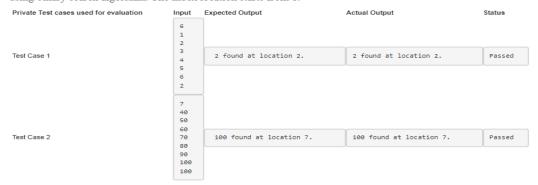
28 }

29 if(!f)

30 {

31 print
           printf("%d is present at location %d.", search, position+1);
f=1;
         printf("%d is not present in the array.", search);
```

Write a C program to search a given number from a sorted 1D array and display the position at which it is found using binary search algorithm. The index location starts from 1.



The due date for submitting this assignment has passed.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-09-28, 09:59 IST

```
Your last recorded submission was
                   #include <stdio.h>
int main()
    int c, n, search,
array[100];
scanf("%d",&n); //number of elements in the array
    scanf("%d", &search); //The element to search is read from to the search is read from the search is search in the search is read from the search is re
                                   scanf("%d", &search); //The element to search is read from test case.
```

Due on 2020-09-20, 20.09 (5)

Write a C program to reverse an array by swapping the elements and without using any new array.

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	7 8 9 10 6 4 7 11	Reversed array elements are:\n 11\n 7\n 4\n 6\n 10\n 9\n 8	Reversed array elements are:\n 11\n 7\n 4\n 6\n 10\n 9\n 8\n	Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-09-28, 10:00 IST

```
Your last recorded submission was
    who have recorded such as some state of the such as \frac{\#incLude}{2} (stdio.h) 2 int main() {
3 int army[100], n, c;
4 scanf("%d", %n); // n is number of elements in the array.
5 for (c = 0; c < n; c++) {
5 canf("%d", %array[c]);
   10 {
11 temp=array[i];
12 array[i]=array[j];
13 array[j]=temp;
14
  14

| 5 | 16 | printf("Reversed array elements are:\n");

| 7 | for (c = 0; c < n; c++) {

| 9 | printf("%d\n", array[c]);

| 20 | }

| 12 | return 0;
```