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**45:51:47** Finish test

Learn how your code will be evaluated (https://helpcenter.mymapit.in/?ht\_kb=things-to-know-before-attempting-the-test)

Utility codes for quick start (https://helpcenter.mymapit.in/?page\_id=871)

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Section - 1

Question No. 26 of 36 | 10 Marks

## Books in ascending order

Imagine you are a librarian tasked with sorting a large collection of books in ascending order by book number. To accomplish this, you decide to use a selection sort algorithm implemented through recursion. Starting with the first book, you compare it to each subsequent book and swap their positions if necessary, continuing this process until the entire collection is sorted. By using recursion, you are able to break down the sorting process into smaller, more manageable steps, which helps to simplify the overall task of organizing the library's book collection.

**Sample Input:** 

5 // size of list

55 66 2 88 44 // elements of list

**Sample Output:** 

The sorted book list

2 44 55 66 88

**Sample Input:** 

5 // size of list

```
C (gcc 4.8.3) 🗸
                                                                      Compile & Run
     #include <stdio.h>
     int main(){
         int n;
         scanf("%d",&n);
         int arr[n];
 7
8
         int i;
         for(i=0; i < n; i++) scanf("%d",&arr[i]);</pre>
 9
10
         // bubble sort
11
         int rounds,;
12
         for(rounds=1; rounds <= n - 1; rounds++){</pre>
13
              for(j = 0; j <= n - rounds - 1; <math>j++){
14
                  if(arr[j] > arr[j+1]){
15
                      int temp = arr[i];
16
                      arr[j] = arr[j+1];
17
                      arr[j+1] = temp;
18
19
20
         }
21
22
         // output
23
         printf("The sorted book list \n");
24
         for(i=0; i < n; i++) printf("%d ",arr[i]);</pre>
25
```

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I Understand

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