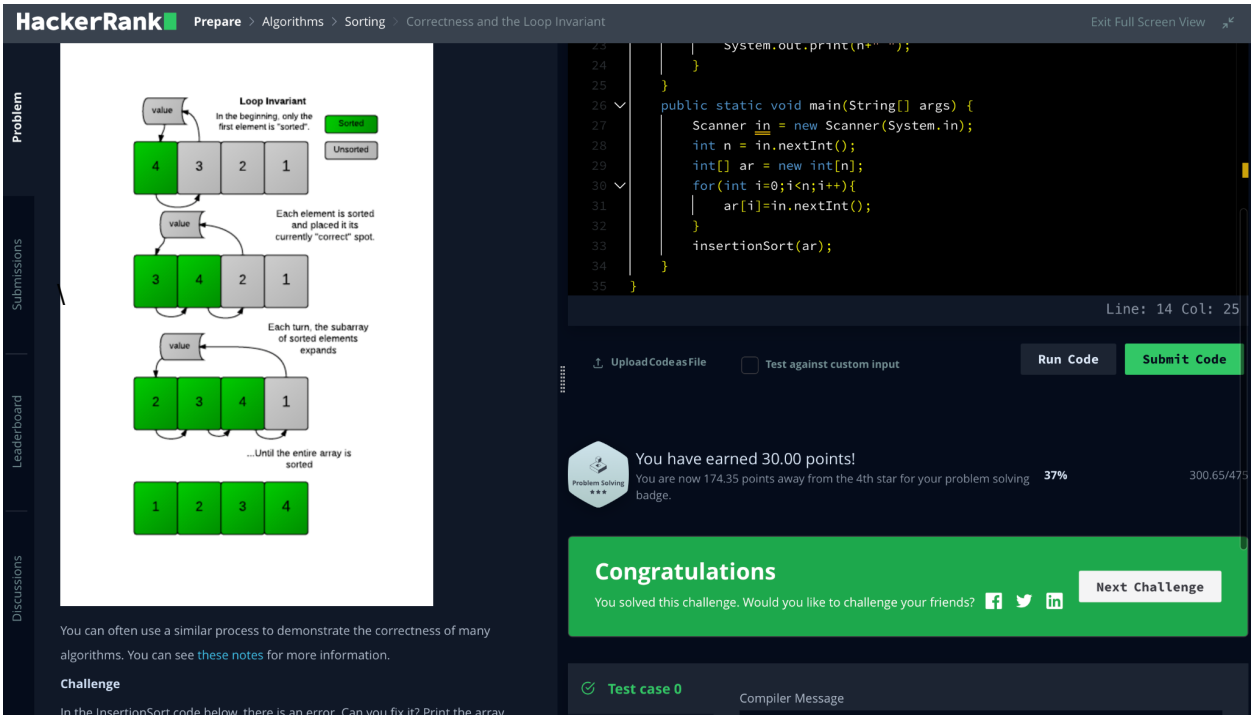
Correctness and the loop invariant



As talked about in class, the time complexity for this code would be O(n^2) since it is the worst possible scenario for the code. It does not have a pointer element, and because of that the code starts at the far left of the Array. As well as that it also has a nested loop that makes the time complexity of insertion O(n^2).

The Space complexity is a little different because it involves an input Array, and due to the input array the space complexity would be O(n), even though the variables inside the Array have a constant space complexity, the Array itself has a space complexity of O(n).