No, it is not wrong.

Because in duplicated array, we can get linear time sorting.

According to the decision tree, any comparsion-based algorithm has height h, and it has a $\log n! = \Omega(n \log n)$, meantime, the lower bound for sorting $\Omega(n \log n)$ is proved.

I'll give another code example we can sort an array in $O(n)$.

```
public static void sortArray(int arr[], int N){
    for(int i = 0; i < N;) {
       if (arr[i] == i + 1)
       {
           i++;
       }
       else{
           int temp1 = arr[i];
           int temp2 = arr[arr[i] - 1];
           arr[i] = temp2;
           arr[temp1 - 1] = temp1;
       }
    }
}
```