SORTING AND SEARCHING – 20 QUESTIONS GAME - 05

So let me write the program for this algorithm which is bubble sort so let me write the function def bubble and the parameter will be the array which i want to get sorted ok, first let me compute the length of this array so for length there is a function length of' a' it check it returns the length of any lists which you provide there so length Len of 'a' will return me the length of this array or the list so i will write my first loop which is for i in range of ten which is the length of the array, so first loop is first loop should until the number of elements in the list ok? The second loop should start from the first element but after, after all the swapping see what was happening here, so after all the swapping the maximum element was going to the last position, so in the second pass we, we don't have to we don't have to compare that element or include that element in the comparison so we can safely exclude the last element which we got in the last pass so every time we will exclude one such element in such way will get the sorted array. So the second loop will go for j in range it will start from zero ok but it will go until n minus i minus one, minus one is because of the range issue because we have to go until the minus one part and minus i is that when the ith element when the maximum element gets to its the the last position then we have to exclude that element for that i am putting minus i, so it means that when i is zero it means that it is the first iteration it means there is no maximum element which went to the last position so we have to go to the last element in the second loop but after the after i becomes one it means that one of the maximum element first maximum element went to the last position when we have to exclude it so for that n minus i is required and after this after when i becomes two it means two maximum elements first maximum element and the second most maximum element went to the went to its correct position it means nth position and n minus one position we have to exclude it so that s why this condition is required. Then i just have to check the condition which ever i was talking about if a of j it means the current position is greater than a of next position which is j plus one if such thing happens then just swap it, i will create a temporary variable temp and i will assign it the value of aj in aj i will put a of j plus one and in a of j plus one i will put the temp variable, this is just swapping of two elements that's it that's all my programme should be my sorting is complete let me just create an array 'a' which i gave in the example of which was five comma one comma four comma two comma eight ok this was my array i will call my function bubble and pass this array let me print the elements of this sorted array for i in a that's it i will print 'i', great my program is complete i will just run it cool one two four five eight so my array was five one four two eight got one two five four eight which is one two four five eight which is sorted see you can create your own array and you can run this programme and you will get the sorted array so this is how we perform a sort we perform sorting this is one of the algorithm, this is not the best algorithm that we have there are so many better algorithms for example quick sort, merge sort, heap sort and so other sorting algorithms but this is the basic algorithm which you guys can use, if you if you do not know much about sorting and after you learn more of the programming and algorithm and data structures related things then you can go on to the more advanced sorting algorithms so

that your time it takes your function takes less amount of time in order to sort an array thank you.