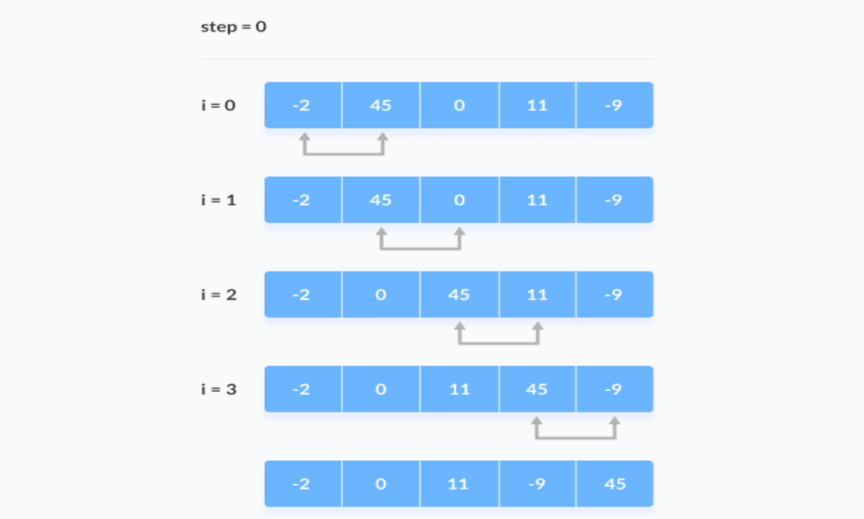
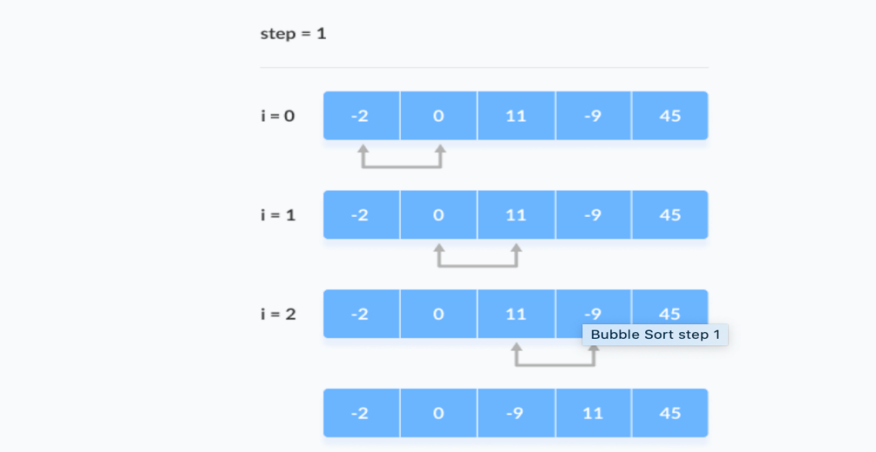
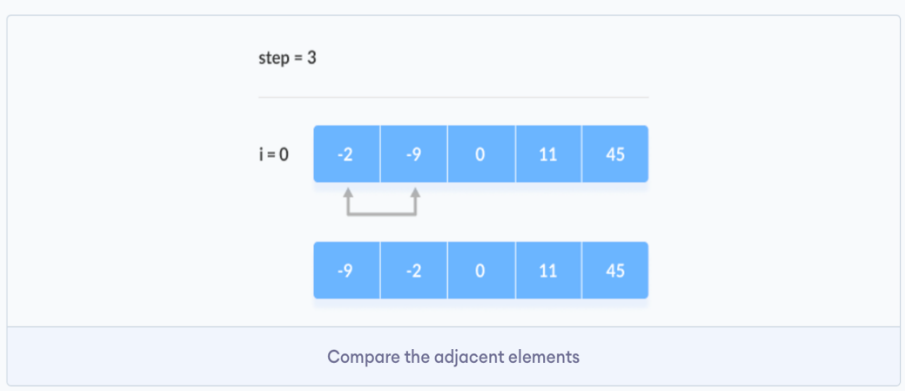
Question Lab Exercise 2 Part 1

1. Study step 0, step 1, step 2, and step 3.







a. Write an algorithm to perform bubble sort on a given array of integers.
b. Write a program to perform bubble sort on an array of N elements. It uses the algorithm depicted in (a).

2. Below table illustrates the sorting of list L in ascending order using insertion sort technique. As we can see in the above illustration, four passes were required to sort a list of five elements. Hence, we can say that insertion sort require n-1 passes to sort an array of n elements.

Pass	Comparison	Resultant Array
1	18 (3) 2 33 21	3 18 2 21 33
2	18 3 (2) 33 21	2 3 18 33 21
3	2 3 18 (33) 21	2 3 18 33 21
4	2 3 18 33 (21)	3 2 18 21 33
	→ denotes the previously sorted sub array → denotes the current selection	

a. Write an algorithm to perform insertion sort on a given array of integers.
b. Write a program to perform inserrtion sort on an array of N elements. It uses the algorithm depicted in (a).