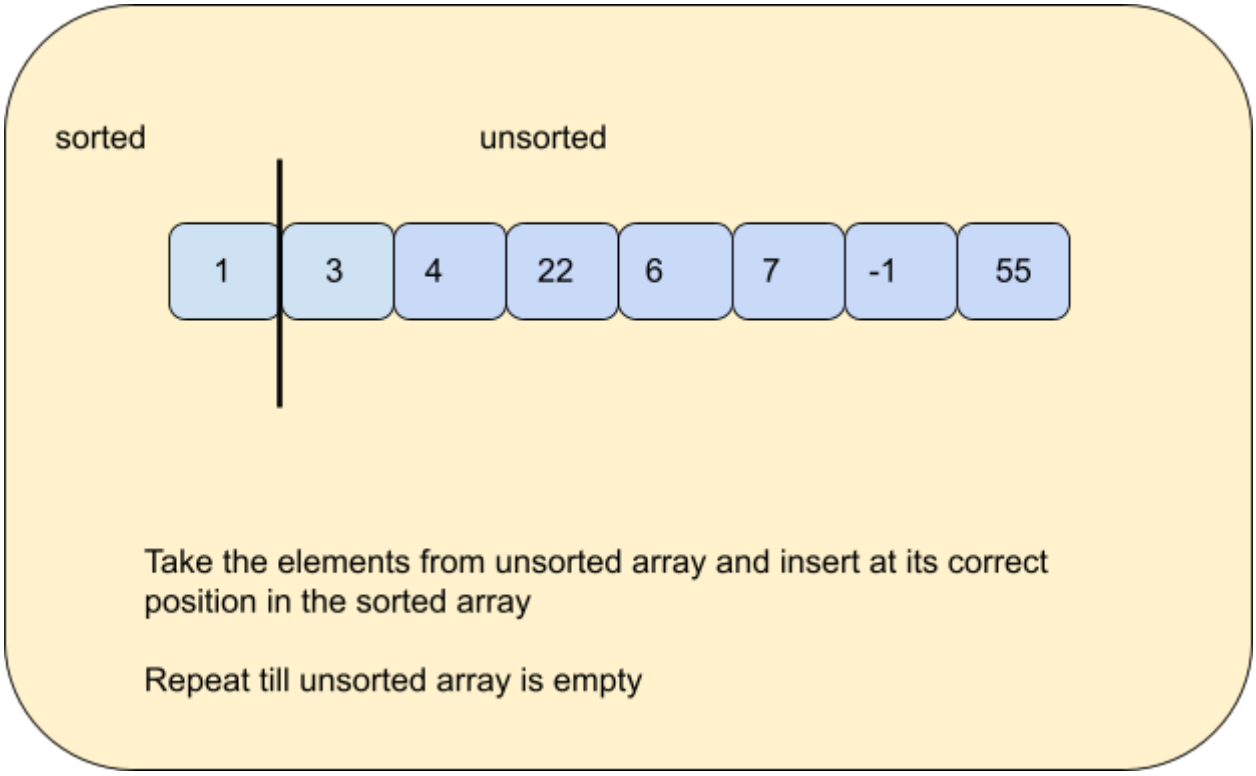
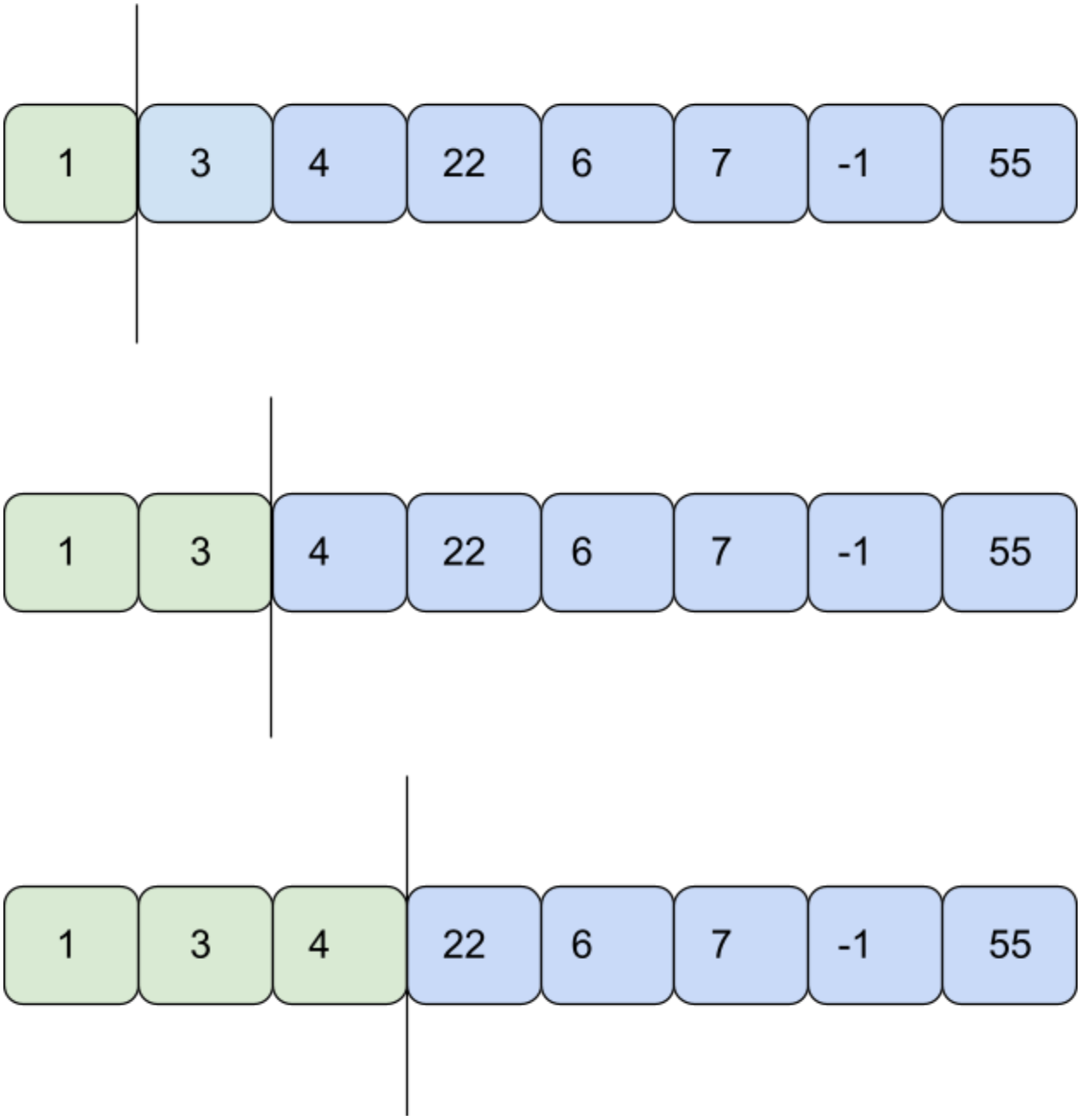
Insertion Sort

Basic Idea:

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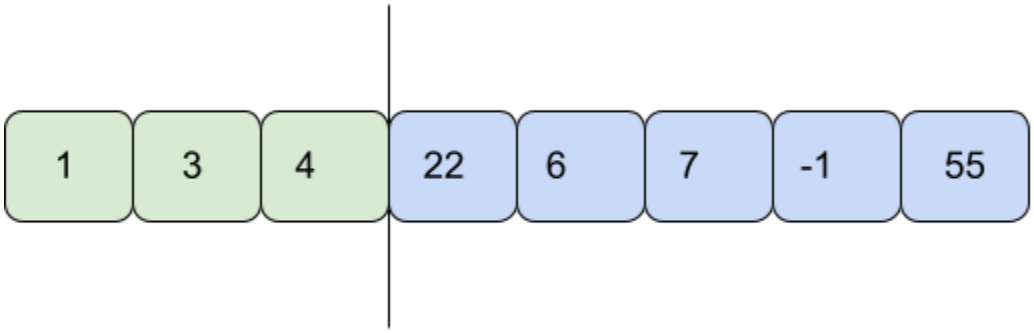
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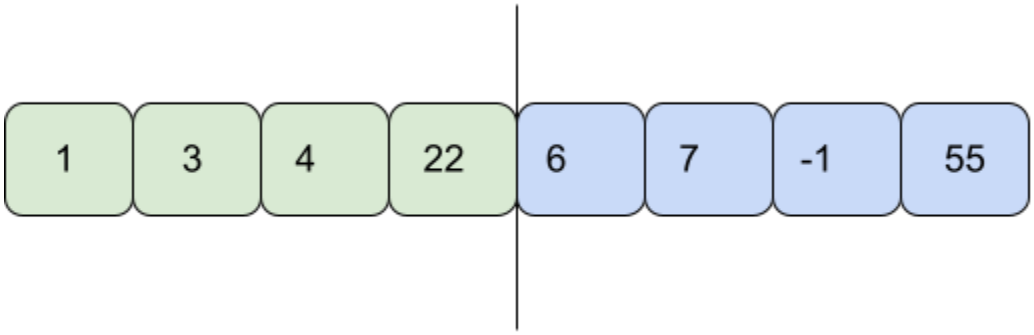
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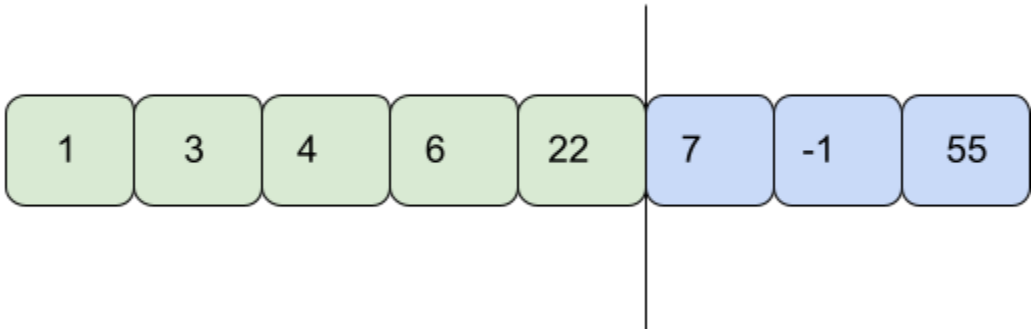
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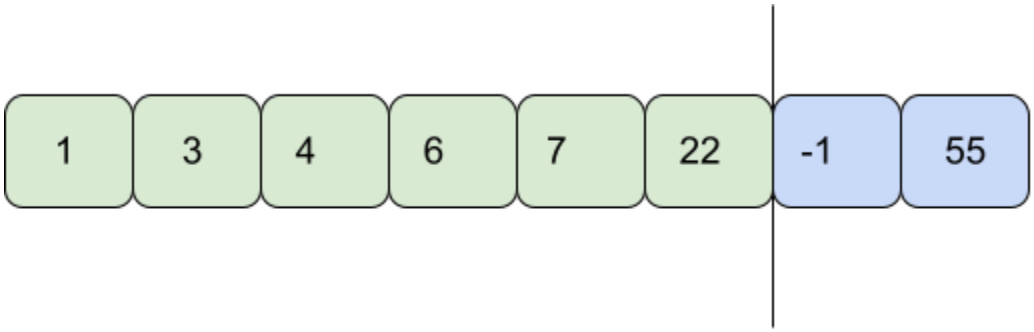
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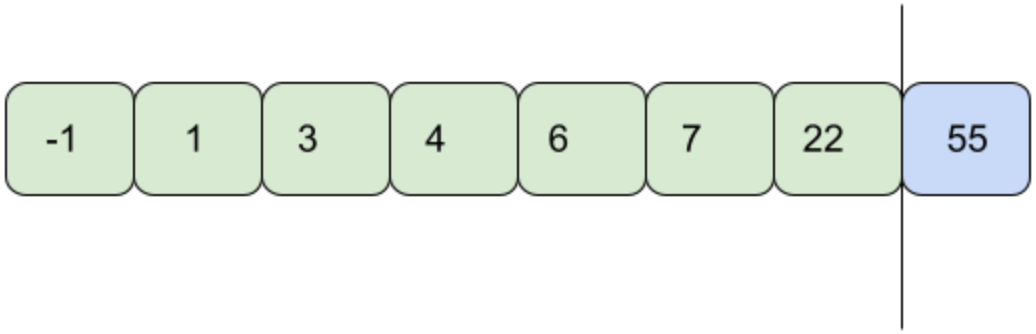
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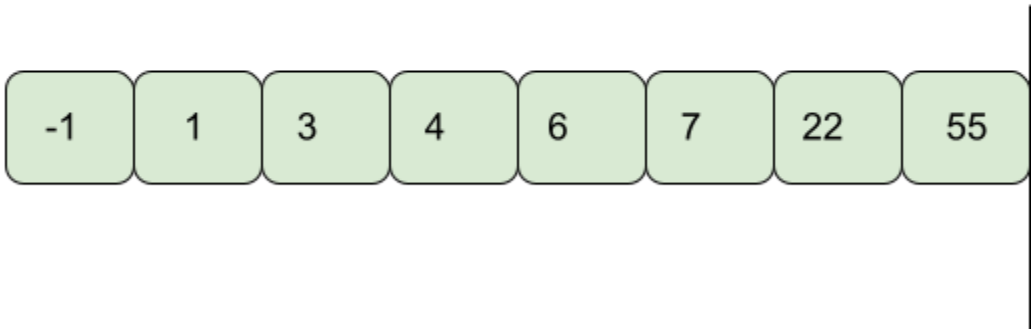
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```java
public static void insertionSort(int[] a) {

        int n = a.length;

        for (int i = 0; i < n; i++) {

            // insert ith element in sorted portion

            int j = i - 1;
            int temp = a[i];

            while (j >= 0 && a[j] > temp) {
                a[j + 1] = a[j];
                j--;
            }

            // position will be j+1

            a[j + 1] = temp;

        }

    }
```