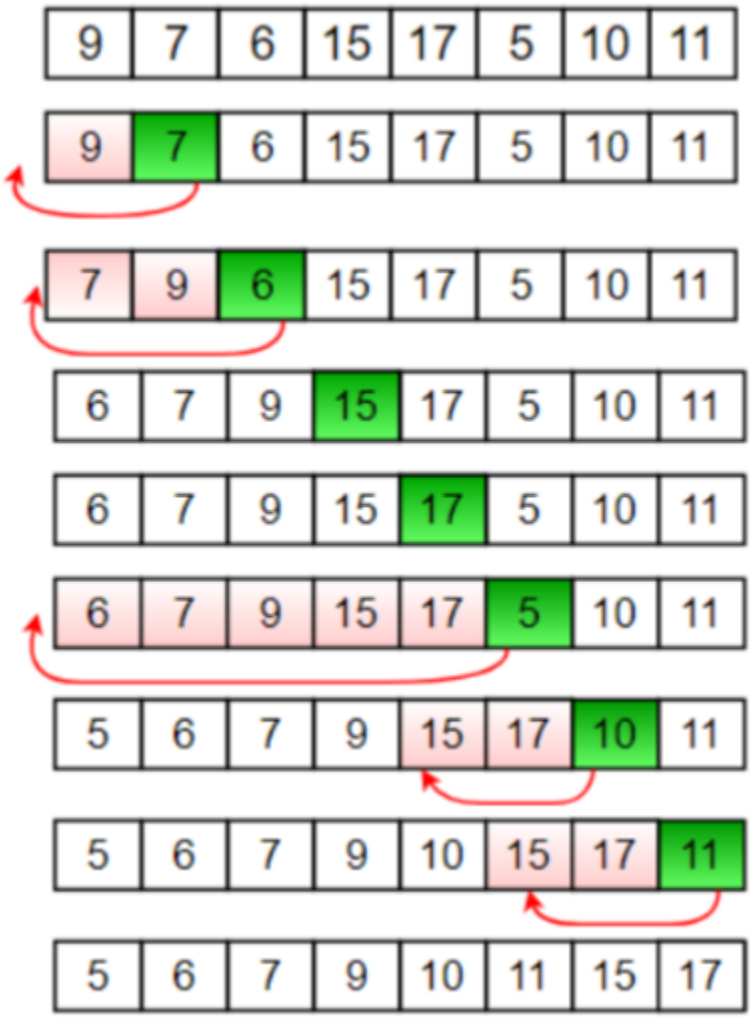
INSERTION SORT:



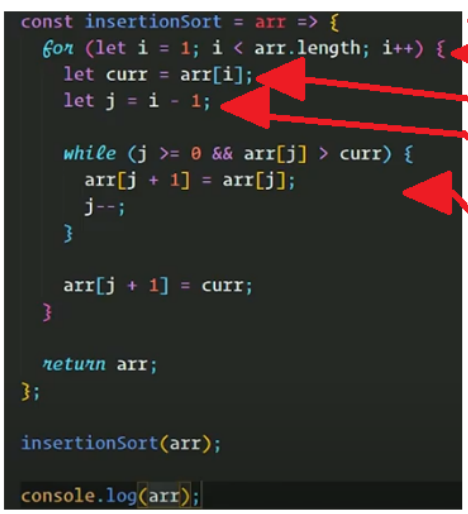
First, we create the array to be sorted.

```
const arr = [2, 4, 9, 14, 23, 7];
```

We will determine if left value is greater than right value:
- if 2 is bigger than 4,
- if 4 is bigger than 9,
- if 14 is bigger than 23,
- if 23 is bigger than 7.

23 is bigger than 7, so this array needs to be sorted.

Everything larger than 7 will be sorted to the right... this will open up an appropriate spot to insert 7.



```
const insertionSort = arr => {
  for (let i = 1; i < arr.length; i++) {
    let curr = arr[i];
    let j = i - 1;

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

    arr[j + 1] = curr;
  }

  return arr;
};

insertionSort(arr);

console.log(arr);
```

Next, we create a function called insertionSort, which takes the array and runs a for loop:

... the variable i equals 1, because we will be moving towards the left once we start comparing 2 adjacent values against each other.

... the current element 7 (curr) is going to be i.

... the other variable j will equal i minus 1... why minus 1?... because we compare the element to its left.

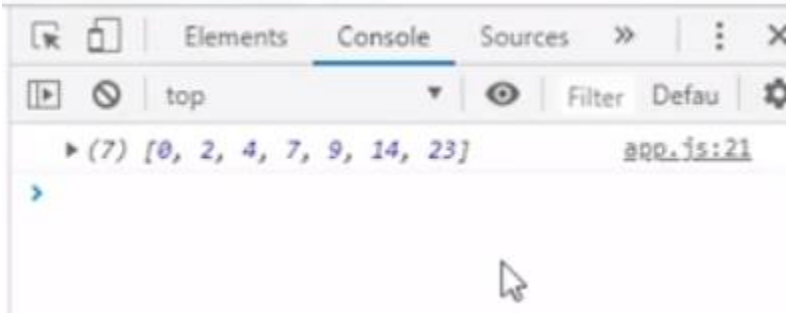
... then, we create a while loop with conditions.

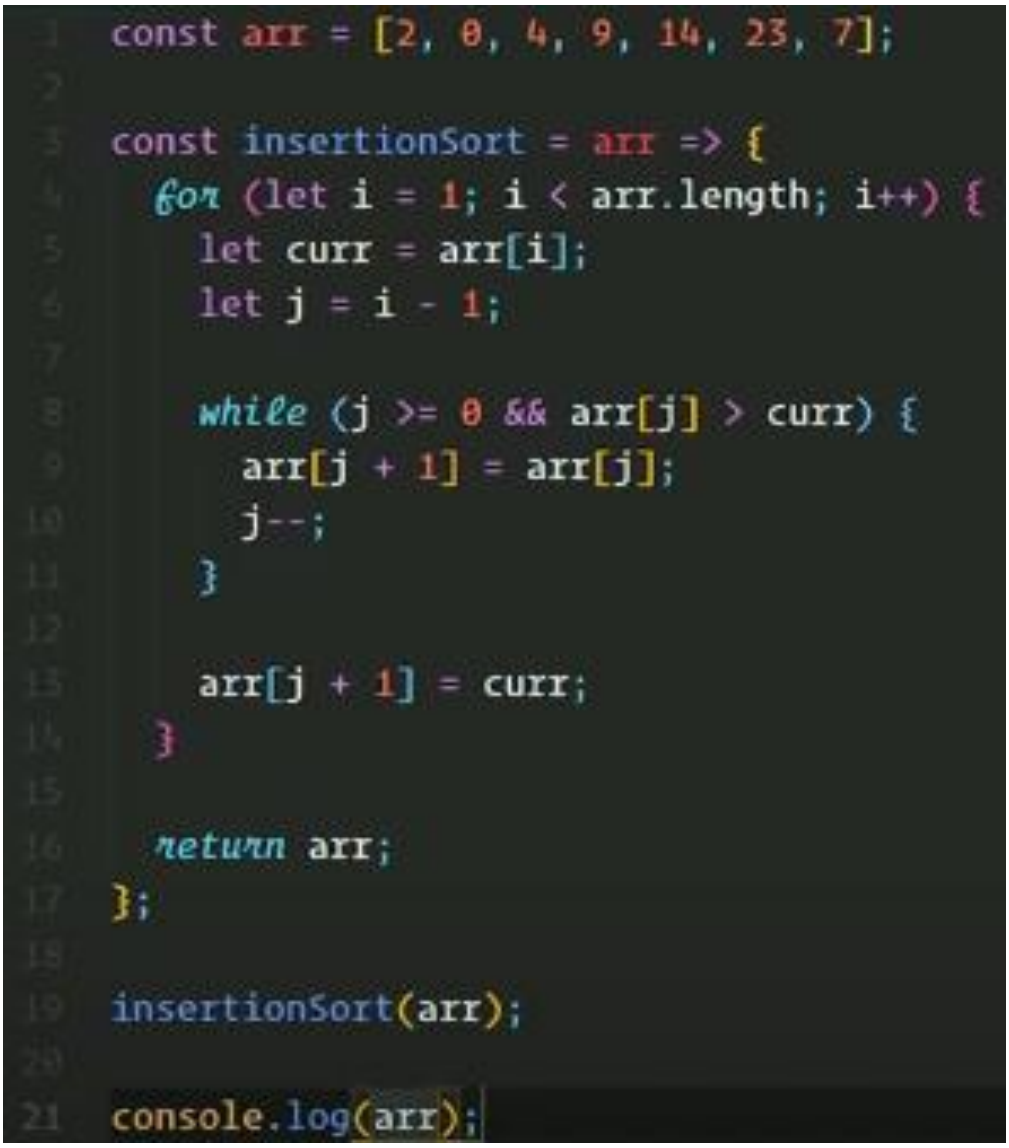
... its first condition will be "while j is less than or equal to zero, AND array of j is greater than current value." (this is where we compare the elements of the array against each other). If this condition is met, then we shift the elements to the right and decrement j, because we will be searching from right to left until j is no longer bigger than current value (ie, when we arrive at 4, where j is not bigger than 7).

Now that we have found the spot to insert 7, we insert it by saying j plus 1 equals current.

Then we return our array, which has now been sorted.

… now, when we check our console, we see our array has been sorted:





```
const arr = [2, 0, 4, 9, 14, 23, 7];

const insertionSort = arr => {
  for (let i = 1; i < arr.length; i++) {
    let curr = arr[i];
    let j = i - 1;

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

    arr[j + 1] = curr;
  }

  return arr;
};

insertionSort(arr);

console.log(arr);
```