

JavaScript Bubble Sort

Bubble Sort Algorithm

The Bubble Sort algorithm is a simple algorithm to sort a list of N numbers in ascending order. Bubble sort works by iterating through a list and checking whether the current element is larger or smaller than the next element.

This algorithm consists of an outer iteration and an inner iteration. In the inner iteration, the first and second elements are first compared and swapped so that the second element has a higher value than the first. This is repeated for the subsequent second and third element pairs and so forth until the last pair of (N-2, N-1) elements is compared. At the end of the inner iteration, the largest element appears last. This is repeated for all elements of the list in the outer iteration.



3 5 4 6 2 1

Bubble Sort Swapping Variables

The Bubble Sort algorithm requires swapping of variables in order to sort them. The swapping algorithm is dependent on the programming language. For most languages, a temporary variable is needed to hold one of the values being swapped:

```
temp_variable = number_1  
number_1 = number_2  
number_2 = temp_variable
```

For others, the swapping can be done in a single assignment:

```
number_1, number_2 = number_2, number_1
```

