

Bubble Sort in R

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This function implements the bubble sort algorithm. Let us consider a vector of size n . Intentionally we will take an asort of the vector. The bubble sort algorithm is a simple sorting algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order.

```
bubble.sort <- function(vec){
  # Index of the last element
  last_index <- length(vec)
  #
  for(i in last_index:2){
    for(j in 1:(i-1)){
      # Swap if the element at j is greater than the element at j+1
      if(vec[j] > vec[j+1]){
        # Swap the elements
        temp <- vec[j]
        vec[j] <- vec[j+1]
        vec[j+1] <- temp
      }
    }
  }
  vec
}
```

Example

```
a <- c(7,6,5,1,0,9,5,5)
bubble.sort(a)
```

```
## [1] 0 1 5 5 5 6 7 9
```