
```
function SortedVector = Bubble1(InputData)
% BUBBLE1 Sort a vector of numbers using the bubble algorithm
%
%   c = Bubble (A) sort the vector A
%
%   Exaple:
%
%       Bubble1([3 5 2 6 4 1 9]);
%
%   See also SORT
%
% Copy of the input data vector
A=InputData;

% Bubble sort algorithm
numElements = length(A);
swapped = 1;
while (swapped ==1)
    swapped = 0;
    for i = 2:(numElements)
        if (A(i-1)>A(i))
            auxiliarVariable = A(i-1);
            A(i-1)=A(i);
            A(i)=auxiliarVariable;
            swapped = 1;
        end
    end
end

SortedVector=A;
```

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