1 Start a new program by declaring a function to receive a list reference as input and begin an outer loop to repeatedly iterate through the array list

```
def bubble_sort( array ) :

    for index in range( len( array ) ) :

    # Algorithm sequence to be added here.
```

bubble.py

2 Next, add the algorithm sequence to iterate through the array list elements, up to the penultimate element, and swap values if the next is greater than the current value

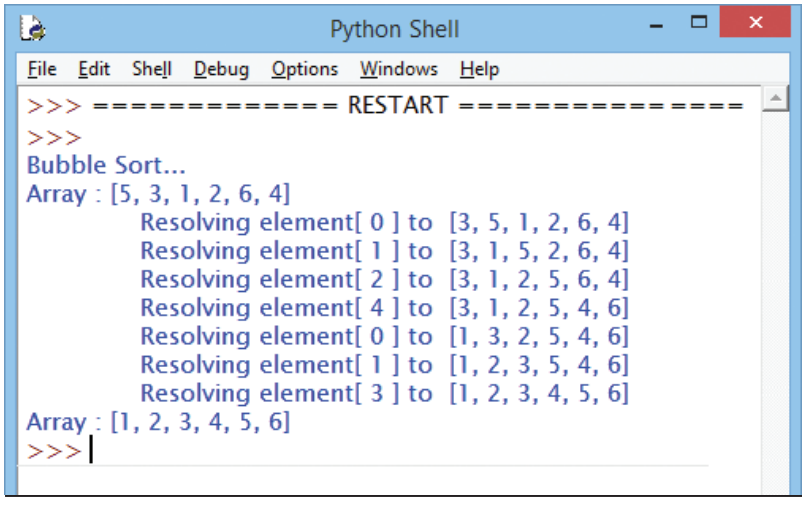
```
        for element in range( ( len( array )-1 ) - index ) :
            if array[ element ] > array[ element+1 ] :
                array[ element ] , array[ element+1 ] = \
                    array[ element+1 ] , array[ element ]

                print( '\tResolving element[' , element , \
                        '] to ' , array )
```

3 Now, add statements to create and display an unsorted list

```
array = [ 5 , 3 , 1 , 2 , 6 , 4 ]
print( 'Bubble Sort...\nArray :' , array )
```

4 Finally, add statements to call the algorithm function and display the list once more – to see the list sorted in place

```
bubble_sort( array )
print( 'Array :' , array )
```



In average simple cases, insertion sort outperforms selection sort, and selection sort outperforms bubble sort.