
# Data Structure & Algorithm

Class X
lab 8

UNITED TRUST

bdeducation
Bangladesh Digital Education Research Limited
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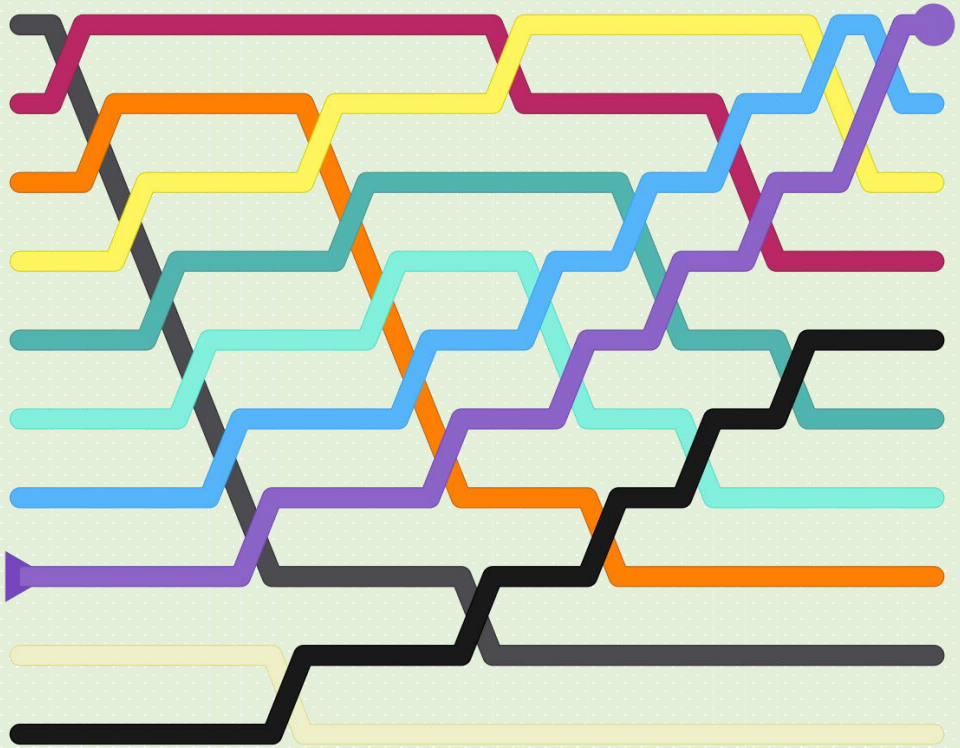
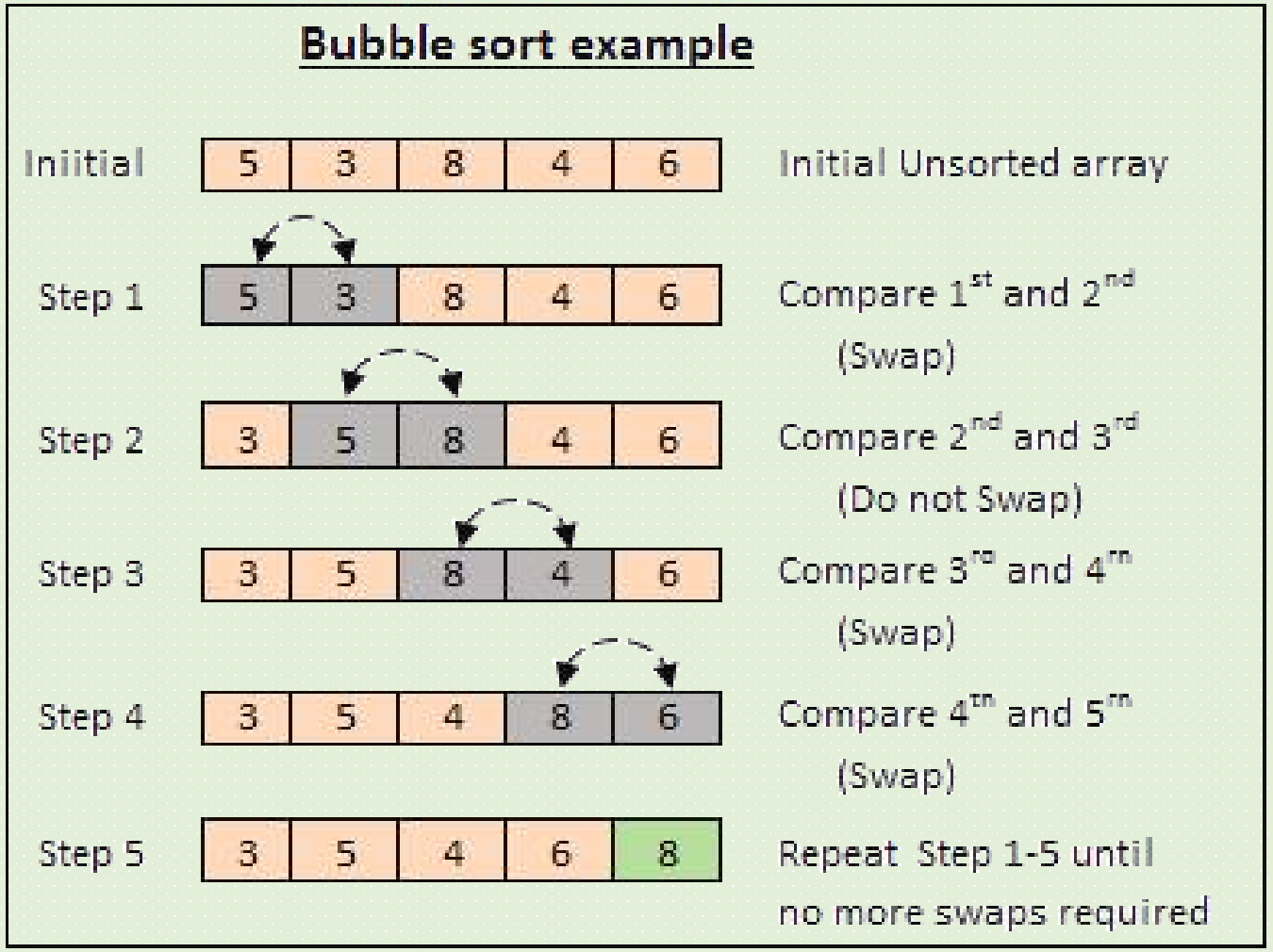
# Bubble Sort

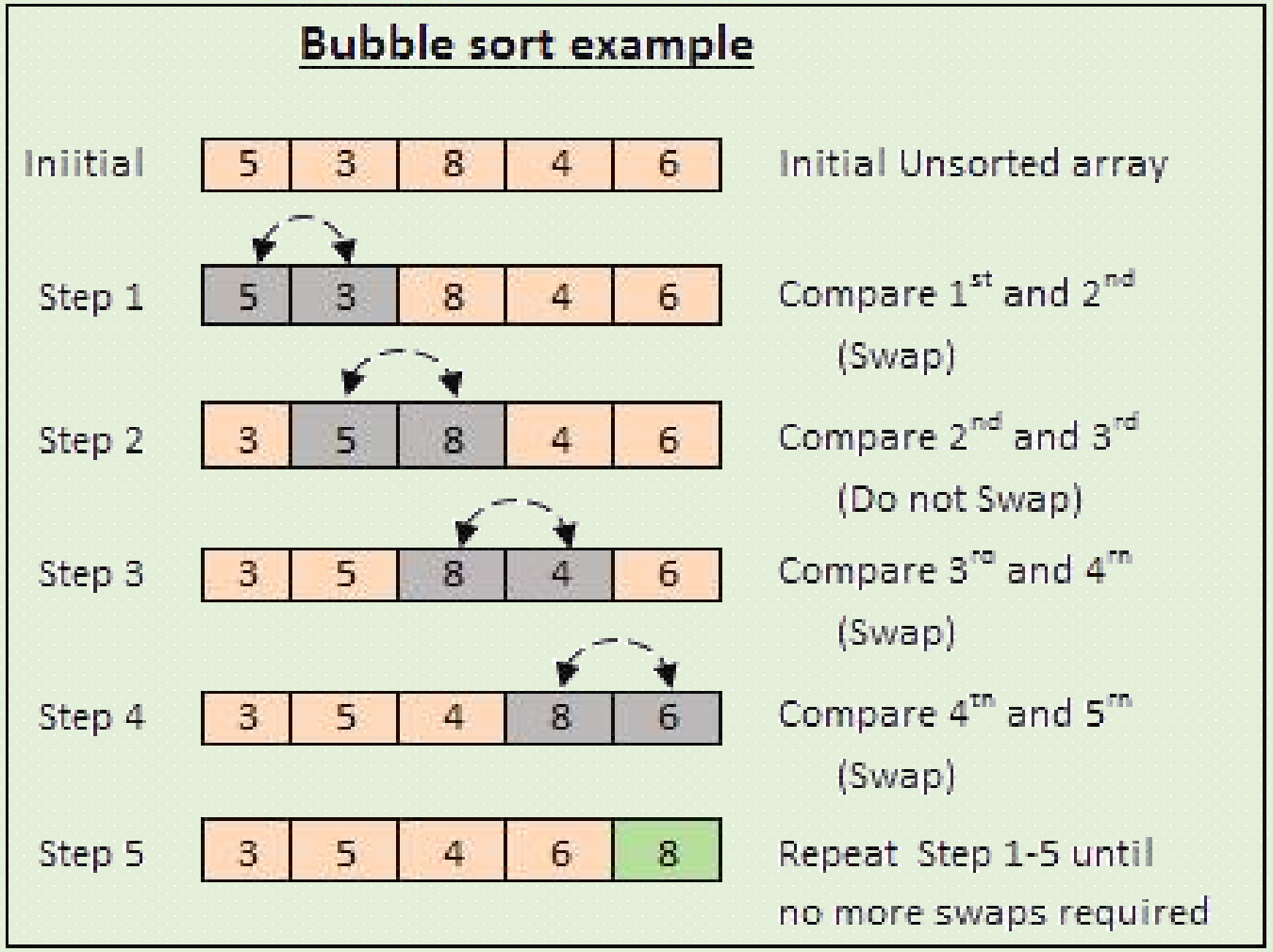
a simple sorting algorithm



# Bubble Sort Process



# Bubble Sort Process



# Bubble Sort Algorithm

```
begin BubbleSort(list)

    for all elements of list
        if list[i] > list[i+1]
            swap(list[i], list[i+1])
        end if
    end for
    return list
    end BubbleSort
```

# Bubble Sort Pseudocode

```
procedure bubbleSort( list : array of items )

    loop = list.count;

    for i = 0 to loop-1 do:
        swapped = false

        for j = 0 to loop-1 do:

            /* compare the adjacent elements */
            if list[j] > list[j+1] then
                /* swap them */
                swap( list[j], list[j+1] )
                swapped = true
            end if

        end for

        /*if no number was swapped that means
        array is sorted now, break the loop.*/

        if(not swapped) then
            break
        end if

    end for
    end procedure return list
```

# SO YOU WANNA BE A BETTER PROGRAMMER