



Algorithm Name

Algorithm Description

Time and Space complexities of the algorithm

Data set to sort

Data set configuration form

- Allows setting data set size – increase/decrease.
- Set can repeat or not
- Select case of the data set – Average/Worst/Best
- Allows to select the sorting speed

Sort button will commence the sort visualization

Array Visualizer

Sorting visualization in a bar chart

To open a window containing sorting steps

Analysis Section

Indicates number of operations,

- Swaps
- Comparisons
- Total operations
- Case, Size

Bubble Sort - Sorting Log Messages

98 9 10 15 67 81 82 90 94 4

- 1 . Bubble Sort Starts.
- 2 . Now Data set looks like - 98, 9, 10, 15, 67, 81, 82, 90, 94, 4
- 3 . Comparing 98 and 9
- 4 . Swapping 98 and 9, Because $98 > 9$
- 5 . Now Data set looks like - 9, 98, 10, 15, 67, 81, 82, 90, 94, 4
- 6 . Comparing 98 and 10
- 7 . Swapping 98 and 10, Because $98 > 10$
- 8 . Now Data set looks like - 9, 10, 98, 15, 67, 81, 82, 90, 94, 4
- 9 . Comparing 98 and 15
- 10 . Swapping 98 and 15, Because $98 > 15$
- 11 . Now Data set looks like - 9, 10, 15, 98, 67, 81, 82, 90, 94, 4
- 12 . Comparing 98 and 67
- 13 . Swapping 98 and 67, Because $98 > 67$
- 14 . Now Data set looks like - 9, 10, 15, 67, 98, 81, 82, 90, 94, 4
- 15 . Comparing 98 and 81
- 16 . Swapping 98 and 81, Because $98 > 81$
- 17 . Now Data set looks like - 9, 10, 15, 67, 81, 98, 82, 90, 94, 4
- 18 . Comparing 98 and 82

Original Data set

Sorting Log messages

- Swap messages - Red
- Comparison messages – Blue
- Current Data Set view – dark cyan
- ...etc