

can help you sort data for easier access, analysis, or presentation. Employed in situations where minimizing memory writes is crucial, as it performs the minimum necessary swaps, typically $n-1$ in the worst-case scenario. Arranging a list of items by price in a small e-commerce store or a list of products by price or popularity. However, its inefficiency in terms of time complexity renders it unsuitable for handling large data. Here are some real-world examples: you can use a sorting algorithm to sort a list of names alphabetically, Sorting a list of students by their grades or names in a small class. Organizing files in a directory by their creation date or size. Sorting a deck of cards in ascending or descending order. a .list of numbers from smallest to largest