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Sorting Algorithm Visualizer using Web Technologies

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Abstract: *Sorting algorithms play a vital role in computer science and are essential for organizing data efficiently. In this project, we present a sorting algorithm visualizer implemented using HTML, CSS, and JavaScript. The visualizer aims to provide an interactive and intuitive platform for users to observe the step-by-step execution of various sorting algorithms.*
The visualizer's user interface is designed using HTML and CSS, offering a clean and responsive layout. Users can select a sorting algorithm from a dropdown menu and provide input data, either randomly generated/custom input. The visualization area showcases the sorting process, highlighting the comparisons and swaps performed at each step.
JavaScript is used to implement the sorting algorithms and handle the visualization logic.The algorithm's implementation is triggered when the user initiates the sorting process.During the execution, the algorithm updates the visualization area in real-time, allowing users to witness the algorithm's progress visually.

Keywords: *Sorting algorithms*

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