SORTING VISUALISER

Project Overview
Welcome to the Sorting Visualizer project! This interactive web application visualizes the process of various sorting algorithms in action. The goal of this project is to provide an educational and engaging experience for those interested in understanding how different sorting algorithms work.
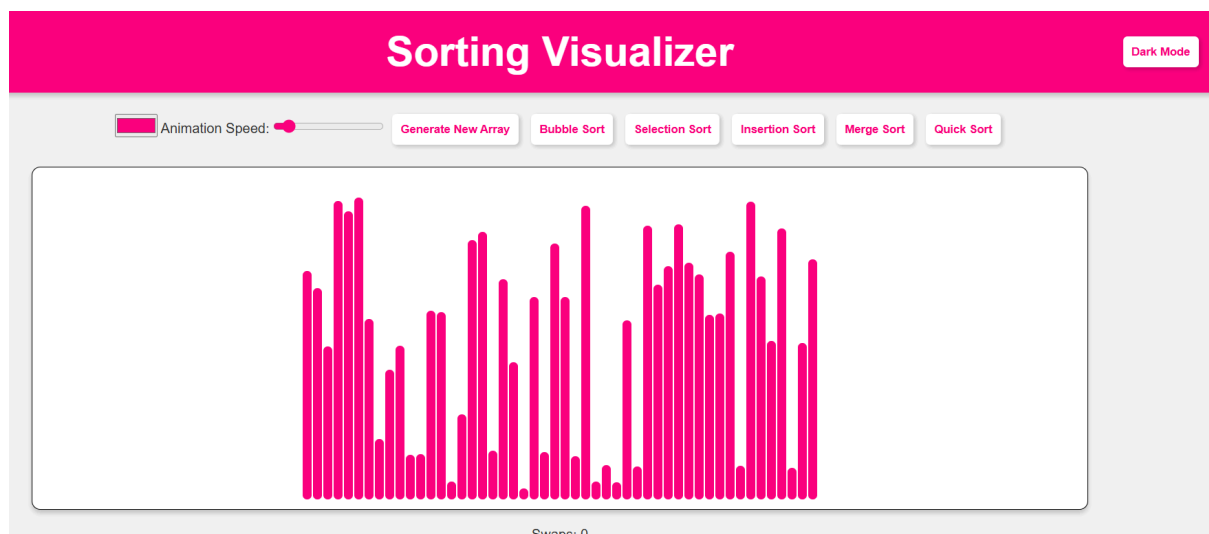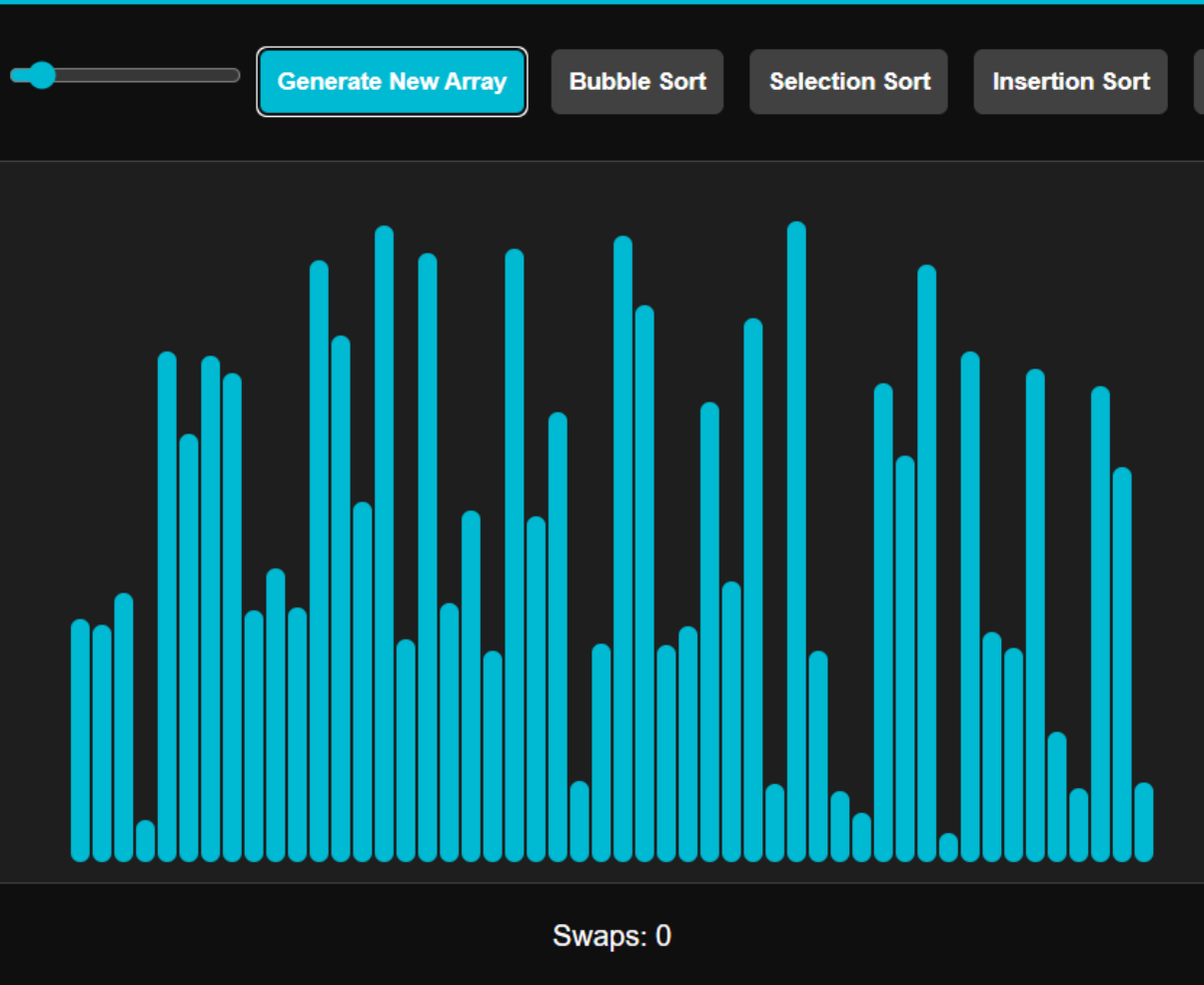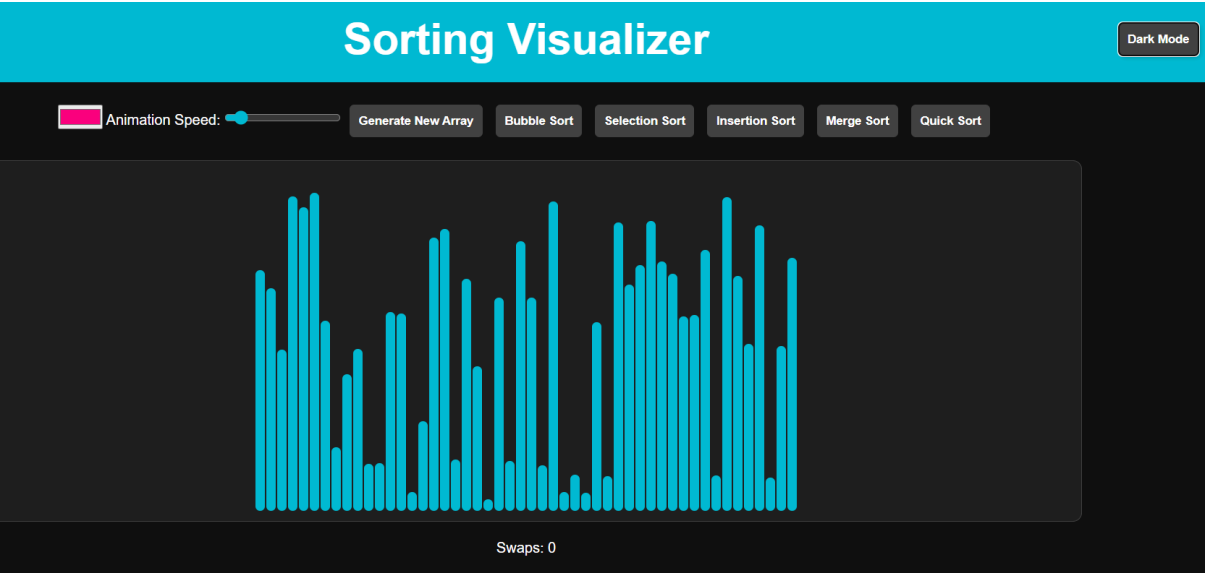
Features
- Sorting Algorithms Implemented:
1. Bubble Sort
2. Selection Sort
3. Insertion Sort
4. Merge Sort
5. Quick Sort
- Dark Mode: Toggle between light and dark themes.
- Animation Speed Control: Adjust the speed of the sorting animations using a slider.
- Bar Color Customization: Choose custom colors for the bars being sorted.
- Performance Metrics:
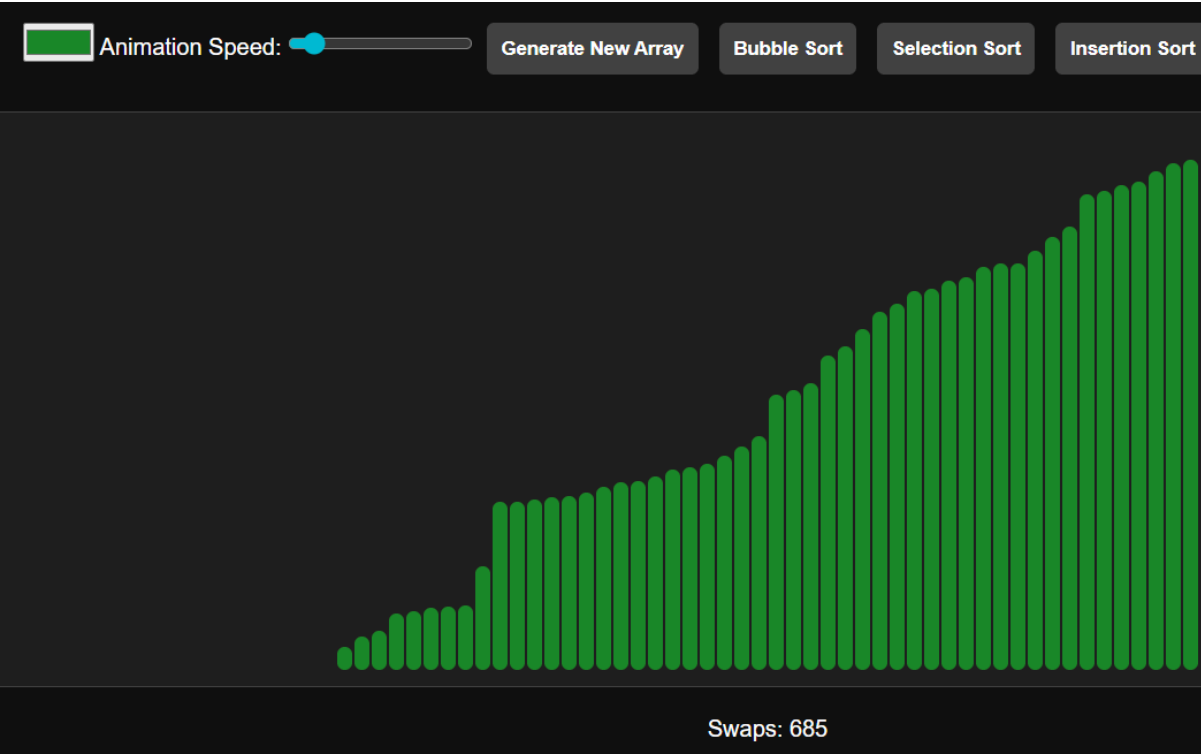 Swap Count: Tracks the number of swaps made during sorting.
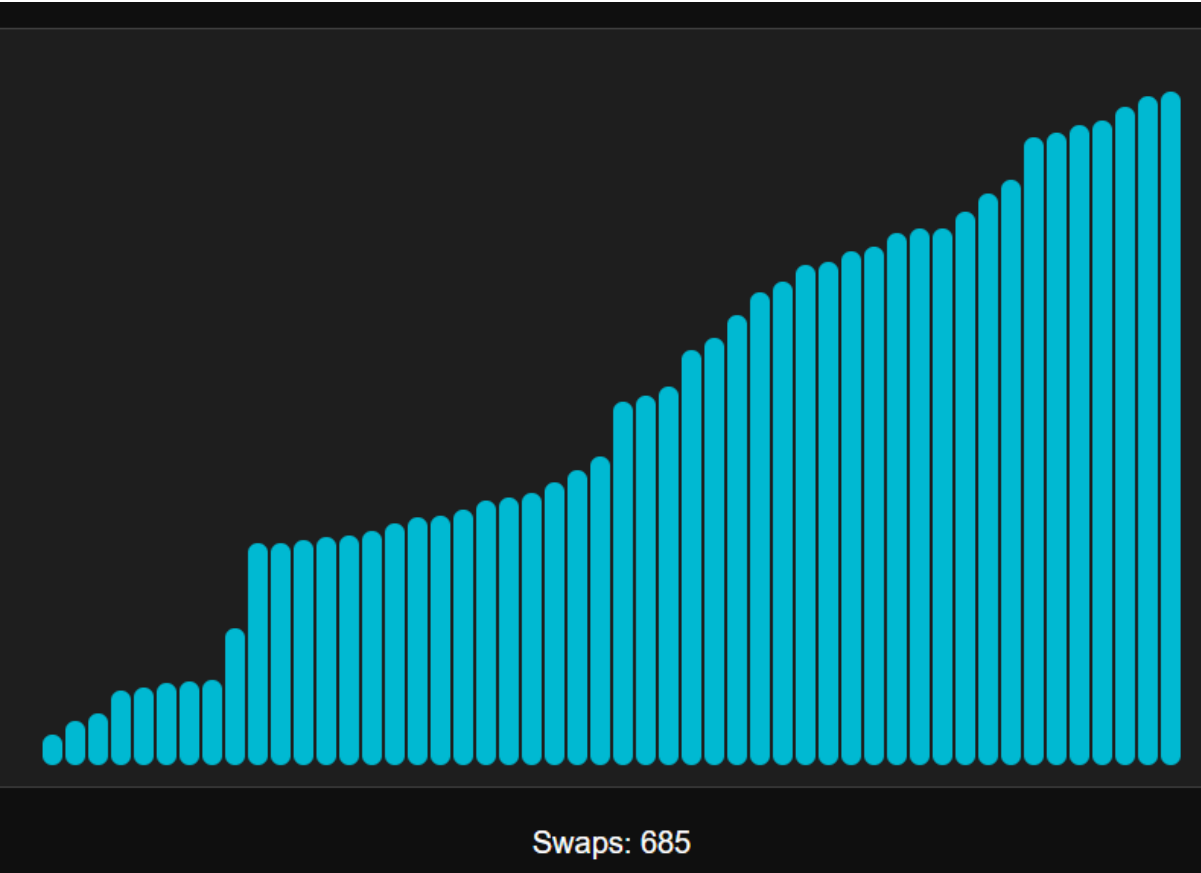
Technologies Used

- **HTML:** Structure of the web application.
- **CSS:** Styling and layout, including dark mode.
- **JavaScript:** Implementing sorting algorithms, animations, and interactivity.

Screenshots:

Sorting Visualizer

Dark Mode

Animation Speed:

Generate New Array | Bubble Sort | Selection Sort | Insertion Sort | Merge Sort | Quick Sort
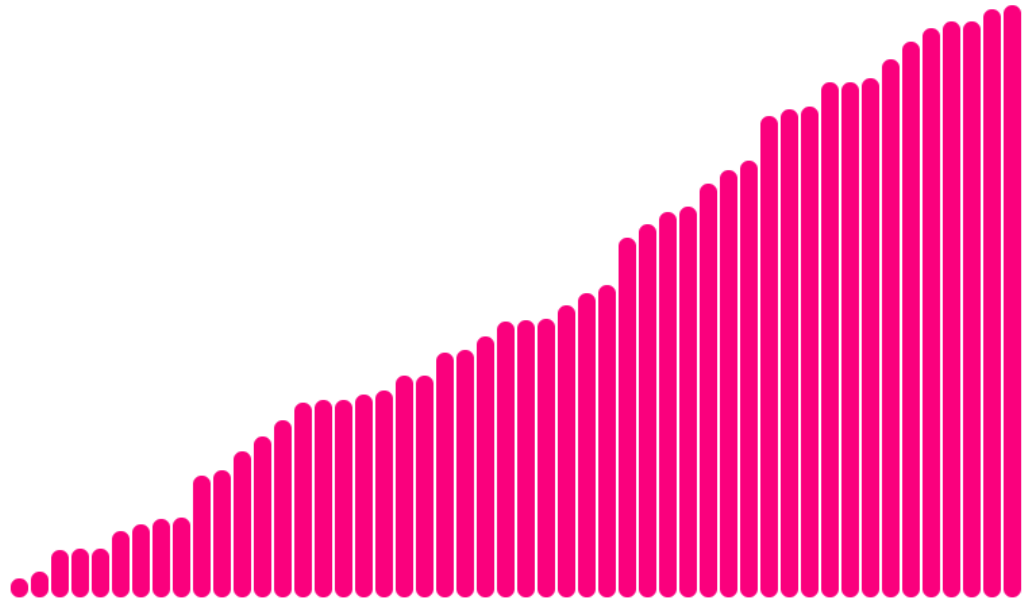
Swaps: 0
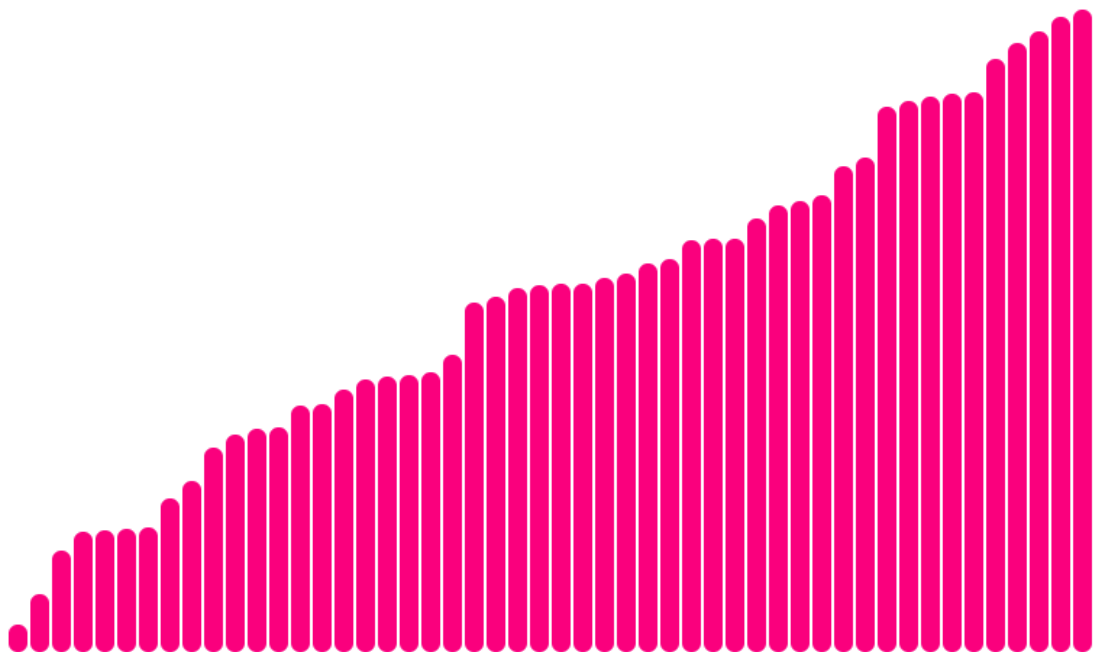

Generate New Array | Bubble Sort | Selection Sort | Insertion Sort

Swaps: 0

Swaps: 685

Animation Speed: | Generate New Array | Bubble Sort | Selection Sort | Insertion Sort

Swaps: 685

Swaps: 172

Swaps: 286

Animation Speed: [====o=====] **Generate New Array** | **Bubble Sort** | **Selection Sort** | **Insertion Sort** | **Merge Sort** | **Quick Sort**

Sorting Visualizer

Dark Mode

Animation Speed: [==o========] **Generate New Array** | **Bubble Sort** | **Selection Sort** | **Insertion Sort** | **Merge Sort** | **Quick Sort**

Sorting Visualizer

Dark Mode

Animation Speed: [====o=====] **Generate New Array** | **Bubble Sort** | **Selection Sort** | **Insertion Sort** | **Merge Sort** | **Quick Sort**