

Air Traffic Control Sorting Problem

why you selected a specific sorting algorithm?

We choose the QuickSort algorithm for this problem, for the following reasons:

- **Efficiency:** QuickSort has a medium time complexity of $O(n \log n)$, which is very suitable for sorting large lists of data such as flight data.
- **Flexibility:** Can be easily modified to sort based on any criterion (such as time or height).
- **In-memory performance:** It operates "in-place," meaning it does not require significant additional memory, which is important in real-time systems.