**Analysis**

**Bubble Sort**

* Time Complexity:
  + Best: O(n) (already sorted)
  + Average/Worst: O(n²)
* Space Complexity: O(1)
* Use When:
  + Small datasets
  + Code simplicity is preferred
  + Learning or basic sorting tasks
* Drawback: Slow on large datasets

**Quick Sort**

* Time Complexity:
  + Best/Average: O(n log n)
  + Worst: O(n²)
* Space Complexity: O(log n)
* Use When:
  + Large datasets
  + Need for high performance
  + Sorting in memory (RAM)
* Advantage: Faster in practice than most sorts

**Summary**

* Bubble Sort = Simple, best for small data
* Quick Sort = Efficient, best for large data
* Choose based on size of data and performance needs