**1. Understand Search Algorithms:**

* **Linear Search:** Checks each element one by one until the desired element is found or the end is reached. Suitable for unsorted or small datasets.
* **Binary Search:** Efficient search algorithm for sorted datasets. Divides the search interval in half repeatedly until the target value is found or the interval is empty.

**2. Analysis:**

* **Linear Search Time Complexity:** O(n) - time grows linearly with the number of elements.
* **Binary Search Time Complexity:** O(log n) - time grows logarithmically with the number of elements, but requires a sorted dataset.
* **Usage:**
  + **Linear Search:** Best for small or unsorted datasets.
  + **Binary Search:** Best for large, sorted datasets where fast performance is critical.