Exercise 2: E-commerce Platform Search Function

**Time Complexity:**

* **Linear Search:** O(n) in the worst and average cases because it may need to check every element in the array.
* **Binary Search:** O(log n) in the worst and average cases, as it repeatedly divides the array in half. However, binary search requires the array to be sorted.

**Suitability for Platform:**

* **Linear Search:** Suitable for small datasets or when the data is unsorted. It does not require preprocessing (like sorting) and can be used directly.
* **Binary Search:** More efficient for large datasets where quick searches are needed. It requires the data to be sorted, so an additional sorting step is needed if the data is dynamic.