Analysis:-

| **Algorithm** | **Time Complexity** | **Space Complexity** | **Sorted Data Required** |
| --- | --- | --- | --- |
| Linear Search | O(n) | O(1) | ❌ No |
| Binary Search | O(log n) | O(1) | ✅ Yes |

**⚖️ Which is More Suitable?**

* **Linear Search**:
  + Simple to implement.
  + Good for small datasets or unsorted data.
  + Not efficient for large-scale applications.
* **Binary Search**:
  + Much faster (O(log n)) for large sorted datasets.
  + Ideal for high-performance search on large e-commerce platforms.

**✅ Recommendation:**

For a **large e-commerce platform**, **binary search** (or even more advanced structures like hash maps or search trees) is more suitable due to its **performance advantage** when dealing with **frequent searches** across **sorted product catalogs**.