**4. Analysis**

**Q. Compare the time complexity of linear and binary search algorithms.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Algorithm** | **Best Case** | **Average Case** | **Worst Case** |
| Linear Search | O(1) | O(n) | O(n) |
| Binary Search | O(1) | O(log n) | O(log n) |

where n is the number of searching elements.

**Q. Discuss which algorithm is more suitable for your platform and why.**

=> Binary search is more suitable than linear search because it takes lesser time to search an element in the dataset.