

# INVENTORY MANAGEMENT SYSTEM

## UNDERSTANDING THE PROBLEM :

Why DSA essential for large inventories?

In an inventory system , we are going to deal with millions of products , its may be crucial to handle these huge data because

- Performance : we have to quickly add , delete , search several data.
- Scalable : The system had being grown ,that time system has to stay responsive .
- Result – thus by using DSA we can easily all these drawbacks .

Suitable DSA for Inventory management system:

- ArrayList , HashMap, TreeMap, LinkedList, Set and etc.

## ANALYSIS:

TIME COMPLEXITY FOR EACH OPERATION USING (HASHMAP ):

- To add an product –  $O(1)$
- To update an product –  $O(1)$
- To delete an product –  $O(1)$
- To display all product –  $O(n)$