



# **SNS COLLEGE OF ENGINEERING**

**Kurumbapalayam (Po), Coimbatore - 641 107**

**An Autonomous Institution**

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Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai**

**DEPARTMENT OF MANAGEMENT STUDIES**

**COURSE NAME : 19BA204 OPERATIONS MANAGEMENT**

**I YEAR / II SEMESTER**

**UNIT 4 - MATERIALS MANAGEMENT**

## Inventory Management

- ❖ Inventory management refers to the process of ordering, storing and using a company's inventory.
- ❖ This includes the management of raw materials, components and finished products, as well as warehousing and processing such items.



# Inventory Management Process

1 Goods are Delivered



2 Goods are reviewed, sorted and stored



3 Inventory levels are monitored



4 Stock orders are placed



5 Stock orders are approved



6 Goods are taken from stock



7 Inventory levels are updated

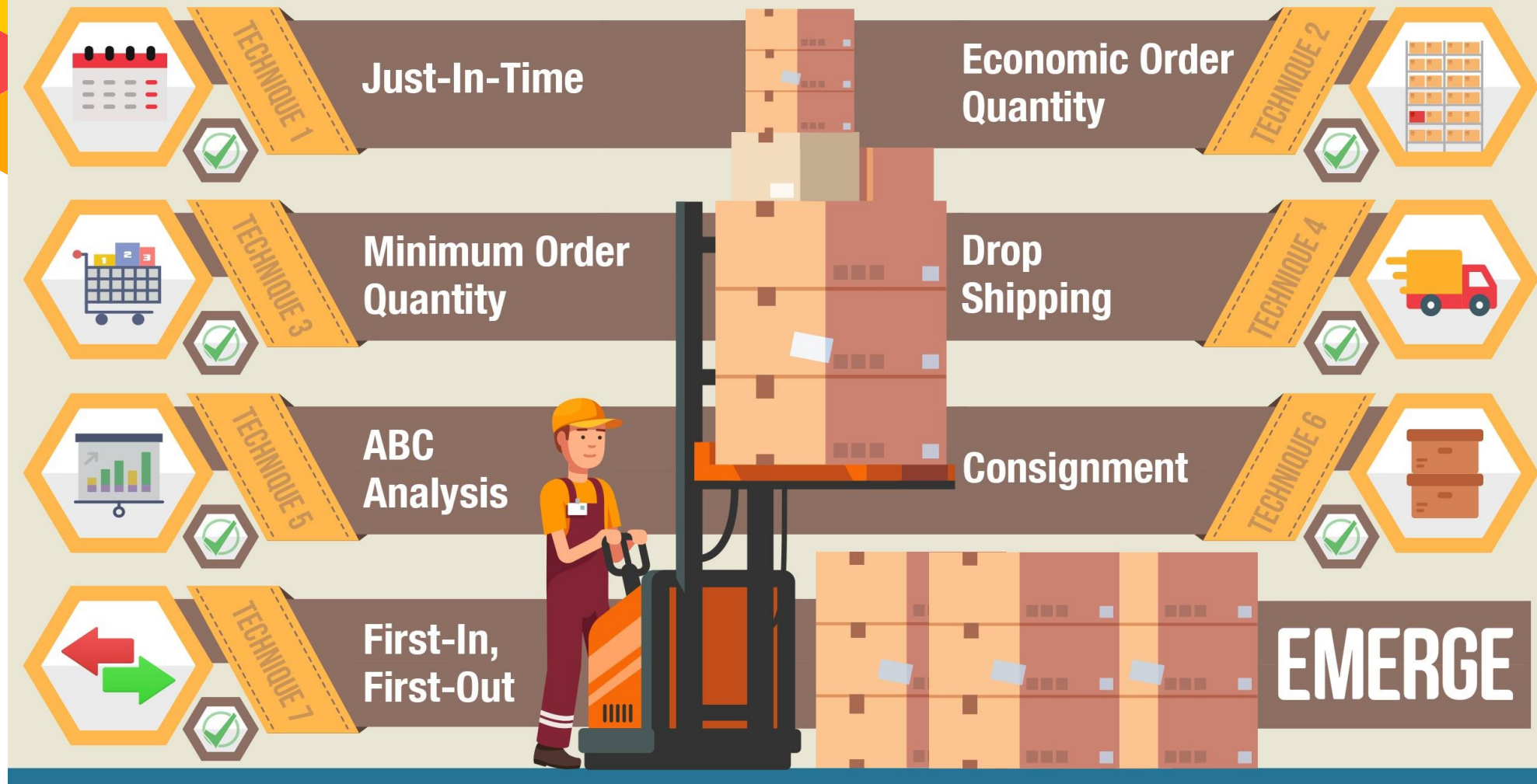


8 Low stock levels trigger purchasing



 PLANERGY™

# INVENTORY MANAGEMENT TECHNIQUES THAT YOU NEED TO KNOW



## First In First Out (FIFO)

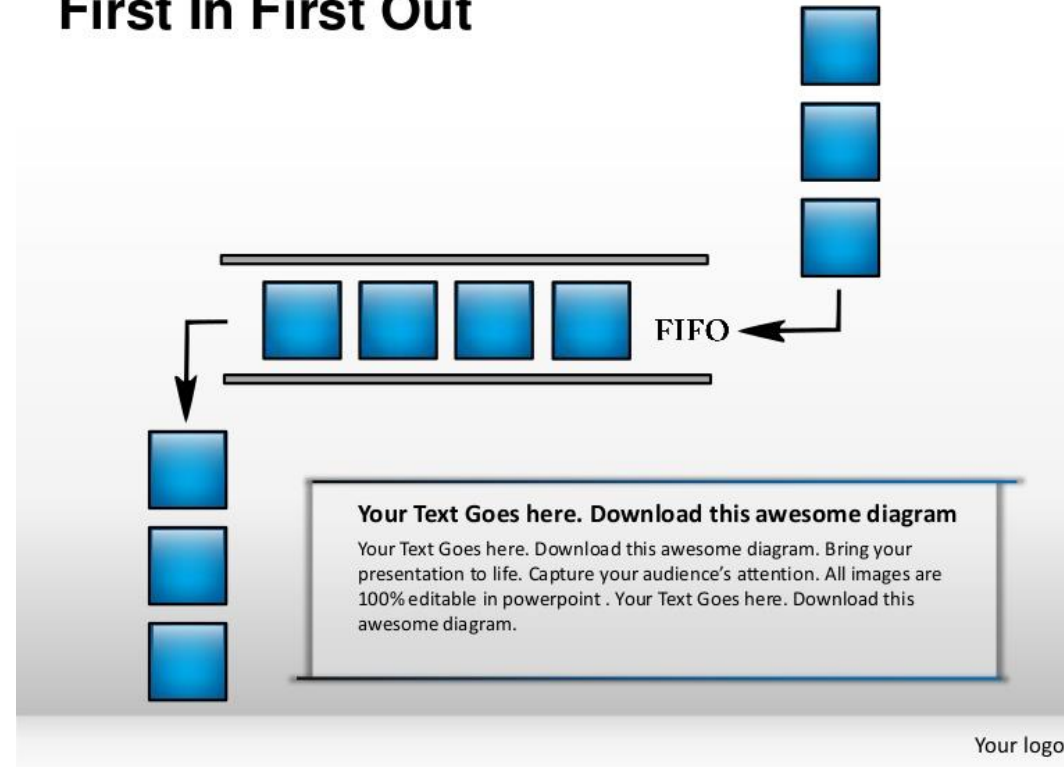
- ❖ First In, First Out, commonly known as FIFO, is an asset-management and valuation method in which assets produced or acquired first are sold, used, or disposed of first.





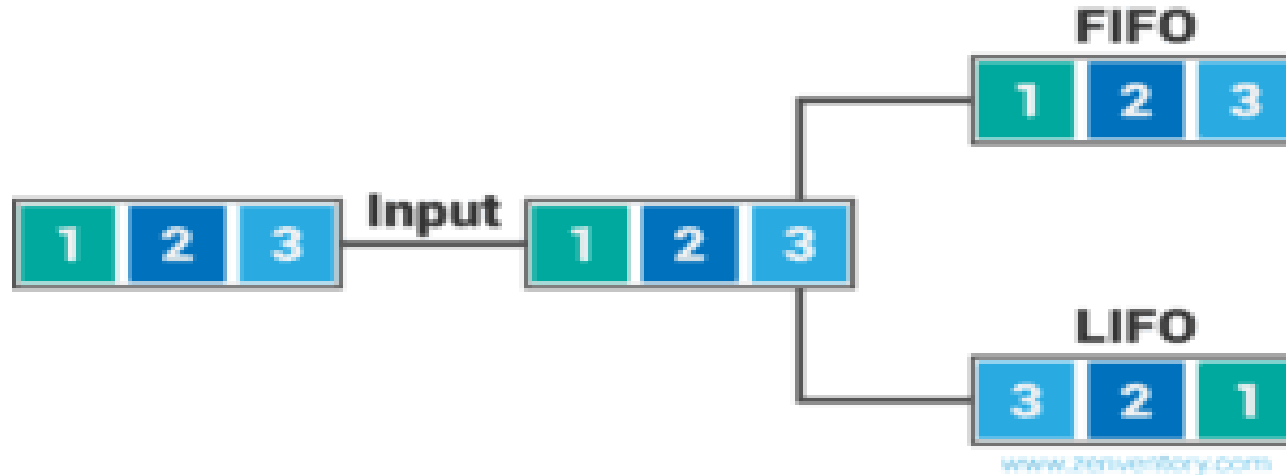
# First In First Out (FIFO)

## First In First Out

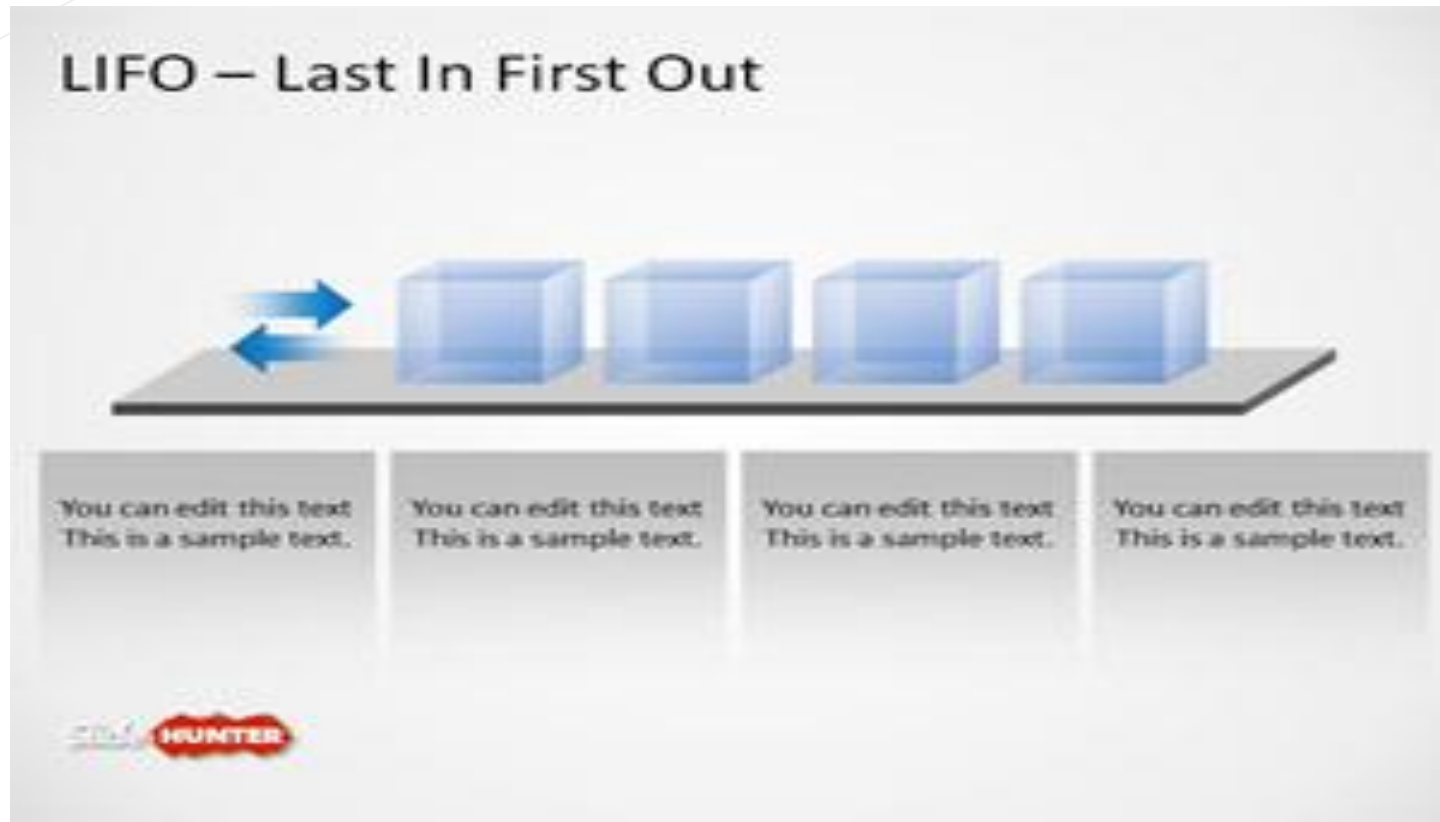


## Last In First Out (LIFO)

- Last in, first out (LIFO) is a method used to account for inventory that records the most recently produced items as sold first. Under LIFO, the cost of the most recent products purchased (or produced) are the first to be expensed as cost of goods sold (COGS), which means the lower cost of older products will be reported as inventory.



# Last In First Out (LIFO)





## What is minimum order quantity (MOQ)?

- ❑ A minimum order quantity is the fewest number of units required to be purchased at one time.
- ❑ In ecommerce, it's most often used by a manufacturer or supplier in the context of a production run, though a merchant can put MOQs in place for different types of orders.

### A couple examples:

- ❑ A manufacturer's MOQ may be 1,000 units, meaning you can buy no less than 1,000 units of inventory at a time.
- ❑ Similarly, a brand may have an MOQ requirement for wholesale or retail partnerships, where they require a minimum of 50 units or \$500 worth of product to be purchased together.

## Just in time (JIT)

- Just in time (JIT) inventory is a strategy to increase efficiency and decrease waste by receiving goods only as they are needed in the production process, thereby reducing inventory costs.

# Just in Time



# JUST IN TIME

**JUST IN TIME** is an inventory management system which aims at procuring raw material and labour as and when require without investing in storing it.

## Advantages

- Reduces cost on storing raw materials.
- Less investment in raw material
- Speeds up manufacturing process as material is available readily
- Eliminates lead time
- Helps in shorter production runs
- Eliminates wastage (in terms of time, inventory, transportation etc.)

## Disadvantages

- Lead to potential supply chain destruction
- Manufacturer have no margin to make errors
- Unable to meet any unexpected order from the customer
- No time for renegotiation with customer.

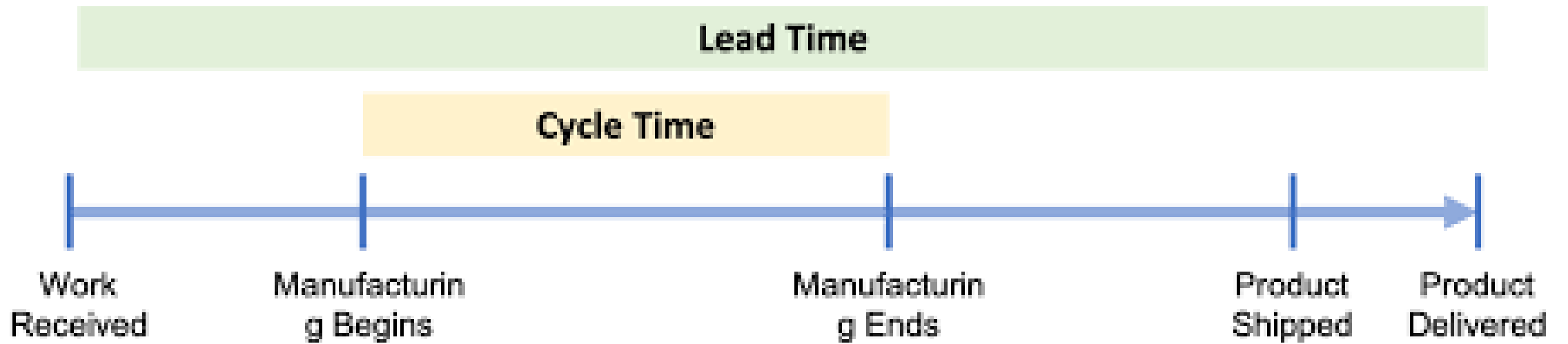
## SUCCESS FACTORS

Accurate determination of demand, Maximum Coordination between departments, Using KANBAN system etc.

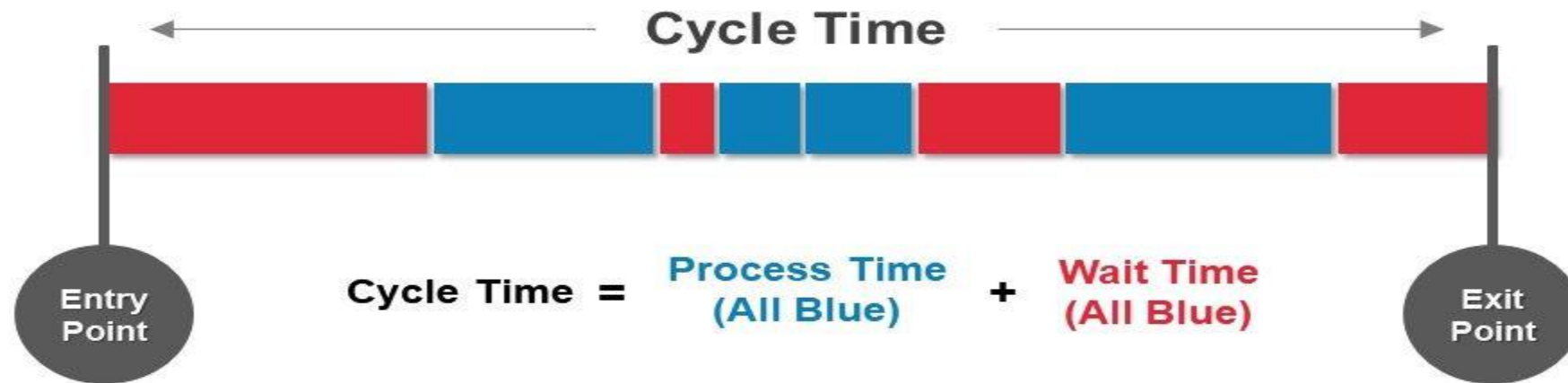
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## What Is Lead Time?

- ✓ Lead time is the amount of time that passes from the start of a process until its conclusion.
- ✓ Companies review lead time in manufacturing, supply chain management, and project management during pre-processing, processing, and post-processing stages.
- ✓ By comparing results against established benchmarks, they can determine where inefficiencies exist.
- ✓ Reducing lead time can streamline operations and improve productivity, increasing output, and revenue.
- ✓ By contrast, longer lead times negatively affect sales and manufacturing processes.



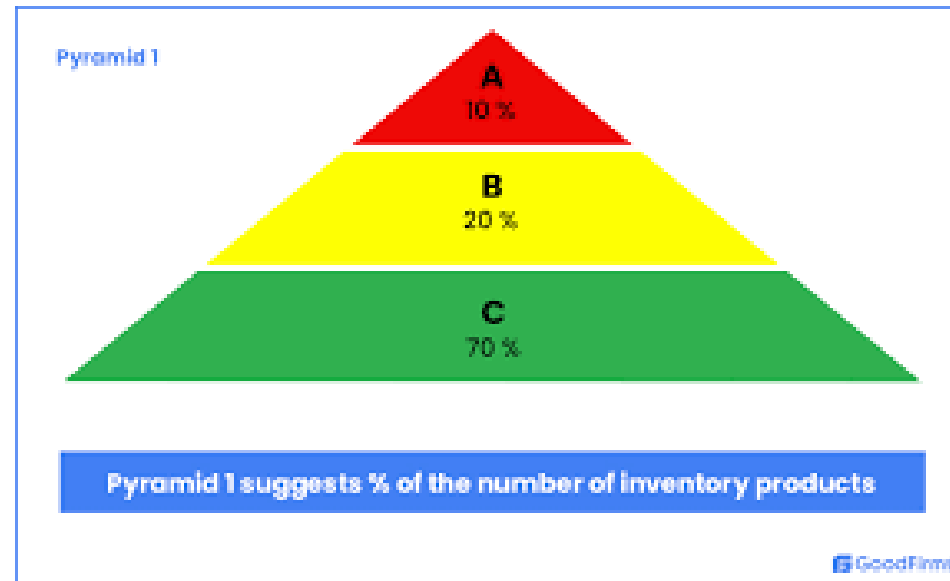
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## ABC analysis

- ❖ ABC analysis is an inventory management technique that determines the value of inventory items based on their importance to the business.
- ❖ ABC ranks items on demand, cost and risk data, and inventory managers group items into classes based on those criteria.



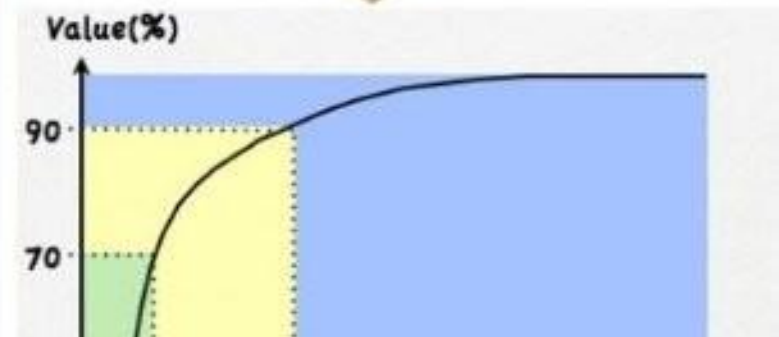
# ABC analysis of Inventory



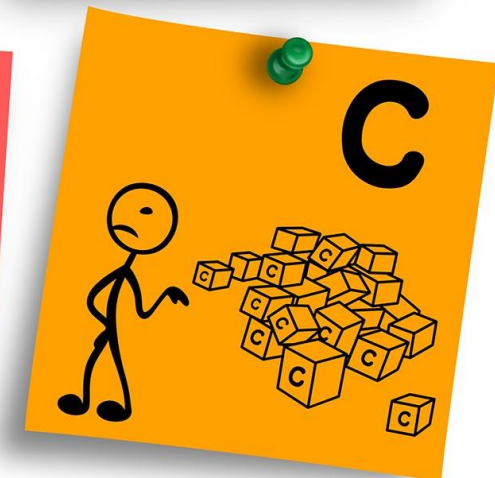
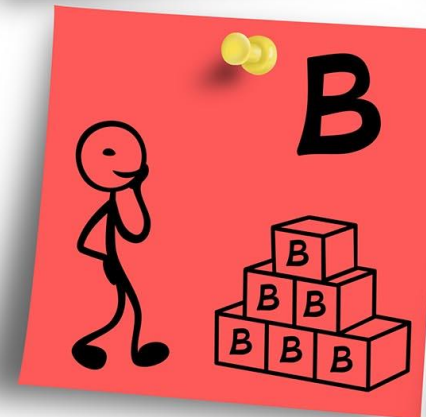
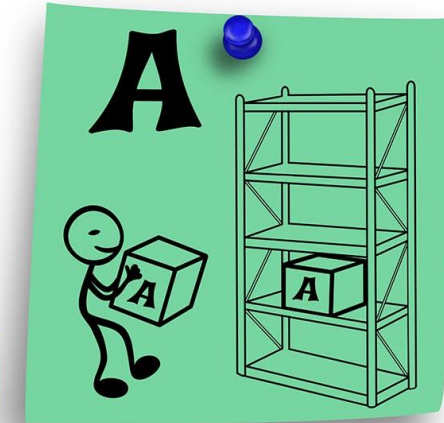
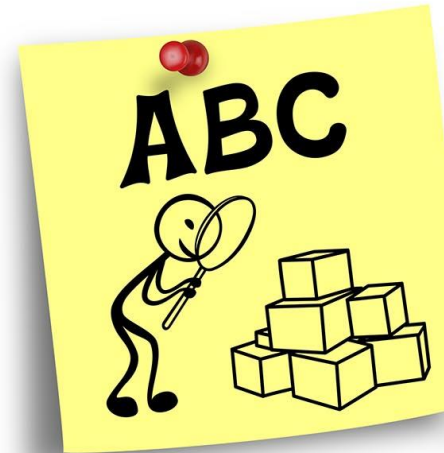
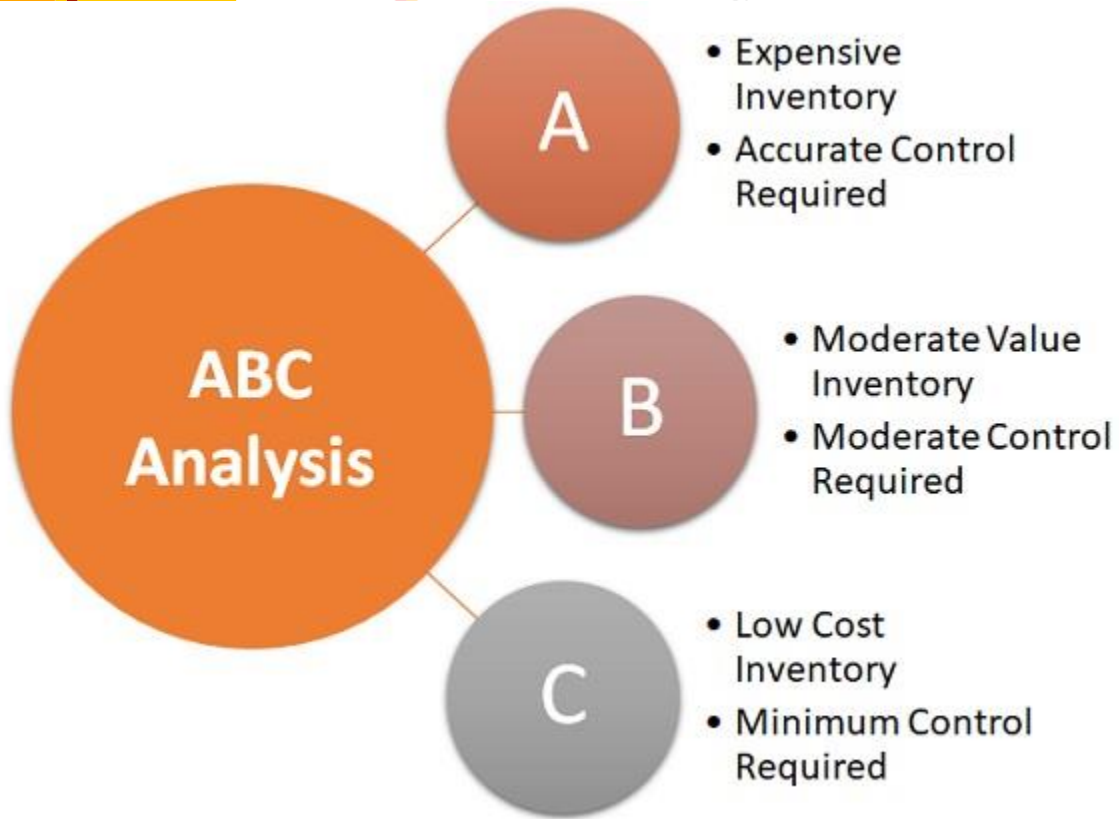
- Be a Supply Chain Leader



Criteria	Class		
	A	B	C
Number of Items	10%	20%	70%
Value, \$	70%	20%	10%
Stock Control	Strict	Moderate	Loose









**Thank You**