

# INC364

## The Beergame App

<https://beergameapp.com/>

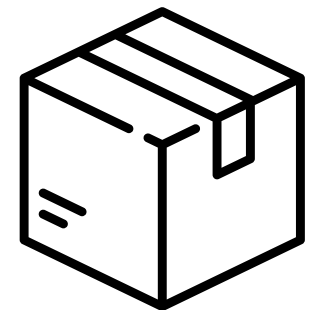
# Description

The game simulates a **Beer supply-chain**, composed of **4 stages**, each with a different role. You'll play as one of them :



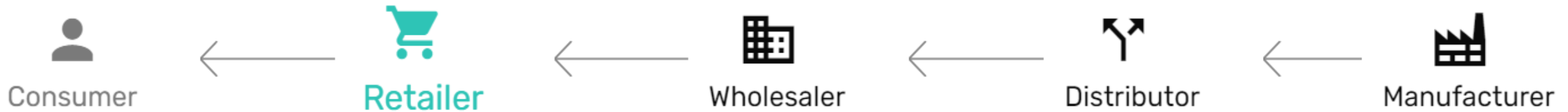
## Each stage :

- Has its own stock of **beer cases**,
- Receive orders and ship beer cases to its client
- Place orders and receive beer cases from its supplier



# 1) Retailer

- Retailer will sell units to client: **the final consumer**
- Retailer will purchase units from supplier: **the wholesaler**



Retailers consist of small and large for-profit businesses that sell products directly to consumers. To realize a profit, retailers search for products that coincide with their business objectives and find suppliers with the most competitive pricing. Generally, a retailer can buy small quantities of an item from a distributor or a wholesaler. For instance, a retail merchant who wanted to purchase a dozen light could contact lighting wholesaler to inquire about pricing.

## 2) Wholesaler

- Wholesaler will sell units to client: **the retailer**
- Wholesaler will purchase units from supplier: **the distributor**



Wholesalers buy a large quantity of products directly from distributors. High-volume purchase orders typically improve a wholesaler's buying power. Many distributors provide discounts for a certain number of items purchased or the total amount spent on merchandise. Wholesalers acquire all types of merchandise, ranging from phones, televisions and computers to bicycles, clothing, furniture and food. The goods are frequently destined for retailers, then can be either brick-and-mortar stores or online e-commerce enterprises.

# 3) Distributer

- Distributer will sell units to client: **the wholesaler**
- Distributer will purchase units from supplier: **the manufacturer**



Distributors frequently have a business relationship with manufactures that they represent. Many distributors maintain exclusive buying agreements that limit the number of participants or enable distributors to cover a certain territory. The distributor is the manufacture's direct point of contact for prospective buyers of certain products. However, distributors rarely sell a manufacturer's goods directly to consumers. Due to the very large amount of each product, they have on hand or are able to acquire from manufacturers, distributors tend to work with wholesale representatives that will buy large quantities of one product.

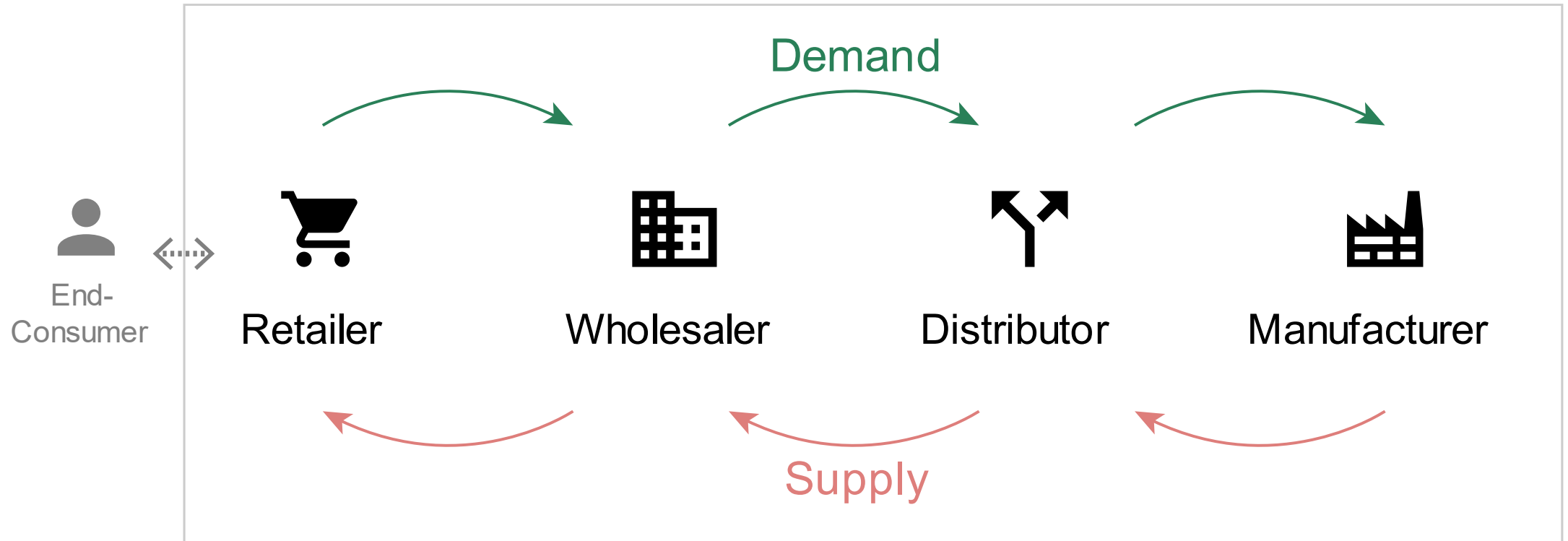
# 4) Manufacturer

- Manufacturer will sell units to client: **the distributor**
- Manufacturer will **produce own unit**



Manufacturer at the least assembles components and materials into a finished product like a car (or subassembly like a computer motherboard or a final part for many other assemblies like making screws.) There are millions of small manufacturers who make pieces and parts or process raw materials into useful stuff like milk into cheese, bauxite ore into aluminum, or trees into dimensional lumber. The best-known manufacturers are generally ones that do mostly final assembly of components made by other factories but then do the consumer advertising and brand name development, often taking credit for everything that goes into the final product.

# The Flow



- The supply **lead time** from your supplier (or production time for the factory) is **3 weeks (default)**
- If you don't have enough stock to fulfill demand, quantities will be added to your **backorders**
- The game is played in several turns, representing **weeks**

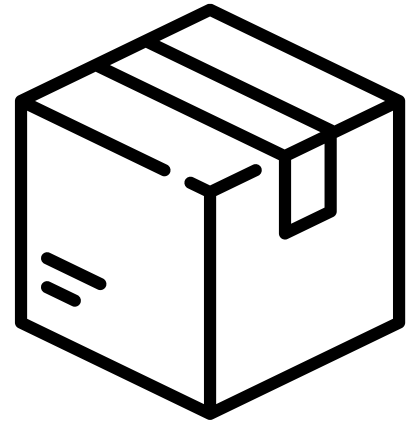


# Objectives

1. **Fulfil** your client's demand every week

2. Costs cumulate every week :

- Stock cost : +0.5\$ /case/week
- Backorder\* cost : +1\$ /case/week



=> **Try to keep both low stock and low backorders to reduce your costs!**

\*Backorder = stockouts, late quantities waiting to be fulfilled



# What happens each week?

1. ✉ You'll receive an order from your client (*the final consumer*) = **Incoming Demand**,
2. 🚚 You'll receive one of your previous purchase orders = **Incoming Receipt**,
3. ✓ You'll ship available units towards your client (*the final consumer*) = **Outgoing Shipment**

If you don't have enough stock to fulfill **demand**, missing quantities will be added to your 🕒 **Backorders**.  
They will be **shipped** to your client as soon as you receive more stock.

**New Stock** = *Previous Stock* + **Incoming Receipt** - **Outgoing Shipment**

For the week 0 :




# Send an order

Each week you have to decide **how many units** to order from your supplier (the wholesaler).

**Think carefully** before ordering, try to anticipate demand and monitor your stock level.



  
Retailer

xxx

Order

1. 🚚 +4 pcs in 1 week

2. 🚚 +4 pcs in 2 weeks

3. *To be decided*



Please note that each order will only arrive in stock after **3 weeks**:

**1 week** for the order to arrive to your supplier and **2 weeks** for the delivery to you.

The game will already start with incoming quantities: 4pcs/week for the next 2 weeks.

# Go to the next week

In this trial game you will be playing solo.  
The other roles will be played by the computer.  
Once you have validated your order, the game will go to the next week automatically.

*Currently connected :*

1. 🛒 Retailer : 👤 **Phakhawat**
2. 🏢 Wholesaler : 💻 **Computer**
3. 📦 Distributor : 💻 **Computer**
4. 🏭 Manufacturer : 💻 **Computer**

The game will stop after an *unknown* number of weeks.  
We will then look at the evolution of your data.

**The supply-chain with the lowest cost wins !**

Start