



**CARGON**

PHARMACEUTICAL INDUSTRY RE-IMAGINED

## Background

Every year thousands of people die because of consumption of counterfeit drugs in Bangladesh. Unlike any other products, counterfeit medicines actually have the opportunity to take away someone's life. The government and concerned bodies have been trying to take proper measures to put an end to this for a very long time. But nothing seems to be working.

The only way to properly and effectively get rid of this malice is to conform to a system that gives full transparency to the consumers and every part of the pharmaceutical supply chain about the product they are purchasing/ investing in.



In 2022, Two children died in Brahmanbaria after having counterfeit NAPA syrup and their ages were 5 and 7 years old. It is estimated that there are fake medicines worth 2500 crore in the market. Which is a big problem for our country. And it's not just our national problem it's an international problem, WHO says there is 200-Billion-dollar worth of counterfeit pharmaceutical products sold globally every year. In the year 2017 Bangladesh high court banned 20 pharmaceutical industries in Bangladesh due to low-quality drug manufacture. After the covid-19 pandemic, this problem is getting bigger every day because there is a huge drag on demand in the market. So, some people take those advantages badly and that will affect our society very badly. According to the Gradian Fake drugs kill more than 250,000 children a year.

In 2008

**29 fake products**  
**75 countries**

In 2018

**95 fake products**  
**113 countries**

(Pfizer , 2019)

## Introduction

Here at CARGON, we have devised a complete supply chain solution for pharmaceutical companies that lets each part of the supply chain production, distribution, wholesale, retail and consumer track each stage of every product. This would let the consumers verify the authenticity of their products and save millions of lives in the process. The process is as simple as scanning a single QR code and the user would have the whole life-cycle of the product that they're buying right in front of them.

## Scope

The scope of this project is huge as it'll be widely available for everyone to use. Every part of the supply chain from production to consumers would be able to track the product that they're working with. Detecting authenticity of a drug is also something that's going to be used widely

## Modules

### **Production Module**

Lets the production zone maintain their inventory and manage future orders

### **Distribution Module**

Lets the distributors track all the inventory that they're distributing to different vendors.  
Also lets them track riders

### **Wholesale Module**

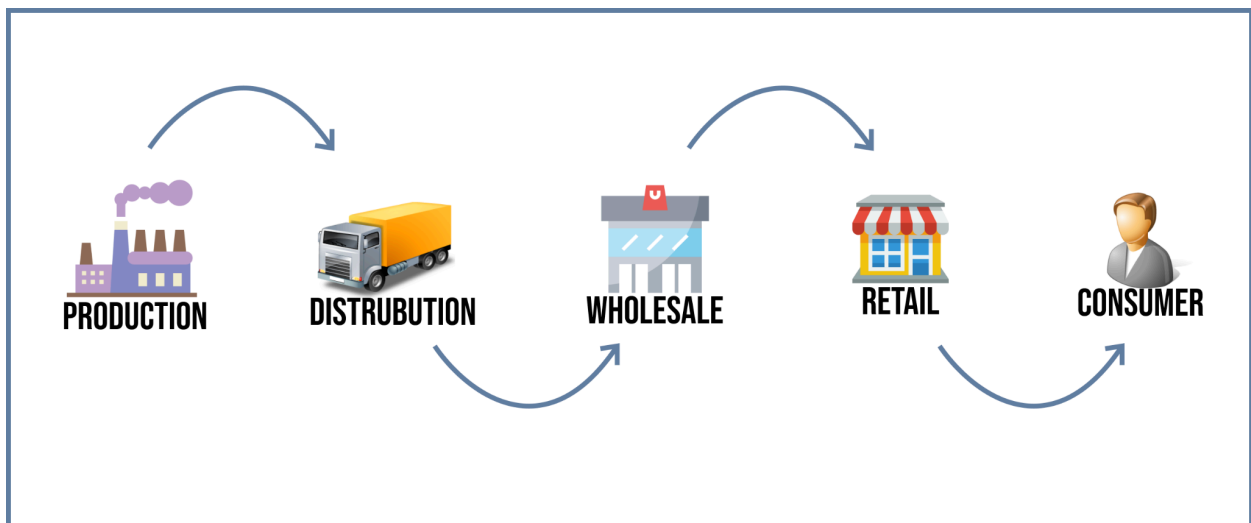
Lets the wholesalers maintain their inventory and order from factories

### **Retail Module**

Lets the retailers maintain their inventory and order from nearest wholesaler

### **Consumer Module**

Lets consumers directly order from the factory in bulk or track the life-cycle of a product



## Use-Cases

### **Production Module**

- Admin login portal
- Batch management portal
- Order management portal
- Inventory management portal
- Distributor management portal

### **Distribution Module**

- Login portal
- Vehicle assignment
- Delivery tracking
- Condition monitoring

### **Wholesale Module**

- Login portal
- Order management portal
- Inventory management portal

### **Retail Module**

- Login portal
- Order management portal
- Inventory management portal

### **Consumer Module**

- Online shop portal
- Profile portal
- Drug authentication portal

## **Proposed Technology Stack**

### **Backend:**

JAVA SpringBoot

### **Database:**

Oracle

### **Authentication:**

Firebase Auth

### **FrontEnd:**

React JS

### **UI Library:**

Material UI

## **Team Members**

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