

Application Engineering and
Development



SUPPLY CHAIN MANAGEMENT

Our Great Team



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INTRODUCTION

It is the process of management of the flow of goods, data, and finances related to a product or service, from the procurement of raw materials to the delivery of the product at its final destination.

Manufacture, Supplier, Distributor, and retailer are the four elements of the supply chain that work together to establish a path to competition that is both cost-effective and competitive.

About The Project

INTRODUCTION

PROBLEM DEFINITION

This project, “Supply Chain Management System”, is used for recording the information about the day-to-day transaction of stocks of multiple organizations.

It stores information on the products with additional information from different Organizations.

If stocks are ordered then the related information can be viewed by upper enterprise and can send real-time message updates, that is, communication is up to date. The information about who sold the product is also kept, so there is no problem with misunderstandings in the future.

Objectives and scope of the project

The project is a remarkable chance to experience a real-world working environment and culture where the knowledge learned during the Application Engineering Development course can be implemented.

This project not only makes us familiar with the real working environment but also makes us more mature in the way we deal with real-world problems and try to solve that problems in the best way possible by applying the knowledge we have acquired throughout the AED course.

It is developed to increase the efficiency of an organization as it can perform tasks quickly and accurately.

This application can be useful for small to medium size organization where stocks are required to be managed day to day

This application can be useful for handling the inventory as compared with the traditional paper system.

Objectives and scope of the project

The main objective of the project is to analyze the existing system under study and give necessary suggestions or solutions to improve it. To implement the theoretical knowledge acquired from college in a real working environment.

To enable us to understand how theory knowledge differs from practical life thus helping us to understand the complexity and unforeseen nature of problems and opportunities that exist in the country.

As its name implies, the main objective of this software is to record the information about the stocks of an organization and perform basic operations, purchases, and sales of the products. It is developed to increase the efficiency of an organization as it can perform tasks quickly and accurately.

This software can be useful for small to medium size organizations where stocks are required to be managed day to day. This software can be useful for handling inventory as compared with a traditional paper system.

Benefits of the project



**Better
collaboration with
suppliers**



• **Better visibility
and data
analytics.**



**A more agile
business**



**Reduced inventory
and overhead
costs**

Tools Used

- Net Beans IDE (Coding)
- JDK 18
- MySQL WorkBench 8.0

Libraries Used

- Absolute Layout
- MySQL Connection JAR
- FlatLaf JAR
- FlatLaf IntelliJ JAR
- Mail JAR
- Activation JAR

Use Case

Manufacturer Admin:

Admin is responsible to Update, Create and Delete the Mobile product details such as Brand Name, Product Name, Product ID, and price. It can view the supplier details and update the status.

Supplier Admin:

It can view and edit the details of suppliers in the city. The supplier Head can request product details from the manufacturer enterprise and view those stocks. Supplier admin has the product, company, and brand data which the distributor can request and access.

Use Case

Distributor Admin:

Requesting product and supplier details from the supplier. The role of the distributor is that of an intermediary entity between the producer of a product and another entity in the distribution channel or supply chain, such as a retailer. It contains the state, city, and distributor information.

Retailer Admin:

The retailer contains customer details and requests details from the distributor which included the Distributor name, Distributor contact, and brand name. Retailer Admin can create, update and delete customer records. Once the distributor provides the access to its data, the retailer admin can view its contents and take further action

Limitation:

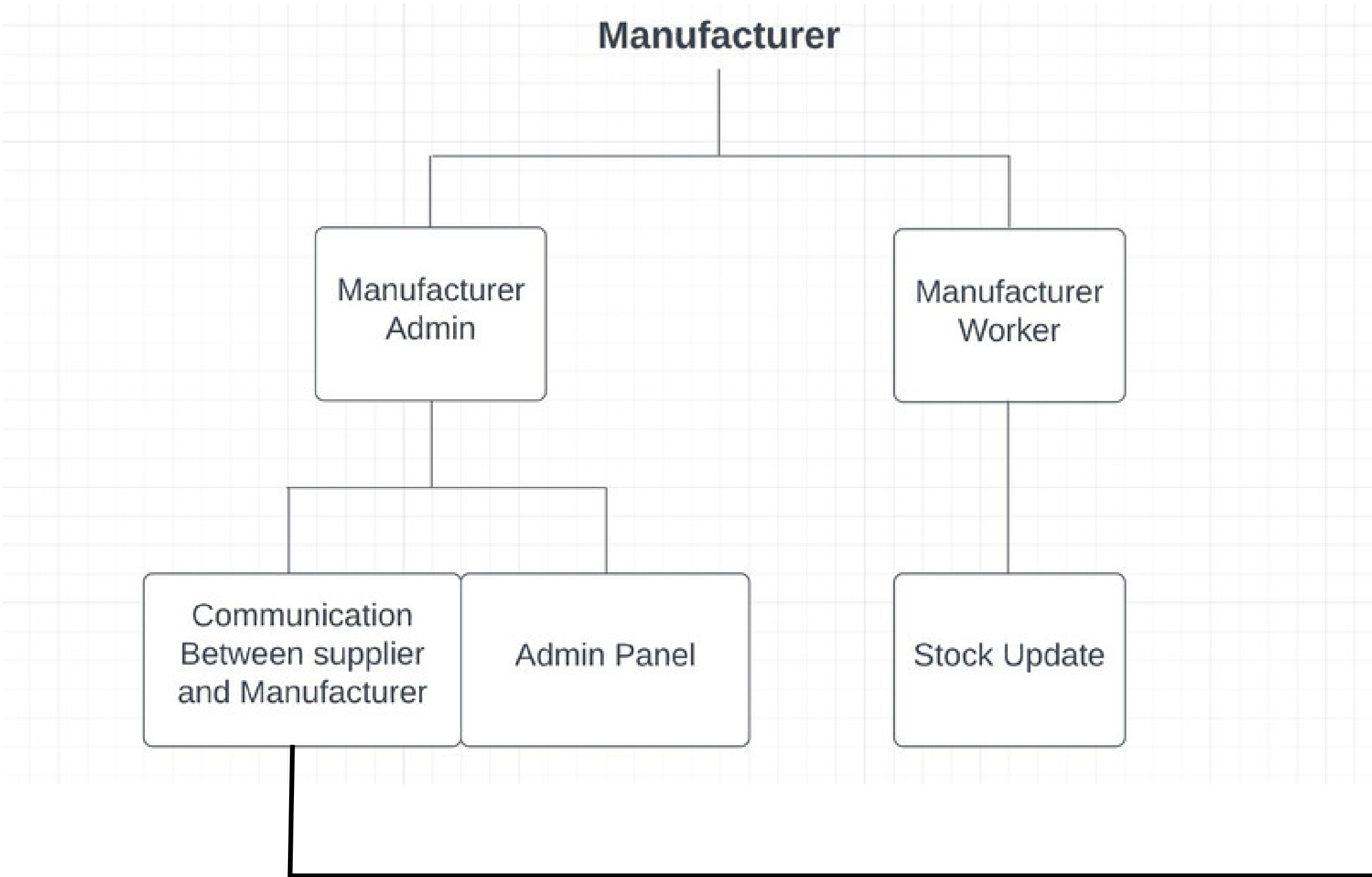
Due to the constraints with time, there are certain limitations of this project; some of them are highlighted below:

- Does not consist of accounting features
- Not suitable for a large organization
- The main focus was given to the functional requirement of the system

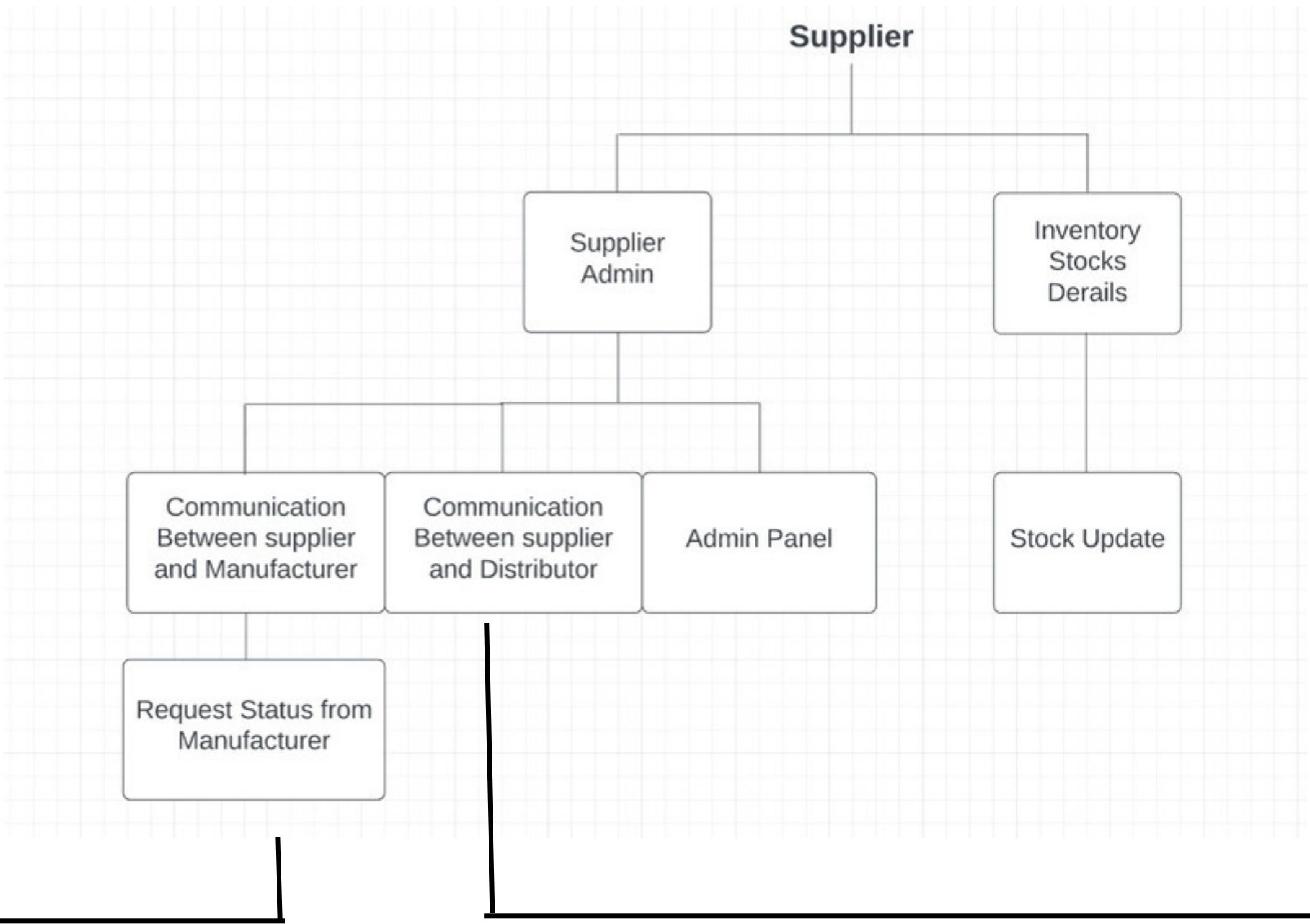
Future Scope :

- Bill Generation
- Sales Report
- Piecharts/Bar Graph in Dashboard
- More users login

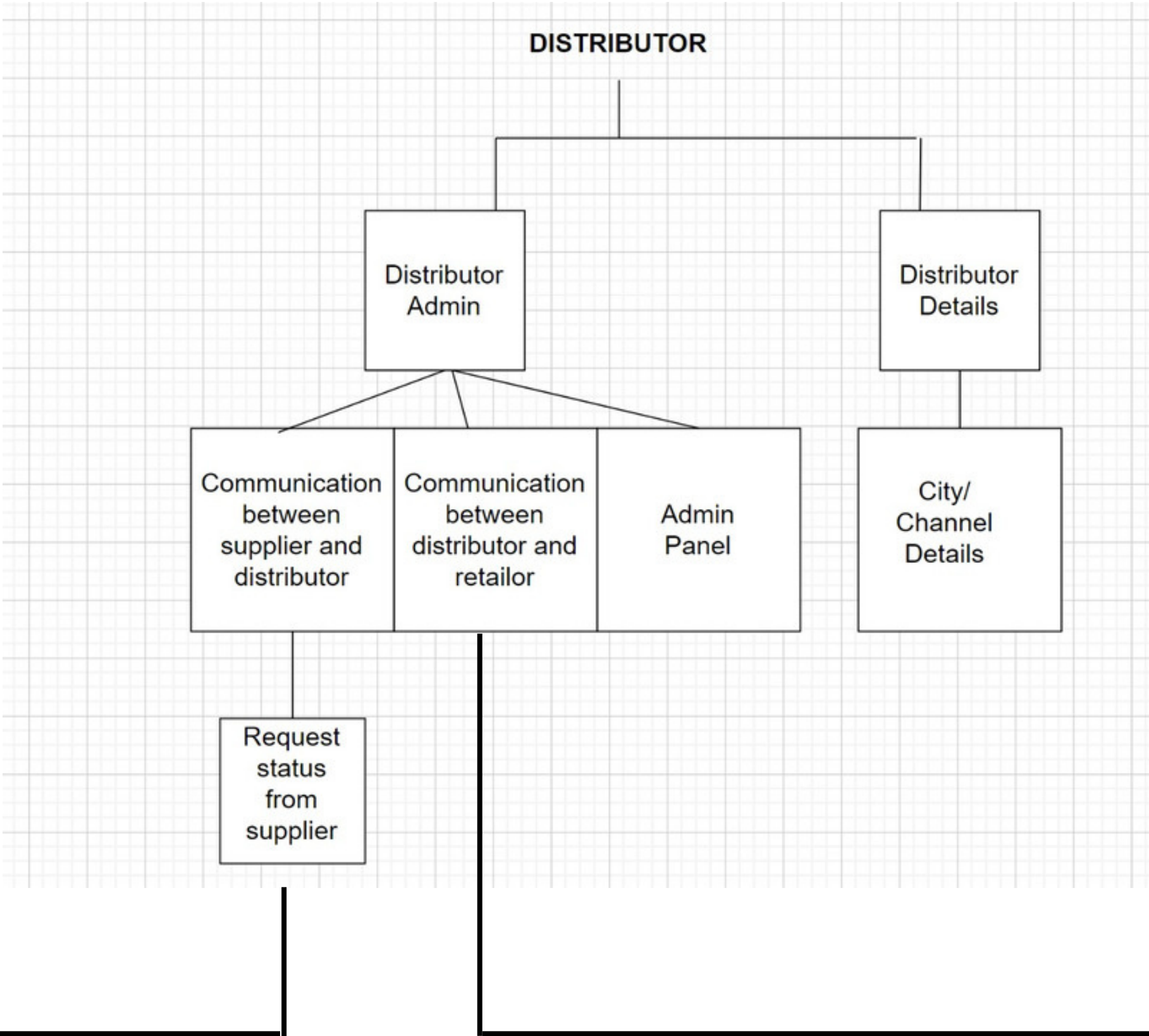
Flow Diagram



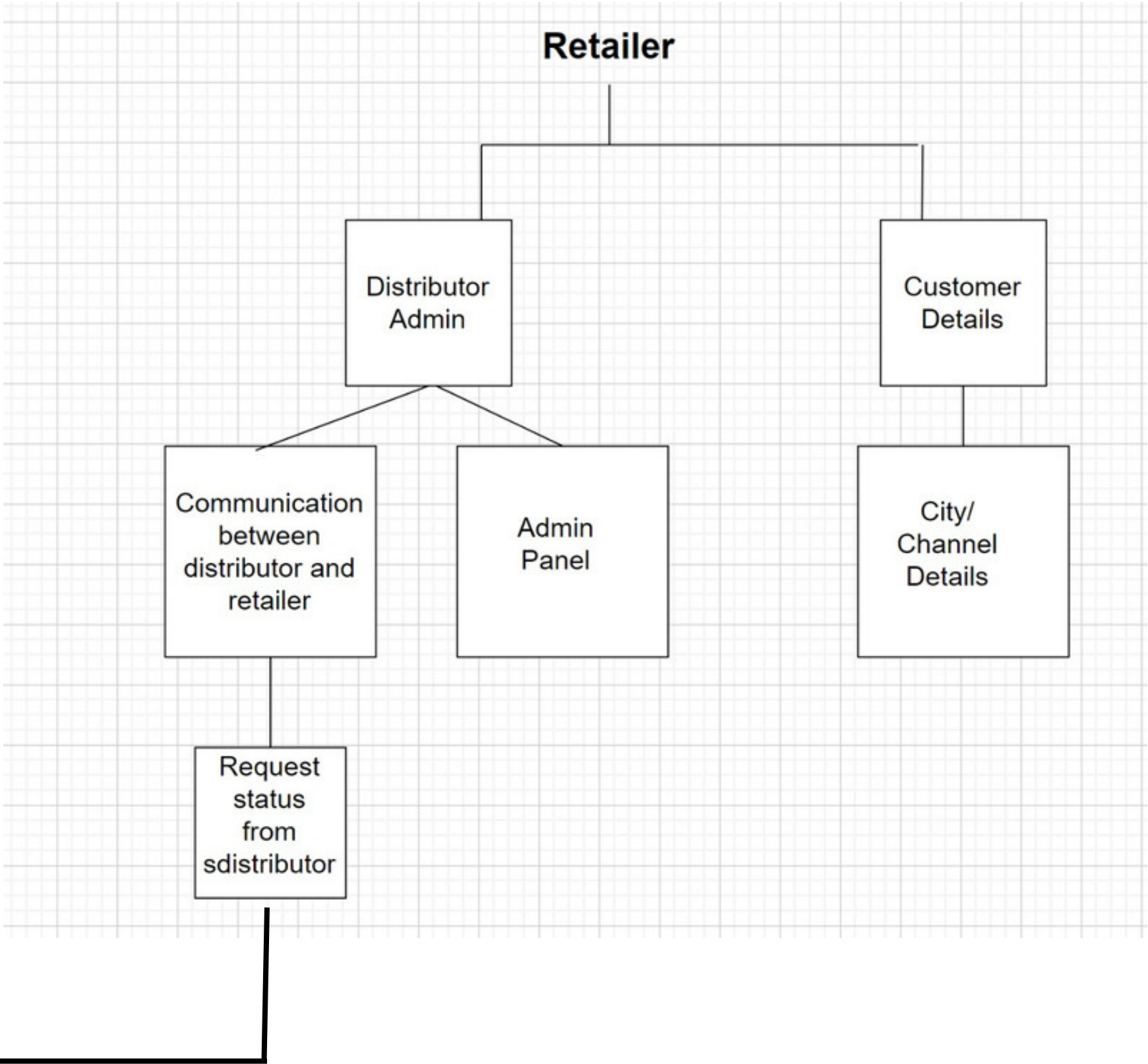
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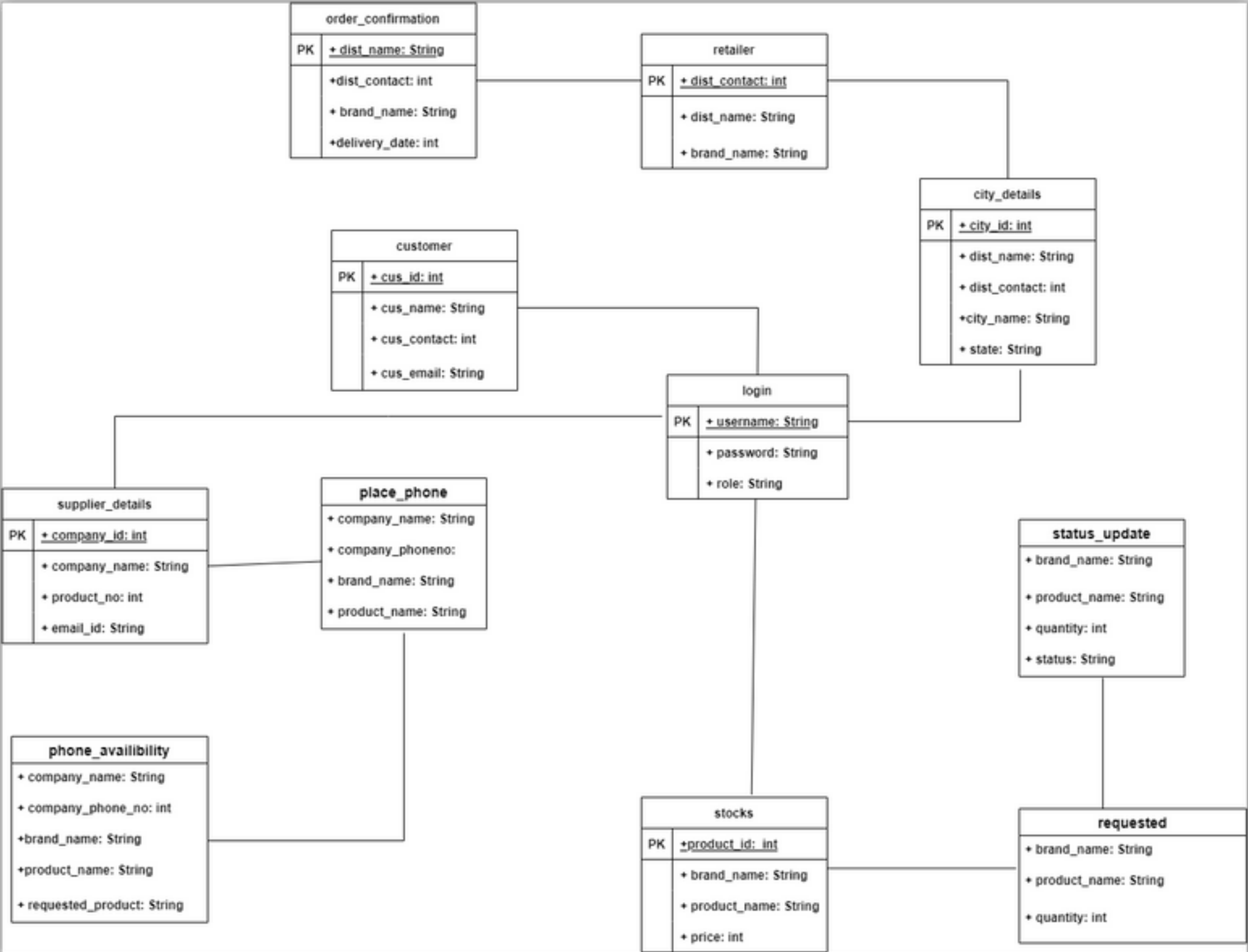
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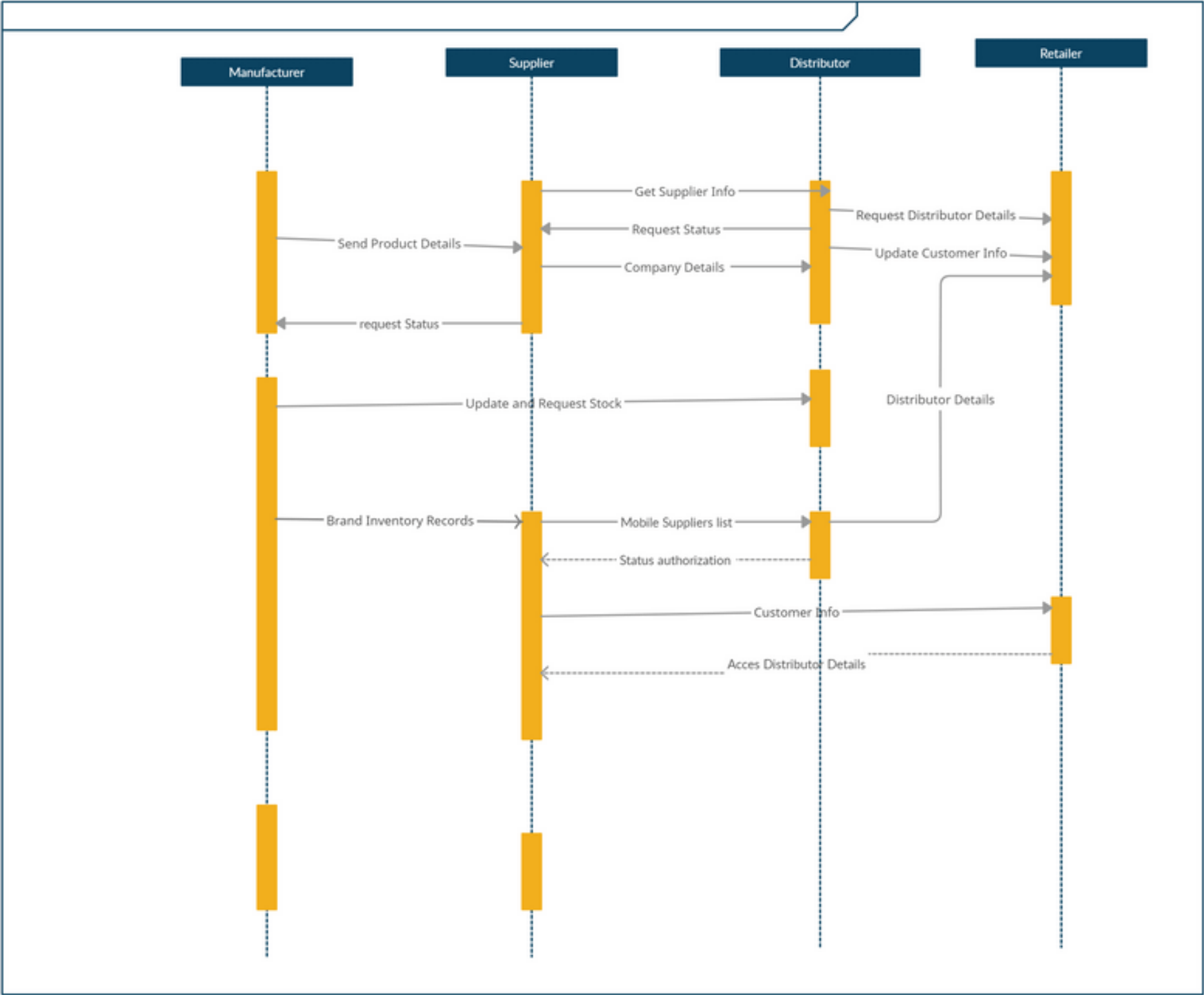
Flow Diagram



Class Diagram



Sequence Diagram



Conclusion

The Supply Chain Management System is developed and designed for recording and managing the inventory of different organizations. It can also be used for a different institution with fewer modifications as per requirement.

The system can be easily updated as the other institutional requirement may not be integrated into our project. After continuous effort, testing and debugging the current system is ready to be implemented in an organization.



THANK YOU