**Process and Changes Description**

The sales order placement and shipment process for School is Cool Inc is outlined in the swimlane diagram. The process includes the following actors: customer, sales, order management, logistics, and warehouses. The process begins with a customer who places a pre-order for product(s) with their sales lead. Next, the sales lead connects with the order management team, who will determine if there is enough inventory in stock to ship the order out right away. Here the order management team checks availability of products in all warehouses together (it does not matter where the product is, it matters if the products are available). If there is not enough inventory, then the order management team will determine possible substitutions. The order management team will follow up with the sales lead, who renegotiates the pre-order to offer substitutions with the customer. If the customer does not accept the substitution product and School is Cool Inc has less products available than requested, then the number of products in the pre-order will be reduced. If the customer does not accept the substitution product and School is Cool Inc does not have any products available, the process will be finalized with no order will be created. Once the pre-order is finalized, the order management team will create an order (same as record a transaction in the system). Logistics will receive the transaction in the system. Logistics will check whether all the items are in one warehouse or multiple warehouses. Logistics will generate one or multiple shipment requests as appropriate depending on product availability in the warehouses. The warehouse team will separate the products as needed and ship either part of or the full order to the customer. The customer will receive the order in one or multiple shipments.

There are two key proposed changes to the process. The first proposed change is to remove the pre-order and substitutions by allowing the sales team to access the inventory and production schedule (ERP). In the current process, having the order management team check the inventory creates inefficiency and adds more time to the order placement process. By accessing the inventory and production schedule in ERP, the sales lead would be able to directly negotiate with the customer in terms of order availability and delivery schedule for products in production. This change would allow for faster processing of order placement requests. The second proposed change is to define a warehouse as a hub and ship the entire order to customers from the warehouse hub. In the current process, products that are located in different warehouses get shipped separately. This increases shipping costs and creates a challenge for customers who have to management multiple deliveries. In the proposed new process, the warehouses would receive the shipment request and ship products to the hub. The hubs would consolidate all the products in an order and ship the entire order to customers in one delivery. This change would allow for lower shipping costs, lower packaging/separation costs, and greater customer satisfaction in terms of delivery processing efficiency.

**User Cases/Scenarios:**

1. Customer requests to order products, Sales Representative checks availability of products, if all products are available then the Sales Representative places the order in ER. If all products are available at the hub warehouse then the products are shipped to customer.
2. Customer requests to order products, Sales Representative checks availability of products, if all products are available then the Sales Representative places the order in ERP. If all products are NOT available at the hub warehouse then the products are aggregated at the hub from other warehouses, and the aggregated products shipped to the customer.
3. Customer requests to order products, Sales Representative checks availability of products, if all products are NOT available then Sales Representative proposes new delivery timeline for entire order, if customer agrees to delivery schedule, Sales Representative places the order in ERP. In the future, if all products are available at the hub warehouse then the products are shipped to the customer.
4. Customer requests to order products, Sales Representative checks availability of products, if all products are NOT available then Sales Representative proposes new delivery timeline for entire order, if customer agrees to delivery schedule, Sales Representative places the order in ERP. In the future, if all products are NOT available at a hub warehouse then the products are aggregated at the hub from other warehouses, and the aggregated products are shipped to customer.
5. Customer requests to order products, Sales Representative checks availability of products, if all products are NOT available then Sales Representative proposes new delivery timeline for entire order, if customer does NOT agree to delivery schedule, Sales Representative checks if Customer wants to place reduced order, if Customer agrees then Sales Representative places the order in ERP. If all products are available at a hub warehouse then the products are shipped to customer.
6. Customer requests to order products, Sales Representative checks availability of products, if all products are NOT available then Sales Representative proposes new delivery timeline for entire order, if customer does NOT agree to delivery schedule, Sales Representative checks if Customer wants to place reduced order, if Customer agrees then Sales Representative places the order in ERP. If all products are NOT available at the hub warehouse then the products are aggregated at the hub from other warehouses, and the aggregated products are shipped to the customer.
7. Customer requests to order products, Sales Representative checks availability of products, if all products are NOT available then Sales Representative proposes new delivery timeline for entire order, if customer does NOT agree to delivery schedule, Sales Representative checks if Customer wants to place reduced order, if Customer does not agree then Sales Representative terminates the process.