Supply Chain Database of a Cosmetic Factory

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In attempt to look at the supply chain management, we built a database of the supply chain of a cosmetic factory.

The database has 9 tables, 8 views and 10 stored procedures. They are as follows.

- Tables
  - Supplier (id, name, email, location, balance) # who sells raw material to us
  - Contract (id, supplier_id, product_id, quantity, price, date, payment_id) # Business with supplier
  - Payment (id, method, status, type) #payment info for both supplier and distributor
  - Mfr (id, order_id, product_id, quantity) #our manufacturing info
  - Distributor (id, name, email, location, balance) #who buys product from us
  - Orders (id, distributor_id, product_id, product_id, quantity, price, date, payment_id) #business with dirtributors
  - Inventory (id, name, quantity, type) #inventory information of both raw material from supplier and products for distributor
  - Shipment (id, order_id, quantity, date) #orders shipment information
  - Returns (id, order_id, quantity, date, status) # orders return information
- Views
  - supplier_contract_product #the contract and product info for each supplier
  - supplier_contract_payment #the payment info of contracts for each supplier
  - distributor_order_product #the order and product info for each distributor
  - distributor_order_payment #the payment info of orders for each distributor
  - distributor_order_return #the return info of orders for each distributor
  - distributor_order_shipment #the shipment info of orders for each distributor
  - distributor_order_inventory #the inventory info of orders for each distributor
  - payment_overview #the manufacturing info of both contract with supplier and orders with distributor
- Procedures
  - Add_supplier #add new supplier
  - Remove_supplier #remove existing supplier
  - Sign_contract #add new contract in contract table, add new payment in payment table
  - Add_distributor #add new distributor
  - Remove_distributor #remove existing distributor
  - Sign_order #add new order in orders table, add new payment in payment table
  - Arragnge_manufacturing #check the quantity of product of orders with the quantity of product in inventory.

If inventory quantity > = order quantity, no need to manufacture and the quantity of inventory = original inventory quantity – order quantity;
If inventory quantity < order quantity, add and manufacturing in mfr table and the quantity of inventory = absolute value of (original inventory quantity – order quantity);

- Appoint_shipment
  # add an shipment and the inventory quantity = original quantity – shipment quantity
- Accept_returns
  # check if the return data is within one year of the order date, add an return and status = 1(accept);
  Else, use the message to reject the return.
- Update_payments
  # when making payment with supplier, update the corresponding payment status to 1 and the balance with supplier equals to original balance minus payment;
  when receiving payment with supplier, update the corresponding payment status to 1 and the balance with supplier equals to original balance plus payment