

Entities & attributes

Invoice : i_id (pk), c_id, i_date, inv_payment_type, i_total_price

Customer : c_id (pk), c_name, c_name, c_phone

Order : o_id, i_id, p_id, o_quantity, o_price

Inventory : in_id, p_id, date

Vendor : v_id, v_name, v_phone

Product : p_id, p_category, v_id, p_price, p_description

Back_order : b_id, c_id, o_id, status, b_date

Constraint

Each i_id must be unique, not null , and numeric

Each p_id must be unique, not null , and numeric

Each v_id must be unique, not null , and numeric

Each o_id must be unique, not null , and numeric

Each b_id must be unique, not null , and numeric

Each v_phone must have 10 digits

Each c_phone must have 10 digits

Each i_payment_type must be either "credit card", "debit card", "cash", or "check"

Each status must be -1, 0, 1: -1 represent canceled, 0 means still waiting, 1 means delivered

Relation

Each customer can have 0 or many invoices, each invoice only relates to one customer.

Each vendor provides at least one product, each product is supplied by only one vendor

Each product can be in 0 or many orders, each order contains one product

Each invoice can have one or many orders, each order has one invoice

Each order can have one back order, each back order have one order

Each inventory can have one product, each product can have many inventories

Each back order can have one customer, each customer can have many back orders