**Technical Specifications**

**Clarification on Transactions:**

Current Understanding: There is no explicit information regarding the transactions. It is unclear whether a single order is considered a transaction or if all orders under a single customer constitute a single transaction.

Assumptions to Clarify: Should we treat each order as an individual transaction? Should we consider all orders under one customer as a single transaction?

Action Required: Please provide clarification on how transactions should be defined for accurate reporting.

**Data Relationship Issues:**

Indirect Relationships: No Direct Relationship exists between Customer to Shipping. However, Direct relationship via `Customer\_ID` exist between Customer to Order(1 to many): Direct relationship via `Customer\_ID` exist between Customer to Shipping(1 to many). However, using this relationship will result into inaccurate data as mentioned below:

* 1. Orders with Multiple Statuses: Instances where a single order is marked both as 'Delivered' and 'Pending,' which seems incorrect.
  2. Customers with No Orders but Shipping Details: Several customers have shipping details but no corresponding order details (e.g., `Customer\_ID 1, 2, 3`).
  3. Customers with Orders but No Shipping Details: Some customers have order details but no corresponding shipping details (e.g., `Customer\_ID 4, 5, 57`).
  4. Single Order with Multiple Shipping Details: Instances where a single order has multiple shipping details, indicating data inaccuracy.

Action Required:

1. Data Validation: Conduct thorough data validation to resolve these inconsistencies.
2. Data Cleaning: Clean the data to ensure accurate relationships between customers, orders, and shipping details.

Excel Attachment: An Excel file with extensive details about the `Customer\_ID`, `Order\_IDs`, and `Shipping\_IDs` is attached for your reference.



**Summary:**

Please review and address the above points to ensure the data's accuracy and reliability for further analysis. Your input and corrections are crucial for generating accurate and meaningful reports.