

Pointers / Assumptions

ID attributes added for each Entity to uniquely identify individuals and objects referenced. Prevents usage of non numerical data as private key. Prevents collision of data of same attributes but different Entity.

Feedback on purchase/order and complaint on shop/product are separate Entities. Feedback on purchase/order refers to the feedback that users can place for unique shop-products that they have purchased/ordered from. Complaint on shop/product refers to complaints that any users can make for either shop or product on issues besides order status.

Weak Entities

- Shop_product:
 - Product in each specific shop is a weak entity that requires keys from shop and product to identify which shop the product is from.
 - It also has an attribute 'stock' for each product that is different for each shop.
- Price:
 - Weak entity that contains the price history consisting of start, end date and current price for each product in shop.
- Feedback:
 - Weak entity that requires keys from user, order and shop_product to be identifiable.

Relations

- History: < Many to one Weak Relationship >
 - Each product can have multiple price changes.
- Sell & Sold by: < Many to one Weak Relationship >
 - There can only be one product sold by different shops but one shop can sell multiple unique products.
- Shop_Product_order: < Many to many Strong Relationship >
 - There can be multiple unique shop-products (from the same shop) in the same order and multiple unique orders buying the same shop-product (from the same shop).
- Order_user: < Many to one Strong Relationship >
 - Each user can have multiple order(s) but each order can only have one user.
- Order_Feedback & Shop_Product_Feedback < Many to one Weak Relationship >
 - Multiple Shop_product can receive feedback from one order and multiple orders can feedback on the same Shop_Product.
 - User making the feedback can be derived from order's many to one relationship.
- Complaint_shop & Complaint_product: < Many to one Strong Relationship >
 - Each shop/product can receive multiple complaints and users can lodge complaints towards multiple shops/products.

