

ABC Manufacturing Solution

View 1 - Order

UNF:

ORDER [Order_no ,Order_dt, Cust_name, Cust_addr, Ship_addr, Phone1, Phone2, Cust_disc (item#, Prod_code, Prod_desc, Qty, Filled, Price)]

1NF:

ORDER [Order_no, Order_dt, Cust_name, Cust_addr, Ship_addr, Phone1, Phone2, Cust_disc)]

ORDER_ITEM [Order_no, Prod_code, Prod_desc, Qty, Filled, Price]

2NF:

ORDER [Order_no, Order_dt, Cust_name, Cust_addr, Ship_addr, Phone1, Phone2, Cust_disc]

ORDER_ITEM [Order_no, Prod_code, Qty, Filled]

PRODUCT [prod_code, prod_desc, prod_price]

3NF:

ORDER [Order_no, Order_dt, Cust_no (FK)]

ORDER_ITEM [Order_no, Prod_code , Qty, Filled]

CUSTOMER[Cust_no, Cust_name, Cust_addr, Cust_ship_addr, Cust-phone1, Cust-phone2, Cust-disc, Cust_credlmt]

PRODUCT[Prod_code, Prod-desc, Prod_price, Prod_qoh]

Final Solution: examine relationships to ensure correctness. break apart composite attributes such as name and address:

ORDER [Order_no, Order_dt, Cust_no (FK)]

ORDER_ITEM [Order_no, Prod_code(FK), Qty, Filled]

CUSTOMER[Cust_no, Cust_fname, Cust_lname, Cust_title, Cust_addr, Cust_city, Cust_prov, Cust_pstlcd, Cust_ship_addr, Cust_ship_city, Cust_ship_prov, Cust_ship_pstlcd, Cust-phone1, Cust-phone2, Cust-disc, Cust_credlmt]

PRODUCT[Prod_code, Prod-desc, Prod_price, Qoh]

ABC Manufacturing Solution

View 2 - Product Inventory List

UNF:

PRODUCT[Prod_code, Prod_desc, Prod_QOH, Prod_BO, Prod_price]

1NF:

same!

2NF:

same!

3NF:

same!

View 3 - Product Bill-of-Materials Report

UNF:

PRODUCT [Prod_code, Prod_desc, (Part_num, Part_desc, Qty_reqd)]

1NF:

PRODUCT[Prod_code, Prod_desc]

PROD_PART [Prod_code, Part_num, Part_desc, Qty_reqd]

2NF:

PRODUCT[Prod_code, Prod_desc]

PROD_PART [Prod_code, Part_num, Part_desc, Qty_reqd]

PART [Part_num, Part_desc, QOH]

3NF:

same as 2NF

Note that some attributes were added to entities because of the description given with the user views, not because they were seen in the views.