**Normalization**

Foreign Key

Primary Key

Sells (dlr\_id, d\_location, d\_name, d\_email, p\_id, p\_name, p\_price, p\_size, p\_color)

1NF: d\_email is a multivalued attribute

2NF: dlr\_id, d\_name, d\_location, d\_email

p\_id, p\_name, p\_color, p\_size, p\_price

3NF: dlr\_id, d\_name, d\_location, d\_email

p\_sizeid, p\_size, p\_price, p\_color

p\_id, p\_name

Table for Sells:

1. dlr\_id, d\_name, d\_location
2. p\_sizeid, p\_size, p\_price, p\_color
3. p\_id, p\_name, p\_sizeid, dlr\_id
4. dlr\_id, d\_email – composite primary key

Gets acquired by (p\_id, p\_size, p\_name, p\_color, p\_price, s\_name, s\_tradeNum, s\_phone, starting\_date)

1NF: s\_phone is a multivalued attribute

2NF: p\_id, p\_name, p\_size, p\_color, p\_price

s\_tradeNum, s\_name, s\_phone, starting\_date

3NF: p\_id, p\_name

p\_sizeid, p\_size, p\_price, p\_color

s\_tradeNum, s\_name, s\_phone, starting\_date

Table for gets acquired by:

1. p\_id, p\_name, p\_price, s\_tradeNum, p\_sizeid
2. p\_sizeid, p\_price, p\_size, p\_color
3. s\_tradeNum, s\_name, starting\_date
4. s\_tradeNum, s\_phone-composite primary key

Supplies to (s\_tradeNum, s\_name, s\_phone, starting\_date, p\_price, dm\_id, transp\_num, dm\_name)

1NF: s\_phone is a multivalued attribute

2NF: s\_tradeNum, s\_name, s\_phone, p\_price, starting\_date

dm\_id, dm\_name, transp\_num

3NF: No transitive dependency

s\_tradeNum, s\_name, s\_phone, p\_price, starting\_date

dm\_id, dm\_name, transp\_num

Table for Supplies to:

1. s\_tradeNum, s\_name, p\_price, starting\_date
2. dm\_id, dm\_name, transp\_num, s\_tradeNum
3. s\_tradeNum, s\_phone- composite primary key

Delivers to (dm\_id, transp\_num, dm\_name, c\_nid, cu\_address, acc\_type, c\_name)

1NF: No multivalued Attribute

2NF: dm\_id, dm\_name, transp\_num

c\_nid, cu\_address, acc\_type, c\_name

3NF: No transitive dependency

dm\_id, dm\_name, transp\_num

c\_nid, cu\_address, acc\_type, c\_name

Table for delivers to:

1. dm\_id, dm\_name, transp\_num
2. c\_nid, cu\_address, acc\_type, c\_name
3. t\_id, dm\_id, c\_nid

Final Table List

1. dlr\_id, d\_name, d\_location – **Dealer**
2. p\_id, p\_name, p\_sizeid, dlr\_id - **Product**
3. p\_sizeid, p\_size, p\_price, p\_color – **ProductInfo**
4. dlr\_id, d\_email – **Dealer1**
5. p\_id, p\_name, p\_price, s\_tradeNum, p\_sizeid – **Product1**
6. s\_tradeNum, s\_name, p\_price, starting\_date - **Seller**
7. s\_tradeNum, s\_phone – **Seller1**
8. dm\_id, dm\_name, transp\_num, s\_tradeNum – **DeliveryMan**
9. c\_nid, cu\_address, acc\_type, c\_name - **Customer**
10. t\_id, dm\_id, c\_nid - **TrackDelivery**