

Zero norm. form:

order (customer-number, customer-name,
customer-address, sales-order-number,
sales-order-date, clerk-number,
clerk-name, item-ordered, description,
quantity, unit-price)

1st norm. form: remove repeating values and
ensure atomicity

order (customer-number, customer-name,
customer-address, sales-order-number,
sales-order-date, clerk-number,
clerk-name)

item (sales-order-number, item-ordered,
description, quantity, unit-price)

2nd norm. form: remove partial dependencies

item (item-ordered, description, unit-price)

order-item (sales-order-number, item-ordered,
quantity)

order (customer-number, customer-name,
customer-address, sales-order-number,
sales-order-date, clerk-number,
clerk-name)

3rd norm. form: remove transitive dependencies

customer-number → customer-name,
customer-address

clerk-number → clerk-name

customer (customer-number, customer-name,
customer-address)

clerk (clerk-number, clerk-name)

order (sales-order-number, customer-number
sales-order-date, clerk-number)

item (item-ordered, description, unit-price)

order-item (sales-order-item, item-ordered
quantity)

Zero norm. form:

department (dept~~**~~, dept-name, location,
mgr-name, mgr-id-no., tel-extn.,
cust~~**~~, cust-name, date-of-complaint,
nature-of-complaint)

1st norm. form:

department (dept~~**~~, dept-name, location,
mgr-name, mgr-id-no., tel-extn.)

complaint (dept~~**~~, cust~~**~~, cust-name,
date-of-complaint, nature-of-complaint)

2nd norm. form:

customer (cust~~**~~, cust-names)

complaint (dept~~**~~, cust~~**~~, date-of-complaint,
nature-of-complaint)

department (dept~~**~~, dept-name, location,
mgr-name, mgr-id-no., tel-extn.)

3rd norm. form:

manager (mgr-id, mgr-name)

department (dept*, dept-name, location,
mgr-id, tel-extn.)

customer (cust*, cust-name)

complaint (dept*, cust*, date-of-complaint,
nature-of-complaint)