Customer(customer_id, name, address, phone #)

FD = {customer_id → name, address, phone #}

customer_id is key

already in 3NF

Employee(employee_id, name, position, salary, password)

FD = {employee_id → name, position, salary, password}

employee_id is key

already in 3NF

Register(register_id, starting_cash, current_cash)

FD = {register_id → starting_cash, current_cash}

register_id is key

already in 3NF

Product(Barcode, name, price, type, brand, aisle#, supply-price,
supplier_id, quantity_supplied)

FD = {Barcode → name, price, type, brand, aisle#
supplier_id → supply-price, quantity_supplied}

Barcode and supplier_id are key decomposed into R_1 R_2 R_3

R_1(Barcode, name, price, type, brand, aisle#)

R_2(supplier_id, supply_price, quantity_supplied)

R_3(Barcode, supplier_id)

Supplier (Supplier_id, Company, delivery_day)

FD = {Supplier_id → Company, delivery_day}

Supplier_id is key

already in 3NF

Sells (Register_id, Barcode, Receipt #, transaction_date)

Purchases (Customer_id, Barcode, Purchase_date, quantity)

FD = {Register_id, Barcode → Receipt #, transaction_date

Customer_id, Barcode → quantity, transaction_date

Receipt # → quantity, Customer_id}

Register_id, barcode, receipt # is key

decomposed into

R_1 (Register_id, Barcode, Receipt #, transaction_date)

R_2 (Customer_id, Barcode, quantity, transaction_date)

R_3 (Receipt #, quantity, customer_id)

Operates (employee_id, register_id)

FD = {}

employee_id, register_id is key

already in 3NF

Assisted_by (Customers_id, employee_id, service_rating)

FD = {Customer_id, employee_id → service_rating}

Customer_id, employee_id is key

already in 3NF