

Relational Model:

Order (**order_id**, user_id, rest_id, driver_id)

User (**user_id**, name, phone_number, payment_id, email)

RestaurantRating(user_id, rest_id, rating)

Payment (**payment_id**, user_id)

Card (**payment_id**, card_num, card_type)

Paypal (**payment_id**, account_num)

Driver(**driver_id**, name, car_plate, phone_number)

Order_Item (order_id, item_id, quantity)

Menu (**item_id**, price)

Food (**item_id**, type)

Drink (**item_id**, ice, type)

Location(**location_id**, street, state, zip, user_id)

Restaurant(**rest_id**, phone_number, location, name)

Functional Dependencies:

Order

Order_id → user_id, rest_id, driver_id

BCNF

User

User_id → name, phone_number, payment_id, email

BCNF

RestaurantRating

User_id, rest_id → rating

BCNF

Location

Location_id, user_id → street, state, zip

Zip → state

2NF

Payment

Trivially in BCNF, nothing to determine

Card

Payment_id → card_num, card_type

Card_num → card_type

2NF

Paypal

Payment_id → account_num

BCNF

Restaurant

Rest_id → phone_number, location, name

BCNF

Order_item

Order_id, item_id → quantity

BCNF

Menu

Item_id → price

BCNF

Food

Item_id → type

BCNF

Drink

Item_id → ice, type

BCNF

Normalization:

Order (**order_id**, user_id, rest_id, driver_id)

User (**user_id**, name, phone_number, payment_id, email)

Payment (**payment_id**, user_id)

Paypal (**payment_id**, account_num)

Driver(**driver_id**, name, car_plate, phone_number)

Order_Item (**order_id**, **item_id**, quantity)

Menu (**item_id**, price)
 Food (**item_id**, type)
 Drink (**item_id**, ice, type)
 Restaurant(**rest_id**, phone_number, location, name)
 StateZip (**zip**, State)
 Location (**zip**, **location_id**, **user_id**, street)
 CardNumType (**card_num**, card_type)
 CardPayId (**card_num**, **payment_id**)
 RestaurantRating (**user_id**, **rest_id**, rating)

Physical Model

