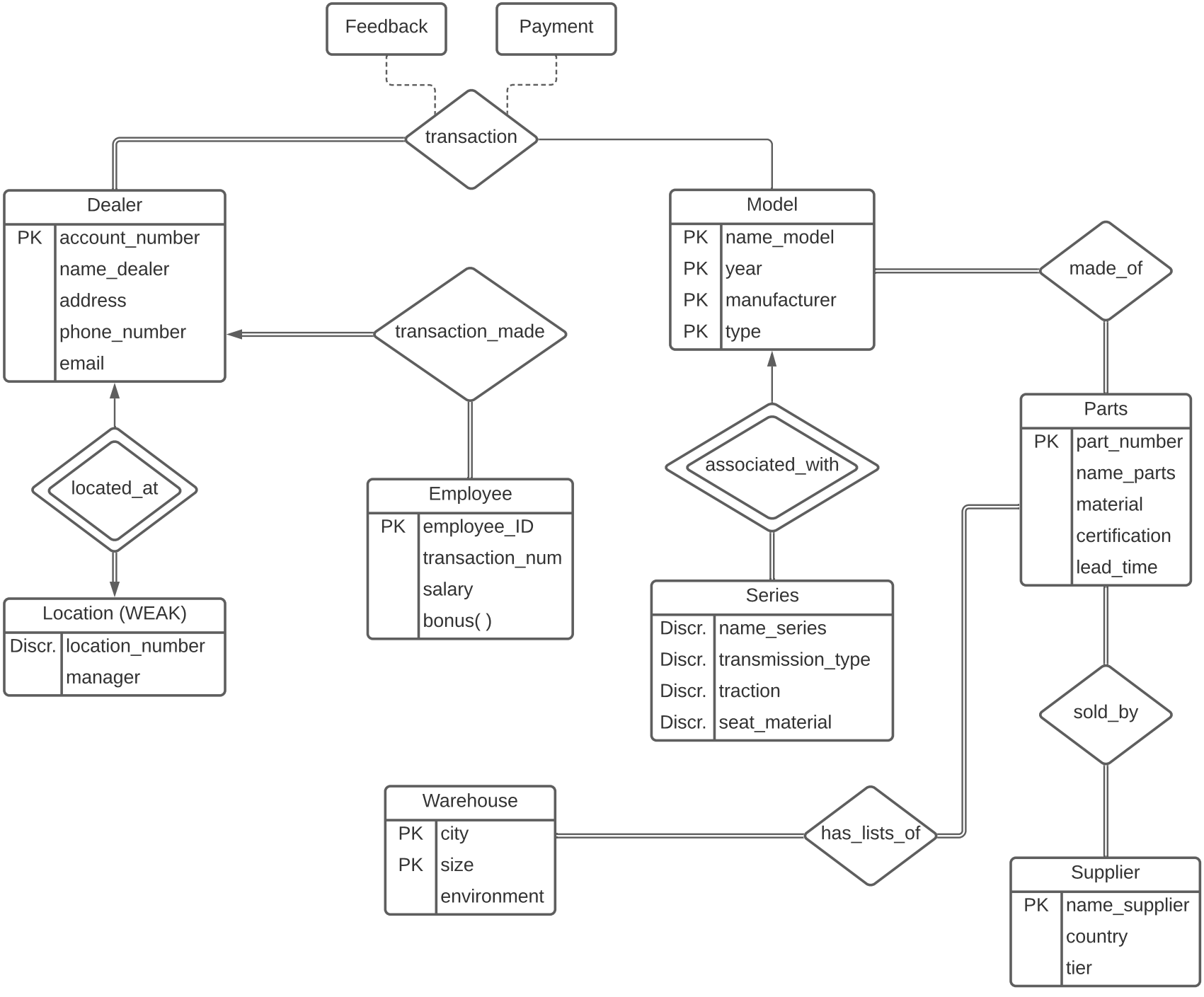
Feedback
Payment
transaction
Dealer
PK account_number
name_dealer
address
phone_number
email
transaction_made
Model
PK name_model
PK year
PK manufacturer
PK type
made_of
located_at
Employee
PK employee_ID
transaction_num
salary
bonus( )
associated_with
Parts
PK part_number
name_parts
material
certification
lead_time
Location (WEAK)
Discr. location_number
manager
Series
Discr. name_series
Discr. transmission_type
Discr. traction
Discr. seat_material
sold_by
Warehouse
PK city
PK size
environment
has_lists_of
Supplier
PK name_supplier
country
tier

Tiffany Wong
CS425 - Homework #1

Part 3.2 Translation of ER into Relational Model
Take the following ER-model and translate it into a relational schema using the rules presented in class. Present the relational schema. Present the results of the following intermediate steps in this order:

1. Translate strong entities + unnest composite attributes

Dealer(account_number, name_dealer, address, phone_number, email)
Model(name_model, year, manufacturer, type)
Parts(parts_number, name_parts, material, certification, lead_time)
Employee(employee_ID, transaction_num, salary, bonus())
Warehouse(city, size, environment)
Supplier(name, country, tier)

2. Translate weak entities

Series(name_model, year, manufacturer, type, name_series, transmission_type, traction, seat_material)
Location(account_number, location_number, manager)

3. Translated multi-valued attributes

There are no multi-valued attributes in this ER-diagram

4. Translate relationships

One-to-One Relationships

Dealer(account_number, name_dealer, address, phone_number, email, payment, feedback)
Location(account_number, location_number, manager)

One-to-Many Relationships

Dealer(account_number, name_dealer, address, phone_number, email)
Employee(employee_ID, transaction_num, salary, bonus(), account_number)
Model(name_model, year, manufacturer, type)
Series(name_model, year, manufacturer, type, name_series, transmission_type, traction, seat_material)

Many-to-Many Relationships

transaction(account_number, name_model, year, manufacturer, type)
made_of(name_model, year, manufacturer, type, part_number)
has_lists_of(city, size, part_number)
sold_by(name, part_number)