Assignment 4 Joshua Kang 4331

Better formatted here

<https://github.com/JoshuaKang1997/4331_Project_JoshuaKang/tree/master/Assignment_4>

7.20

a.

author: name (primary key), address, URL

publisher: name (primary key), address, phone, URL

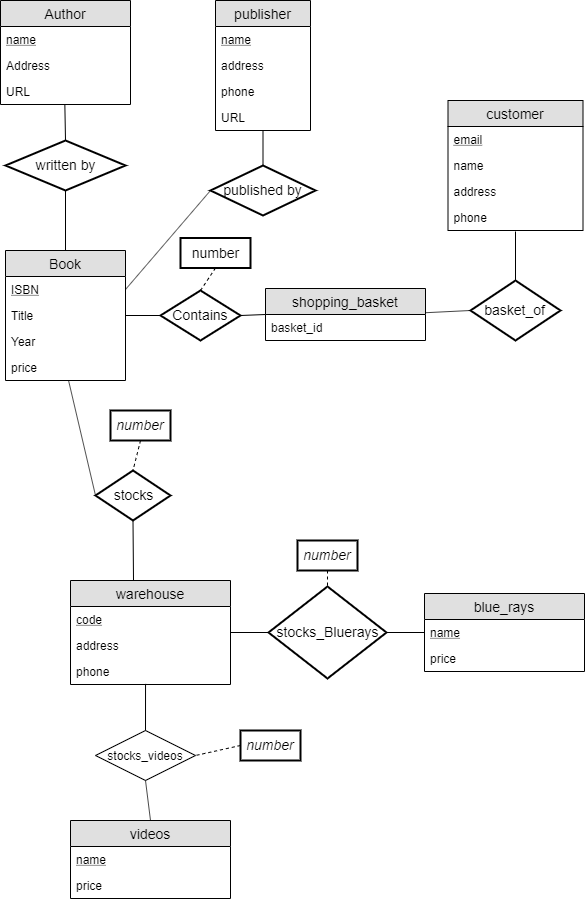
customer: email (primary key), name, address, phone

book: ISBN (primary key), title, year, price

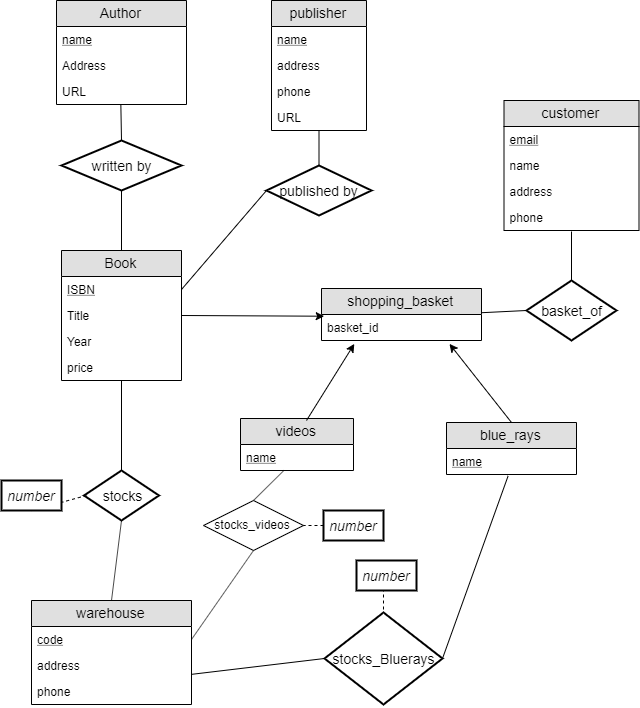
warehouse: code (primary key), address, phone

shopping\_basket: basket\_id

b. Extended ER Diagram without Generalization

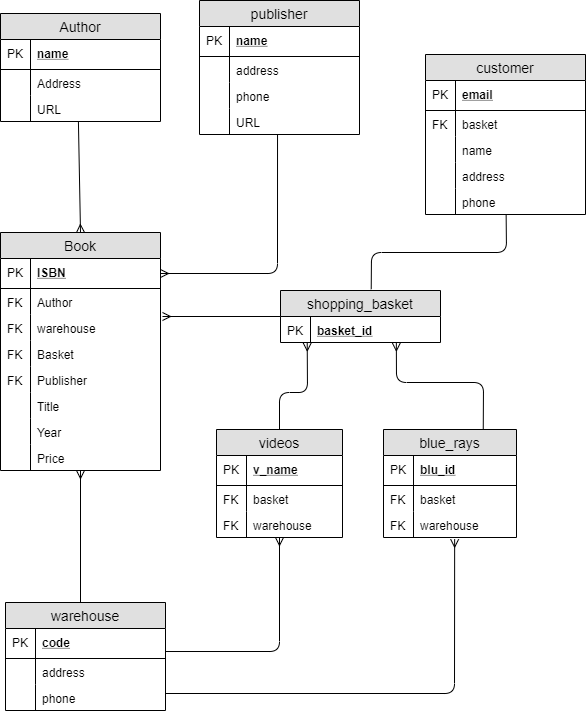


c. Extended ER Diagram with Generalization



7.20 Relation Schema for Part 2

Diagram



**Constraints**

Author: name is the primary key.

Book: ISBN is the primary key, Author is a FK referencing name in table author, warehouse is a

FK referencing code in table warehouse, Basket is a FK referencing basket\_id in table

shopping\_basket, Publisher is a FK referencing name in table publisher.

warehouse: code is the primary key.

videos: v\_name is the primary key, basket is a FK referencing basket\_id in table basket,

warehouse is a FK referencing code in table warehouse.

blue\_rays: blu\_id is the primary key, basket is a FK referencing basket\_id in table basket,

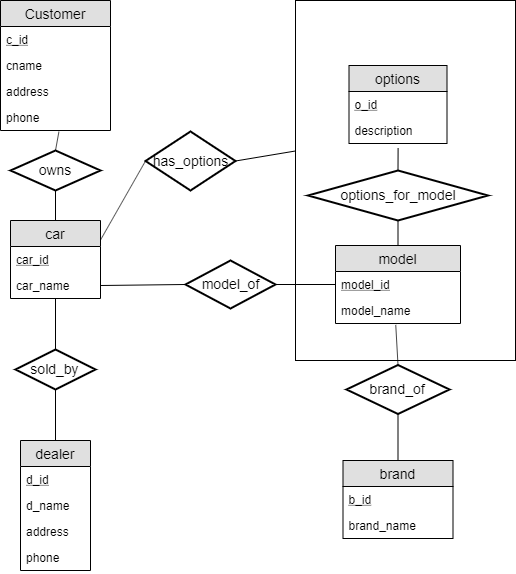
warehouse is a FK referencing code in table warehouse.

shopping\_basket: basket\_id is the primary key.

customer: email is the primary key, basket is a FK referencing basket\_id in table basket.

7.21

ER Diagram



7.21 ER diagram description (Constraints)

**Tables**

customer: c\_id (Primary Key), cname, address, phone

dealer: d\_id (PK), d\_name, address, phone

options: o\_id (PK), description

model: model\_id (PK), model\_name

brand: b\_id (PK), brand\_name

**Foreign Keys**

b\_id & model\_id

b\_id references b\_id

model\_id references model\_id

model\_id & o\_id

model\_id references model\_id

o\_id references o\_id

c\_id, d\_id, model\_id, & o\_id

model\_id references model\_id

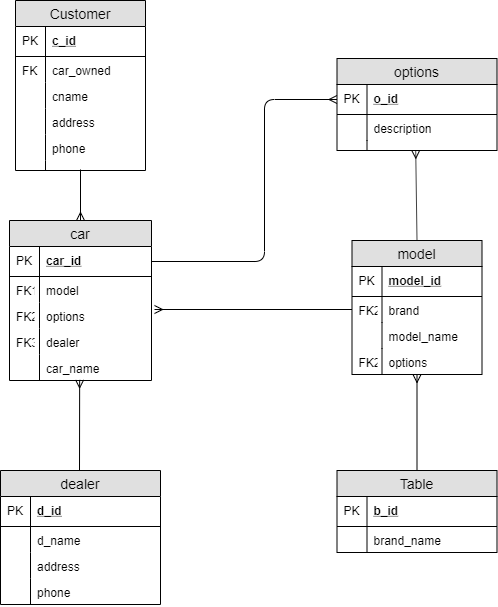
o\_id references o\_id

d\_id references d\_id

c\_id references c\_id

7.21 Relation Schema for Part 2

Diagram



Constraint

Customer: c\_id is the PK and car\_owned is a FK referencing car\_id in table car.

car: car\_id is the PK and model is a FK referencing model\_id in table model, options is a FK referencing

o\_id in table options, and dealer is a FK referencing d\_id in table dealer.

model: model\_id is the PK; brand is a FK referencing b\_id in table brand and options is a FK referencing o\_id in table options.

options: o\_id is the primary key.

Brand: b\_id is the primary key.

dealer: d\_id is the primary key.