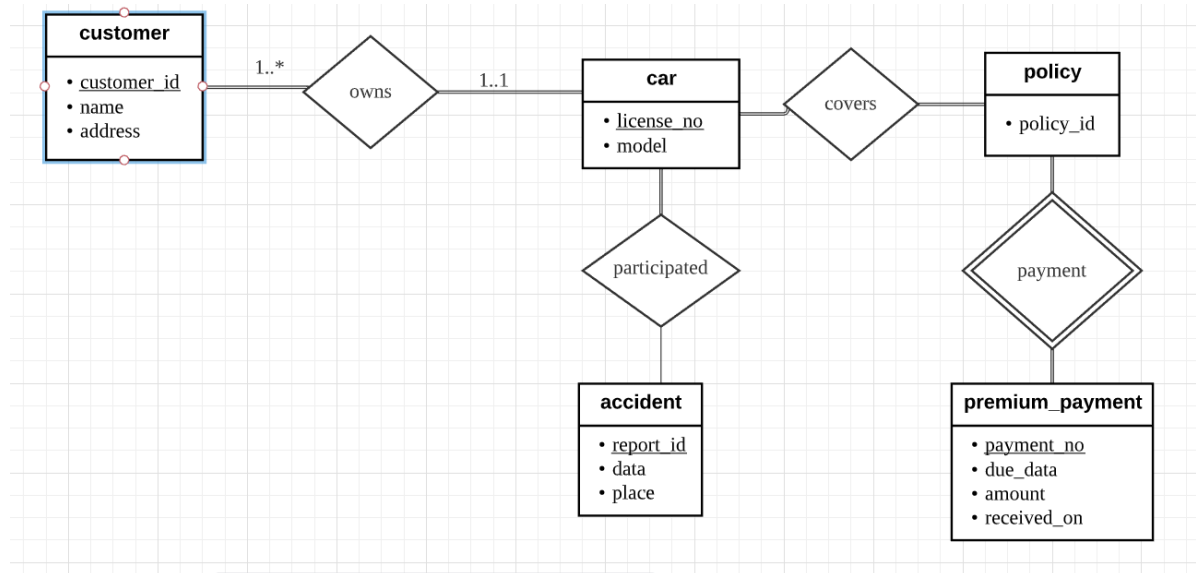


DataBase System Homework 7

3190105359 段峰一

7.1



7.20

Consider the E-R diagram in Figure 7.29, which models an on-line bookstore.

a. Entity sets:

author(name, address, URL)

publisher(name, address, phone, URL)

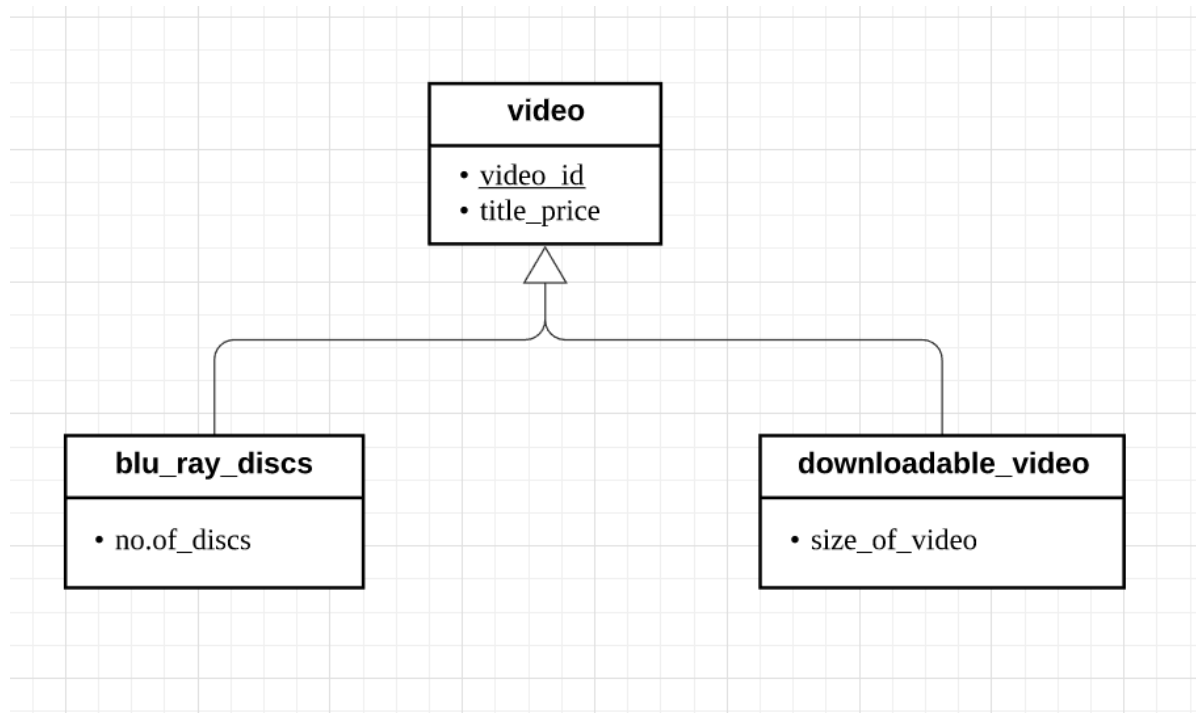
book(ISBN, title, year, price)

customer(email, name, address, phone)

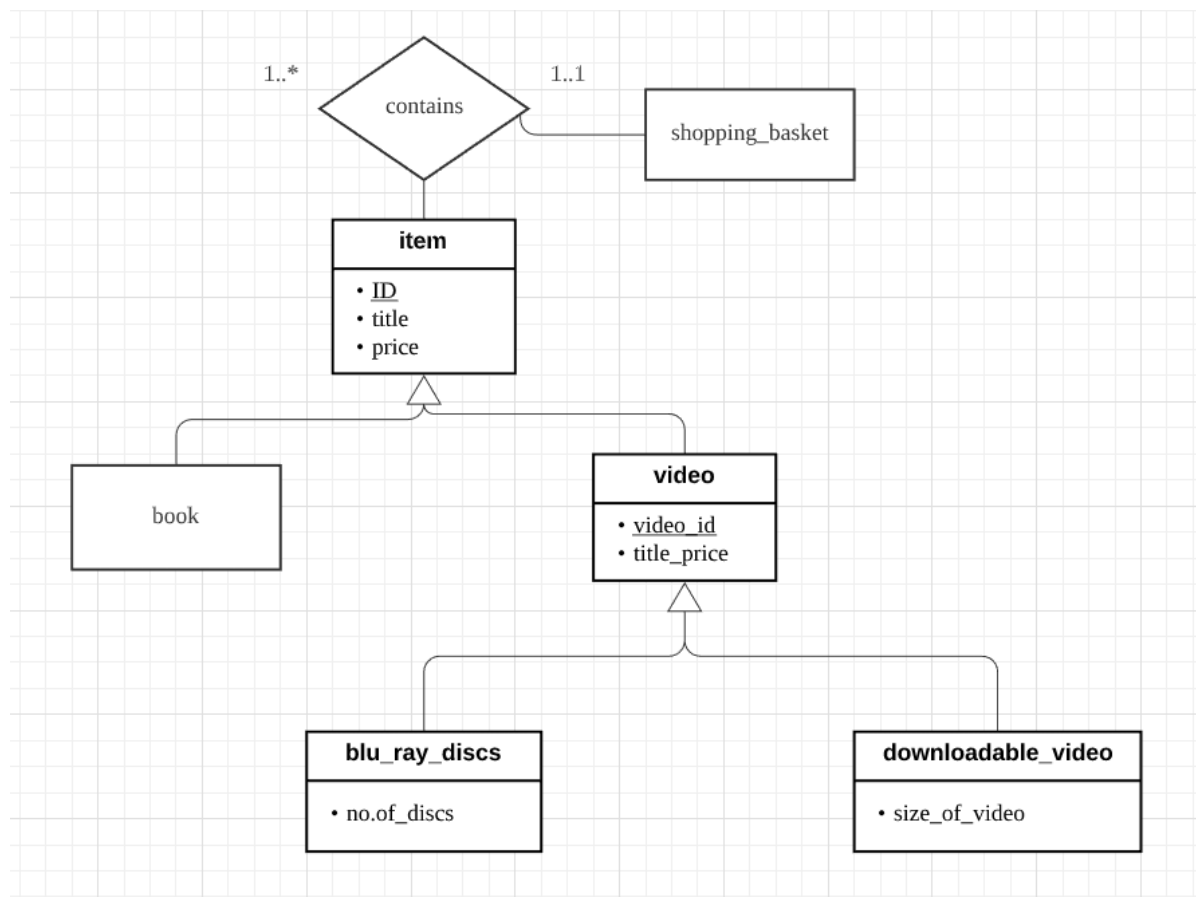
shopping_basket(basket_id)

warehouse(code, address, phone)

b. The E-R diagram portion related to videos is shown below:

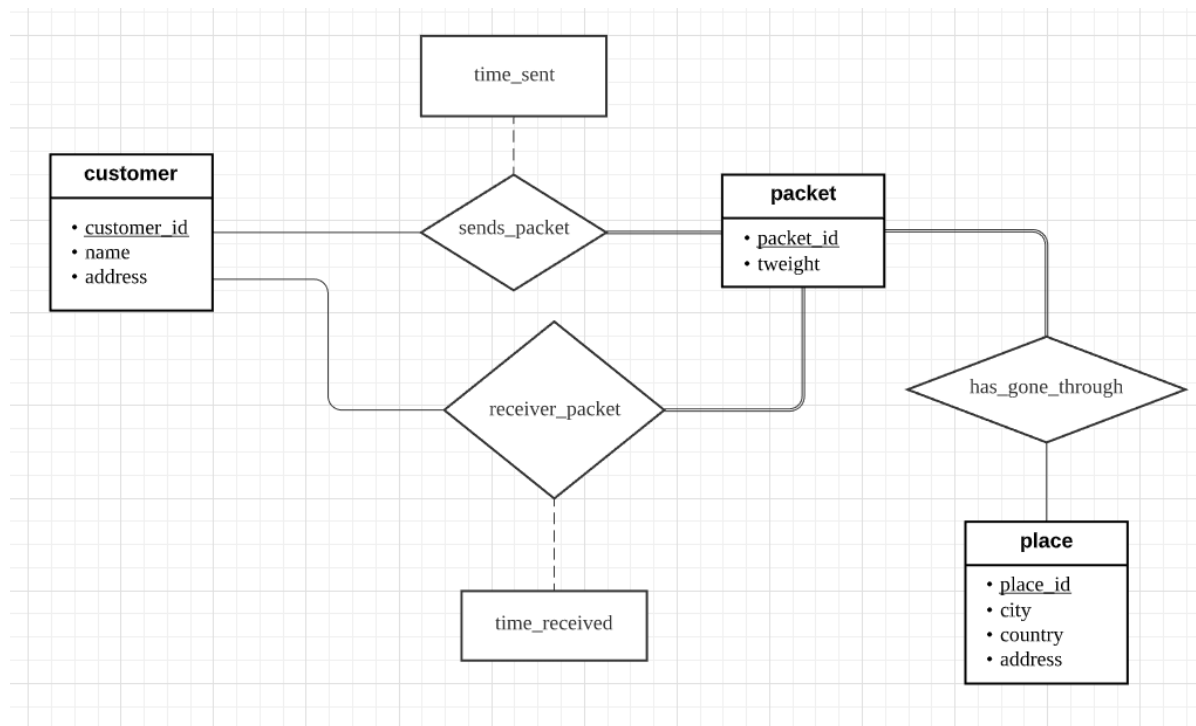


c. The E-R diagram shown below should be added to the E-R diagram of Figure 7.29. All other parts of Figure 7.29 remain unchanged.

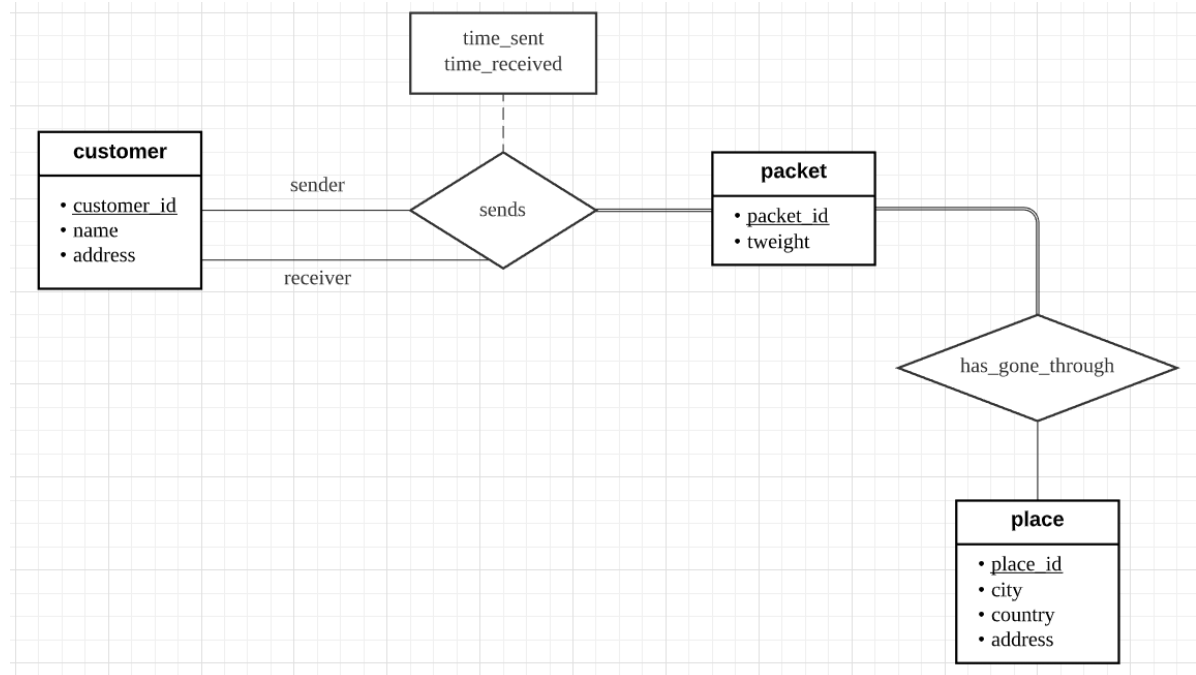


7.22

Two alternative E-R diagrams are shown below:



As an alternative:



The relational schema, including primary-key and foreign-key constraints, corresponding to the second alternative is shown below:

customer(customer_id, name, address)

packet(packet_id, weight)

place(place_id, city, country, address)

sends(sender_id, receiver_id, packet_id, time_received, time_sent)

foreign key sender_id **references** customer,

foreign key receiver_id **references** customer,

foreign key packet_id **references** packet

)

```
has_gone_through(packet_id, place_id,  
foreign key packet_id references packet,  
foreign key place_id references place  
)
```