Homework 3

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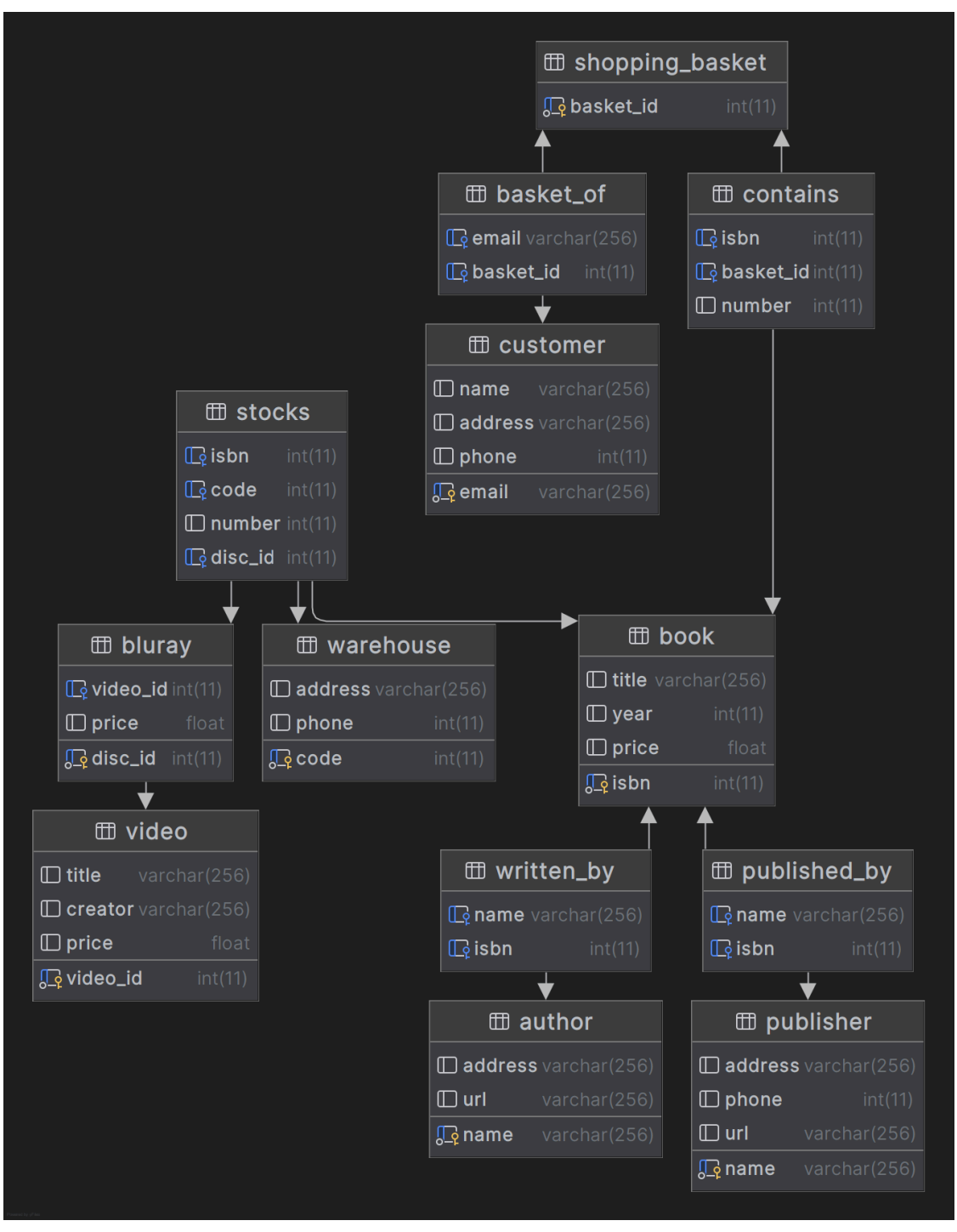
I have adhered to the Honor Code on this assignment.

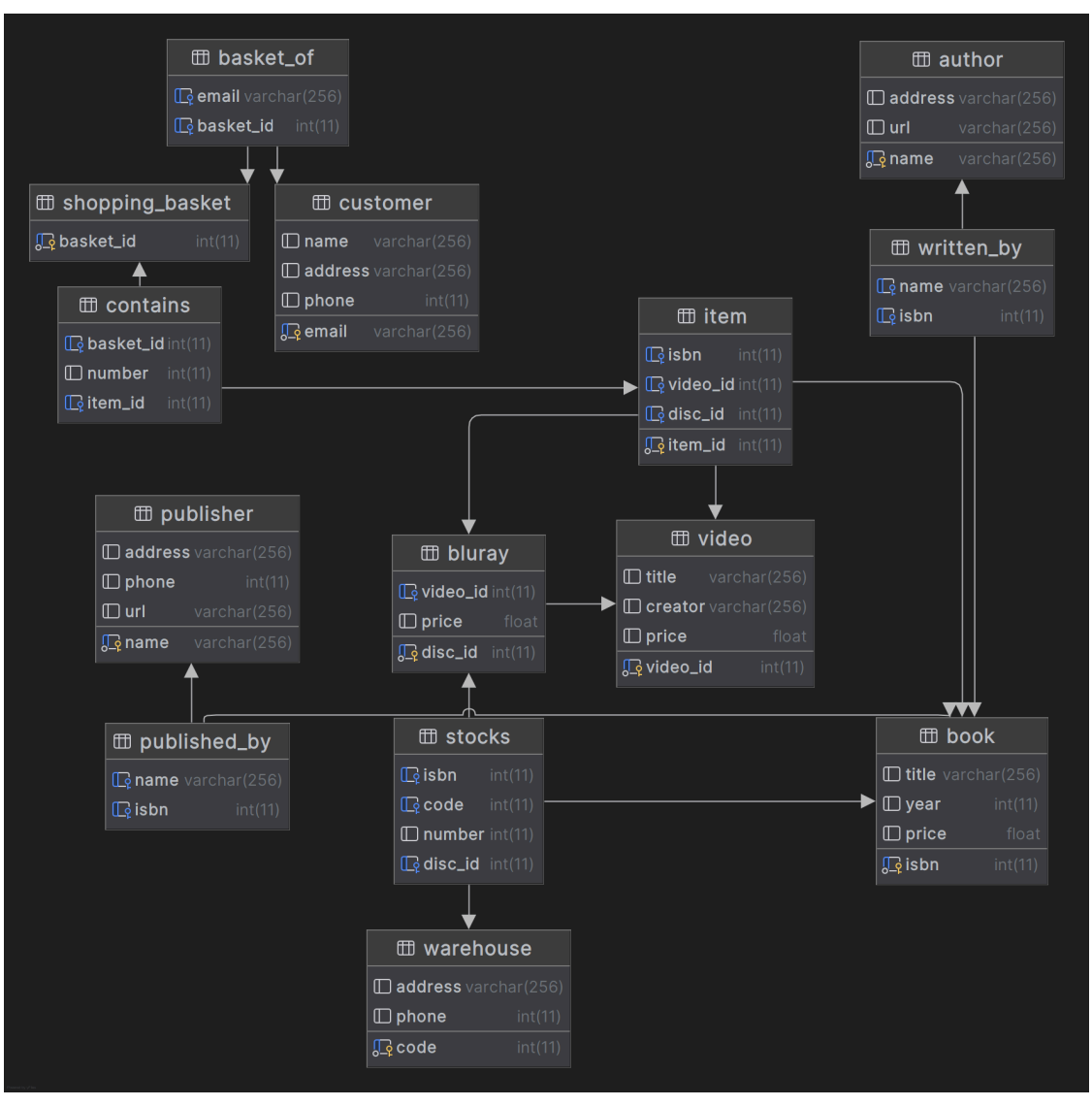
1.

(a) author, name
publisher, name
customer, email
shopping_basket, basket_id
book, ISBN
warehouse, code

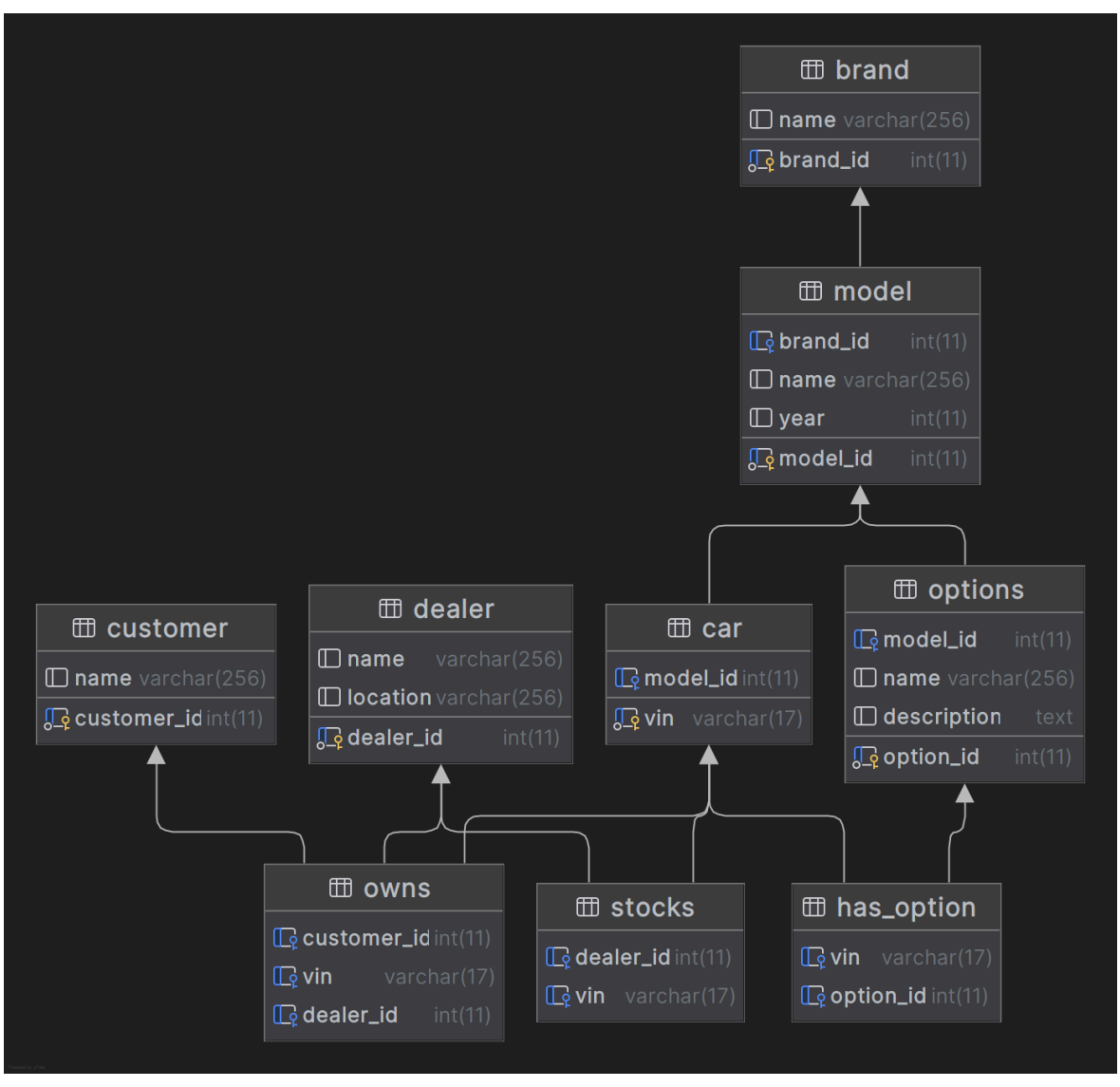
(b)



(c)



2.



Below is the list of SQL commands used to generate the above ER diagram. The DDL contains both relationship schema as well as primary and foreign key constraints.

```
use car_dealer;

create table brand
(
    brand_id int primary key,
    name     varchar(256)
);

create table model
(
    model_id int primary key,
    brand_id int,
    name     varchar(256),
    year     int,
    foreign key (brand_id) references brand (brand_id)
);


create table options
(
    option_id   int primary key,
    model_id    int,
    name        varchar(256),
    description text,
    foreign key (model_id) references model (model_id)
);

create table dealer
(
    dealer_id int primary key,
    name      varchar(256),
    location  varchar(256)
);

create table customer
(
    customer_id int primary key,
    name        varchar(256)
);

create table car
(
    vin      varchar(17) primary key,
    model_id int,
    foreign key (model_id) references model (model_id)
);

create table stocks
(
    dealer_id int,
    vin       varchar(17),
    foreign key (dealer_id) references dealer (dealer_id),
    foreign key (vin) references car (vin)
);

create table owns
(
    customer_id int,
    vin         varchar(17),
    dealer_id   int,
    foreign key (customer_id) references customer (customer_id),
    foreign key (vin) references car (vin),
    foreign key (dealer_id) references dealer (dealer_id)
);

create table has_option
(
    vin       varchar(17),
    option_id int,
    foreign key (vin) references car (vin),
    foreign key (option_id) references options (option_id)
);
```