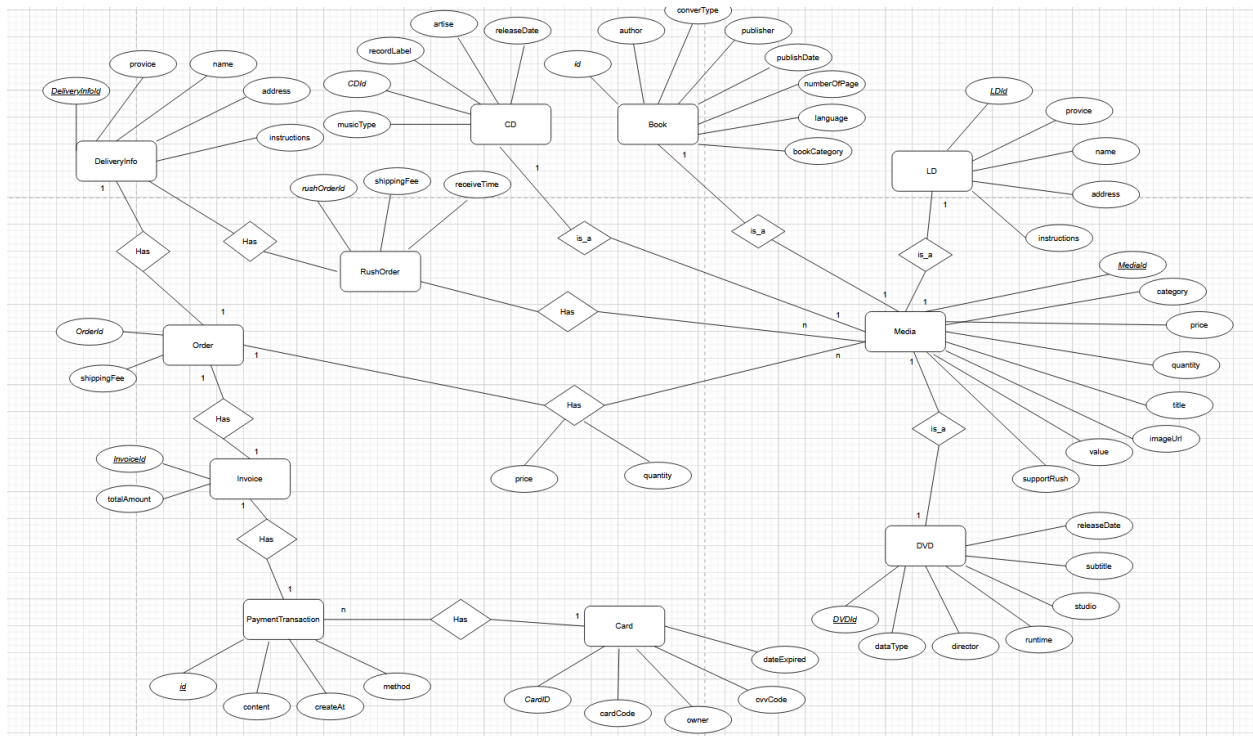
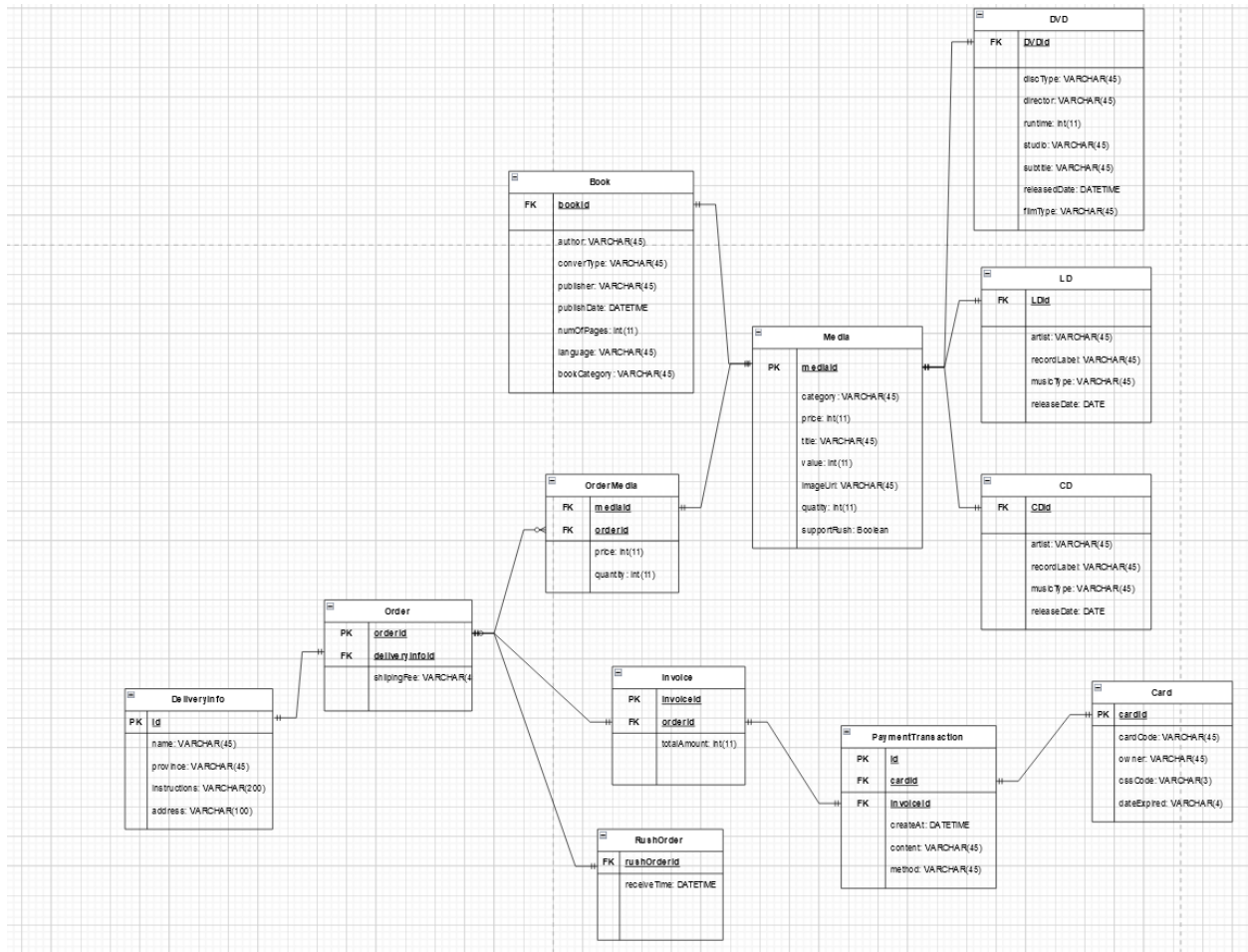


I Mô hình khái niệm

Sơ đồ thực thể - quan hệ



II Mô hình dữ liệu logic



III Mô hình dữ liệu vật lý

Chú thích:

PK: Primary Key

FK: Foreign Key

1 Media

STT	PK	FK	Column Name	Data type	Mandatory	Description
1	x		mediaId	Integer	Yes	ID, autoincrement
2			category	VARCHAR(45)	Yes	Media type, e.g: CD, DVD

3			price	Integer	Yes	Current price
4			title	VARCHAR(45)	Yes	Product name
5			value	Integer	Yes	Value of the product
6			imageUrl	VARCHAR(45)	Yes	Product image path
7			quantity	Integer	Yes	Number of product
8			supportRush	Boolean	Yes	Check this product support rush order

2 CD

STT	PK	FK	Column Name	Data type	Mandatory	Description
1		x	CDId	Integer	Yes	ID, not null, auto increment
2			artist	VARCHAR(45)	Yes	Artist's name
3			recordLabel	VARCHAR(45)	Yes	Record label
4			musicType	VARCHAR(45)	Yes	Music type
5			releaseDate	DATE	No	Release date

3 LD

STT	PK	FK	Column Name	Data type	Mandatory	Description
1		x	LDId	Integer	Yes	ID, not null, auto increment
2			artist	VARCHAR(45)	Yes	Artist's name
3			recordLabel	VARCHAR(45)	Yes	Record label
4			musicType	VARCHAR(45)	Yes	Music type
5			releaseDate	DATE	No	Release date

4 Book

STT	PK	FK	Column Name	Data type	Mandatory	Description
1		x	bookId	Integer	Yes	Id, auto increment, not null
2			author	VARCHAR(45)	Yes	Author
3			converType	VARCHAR(45)	Yes	Conver type
4			publisher	VARCHAR(45)	Yes	Publisher
5			publishDate	DATETIME	Yes	Date of publishing
6			numOfPages	Integer	Yes	Page number
7			language	VARCHAR(45)	Yes	Language
8			bookCategory	VARCHAR(45)	Yes	Book category

5 DVD

STT	PK	FK	Column Name	Data type	Mandatory	Description
1		x	DVDId	Integer	Yes	ID, not null, auto increment
2			discType	VARCHAR(45)	Yes	Disc type
3			director	VARCHAR(45)	Yes	Director
4			runtime	Integer	Yes	Duration
5			studio	VARCHAR(45)	Yes	Manufactuer
6			subtitle	VARCHAR(45)	Yes	Subtites
7			releasedDate	DATETIME	Yes	Relase date
8			filmType	VARCHAR(45)	Yes	Genres

6 Card

Chú thích:

CVV (Card Verification Value): Giá trị xác minh thẻ

STT	PK	FK	Column Name	Data type	Mandatory	Description
1	x		cardId	Integer	Yes	ID, auto increment
2			cardCode	VARCHAR(45)	Yes	Card code
3			owner	VARCHAR(45)	Yes	Cardholder
4			cvvCode	VARCHAR(3)	Yes	CVV code
5			dateExpired	VARCHAR(4)	Yes	Expiration date

7 DeliveryInfo

STT	PK	FK	Column Name	Data type	Mandatory	Description
1	x		id	Integer	Yes	ID, auto increment
2			name	VARCHAR(45)	Yes	Reciever name
3			province	VARCHAR(45)	Yes	Provinces
4			instructions	VARCHAR(200)	No	Delivery instructions
5			address	VARCCHAR(100)_	Yes	Delivery address

8 Order

STT	PK	FK	Column Name	Data type	Mandatory	Description
1	x		orderId	Integer	Yes	ID, auto increment
2			shippingFees	VARCCHAR(45)	Yes	Shipping fee
3		x	deliveryInfoId	Integer	Yes	Delivery Info ID

9 RushOrder

STT	PK	FK	Column Name	Data type	Mandatory	Description
-----	----	----	-------------	-----------	-----------	-------------

1		x	rushOrderId	Integer	Yes	Id, auto increment
2			receiveTime	DATETIME	Yes	Time of receive order

10 OrderMedia

STT	PK	FK	Column Name	Data type	Mandatory	Description
1		x	mediaId	Integer	Yes	Media ID
2		x	orderId	Integer	Yes	Order ID
3			price	Integer	Yes	Selling price
4			quantity	Integer	Yes	Number

11 Invoice

STT	PK	FK	Column Name	Data type	Mandatory	Description
1	x		invoiceId	Integer	Yes	ID
2			totalAmount	Integer	Yes	Total
3		x	orderId	Integer	Yes	Order ID

12 PaymentTransaction

STT	PK	FK	Column Name	Data type	Mandatory	Description
1	x		id	Integer	Yes	ID
2			createAt	DATETIME	Yes	Date of creation
3			content	VARCHAR(45)	Yes	Transaction contents
4			method	VARCHAR(45)	Yes	Payment methods
5		x	cardId	Integer	Yes	ID of used card
6		x	inviocId	Integer	Yes	Invoice ID

Database script

```
CREATE TABLE "Media" (  
    "id"    INTEGER NOT NULL UNIQUE,  
    "category"  VARCHAR(45) NOT NULL,  
    "price"    INTEGER NOT NULL,  
    "quantity"  INTEGER NOT NULL,  
    "title" VARCHAR(45) NOT NULL,  
    "imageUrl" VARCHAR(45) NOT NULL,  
    "supportRush"    BOOLEAN NOT NULL,  
    PRIMARY KEY("id")  
);
```

```
CREATE TABLE "CD" (  
    "CDId"    INTEGER NOT NULL,  
    "artist"  VARCHAR(45) NOT NULL,  
    "recordLabel"  VARCHAR(45) NOT NULL,  
    "musicType"  VARCHAR(45) NOT NULL,  
    "releaseDate"  DATE,  
    FOREIGN KEY("CDId") REFERENCES "Media"("id")  
);
```

```
CREATE TABLE "LD" (  
    "LDId"    INTEGER NOT NULL,  
    "artist"  VARCHAR(45) NOT NULL,  
    "recordLabel"  VARCHAR(45) NOT NULL,  
    "musicType"  VARCHAR(45) NOT NULL,
```

```
    "releaseDate"    DATE,  
    CONSTRAINT "fk_LD_Media"  
    FOREIGN KEY("LDId") REFERENCES "Media"("id")  
);
```

```
CREATE TABLE "Book" (  
    "bookId" INTEGER NOT NULL,  
    "author"  VARCHAR(45) NOT NULL,  
    "converType"  VARCHAR(45) NOT NULL,  
    "publisher"   VARCHAR(45) NOT NULL,  
    "publishDate" DATETIME NOT NULL,  
    "numOfPages"  INTEGER NOT NULL,  
    "language"    VARCHAR(45) NOT NULL,  
    "bookCategory" VARCHAR(45) NOT NULL,  
  
    CONSTRAINT "fk_Book_Media"  
    FOREIGN KEY("bookId") REFERENCES "Media"("id")  
);
```

```
CREATE TABLE "DVD" (  
    "DVDId"      INTEGER NOT NULL,  
    "discType"   VARCHAR(45) NOT NULL,  
    "director"   VARCHAR(45) NOT NULL,  
    "runtime"    INTEGER NOT NULL,  
    "studio"     VARCHAR(45) NOT NULL,
```



```
"subtitle" VARCHAR(45) NOT NULL,  
"releasedDate" DATETIME NOT NULL,  
"filmType"    VARCHAR(45) NOT NULL,  
  
CONSTRAINT "fk_DVD_Media"  
FOREIGN KEY("DVDId") REFERENCES "Media"("id")
```

```
);
```

```
CREATE TABLE "Card" (  
    "cardId" INTEGER NOT NULL UNIQUE,  
    "cardCode"    VARCHAR(45) NOT NULL,  
    "owner"  VARCHAR(45) NOT NULL,  
    "cvvCode"    VARCHAR(3) NOT NULL,  
    "dateExpired"  VARCHAR(4) NOT NULL,  
    PRIMARY KEY("cardId" AUTOINCREMENT)
```

```
);
```

```
CREATE TABLE "DeliveryInfo" (  
    "deliveryInfoId"    INTEGER NOT NULL UNIQUE,  
    "name"  VARCHAR(45) NOT NULL,  
    "province"    VARCHAR(45) NOT NULL,  
    "instructions"  VARCHAR(200) NOT NULL,  
    "address" VARCHAR(100) NOT NULL,  
    PRIMARY KEY("deliveryInfoId" AUTOINCREMENT)
```

```
);
```

```
CREATE TABLE "Order" (  
    "orderId" INTEGER NOT NULL UNIQUE,  
    "shippingFee" VARCHAR(45) NOT NULL,  
    "deliveryInfoId" INTEGER NOT NULL,  
    FOREIGN KEY("deliveryInfoId")  
    REFERENCES "DeliveryInfo"("deliveryInfoId"),  
    PRIMARY KEY("orderId" AUTOINCREMENT)  
);
```

```
CREATE TABLE "RushOrder" (  
    "rushOrderId" INTEGER NOT NULL,  
    "receiveTime" DATETIME NOT NULL,  
    FOREIGN KEY("rushOrderId") REFERENCES "Order"("orderId")  
);
```

```
CREATE TABLE "OrderMedia" (  
    "mediaId" INTEGER NOT NULL,  
    "orderId" INTEGER NOT NULL,  
    "price" INTEGER NOT NULL,  
    "quantity" INTEGER NOT NULL,  
    FOREIGN KEY("mediaId") REFERENCES "Media"("id"),  
    FOREIGN KEY("orderId") REFERENCES "Order"("orderId")  
);
```

```
CREATE TABLE "Invoice" (  

```

```
"invoiceId"    INTEGER NOT NULL UNIQUE,  
"totalAmount"  INTEGER NOT NULL,  
"orderId"      INTEGER NOT NULL,  
PRIMARY KEY("invoiceId" AUTOINCREMENT)  
);
```

```
CREATE TABLE "PaymentTransaction" (  
    "id"        INTEGER NOT NULL UNIQUE,  
    "createAt"   DATETIME NOT NULL,  
    "content"    VARCHAR(45) NOT NULL,  
    "method"     VARCHAR(45) NOT NULL,  
    "cardId"     INTEGER NOT NULL,  
    "invoiceId"  INTEGER NOT NULL,  
    FOREIGN KEY("invoiceId") REFERENCES "Invoice"("invoiceId"),  
    FOREIGN KEY("cardId") REFERENCES "Card"("cardId"),  
    PRIMARY KEY("id" AUTOINCREMENT)  
);
```