* **Media**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, auto increment |
| 2. |  |  | category | VARCHAR(45) | Yes | Media type, e.g., CD |
| 3. |  |  | price | Integer | Yes | price |
| 4. |  |  | quantity | Integer | Yes | Number of products |
| 5. |  |  | title | VARCHAR(45) | Yes | Product name |
| 6. |  |  | value | Integer | Yes | Value of the product |
| 7. |  |  | imageUrl | VARCHAR(45) | Yes | Product image path |

* **CD**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, same as ID of Media of which type is CD |
| 2. |  |  | artist | VARCHAR(45) | Yes | Artist’s name |
| 3. |  |  | recordLabel | VARCHAR(45) | Yes | Record label |
| 4. |  |  | musicType | VARCHAR(45) | Yes | Music genres |
| 5. |  |  | releasedDate | DATE | No | release date |

* **Book**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, same as ID of Media of which type is book |
| 2. |  |  | author | VARCHAR(45) | Yes | Author |
| 3. |  |  | coverType | VARCHAR(45) | Yes | Cover type |
| 4. |  |  | publisher | VARCHAR(45) | Yes | Publishing house |
| 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 |

* **DVD**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, same as ID of Media of which type is DVD |
| 2. |  |  | discType | VARCHAR(45) | Yes | Disc type |
| 3. |  |  | director | VARCHAR(45) | Yes | Director |
| 4. |  |  | runtime | VARCHAR(45) | Yes | Duration |
| 5. |  |  | studio | VARCHAR(45) | Yes | Manufacturer |
| 6. |  |  | subtitle | VARCHAR(45) | Yes | Subtitles |
| 7. |  |  | releasedDate | DATETIME | Yes | Release date |
| 8. |  |  | filmType | VARCHAR(45) | Yes | Genres |

* **Card**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, auto increment |
| 2. |  |  | cardCode | VARCHAR(45) | Yes | Card code |
| 3. |  |  | owner | VARCHAR(45) | Yes | Card holders |
| 4. |  |  | cvvCode | VARCHAR(3) | Yes | CVV code |
| 5. |  |  | dateExpired | DATETIME | Yes | Expiration date |

* **PaymentTransaction**

| **#** | **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 content |
| 4. |  |  | method | VARCHAR(45) | Yes | Payment method |
| 5. |  | x | cardId | Integer | Yes | ID of used card |
| 6. |  | x | invoiceId | Integer | Yes | Invoice ID |

* **DeliveryInfo**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, auto increment |
| 2. |  |  | name | VARCHAR(45) | Yes | Receiver name |
| 3. |  |  | province | VARCHAR(45) | Yes | Provinces |
| 4. |  |  | instructions | VARCHAR(200) | No | Delivery instructions |
| 5. |  |  | address | VARCHAR(100) | Yes | Delivery address |
| 6. |  |  | deliveryTime | DATETIME | No | Delivery time |

* **Order**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID |
| 2. |  |  | shippingFee | Integer | Yes | Shipping fee |
| 3. |  | x | deliveryInfoId | Integer | Yes | Delivery Info ID |
| 4. |  |  | isRush | Integer | Yes | 1: can rush order  0: cannot rush order |

* **OrderMedia**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, auto increment |
| 2. |  | x | mediaId | Integer | Yes | Media ID |
| 3. |  | x | orderId | Integer | Yes | Order ID |
| 4. |  |  | price | Integer | Yes | Selling price |
| 5. |  |  | quantity | Integer | Yes | Number |

* **Invoice**

| **#** | **PK** | **FK** | **Column name** | **Data type** | **Mandatory** | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. | x |  | id | Integer | Yes | ID, auto increment |
| 2. |  |  | totalAmount | Integer | Yes | Total |
| 3. |  | x | orderId | Integer | Yes | Order ID |

**Database script**

BEGIN;

CREATE TABLE “aims”.”Media” (

“id” INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL,

“category” VARCHAR(45) NOT NULL,

“price” INTEGER NOT NULL,

“quantity” INTEGER NOT NULL,

“title” VARCHAR(45) NOT NULL,

“value” INTEGER NOT NULL,

“imageUrl” VARCHAR(45) NOT NULL

);

CREATE TABLE “aims”.”CD” (

“id” INTEGER PRIMARY KEY NOT NULL,

“artist” VARCHAR(45) NOT NULL,

“recordLabel” VARCHAR(45) NOT NULL,

“musicType” VARCHAR(45) NOT NULL,

“releasedDate” DATE,

CONSTRAINT “fk\_CD\_Media”

FOREIGN KEY(“id”)

REFERENCES “Media”(“id”)

);

CREATE TABLE “aims”.”Book” (

“id” INTEGER PRIMARY KEY NOT NULL,

“author” VARCHAR(45) NOT NULL,

“coverType” VARCHAR(45) NOT NULL,

“publisher” VARCHAR(45) NOT NULL,

“publishDate” DATE,

“numOfPages” INTEGER NOT NULL,

“language” VARCHAR(45) NOT NULL,

“bookCategory” VARCHAR(45) NOT NULL,

CONSTRAINT “fk\_Book\_Media”

FOREIGN KEY(“id”)

REFERENCES “Media”(“id”)

);

CREATE TABLE “aims”.”DVD” (

“id” INTEGER PRIMARY KEY 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,

CONSTRAINT “fk\_DVD\_Media”

FOREIGN KEY(“id”)

REFERENCES “Media”(“id”)

);

CREATE TABLE “aims”.”DeliveryInfo” (

“id” INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL,

“name” VARCHAR(45),

“province” VARCHAR(45),

“instructions” VARCHAR(200),

“address” VARCHAR(100),

“deliveryTime” DATETIME

);

CREATE TABLE “aims”.”Card” (

“id” INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL,

“cardCode” VARCHAR(15) NOT NULL,

“cvvCode” VARCHAR(3) NOT NULL,

“owner” VARCHAR(45) NOT NULL,

“dateExpired” DATETIME NOT NULL

);

CREATE TABLE “aims”.”Order” (

“id” INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL,

“shippingFee” INTEGER NOT NULL,

“deliveryInfoId” INTEGER NOT NULL,

“isRush” INTEGER NOT NULL,

CONSTRAINT “fk\_Order\_DeliveryInfo”

FOREIGN KEY(“deliveryInfoId”)

REFERENCES “DeliveryInfo”(“id”)

);

CREATE TABLE “aims”.”OrderMedia” (

“id” INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL,

“orderId” INTEGER NOT NULL,

“mediaId” INTEGER NOT NULL,

“quantity” INTEGER NOT NULL,

“price” INTEGER NOT NULL,

CONSTRAINT “fk\_OrderMedia\_Media”

FOREIGN KEY(“mediaId”)

REFERENCES “Media”(“id”),

CONSTRAINT “fk\_OrderMedia\_Order”

FOREIGN KEY(“orderId”)

REFERENCES “Order”(“id”)

);

CREATE TABLE “aims”.”Invoice” (

“id” INTEGER PRIMARY KEY NOT NULL,

“totalAmount” INTEGER NOT NULL,

“orderId” INTEGER NOT NULL,,

CONSTRAINT “fk\_Invoice\_Order”

FOREIGN KEY(“orderId”)

REFERENCES “Order”(“id”)

);

CREATE TABLE “aims”.”PaymentTransaction” (

“id” INTEGER PRIMARY KEY AUTOINCREMENT NOT NULL,

“createAt” DATETIME NOT NULL,

“content” VARCHAR(45) NOT NULL,

“method” VARCHAR(45) NOT NULL,

“cardId” INTEGER NOT NULL,

“invoiceId” INTEGER NOT NULL,

CONSTRAINT “fk\_PaymentTransaction\_Card”

FOREIGN KEY(“cardId”)

REFERENCES “Card”(“id”),

CONSTRAINT “fk\_PaymentTransaction\_Invoice”

FOREIGN KEY(“invoiceId”)

REFERENCES “Invoice”(“id”)

);

COMMIT;