#### Physical Data Model

* **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, DVD |
| 3 |  |  | Price | Integer | Yes | Current price |
| 4 |  |  | Quantity | Integer | Yes | Number of products |
| 5 |  |  | Title | VARCHAR(45) | Yes | Product name |
| 6 |  |  | Value | Integer | Yes | Value of 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 |  |  | releaseDate | 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 | Author |
| 4 |  |  | Publiser | 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 | Integer | 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 |

* **LP**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *#* | *PK* | *FK* | *Column name* | *Data type* | *Mandatory* | *Description* |
| 1 |  | x | Id | Integer | Yes | ID, same as ID of Media of which type is LP |
| 2 |  |  | Artist | Varchar(45) | Yes | Artist’s name |
| 3 |  |  | recordLabel | Varchar(45) | Yes | Record label |
| 4 |  |  | musicType | Varchar(45) | Yes | Music genres |
| 5 |  |  | releaseDate | Date | No | Release date |

* **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 | Cardholders |
| 4 |  |  | cvvCode | Varchar(3) | Yes | CVV code |
| 5 |  |  | dateExpired | Varchar(4) | Yes | Expiration date |

* **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 |

* **Order**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *#* | *PK* | *FK* | *Column name* | *Data type* | *Mandatory* | *Description* |
| 1 | x |  | id | Integer | yes | ID |
| 2 |  |  | shippingFees | Varchar(45) | Yes | Shipping fee |
| 3 |  | x | deliveryInfoId | Integer | Yes | Delivery info id |

* **OrderMedia**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *#* | *PK* | *FK* | *Column name* | *Data type* | *Mandatory* | *Description* |
| 1 |  | x | mediaID | Integer | yes | mediaID |
| 2 |  | x | orderID | Integer | Yes | orderID |
| 3 |  |  | Price | Integer | Yes | Selling price |
| 4 |  |  | Quantity | Integer | Yes | Number |

* **Invoice**

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

* **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 contents |
| 4 |  |  | Method | Varchar(45) | Yes | Payment methods |
| 5 |  | x | cardId | Integer | Yes | ID of used card |
| 6 |  | x | invoiceId | Integer | Yes | Invoice ID |