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CMSC 320

Project 2

**ERD:**

A screenshot of a computer

Description automatically generated

**Relationship Pairs:**

**MovieToDist –** (1 : n) This is a one to many relationship, where there can be many distributors that deliver a movies but a single instance of a movie can only have one distributor.

**MovieToCustMovie –** (1 : 1) This is a one to one relationship, where there can be only one movie to any cstmr\_movie.

**CustToCustMovie –** (1 : n) This is a one to many relationship, where a cstmr\_movie can only ever have one customer but a customer may have many cstmr\_movie.

**DiscountToMovie –** (1 : n) This is a one to many relationship, where there can only be one discount to any cstmr\_movie but many cstmr\_movie may receive a discount.

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| --- | --- | --- | --- | --- |
| **Mom & Pop Video Rental Database** | | | | |
|  | | | | |
| **Entity Name** | **Attributes** | **PK/FK** | **Data Type** | **Description** |
| **Distributor** | **Distributor ID** | PK | Integer | Primary Key for Distributor Entity |
|  | E-Catalog | no | Array – varchar | Array of names of titles of all movies in distributor catalog |
|  | Company Name | no | varchar | Name of distributor |
|  | Country | no | varchar | Country of origin for distributor company |
| **Movie** | **Movie ID** | PK | Integer | Primary Key for Movie Entity |
|  | **Distributor ID** | FK | Integer | Foreign Key pointing to Distributor Entity |
|  | Title | no | varchar | Name of movie title |
|  | Duration | no | Integer | Length of movie in minutes |
|  | Rating | no | Integer | Rating score of movie |
|  | Movie Format | no | varchar | Format of movie – DVD/Video |
|  | Genre | no | Array – varchar | Array of Genres movie is considered |
|  | Cast | no | Array – varchar | List of cast members in movie |
|  | Awards | no | Array – varchar | List of awards movie has won |
| **Customer** | **Customer ID** | PK | Integer | Primary Key for Customer entity |
|  | Name | no | varchar | Name of Customer |
|  | Address | no | Array – varchar | Array to hold address of the Customer |
|  | Phone Number | no | varchar | Phone number of Customer |
| **Discount** | **Discount ID** | PK | Integer | Primary Key for Discount |
|  | Discount Amount | no | Double | Double representing percentage of discount |
| **Cstmr Movie** | **Movie ID** | FK | Integer | Foreign Key pointing to Movie entity |
|  | **Customer ID** | FK | Integer | Foreign Key pointing to Customer entity |
|  | Date Rented | no | Date | Date of rental |
|  | Due Date | no | Date | Date rental is due back |
|  | Damage Fee | no | Double | Amount added to rental cost for damaged return |
|  | Rewind Fee | no | Double | Amount added to rental cost for return without being rewound |
|  | Standard Fee | no | Double | Standard charge rate for a rental |
|  | Late Fee | no | Double | Amount added to rental cost for late return |
|  | Tax Fee | no | Double | Amount added to rental cost for taxes |
|  | **Discount ID** | FK | Integer | Foreign Key pointing to Discount Entity |