1. **Entity Relationship Diagram (ERD)**

Diagram

Description automatically generated

1. **Relationship sentence pairs between the entities that are related**

**Diagram

Description automatically generated**

1. **Identifying the large set of entities and attributes (Metadata)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Entity | Attributes | PK/FK? | Data Type | Description |
| **Academy\_Award** | ***AA\_ID*** | **PK** | **integer** | **This entity is specifically used**  **to store the award details.** |
| **Category** | **no** | **char (20)** |
| **Year** | **no** | **int** |
| **Winner** | **no** | **boolean** |
| **Nominee** | **no** | **boolean** |
| **Academy\_awardMovie** | ***AAM\_ID*** | **PK** | **integer** | **This entity overall is**  **intermediate between the**  **awards and movies entities**  **used to store the ID of awards**  **and movies.** |
| ***Academyaward\_ID*** | **PK** | **integer** |
| ***Movie\_ID*** | **PK** | **integer** |
| **Actors** | ***Actor\_ID*** | **FK** | **int** | **This entity stores the actor’s**  **details/information** |
| **First\_Name** | **no** | **varchar (40)** |
| **Middle\_Name** | **no** | **varchar (40)** |
| **Last\_Name** | **no** | **varchar (40)** |
| **Movies\_of\_Actors** | ***MA\_ID*** | **PK** | **integer** | **This entity overall is served to**  **be an intermediate to the**  **Actors and Movies entity** |
| ***Actor\_ID*** | **PK** | **integer** |
| ***Movie\_ID*** | **FK** | **int** |
| **Charges\_INFO** | ***Charge\_ID*** | **PK** | **integer** | **This entity stores the charges**  **and the charge types** |
| **Type** | **no** | **char (20)** |
| ***Charge*** | **FK** | **int** |
| **Rental\_Charges** | ***Charge\_ID*** | **FK** | **int** | **This entity acts and serves as**  **an intermediate between**  **charges and rentals** |
| ***ID*** | **PK** | **integer** |
| ***Rental\_ID*** | **PK** | **integer** |
| **Customer** | ***Customer\_ID*** | **FK** | **int** | **This entity stores the**  **customer’s information** |
| **First\_Name** | **no** | **varchar (40)** |
| **Last\_Name** | **no** | **varchar (40)** |
| **Address** | **no** | **Varchar (60)** |
| **Birth\_Date** | **no** | **varchar (30)** |
|  | **Phone\_Number** | **no** | **varchar (13)** |  |
| **Directors** | ***Director\_ID*** | **PK** | **integer** |  |
|  | **First\_Name** | **no** | **varchar (40)** | **This entity stores the**  **director’s information** |
|  | **Middle\_Name** | **no** | **varchar (40)** |
|  | **Last\_Name** | **no** | **varchar (40)** |
| **Movies\_of\_Directors** | ***DM\_ID*** | **PK** | **integer** | **This entity serves as**  **an intermediate between**  **the movies and directors** |
| ***Direct\_ID*** | **PK** | **integer** |
| ***Movie\_ID*** | **FK** | **int** |
| **Distributors** | ***Distributor\_ID*** | **FK** | **int** | **This entity stores**  **the distributors information** |
| **Distributor\_Name** | **no** | **varchar (50)** |
| **Ship\_Quantity** | **no** | **int** |
| **Movie** | ***Distributor\_ID*** | **PK** | **integer** | **This entity stores the**  **movie information** |
| **Mov\_ID** | **no** | **int** |
| **Title** | **no** | **varchar (125)** |
| **Type** | **no** | **char** |
| **Duration\_Length** | **no** | **int** |
| **Rating** | **no** | **char (1)** |
| **Rentals** | ***Rental\_ID*** | **FK** | **integer** | **This entity**  **stores the rental information**  **of the movie** |
| ***Customer\_ID*** | **PK** | **integer** |
| **Rent\_Date** | **no** | **date** |
| **Return\_Date** | **no** | **date** |
| **Rented** | **no** | **boolean** |
| **Returned** | **no** | **boolean** |
| **Charges** | **no** | **int** |
| **Taxes** | **no** | **float** |