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ERD Write Up

So this diagram shows the relationships, entities and their attributes that can be involved in a database that would be used to catalog movies. First and foremost, we will start out with the movie itself, this is a regular entity with attributes of title and release date, each movie will have their own title and release year. But as movies can be remade over time these values may be multivalued as they can differ depending upon which you would be referring to.

Next, we will look at the directed by relationship between movie and the director. We used a full and partial relationship for this one as a movie needs a director but a director does not always need a movie. Also, this is an m-n relationship as a director can have directed multiple movies and a movie can have multiple directors. Then the entity for director has a name attribute.

The written by relationship follows the same sort pattern with writers and a movie, a movie needs writers so it has full participation in the written by relationship, but writers only need a partial in this relationship as they are writers regardless of if it is in a movie or not. Also, this is an m-n relationship as there can be many writers for a movie and there can be a writer with numerous movies. Finally, the writer entity has a name attribute.

The next relationship we will look at is the produced by, this is a bit different than the previous relationships we have looked at. This relationship looks at the what production company helped produce the movie. This relationship is only a partial relationship as not every movie needs a production company (e.g. independent movies) and not every production company produces movies, many produce online series or TV series. Furthermore, this an M-N relationship as many production companies can work on a film as well as one production company can work on numerous films. Now the production company entity has two attributes, one for name another for the corporate address.

Another relationship that is similar to the produced by is the acts in relationship, in this relationship there is partial participation on both the movie's part as well as the actor's part, an actor is an actor regardless of if they are in a movie and a movie doesn't necessarily need actors, it could be a animated picture without words such as what some digital shorts are. But the relationship is M-N as a

movie has multiple actors and an actor can participate in numerous movies. Then the actor has attributes for name, city of residence, birth (birth date), death (death date) and age. The age is a derived case that could be used numerous ways, the age could be their age in a movie which could be derived if we used the movie release date and the actors birth date or we could find their current age/age of death using their birth date and the current date or death date respectively depending which route was desired to be taken.

The next relationship we will look at is the has sequel relationship, this is used for if the movie has a sequel. By structuring it this way we allow for a 1-1 relationship as a movie can only have one direct sequel but using this structure we would in effect have a chain of movies that were sequels to one another. But the participation in this relationship is full in the fact that a sequel must have a movie, as in there must be a movie for there to be a sequel, but a movie does not require a sequel. Then the sequel will have its own title.

The second to last relationship we will look at is reviews, in this relationship the reviews has a weak attribute on it as it pertains to the movie and relationship itself, and the relationship is partial on both sides from the movie and the reviewer. This is due to a movie not requiring reviewers and reviewers not requiring a movie to exist. The reviewer also has a name/title that they are called by. Then it is a M-N relationship as there can be multiple reviewers for a movie and reviewers will review multiple movies.

The final relationship is score composed by, this relationship has partial participation on both the movie and composer sides, this is due to composers existing without composing a score for a movie, and a movie that can exist without a score. The composer entity then has a name attribute.