

DVDSYS – Relational Schema

Step 1:

Each entity on the ERD becomes a relation (table) in the database.
Make the name plural.

Rates(.....)
Genres(.....)
Age_Ratings(.....)
DVDs(.....)
Members(.....)
Rentals(.....)

Step 2:

The identifying attribute(s) of each entity on the ERD becomes the primary key (PK) of the relation.

Underline the PK in the relation.

Rates(Rate Code,)
Genres(Genre Code,.....)
Age_Ratings(Age Code,.....)
DVDs(DVD Id,.....)
Members(Mem Id,.....)
Rentals(Rent Id,.....)

Step 3:

All other attributes on the ERD become non-key attributes of the relation.

Rates(Rate Code, **Description, **Rate**)**
Genres(Genre Code, **description)**
Age_Ratings(Age Code, **Description)**
DVDs(DVD Id, **Title, **Status**)**
Members(Mem Id, **Surname, **Forename**, **Street**, **Town**, **County**, **email**, **No_Out**)**
Rentals(Rent Id, **Rent_Date, **Due_Date**, **Rate**, **Return_Date**)**

Step 4:

Map each 1:M relationship to the relational schema.

The PK at the 1 end of the relationship becomes an attribute in the relation at the Many end of the relationship:

Rates (Rate Code, Description, Rate)
Genres (Genre Code, description)
Age_Ratings (Age Code, Description)
DVDs (DVD Id, Title, Status, **Rate_Code, **Genre_Code**, **Age_Code**)**
Members (Mem Id, Surname, Forename, Street, Town, County, email, No_Out)
Rentals (Rent Id, Rent_Date, Due_Date, Rate, Return_Date, **DVD_Id, **Mem_Id**)**