

1. Design and draw an EER diagram that captures the information about a Hollywood Enterprise that requires modeling information about the different type of people involved in the movie production.

- Each person should have person ID, name, phone, gender, and address.
- There are two main groups of persons: Movie professionals and celebrity. Each movie professionals work on some company.
- A movie professional can be either a director or a agent. Each director has her or his popularity and can direct a number of movies. Each agent has the agent fee.
- A celebrity can be a movie star, a model, or both. Each movie star has her or his movie style and play in some movies. Each model has her or his preferences.
- Each movie has information about the title, released date, and language.

2. Draw an EER diagram for art museum. Discuss any assumptions you made, and that justify your EER design choices.

Assume that the following requirements were collected:

- The museum has a collection of ART_OBJECTS. Each ART_OBJECT has a unique IdNo, an Artist (if known), a Year (when it was created), a Title, and a Description.
- The art objects are categorized in several ways, as discussed below.
- ART_OBJECTS are categorized based on their type. There are three main types: PAINTING, SCULPTURE, and STATUE, plus another type called OTHER to accommodate objects that do not fall into one of the three main types.
- A PAINTING has a PaintType (oil, watercolor, etc.), material on which it is DrawnOn (paper, canvas, wood, etc.), and Style (modern, abstract, etc.).
- A SCULPTURE or a STATUE has a Material from which it was created (wood, stone, etc.), Height, Weight, and Style.
- An art object in the OTHER category has a Type (print, photo, etc.) and Style.
- ART_OBJECTS are also categorized as PERMANENT_COLLECTION, which are owned by the museum (these have information on the DateAcquired, whether it is OnDisplay or stored, and Cost) or BORROWED, which has information as DateBorrowed, and DateReturned.
- ART_OBJECTS also have information describing their country/culture using information on country/culture of Origin (Italian, Egyptian, American, Indian, etc.) and Epoch (Renaissance, Modern, Ancient, etc.).

- The museum keeps track of ARTIST'S information, if known: Name, DateBorn (if known), DateDied (if not living), CountryOfOrigin, Epoch, MainStyle, and Description. The Name is assumed to be unique.
- Different EXHIBITIONS occur, each having a Name, StartDate, and EndDate. EXHIBITIONS are related to all the art objects that were on display during the exhibition.

3. Design and draw an EER diagram that captures the information about a park:

- The park has a number of locations throughout the city. Each location has a LocationID, and Address, a description and a maximum capacity.
- Each location has different areas, for example, picnic areas, football fields, etc. Each area has an AreaID, a type, a description and a size.
- Each Location is managed by one of the Areas.
- For the picnic areas, there are sites. Within each picnic area, there are multiple sites. Each site is identified by the site number, which is unique within each picnic area.
- Events are held at the park, and the park tracks the EventID, the event name, description, as well as the AreaID where the event is being held. One event can be held across multiple areas.
- There are three different types of events, Sporting Events, which have the name of the team competing, Performances, which have the name of the performer, and the duration. Each performance can have multiple performers, and Conferences, which have a sponsoring organization.
- The park rents some equipment to the visitors. There are three categories of equipment, Bikes, which have a bike ID, and colour, Boats, which have a Seats (number of people) and a boat ID, and Sports Equipment, which has an Equipment ID, and equipment type. All equipment (bikes, boats, sports) are not rental equipment, some is to be used by park employees.
- Rentals are rented by visitors to the park. Each time the equipment is rented, the park records the date and time.
- The park also wishes to track information about visitors to the park. They assign each visitor a visitor ID, and store their name, date of birth and registration date. They also record information about the locations visited by each visitor, and the date/time of each visit.