SCS1309 Database Management

Practical - 02

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1. **Read the below scenarios and identify the Entities, attributes and relationships and then draw the ER diagrams accordingly.**

Scenario 1

You are asked to maintain data regarding the volleyball matches. Following are the details.

We have a set of teams, each team has an ID (unique identifier), name, main stadium, and to which city this team belongs. Each team has many players, and each player belongs to one team. Each player has a number (unique identifier), name, Date of Birth, start year, and shirt number that he uses. A team plays many matches and a match is played exactly by only two teams. For each match we need to keep track of the following: Match Id, the date on which the game is played and the final result of the match. Each match has exactly three referees. For each referee we have an ID (unique identifier), name, Date of Birth, years of experience. A referee can manage many matches.

Scenario 2

Consider a MOVIE database where each of the movies are identified by its MovieID, title and year of release and the length in minutes. Each movie has a production company, and is classified under one or more genres (such as horror, action, drama, and so forth); each genre classifies one or more movies. Each movie has one or more directors and one or more actors appear in it. Each of the actors are identified by his/her name, id, and date of birth, house number, street number, city, and Zip code and may appear in one or more movies. Each actor as a role in the movie. Each of the directors are also identified by his/her name, id and date of birth and directs one or more movies. Each of the production companies are identified by its name, id and has an address. A production company produces one or more movies. Each production company has a count of how many movies it has produced.

Scenario 3

A Salesperson has an ID, Name, Email, and Commission Rate. A salesperson may manage many other salespeople, and each salesperson is managed by only one other salesperson. A salesperson can also act as an agent for many customers. A Customer has an ID, Name, Address, and Credit Limit. Each customer is managed by one salesperson. A customer can place many orders. An Order has an ID, Date, Total Amount, and Status. Each order is placed by one customer. An order contains many inventory items. An Inventory Item has an ID, Description, Price, and Quantity in Stock. For each order, it is necessary to record the quantity of each inventory item ordered. An inventory item may appear on many orders. An inventory item is assembled from many parts. A Part has an ID, Weight, Color, stock level and Description. A part may be used to assemble many inventory items. An Employee has an ID, Name, Title, and Hourly Rate. An inventory item is assembled by one employee and an employee can assemble many inventory items. A Supplier has an ID, Name, and Contact number. A supplier can supply many parts, and a part may be supplied by many supplier.