Previous Year -2023

**Question**

Suppose you are given the following requirements for a simple database for the

National Hockey League.

1. The League has many teams, each team has a name, a city, a coach, a captain

and set of players.

2. Each player belongs to only one team.

3. Each player has a name, a position (such as left wing or goalie), a skill level

and a set of injury records.

4. A team captain is also a player.

5. A game is played between two teams and has a date and a score.

Draw the ER diagram for the above problem.

**Query**

Report on 1) details of matches played between given dates, 2) Details of injuries of any player

**Question**

Consider a movie database in which data is recorded about the movie

industry. The data requirements are summarised as follows –

Each movie is identified by title and year of release. Each has a production company, and each is classified under one or more

types (such as horror, action, drama, comedy). Each movie has one or more directors and one or more actors appear in it. Each movie also has a plot outline. At last each movie has zero or more

quotable quotes, each of which is spoken by a particular actor appearing in the movie.

 Actors are identified by name, DOB and appear in one or more movies. Each actor has a role in the movie.

 Directors are also identified by name, DOB and can also direct one or more movies, it is possible for one director to act in a movie.

 Production companies are identified by name and each has an address. A production company produces one or more movies.

**Query**

A report on the movie (with detailed information) generated by a specific production Company sorted in terms of movie types.

Print the details of the released movies between specied date range

Print the details of the senior (by age) a actors who are acting in comedy type movies

**Question**

A restaurant maintains catalog for the list of food and beverage items that it provides. To provide food facility at the premises of the customers, the restaurant takes order online through the system. Orders on phone are also entertained. To deliver the deliveries we have delivery boys. Each delivery boy is assigned a specific area code. The delivery boy cannot deliver outside the area to which he is assigned.

**Query**

Report: Delivered order details within a specific area. The report should contain the attributes Date, Customer name, Food(s), Order value, Delivery Boy. The report should be sorted in terms of date.

Entities: Menu, Customer, Order, Delivery Boy, Area

**Question**

Consider a database for Car insurance company. The company maintains car insurance database that includes detailed data about customers (car owners), cars, accidents, drivers involved in accidents and injured drivers and/or passengers. Note that any customer can insure many cars, each car may have different drivers at different times, and accidents typically involve one or more cars.

**Query**

Report: List the accident cases between a given time interval; the report must contain all details like Date of Accident, Involved Car(s), Car Owner's name, Insured Value, Injured person (if any).

**Question**

Consider the following situation:

• One or more sections of a course are offered each term. Courses have names and numbers. In each term, the sections of each course are numbered starting with 1.

• Most course sections are taught on-site, but a few are taught at off-site locations.

• Students have student numbers and names.

• Each course section is taught by a professor. A professor may teach more than one section in a term, but if a professor teaches more than one section in a term, they are always sections of the same course. Some professors do not teach every term.

• A student receives a mark for each course in which they are enrolled. Each student has a cumulative grade point average (GPA) which is calculated from all course marks the student has received.

**Query**

Report: List the marks of the students for a specific course (say DBMS) that contains Student details with marks in that course and CGPA. The list should be sorted according to Section number (say A, B...).