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CONCEPT MAPPING APPROACH:
Select the case study from the list given below and using the concept map them into ERD.

1. Rohit's family owns and operates a 640-acre farm for several generations. Since the farm business is growing, Rohit is thinking to build a database that would make easier the management of the activities in the farm. He is considering the following requirements for the database:

- For each livestock classification group (for example, cow, horse etc.), Rohit keeps track of the following: identification number, classification, total number of livestock per classification group (for example, number of cows, number of horses etc.).
- For each crop the following information is recorded Crop identification number and classification.

- Rohit has recorded the yield of each crop classification group during the last ten years. The records consist of the year, yield, sales, price of the crop and the amount of money earned.

- Rohit has recorded the yield of each livestock classification group during the last ten years. The records consist of the following historical data: the year, (historical) selling price per head, number of livestock in the end of the year, number of livestock sold during one-year period, and the total amount of money earned.

2. Major airlines companies that provide passenger services in Taiwan are: UniAir, TransAsia Airways, Far Eastern Transport, Great China Airlines etc. Taiwan's Federal Aviation Administration (TFAA) keeps a database with lots of information on all airlines. This information is made accessible to all airlines in Taiwan with the intention of helping the Companies assess their Competitive position in the domestic market. The information kept consists of:

- Each airplane has an identification number, name of the contact person and telephone number.

- For each aircraft identification number, capacity and model is recorded.

- Each employee has an employee identification number, name, address, birthday, sex, position with the company and qualification.

- Each route has a route identification number, origin, destination, classification (into domestic or international route), distance of the route and price charged per passenger.

- Each airline keeps information about their buy/sell transactions (for example, selling an airplane ticket is a sell transaction, paying for maintenance is a buy transaction). Each transaction has a transaction identification number, date, description and amount of money paid/received.

3. Suppose you are given the following requirements for a simple database for the National Hockey League (NHL):
- The NHL has many teams,
- Each team has a name, a city, a coach, a captain, and a set of players,
- Each player belongs to only one team,
- Each player has a name, a position (such as left wing or goalie), a skill level, and a set of injury records,
- A team captain is also a player,
- A game is played between two teams (referred to as host team and guest team) and has a date (such as May 11th, 1999) and a score (such as 4 to 2).

   Construct a clean and concise ER diagram for the NHL database.

4. A Country bus Company owns a number of buses.
- Each bus is allocated to a particular route, although Some routes may have Several buses.
- Each route passes through a number of towns.
- One or more drivers are allocated to each stage of a route, which corresponds to a journey through some or all of the towns on a route.
- Some of the towns have a garage where buses are kept and each of the buses are identified by the registration number and can carry different numbers of passengers, since the vehicles vary in size and can be single or double-decked.
- Each route is identified by a route number and information is available on the average number of passengers carried per day for each route.
- Drivers have an employee number, name, address, and sometimes a telephone number.

   Construct an ER diagram for the Bus Company.