1.- We want to design a database that gives us information about the Autonomous Communities and provinces of Spain.

For each Autonomous Community we can obtain the provinces that is composed of , the capital, the number of inhabitants and the presidents it has had.

From each province we can obtain its inhabitants.

In an E/R diagram, what would be the entities that should be used?

What attributes and what types would each entity have?

What relationships would we have?

Represents the entity relationship diagram.

2.- We want to design a database that gives us information about soccer teams that participate in a competition.

Football teams have a full name, an abbreviated name, contact telephone numbers and a Web address.

You must be able to know the stadium of each team, its name, address and capacity.

You must be able to know the players that each team has or has had, name, surname, aliases, positions.

In an E/R diagram, what would be the entities that should be used?

What attributes and what types would each entity have?

What relationships would we have?

Represents the entity relationship diagram.

3.- We want to have a database to manage the results and classification of a basketball league.

For each team, you have its name, code, pavilion in which it plays, and president.

You must be able to obtain the result of any match.

It must be possible to obtain the points that each team has and therefore have a classification.

In an E/R diagram, what would be the entities that should be used?

What attributes and what types would each entity have? What relationships would we have?

Represents the entity relationship diagram.

4.- Represent an E/R diagram for the following information system. It represents the cardinalities and types of correspondence.

Car repairs (registration, make, model, kilometers) are broken down into a set of tasks characterized by type, description and duration. The tasks are carried out in different repair areas (name, zone, number). The same task can be developed in several areas.

5.-In the previous E/R diagram add what is necessary so that this information can be managed. It represents the cardinalities and types of correspondence.

Repair tasks are carried out by several workers. We want to know the operators assigned to a specific repair task as well as the repair area in which they work.

6.- Represent an E/R diagram for the following information system. It represents the cardinalities and types of correspondence.

In a company there are specialized workers and apprentices. Of the specialized ones, we want to know their ID, name, address, NSS, years of experience and specialty. For apprentices, we want to know their ID, name, address, SSN, start date of the learning period and operator responsible for their learning period.

7.-In the previous E/R diagram add what is necessary so that this information can be managed. It represents the cardinalities and types of correspondence.

Trainees attend a training course (code, name, duration) and in each course they are evaluated with various scores.

8.- Represent an E/R diagram for the following information system. It represents the cardinalities and types of correspondence.

a) There are several home sales areas for a sales company. Each salesperson is assigned to a single zone (number, name, location). Different sellers can operate in the same area, each selling a certain group of products exclusively.

b) There are several groups of products (code, type). Sellers can sell more than one group of products. Products are characterized by a code, a name and a price. Each product belongs to a single product group.

c) Information is saved on the date on which a seller makes the sale of a product by recording buyer data, date of sale, units sold.