Q.1 [70 pts]
Design a database through an E/R diagram to store information about sports centers. Each sports center in this database is uniquely identified by its name. Moreover, the web address, phone number, and city of each sports center are also stored.
For each customer who may be attending to more than one sports center, a unique id, name, birth date, phone number and a rating value are maintained in the database. Customers are allowed to have guests associated with them. The guests can use the facilities of the sports centers their host attend, but they are not considered as customers. The name of a host is assumed to be unique for his/her host customer.
A number of employees work in each sports center. Each employee has a unique id, name, and phone number. An employee may work in more than one center, and the starting date of the employee at each center is maintained. Employees may further specialize as managers and trainers. Each manager can manage one or more sports center, while each sport center has exactly one manager. Certification type of each trainer is also stored in the database.

Q.2 [30 pts]
Translate the E/R diagram of the previous question into the relational model (i.e., give the relation schemas for each case specifying the table names, together with the attributes, and key constraints).