**Develop the Information system of the following organization**

**Sporting Articles**

Sporting articles (SA) is an American company of wholesale which operates all over the world to answer the orders of retailed shops specialized in sporting articles. The customers of the company are spread all over the world

Every customer sees attributing a unique identification. The company archives the name of the store and the phone number of every customer. Among other information kept for every customer, we can also find its street, its city, its state, its country, its zip code, its solvency and general comments on its preferences.

Generally the customers place their orders by phone or by fax. For each of them, the company needs their identification number, the date of order and the method of payment. The delivery date to the customer is kept in the database. To accelerate the treatment of the entered orders, the customers are classified by regions. So the world was divided into 6 regions: Central America, North America, South America, Africa / Middle East, Asia and Europe. Every region contains a unique name and an identification number. Every region has a warehouse from where leave the deliveries to the customers.

For each of the warehouses, Sporting articles (SA) possess its identification number and the other information such as the street, the city, the state, the country, the zip code, ID of the manager and the phone number. For each of articles in stock, it is necessary to have a unique identification. Besides this information, Sporting articles can also keep the price of the article, the ordered quantity and the sent quantity.

To increase the satisfaction of the customer, SA has a line of products exclusively. For each of them, SA has to know its unique identification of product and its name. For some, it is necessary to have a short description of the product and its price

The company has several employees and representatives to answer the demands of the customers. The employees affected to the departments in different regions. For each of them, the company has information: first name, last name, and a unique identification. Among other information relative to the employees we find the dates of hiring, comments, their titles, their salaries and their commissions expressed in percentage. For every warehouse and the products which are in stock there, SA has an inventory which contains the quantity in stock of each of the products, the stock of alert, the maximum stock has at a given moment, The date of re supplying and an explanation on products missing in stock when it is necessary.

Develop an E-R diagram for Sporting Article (SA). State any assumptions you had to make in developing the diagram.

Create in SQL the Sporting Article database for the conceptual and relational data models you have constructed. Populate it with sample data.

Write and test some queries that will work using your sample data.