# C2- S7 - PRACTICE

*NOTE: check your* ***THEORY slides*** *to answer those questions!*

# EXERCISE 1 – THE COMPANY DATABASE

# A company database needs to store information about:

* **Employees** that are described by their **salary** and **phone** and **email address** and **sex** and **job**
* **Departments** that are described by their **name** and their **budget**
* **Children** of employees that are described by their **name** and **age**
* **Project** of each department that are described by their **name**, **budget** and **deadline**

Here is some more information on how works the company:

* Employees work in departments. One employee can work for different departments.
* One department can have many employees working in it.
* Each child has only one parent that works in the company.
  + We are not interested in information about a child once the parent leaves the company.
* One employee can work on many project
* Many employees can work on one project
* A project is assigned to one department
* One department can have assigned many different projects

**Q1 –** Design the ERD Physical Model of the company database

**Q2 –** Implement this database in MySQL

# EXERCISE 2 – THE ARTBASE DATABASE

An application named ARTBASE want to sell a product for art galleries. It is an application that stores in a database all the information that an art gallery needs to keep, to work effectively.

* Galleries keep information about artists, their names (which are unique), birthplaces, age, and style of art.
* For each piece of artwork, the artist, the year it was made, its unique title, its type of art (e.g., painting, lithograph, sculpture, photograph), and its price must be stored. Pieces of artwork are also classified into groups of various kinds, for example, portraits, works by Picasso, or works of the 19th century.
* a given piece may belong to more than one group.
* Each group is identified by a name (like those just given) that describes the group.
* Finally, galleries keep information about customers. For each customer, galleries keep that person’s unique name, address, total amount of dollars spent in the gallery (very important!), and the artists and groups of art that the customer tends to like.

**Q1 –** Design the ERD Physical Model of the company database

**Q2 –** Implement this database in MySQL