

## EXAM – Business Intelligence

The project work can be done **by groups of 3 people**.

Exercise 1 & 2 must be delivered **within 16 March**. Since the second part is based on the result of Exercise 2, when every group will deliver the two exercises I will publish the correct operational schema so that you can design the DW.

### PART I

#### Exercise 1

Design the **conceptual model of a database** respecting the following requirements:

The database will register information about the orders of wines regarding an Italian mail order company sells bottle of wines labelled as DOCG – Denominazione di Origine Controllata e Garantita (Controlled Designation of Origin Guaranteed). A DOCG is also called a wine class.

The order processing system is based on the operational database with the following characteristics:

- The database must contain information about customers identified by a code. For each customer we have the last name e first name, the customer address, his/her phone and his/her orders.
- Each order is characterized by a customer, the delivery date, the order date, the total price spent by the customer for that order and the list of wines ordered specifying for each wine the number of bottle ordered and the revenue.
- Each wine is characterized by the wine class, the name, the bottle volume, the price per bottle and the price per case. Some wines are vintage.
- For each wine class we want to store the name, the alcohol content, the color and the region of origin

#### Exercise 2

Design the **logical model of the database** in Exercise 1.

#### Exercise 3

Create in My SQL the above database without instances.

#### Exercise 4

Solve the following three **queries** on the database Sakila.

1. List of actors of English films
2. List of films with the title containing the letter “f” and released after 1950 or after 1980.
3. List of actors worked only in English film