

Tutorial work N°02

Exercise 1 :

Criticize using technical terms, the codifications presented below, and then propose solutions.

- 1- M/9999 (Sex (M/F) / Séquentiel_nombre)
- 2- 99/A (Year of recruitment / Catégorie (P/V))
- 3- 99/9/9999 (Year of registration / Year of study / Séquentiel_nombre)
- 4- 9/99/99999 (Province / District / Séquentiel_nombre)
- 5- A/9999/999 (1st lettre of the name / Year of tenure / Séquentiel_nombre)

Exercise 2 :

At a company level , customers are identified by codes defined by the next representation:

- 9/99/99/999 1 : the economic category of customers(1 : retailer, 2 : Wholesaler 3 : Cooperative)
 ↓ ↓ ↓ ↓ 2 : represents the province.
 1 2 3 4 3 : The year in which a customer made their first purchase from the company.
 4 : Sequential _nombre.

Questions.

1°/ What is the type of coding?

2°/ You are asked to attribute the codes to the customers shown in the following table:

Name / corporate name	Category	province	Day of the 1 st order
MEGUELLATI	Retailer	Batna	01/01/18
CHAABANI	Retailer	Batna	01/12/17
company El HANA	Retailer	Batna	10/02/18
society EL Wafa	Wholesaler	Algiers	10/12/17
company SAAD et Frères	Coopérative	Batna	04/04/18
company Cola	Coopérative	Batna	01/04/18
shop El NOUR	wholesaler	Batna	10/12/17
GUERFI	Retailer	Batna	31/12/17
EL AMEL	Wholesaler	Algiers	01/10/17

Exercise 3 : A national company is made up of several units distributed across all the provinces of the country. Noting that the predictable maximum that each province can contain is 100 units.

Question : 1°/ Propose a sequential coding for these units.

2°/ Propose a juxtaposed coding for these units.

3°/ Knowing that the number of units that a province can create in a year is ten.

a°/ Propose a coding for these units for which we must know, in addition to the province, the year the unit was created.

b°/ Give examples of codes showing that the wilaya of Batna is made up of five units created in three years.

Exercise 4 :

Either a set of index cards containing information relating to the officials of a national company. Each index card includes the following data: registration, surname, first name, address, department to which it is attached as well as family situation. Noting that the number of departments does not exceed 10 and the current number of employees is 800 and it is expected to increase by approximately 50% in the foreseeable future.

1° / Propose a sequential coding for the registration data.

2° / propose a code for the registration of the official from which we can know the year of entry into the company as well as their gender, male or female.

3° / Propose a coding for the departments.

*4° / Propose a mnemonic coding for the values that the family situation data can take.

Exercise N°5 : A private university offers training at three levels, namely technician, license and master. Each level is organized into three specialties (computer science, mechanical engineering and electronics).

In each specialty we can have two sections with a maximum 500 students, for each

Knowing the coding can be maintained over a period of 15 years

Questions :

1° / Propose a sequential coding for these students.

2° / Propose a coding by band for these students (propose 2 solutions by specialty and by level).

3° / Knowing that the section to which the student is assigned is kept throughout the training. Propose an articulated coding for these students.

4° / Admitting this time that at the start of each year by permutation, students can make section changes. Propose a juxtaposed coding for these students.

5° / Propose a coding allowing, based only on the student code, to sort the student file by Level and in alphabetical order (only the 1st letter of the student's name). Give an example of sorting.