Directed Work N° 03

Duration of the series: two sessions

Course Questions

- What is a codification?

- What are the objectives of codification?

- What are the different types of a codification?

- What is the difference between an articulated coding and a coding by slices(tranches)?

- Cite and explain the advantages and disadvantages of sequential coding.

- Can we propose a mnemonic coding for the staff of a company.

Exercise 01

We consider the Teacher file of a training institution represented by the following information: Number, Last Name, First Name, Date of birth, Street Number, Street Name, Postal code, City, Phone, Year of recruitment, Grade and Category (vacancy / permanent).

Propose a coding for the teacher number. The proposed code must take into account the year of recruitment of the teacher and allow the distribution of teachers according to whether they are vacant or permanent.

- **What is this type of codification called**
- **Give an example**
- **Give the advantages and disadvantages of this type of codification**

Exercise 02

A professional training center provides five training courses "maintenance, electricity, model maker, hairdressing and sewing". The training courses are provided by permanent or temporary teachers.

1. We want to codify the teachers to facilitate their identification. The number of teachers is currently 25. We want to know the type of the teacher (vacant or permanent) from the code.

   Propose an articulated codification for teachers.

2. We now want to codify the training provided, by a mnemonic code which represents the first letter of the training (example: maintenance m, etc.).

   - What is the disadvantage of this codification.
   - Propose a better mnemonic codification.

3. Finally, we want to codify the trainees. The number of the latter is 1200, but every year we receive 200 new trainees. The code is articulated, and contains two parts: an alphabetical letter to designate the training followed and a sequential number.

- What is the length of the sequential number if the trainees:

  a. are the training courses distributed fairly?

  b. are not distributed in a fair way

Exercise 03

A national company composed of several units distributed, in an unequal way, over all the wilayas of the country. Noting that the total number of units is 1200 units and that the maximum expected that can comprise a wilaya is 200 units.

1) Propose a sequential coding for these units.

2) Propose an articulated codification for these units.

3) What is the advantage of articulated coding over sequential coding (in this case).

4) If we opt for a coding by slice, what is the number of slice and the size of the slice?

Exercise 04

The construction of a city of 4 sectors, comprising 30,000 housing units, required some time. Each sector represents a slice in the construction process. The ith slice contains the half in housing of the slice that follows it.

a) Knowing that each building contains 40 apartments, find the number of buildings by sector.

b) Each building consists of two blocks, each block contains 5 floors. Propose a coding that allows you to know for each sector, the building, the block, the floor and the apartment number.

Addditional exercise

The management of hospital admissions is based on the following files:

- Patient (code, last name, first name, date of birth),
- department (code, last name)
- Hospitalization (hospitalization code, patient code, date entered, reason entered, date discharged, reason discharged)

1. Could the NSS be used to codify all patients?

The patient code must be able to tell us if the patient is a man or a woman and his year of birth.

1. Propose a code for the patient?

2. Control the addition of a patient?

Exercise 05

We consider the teacher file of a training institution, represented by the following information: number, last name, first name, date of birth, street, postal code, phone, year of recruitment, grade and category (vacancy or permanent)

We assume an articulated coding for the number attribute, it contains three descriptors: 2 numerical positions for the year of recruitment, an alphabetical position for the V / P category and two numerical positions for a sequential number for example: 15V12; 23P02

Use a table to list all the controls that the sections of the teacher file can undergo when registering a new teacher?

Good luck

Module team: H.Belouaar, A.Hamida, O.Houhou