



Tutorial N°2: Coding and controlling of information

Exercise 1:

I. Given the following document:

ORDER FORM		
Order Number:		
Order Date:		
Customer Number:		
Customer Name:		
Customer Address:		
Product Reference	Product Description	Quantity Ordered
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- What data can be extracted from this document?
- What *type of coding* is appropriate for this document?
- Propose a coding for its data.

II. Consider the data element **Customer Number**, designated as **Num-Cu**.

This data, depending on the **order number**, can take different values. For example:

- The **1st** order is placed by the **3rd** customer located in the **Central region**.
- The **2nd** order is placed by the **15th** customer located in the **East of region**.

To distinguish between these two (02) customers, we must assign different values to their Num_Cu codes:

- Value 1: 3rd customer t in the Central region
- Value 2: 15th customer in the East of region

Question: Propose a coding for this data. What type is it?

III. You will notice again that the data are long and cumbersome to handle, and once more, we should aim to shorten them.

To do this, we will represent the data as follows: by range (or category).

IV. Encode the **student numbers** of a school where the following specialties are taught:

- Computer Science (I)
- Accounting (C)
- Marketing (M)
- Economy (E)

In each specialty, there can be several sections (< 5).

Each section contains fewer than **100** students.

→ Encode accordingly.

V. Encode (and indicate the type of code) for the following data:

- A paragraph in a book.

- A postal code.

Exercise 2

A document designed to store employee information within the company, where each entry includes the following fields:

- Employee ID.
- Service number.
- Last name.
- First name.
- Address.
- Marital status. Single, Married, Divorced, Widowed

Considering that the number of employees does not exceed **1700** and the number of services is **20**, **propose a coding:**

1. For the "Employee ID" data, in which the year of entry into the company and the employee's gender can be known.
2. For the service.
3. For the marital status.

Controlling of information

Exercise 1: Indicate the **type of control** in the following statements:

- Postal code = 44F15.

-- Incorrect date of birth, e.g.: 32/05/2000.

- product information: date of manufacture: 01/10/2025, expiration date: 31/12/2023

- Registration of a new library subscriber.

- When lending a book, the subscriber's membership must be verified (the subscriber must exist in the subscribers file).

Exercise 2: In a student file represented by:

Student number, Name, Date of birth, Place of birth, Street number, Street name, Postal code, City, Phone number, Year of enrollment, Study cycle, Degree pursued, Year of study.

Q1: Propose a coding system for the student number that takes into account the year of enrollment and allows for easy classification of students into short and long cycles.

Q2: Represent in a table all the possible controls that each field in this file could undergo.

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