# SESSION 2: CONTROL STRUCTURES. SELECTION

**GOAL:**

Practice with the selection control structure ***if-else***.

**EXERCISE:**

For a C Tangana concert, M tickets have been put on sale at 33 euros each. Write a program that calculates the purchase price of N tickets, taking into account that, if the number of tickets to be purchased is greater than a certain quantity K1, a discount of 5% is given; and, if it is greater than another quantity K2, with K2>K1, the discount is 15%.

For this, the following restrictions must be taken into account:

- The values corresponding to M, N, K1 and K2 will be read from the keyboard.
- If at any time that data must be read from the keyboard, the user enters an incorrect value, the program will display an error message and terminate its execution.

In addition, the program must be properly documented, including representative names for the defined variables, and the interaction with the user must be properly explained.

**EXAMPLES OF EXECUTION:**

- *In the case that for M, K1, K2 and N the user chooses the values 10, 5, 2 and 4 respectively, a possible execution of the program would be the following:*

```
Introduce the number of tickets you want to offer for sale... 10
Introduce the number of tickets required to get the maximum discount. It must
be a value smaller than 10...5
Introduce the number of tickets required to get the smaller discount. It must
be a value smaller than 5...2
The price for each ticket is 33.0€
How many tickets do you want to buy? It must be a value smaller than or
equals to 10 ... 4
Since the number of tickets is bigger than 2 but smaller than 5 a discount of
5.0% will be applied.

The total price for the 4 tickets is: 125.4 euros.

***** End of the program... *****
```

- *Assuming that, when asked for the value of M, the user enters the value 0, a possible execution of the program would be as follows:*

```
Introduce the number of tickets you want to offer for sale... 0
Error. Since it is not a positive number, the program will finish...

***** End of the program... *****
```

- *Assuming that, when asked for the values of M, K1 and K2, the user enters, respectively, the values 10, 5 and 8, a possible execution of the program would be as follows:*

```
Introduce the number of tickets you want to offer for sale... 10
Introduce the number of tickets required to get the maximum discount. It must
be a value smaller than 10...5
Introduce the number of tickets required to get the smaller discount. It must
be a value smaller than 5...8
Error. The value cannot be greater than or equals to 5. The program will
finish...

***** End of the program... *****
```