VBA for Excel

Exercises sheet N°2 – Conditional tests

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1. *(simple conditions)* Write a macro that asks the user to enter the amount of money in his bank account and then displays a message to notify him whether his balance is superior to zero (positive) or not (overdrawn).

2. Write a macro that requests the input of 2 integers and then displays the largest integer of the two.

3. Write a macro that assigns the date "05-10-2019" to a variable named "D1" of type DATE. The macro must then display "true" or "false" depending on whether the content of D1 is equal or no to today's date (Note: DATE a VBA function that returns the date of the day).

4. The annual salary of a trader is computed as follows:

- 70000€ of fixed salary

- A bonus of 5% on the generated profits

- A bonus of 30000€ if the number of profitable deals per year is superior than 20.

Write a VBA macro that allows the computation of the salary of a trader starting from an entry of the generated profits and the number of profitable deals.

5. *(multiple if conditions)* Write a macro that asks the user to enter a company's financial notation (four letters going from A to D) and then displays the following appreciations : "Premium Quality" for "A" notation, "medium quality" for "B" notation, "low quality" for "C" notation, "defaulted" for "D" notation, and "non available" for any other case.

6. Write a macro that asks the user to enter a company's financial notation and then displays appreciations according to the following grid: "Premium Quality" for "AAA" or "AA" or "A" notations, "medium quality" for "BBB", "BB", "B" notations, "low quality" for "CCC" or "CC" or "C" notations, "defaulted" for "D" notation, and "non available" for any other case (use *or* operator).

7. Write a macro that requests the user to enter three real numbers and then displays the largest number of the three (use *and* operator).

8. Create a macro that asks the user to enter a student's mark (numeric value from 0 to 20) and then displays the mention "Rattrapage" for marks going from 0 to 10, "Passable" for marks going from 10 to 12, "Assez-bien" for marks going from 12 to 14, "Bien" for marks going from 14 to 16, "Très-bien" for marks going from 16 to 18, and "Excellent" for marks going from 18 to 20.

9. Repeat the previous macro but now the mark of the student must be entered in range "A2" of the excel sheet and the result must appear in range "B2"
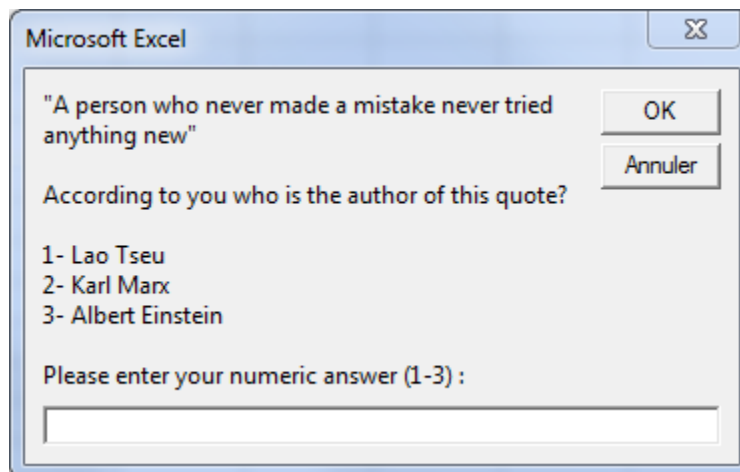
10. (*case test*) Repeat the previous macro using *select case* conditional test.

11. (*nested if*) write a macro that allows the user to analyze the financial situation of a company according to the following conditions: if the company's yearly cash flows are inferior to 100'000 euros than the company is "non-solvent business", if the company's yearly cash flows are superior to 100'000 euros and it's profit is superior to 50'000 than the firm is "solvent and profitable", otherwise the company is "solvent but not profitable"

12. write a macro that implements the following credit granting decision tree:

Extra exercice 1. Write a macro that displays what follows:

b. According to the numeric answer entered by the user, this macro must now allow the display of "Good job" or "Wrong answer" (note: the right answer is "Albert Einstein").

Extra exercise 2. Consider a European call option. Write a vba macro called "call_option" that allows the user to enter its strike price K, the underlying price to maturity S, and the option's purchase prime C. According to this information, the macro must inform the user if he must, or not, exercise the option, and display in the first case its Profit/Loss.

Extra exercise 3. Implement the following pet selection decision tree: