Exercises about variables

• Solve them in Visual Studio or use https://dotnetfiddle.net/.

Exercise 02.01

- There is a fixed percentage of reduction given to clients of 7%.
- There is also a fixed percentage of 21% taxes.
- Ask thru the console a name.
 - o E.g., Vincent
- Ask thru the console an amount (no decimals).
 - o E.g., 1000
- First, subtract the discount of it (7%) (decimals possible).
- Then, add the taxes to it (21%) (decimals possible).
- Show this message on the console.
 - o Hello Vincent, your amount was 1000.
- On the next line.
 - You need to pay xxx. (The result of your calculation)
- Show the result (no formatting at all).
- After you have a good result.
 - o Show the result rounded to 2 decimals.



Tip 1:

YourVariable.ToString("F2")

F2 means floating with 2 decimals.

Tip 2:

"You need to pay $\{0:F2\}$ ", yourResultOfTheCalculation

F2 means floating with 2 decimals.



Notes

Exercise 02.02

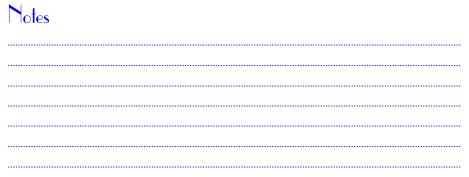
- Ask thru the console a number(no decimals).
 - o That number must be between 0 and 21 (borders not included).
 - o E.g., 11.
- As long as the number is not correct, ask it again.
 - When the number is lower than 1.
 - o When the number is higher than 20.
 - o When the number is not a number. E.g. "abc".
- Then you loop from 0 till the given number (A counter in a loop).
 - o Show on the console this:
 - A "*" A number of spaces A "*".
 - The number of spaces is the value of the counter in the loop.
- At the end, when another key is entered on the keyboard, the application stops.

An example

Given number

• $10 \rightarrow \text{Loop from } 0 \text{ till } 10.$

Result





Exercise 02.03

- The same exercise as 02.02.
- You also ask for 2 characters:
 - o First character to start and stop with.
 - o Second character to put in between.
- The first character cannot be a space.
 - o If it is, it must be re-asked after showing a nice error message.
- The second character cannot be a space.
 - o If it is, it must be re-asked after showing a nice error message.
- The second character must be different than the first character.
 - If it is the same, it must be re-asked after showing a nice error message.

Given number

• $10 \rightarrow \text{Loop from } 0 \text{ till } 10.$

Given first character

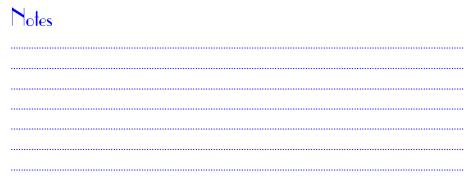
• +

Given second character

• O

Result

++
+0+
+00+
+000+
+0000+
+00000+
+000000+
+0000000+
+00000000+
+000000000+
+0000000000





Exercise 02.04

- Ask thru the console a number (no decimals).
 - o That number can be very big.
- As long as the number is not correct, ask it again.
 - o When the number is not a number.
 - o Show a nice error message.
- We show numbers on the console (Fibonacci Sequence).
 - We start with 0.
 - We continue with 1.
 - All the next numbers are the sum of the last 2 put on the screen.
 - $\bullet \quad 1 \rightarrow 2 \rightarrow 3 \rightarrow 5 \rightarrow 8 \rightarrow 13 \rightarrow \dots \rightarrow 196418 \rightarrow \dots$
- You stop the loop, when the last shown number in the Fibonacci Sequence is larger than the asked number.

Given number

• 250.

Result

Notes	

