LACK OF QUALITY MEANS A LOWER GRADE
The code should be easy-to-read and easy-to-maintain.
It should build without errors and without warnings.
Use functions where appropriate. *If you make these exercises without the described functions, you get a lower grade.*
There should be no code that doesn't correspond with this assignment (no copy / paste from other exercises).
Variable and function names should be meaningful and should follow the agreed naming conventions.
Variables should be const when needed.

Create a **framework application** with name **Prog1DAE<u>xx</u>NameFirstnameQExample,** replacing **<u>xx</u>** by your group number.
Aadapt the window title and make all of the following exercises in this same project.

1. <u>Generate 3 integer values</u>

- Define and default initialize 3 integer global variables: g_Even, g_Odd and g_Any.
- Add a function with name *Generate*. In that function, the three variables get new values, **always in the range [0,9]** (so the values have only 1 digit), and always different from the value they had:
    - a random **even** value to the **first** integer
    - a random **odd** value to the **second** one
    - a random **even or odd** value to the **third** one

- Create a function with name *PrintRandomNumbers* that prints them on the console, like this: `Even: 6, odd: 3, any: 5`
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- This functions Generate and PrintRandomValues are called at these moments:
    - At the start of the program, in the function Start
    - Each second
    - When the n-key goes up
- ```
  Even: 6, odd: 3, any: 5
  Even: 4, odd: 9, any: 8
  Even: 8, odd: 5, any: 5
  ```

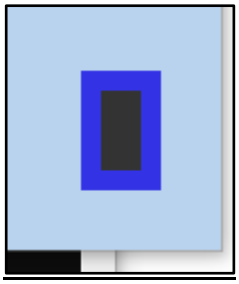
2. <u>Elevator</u>

In this exercise you draw an elevator, which is located 30 pixels from the bottom right corner when the program starts (border is 30 pixels).

The elevator doesn't move at the start.

The elevator has a wall and an interior space. The wall thickness is 10 pixels, the exterior width of the elevator is 40, and its height is 60 pixels.
When clicking with the left mouse button on the elevator **wall** (so not in the inner part of the elevator), it starts/stops moving up and down. It moves at a speed of 100 pixels **per second**. A border of 30 pixels is respected below and above. It remembers the way it was going. E.g. if it was stopped while going up, it will resume its course when clicked again.

Whenever it goes outside the top/bottom limits, the direction of movement reverses.
When the elevator moves upwards, the inner space of the elevator turns red. If it moves downwards, it turns green. If the elevator is not moving, it's gray, like in this screenshot.
  ```



SUBMISSION (not for real in this example assignment).
Close Visual Studio, delete the **Debug, x64** and **.vs** folders.
Convert the project folder to a rar / zip file with the same name.
Submit this file to the assignment..
Check **yourself** whether this is done correctly. Wrongly submitted exams – e.g. another project, a project with missing code files - get a 0 score.

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