Setup STM environment

This document will contain the following points:

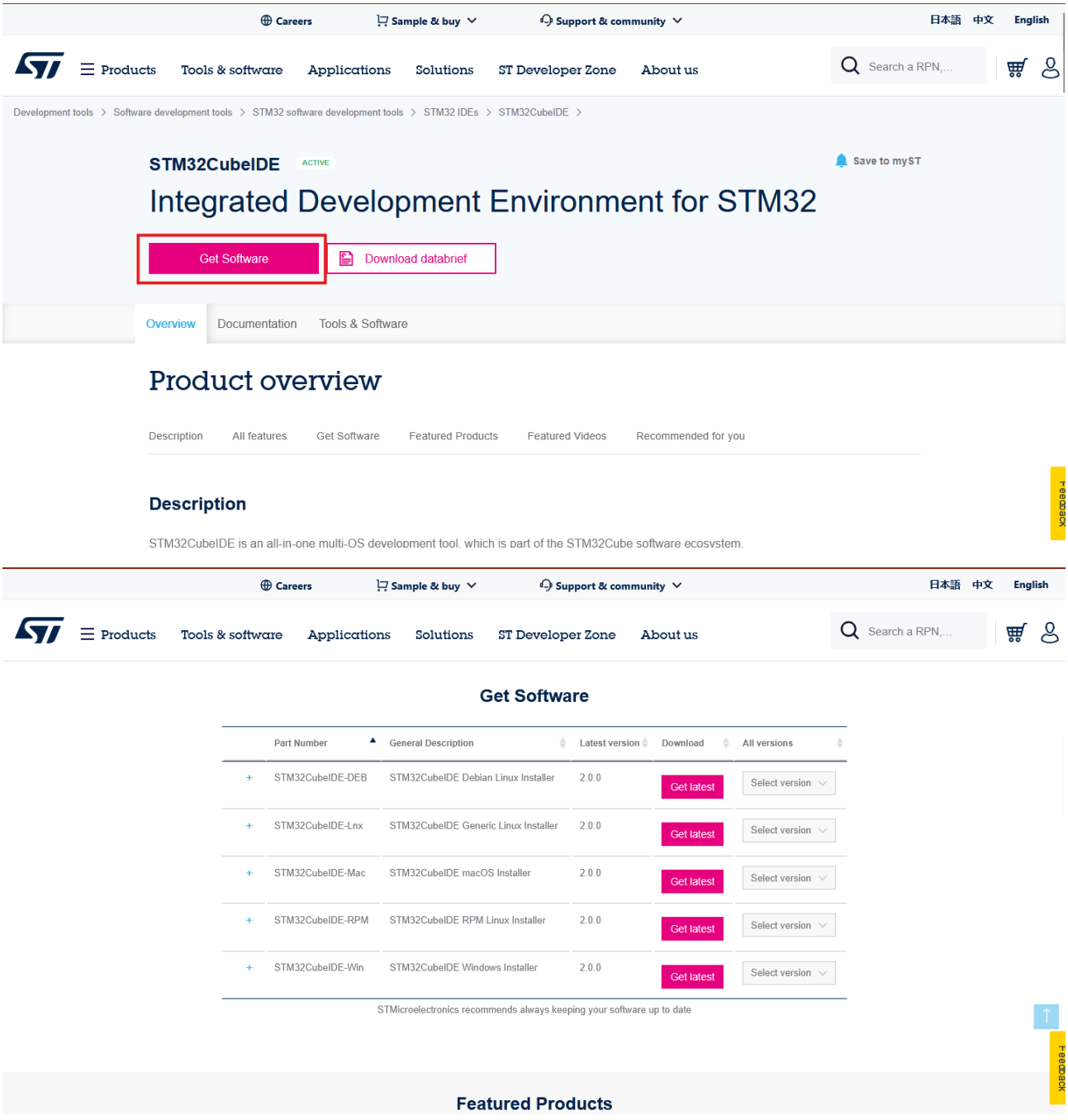
- Download software
- Create start project LED blink

1. Download software

At the beginning, we need to install and setup next software:

- STM32CubeIDE and STM32CubeMX(installation process is the same)

  First, follow the link to the software website (click on the name above):



After selecting of version, accept license agreement (after that ST will send a link to your e-mail. Installer will be downloaded via that link).

Run the downloaded installer and follow its instructions.

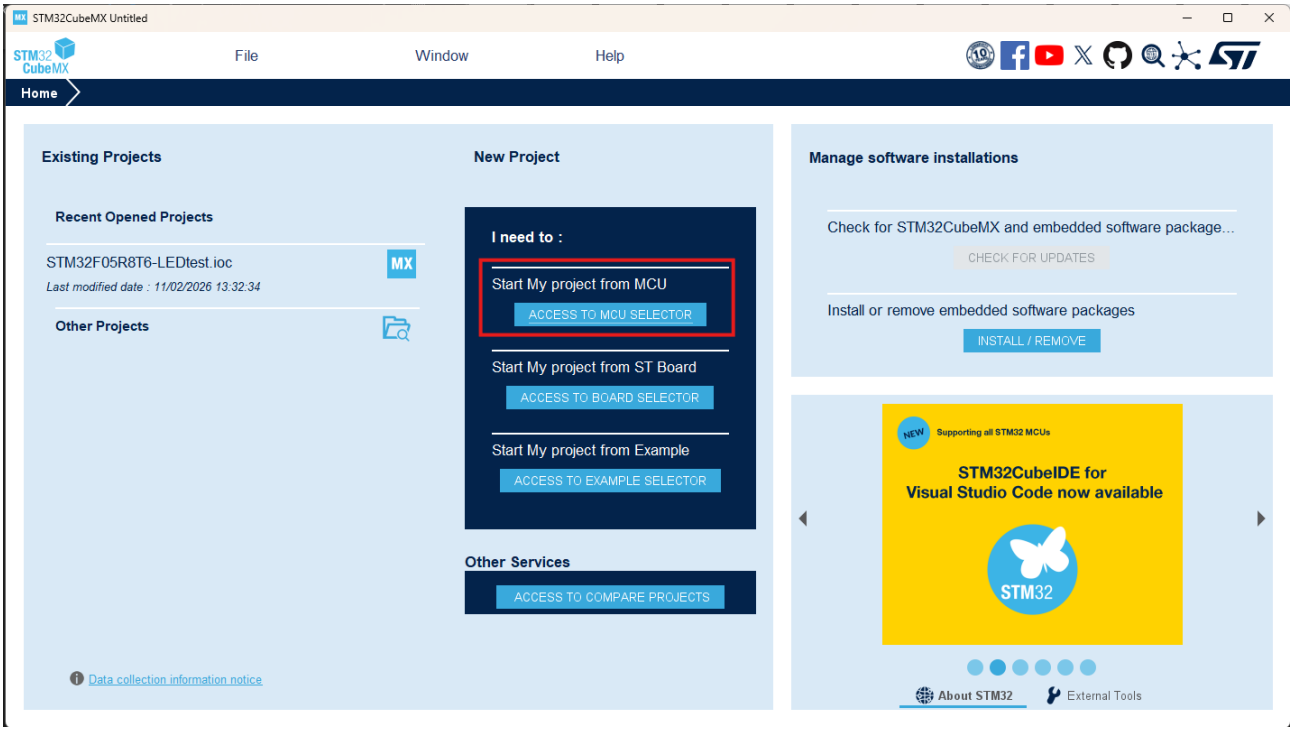
- Keil

1. Fill the required fields in form
2. If Ukraine is not available from the “Country/Region” selection,
3. select Poland.
4. Download MDK*.exe.
5. Run the downloaded installer and follow its instructions.

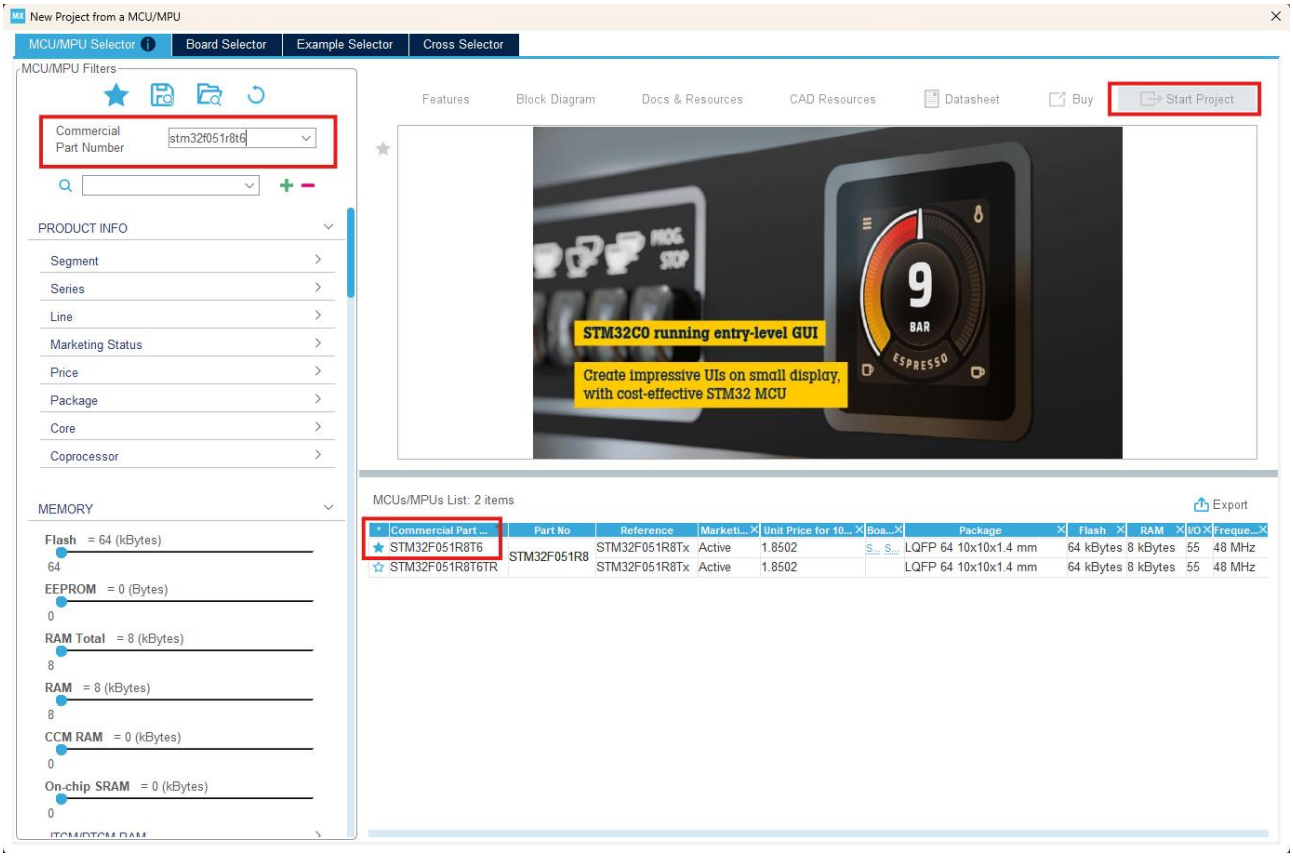
2. Start project (LED blink)

To do this, we need to open CubeMX and follow these steps:

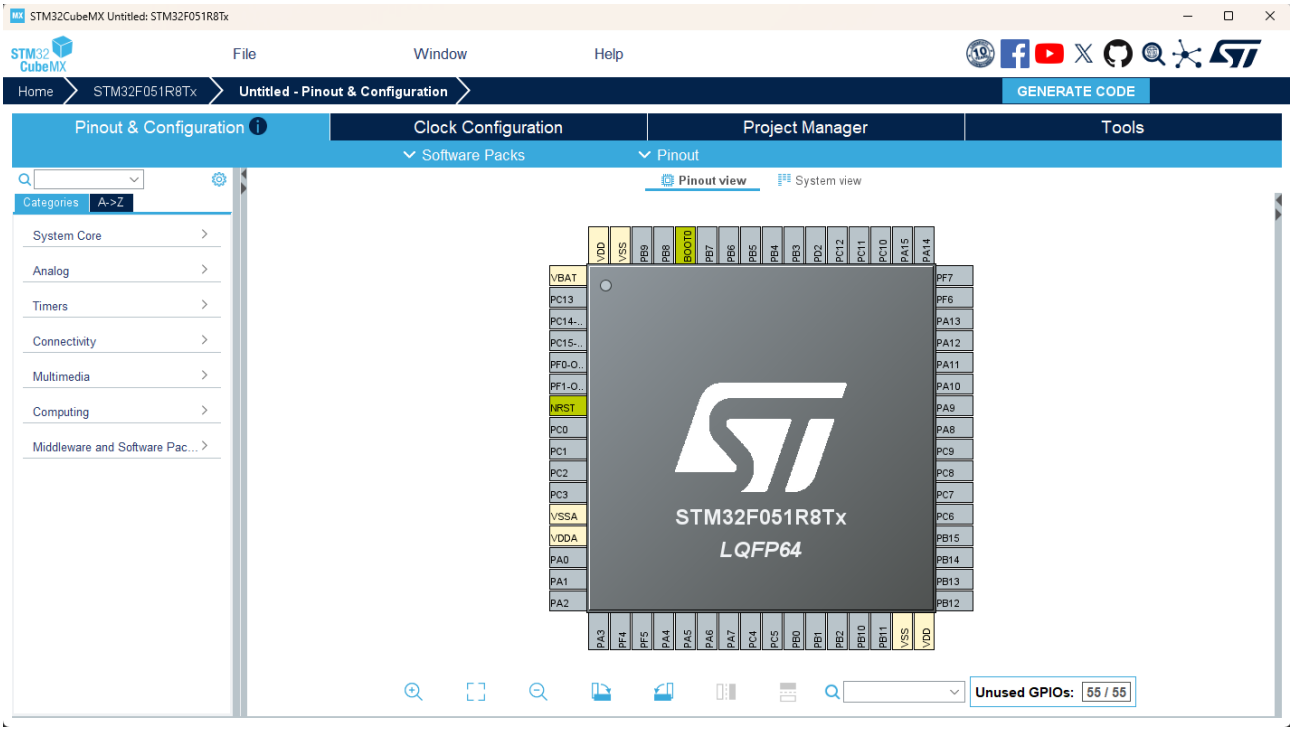
- Select “Start My project from MCU”



Next, we search for our microcontroller (in our case, it will be STM32F051R8T6), select it, and click "Start Project."

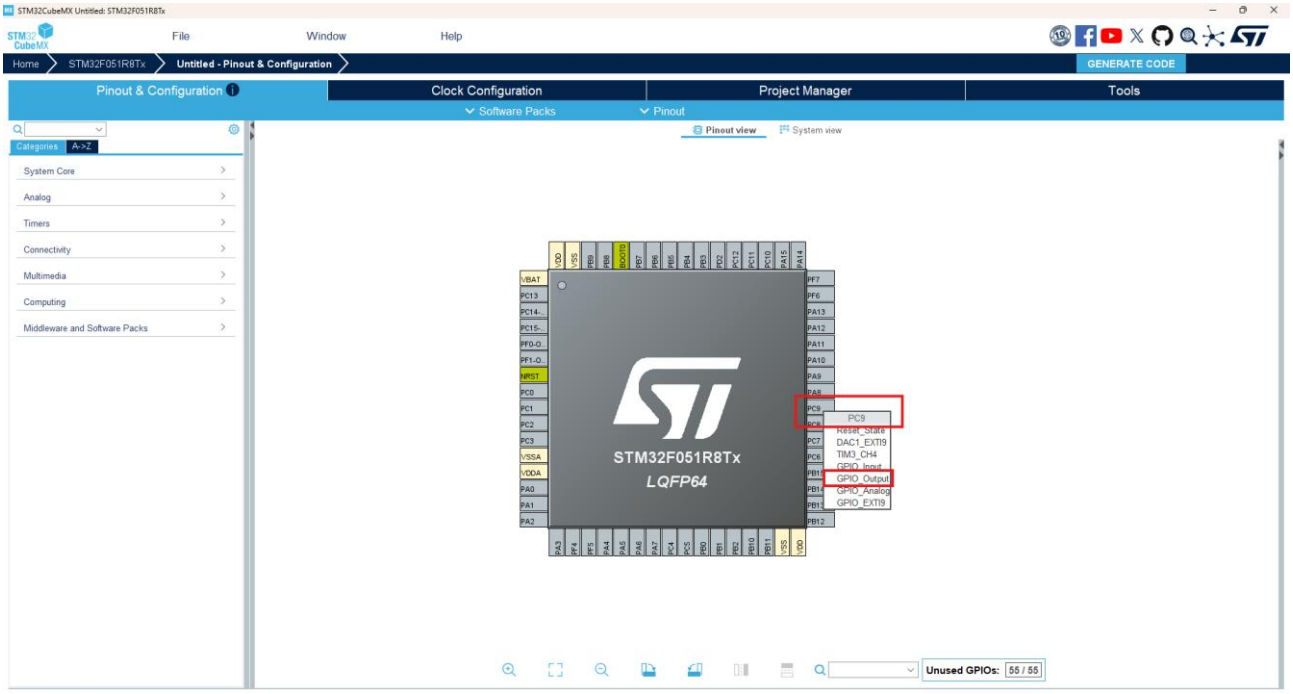


After loading, we will see the following:



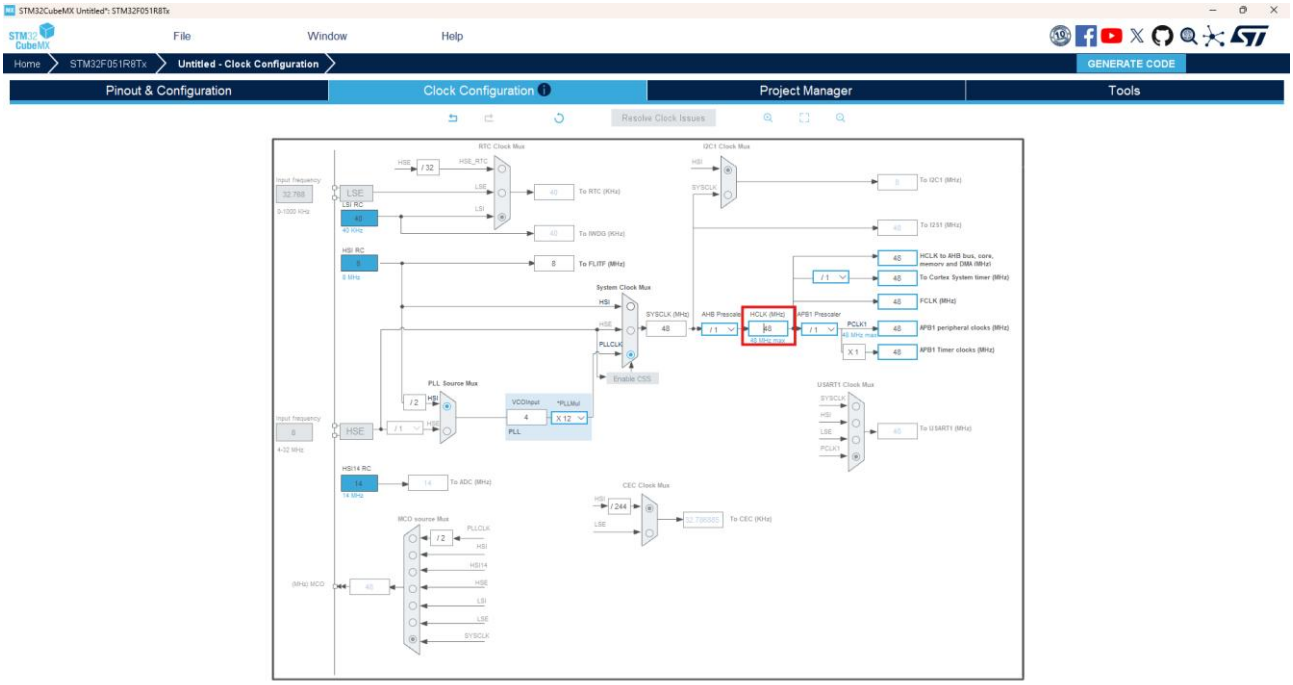
According to the datasheet, the pins for the LED are connected as follows:

- User LD3: Green user LED connected to the I/O PC9 of the STM32F051R8T6.
- User LD4: Blue user LED connected to the I/O PC8 of the STM32F051R8T6.

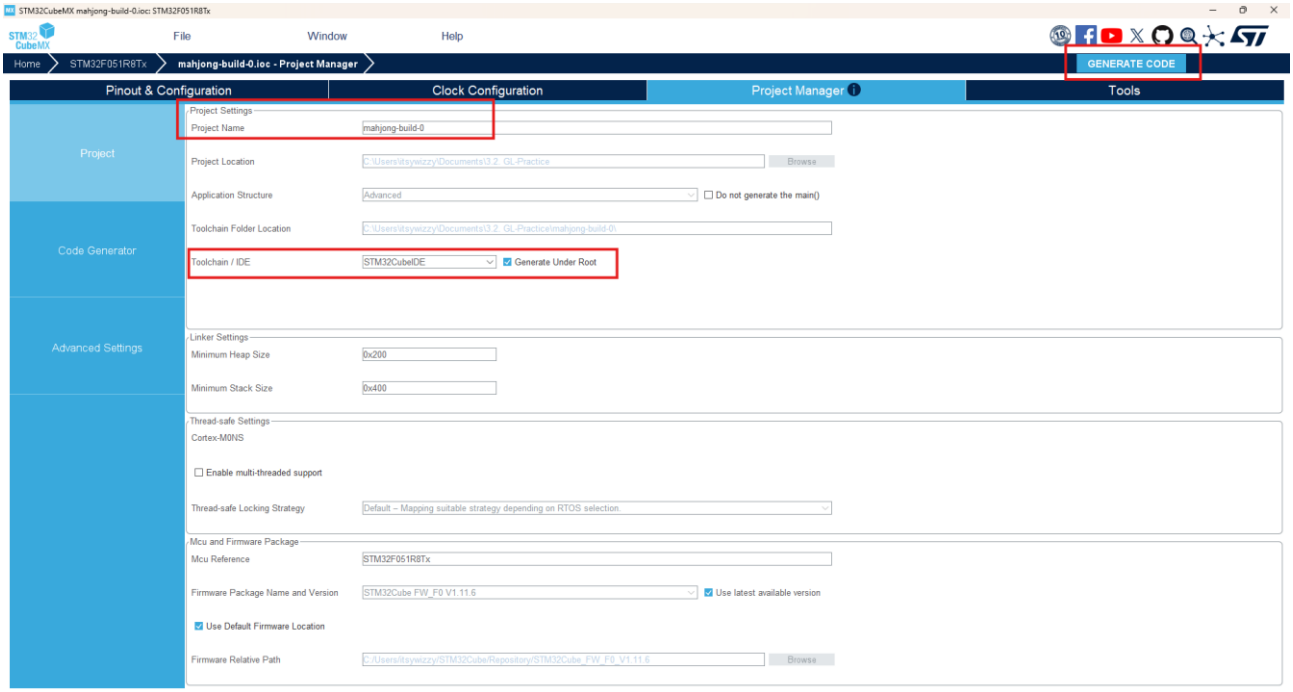


Other settings of project:

- Clock Configuration

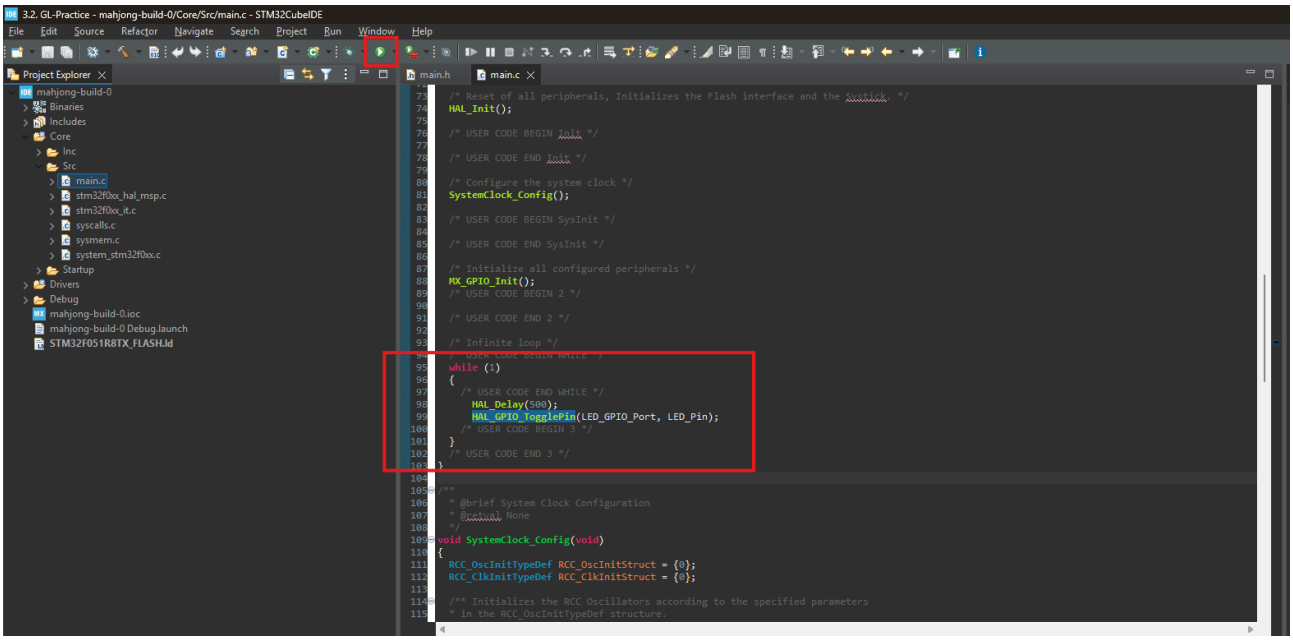


- Project Manager



After pressing “Generate code”, we can configure code in STM32CubeIDE.

- Adding code for blinking LED:



After all this, press “Run” and wait for the microcontroller to be flashed (and don't forget to connect the board before doing this).