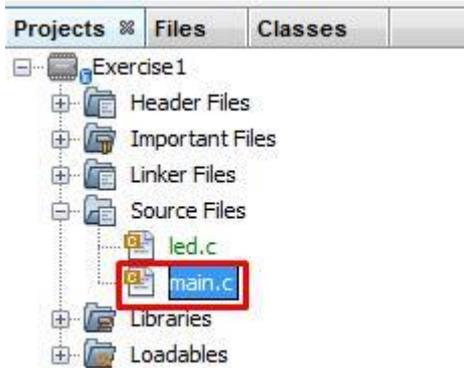


Introduction

You are given a project file for every exercise that includes libraries and a main file. To open the project file choose *Open Project* from toolbar.



First, you will have to open *main.c* file. To do this, choose *Source Files* and navigate to *main.c*.



Notice that you should only edit *main.c* file, otherwise you could corrupt your project. In *main.c* file edit only the designated rows or add new functions when necessary. Editing anything else could also corrupt your project.

To test your code, you must upload it to the training board. Click on the *Make and Program Device Main Project* button on the toolbar.



To upload your code, you must have the training board connected to your PC via USB cable and the device turned on. Make sure you plug the cable to *Debug* port.

Exercise 1

Program a simple logical gate (AND,OR,NAND,NOR,XOR,XNOR) given to you by your teacher. The states are given by 2 rightmost switches. LED indicators above the switches must light up while the switch is ON. The leftmost LED must light up, then the result of the logical operation is True.

First, you will need to make sure that every necessary library is included in your project.

To use the switches, you will need to include switches library – *swt.c*

It is the same for LED indicators, make sure you have *led.c* included.

To use functions from the libraries they must be initialized.

To initialize the switches, add `SWT_Init()` at the beginning of the main function, and to initialize the LED indicators, add `LED_Init()` to the main function.

Now, to know at which state a switch is currently, you will have to call a `SWT_GetValue(int x)` function. It will return an integer (1 if the switch is ON and 0 if the switch is off). It takes 1 parameter, an integer which points to the switch you want to read (for the rightmost switch the parameter equals 0, next switch equals 1 and so on).

Next you will have to turn on some LED indicators. The function to do that is `LED_SetValue(int x)`. It is a void type function, that takes 1 parameter, the number of the LED you desire to turn on. They follow the same principle as switches, the rightmost one equals 0.