Embedded System LAB⌾

Lab 1:

Introduction to Embedded System

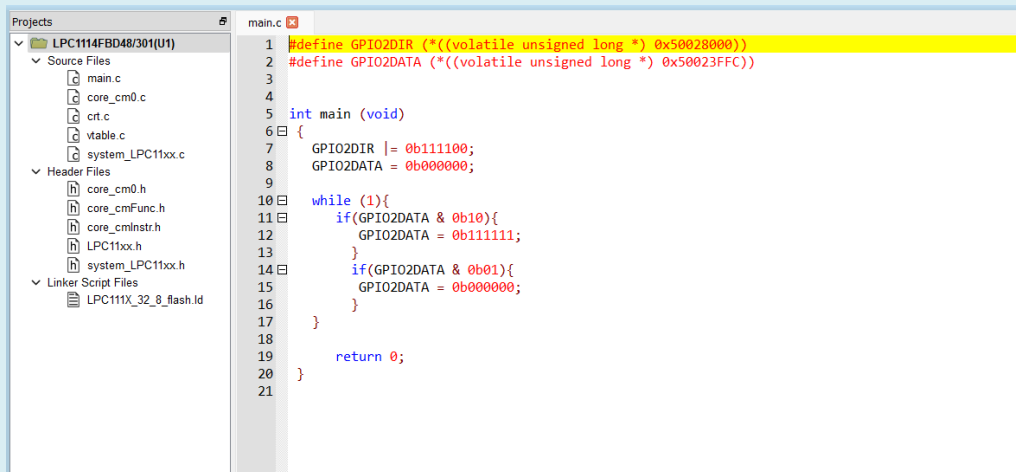**Name : Ahmed H Alkahlout**   **ID : 120200423**

HomeWork#1

TA :
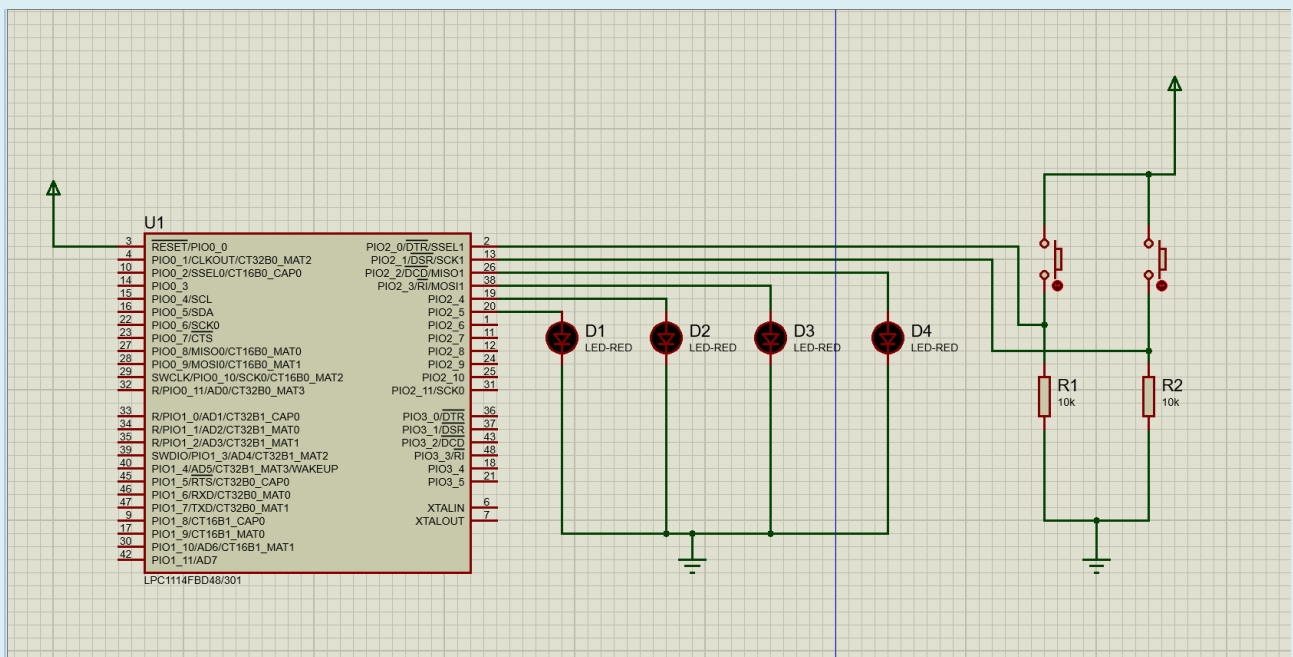**Eng . Amal Abu Jasser**

1- Implement a system that takes two buttons as input, if the first one is clicked you should shine 4 LEDs (the four LEDs should be connected to PORT2), then if you clicked the second one you should turn all the LEDs off.
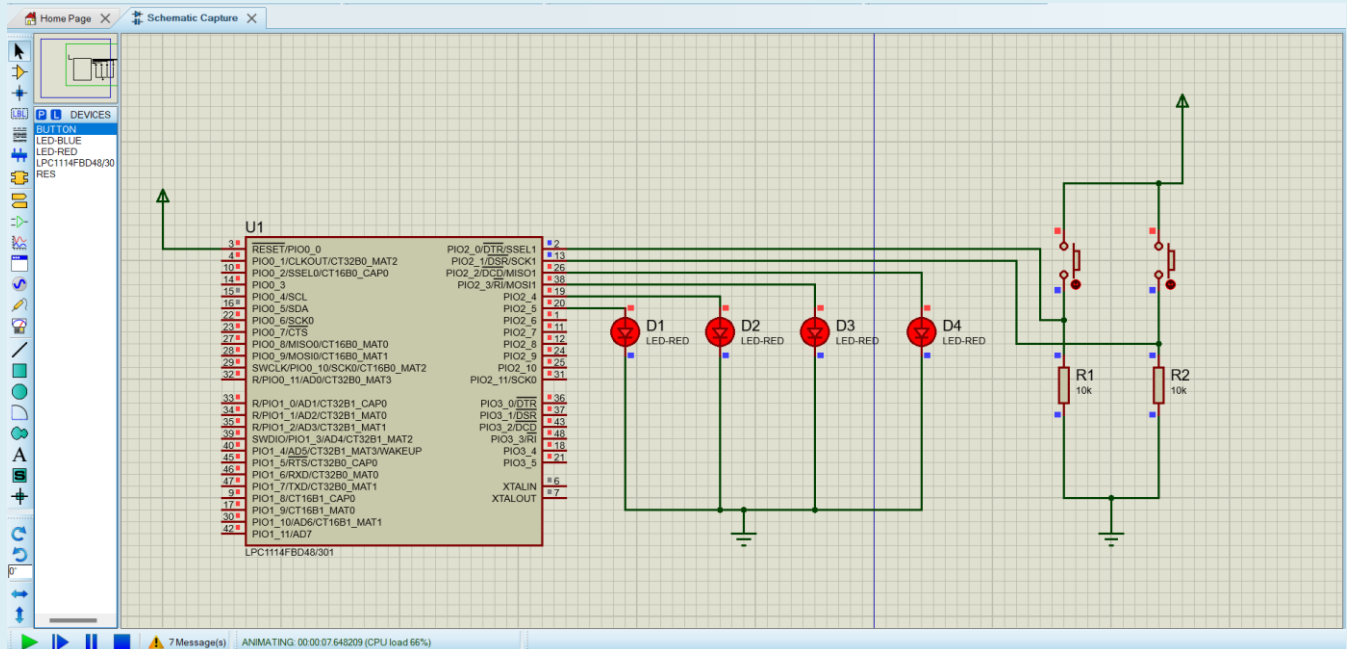
Code :

```c
#define GPIO2DIR (*((volatile unsigned long *) 0x50028000))
#define GPIO2DATA (*((volatile unsigned long *) 0x50023FFC))


int main (void)
{
    GPIO2DIR |= 0b111100;
    GPIO2DATA = 0b000000;

    while (1){
        if(GPIO2DATA & 0b10){
            GPIO2DATA = 0b111111;
        }
        if(GPIO2DATA & 0b01){
            GPIO2DATA = 0b000000;
        }
    }

    return 0;
}
```
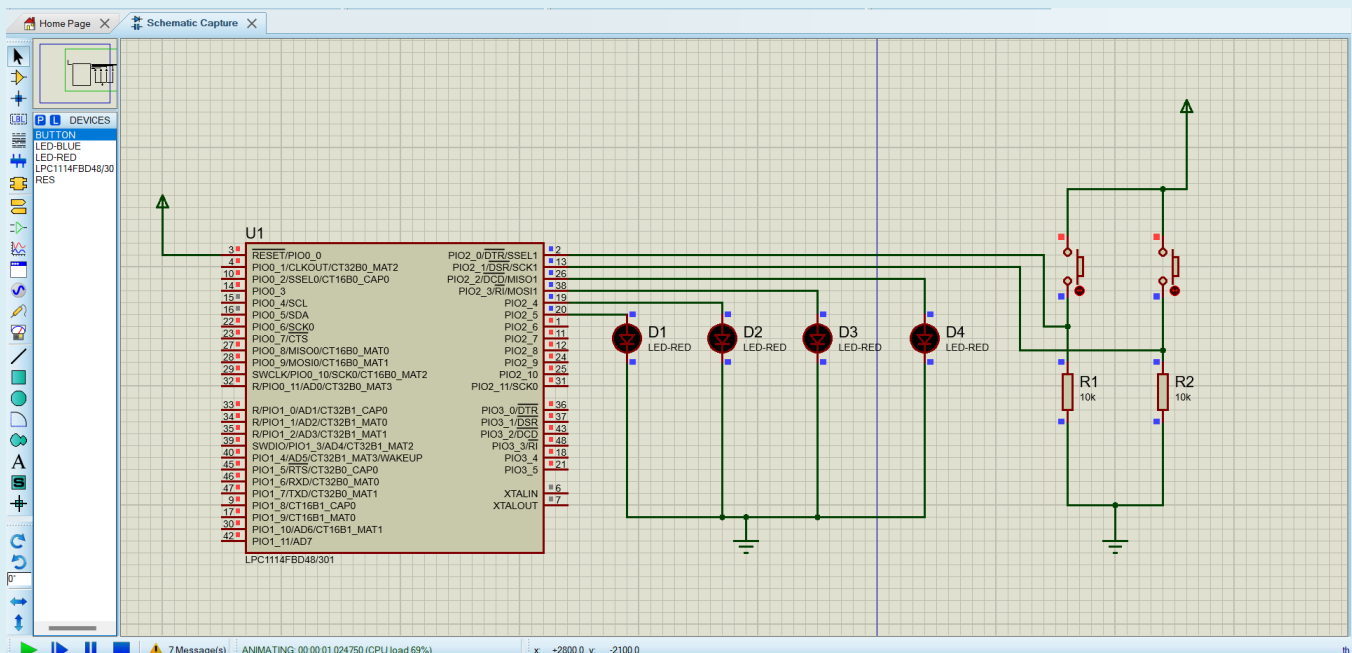
drawing :

Simulation :

♦ all LED's are on when click right button :

♦ all LED's are off when click left button :

Note : I sit the initial value of LED's to be off .