Mini Project 1

- Implement an application that counts from 1 to 9 and increments each second using SysTick Timer on common cathode 7 segments.
- Use 3 push buttons using polling technique to control the flow of the application which means:
    1- One Push button to resume/start.
    2- One Push button to pause.
    3- One Push button to reset.
- Implement this Application using Layered Architecture and Using implemented Drivers for SysTick and DIO and RCC and Button and 7 Segments.

Notes:

- This Project is going to be implemented on both Tiva C and STM32.
    Regarding Tiva C:
        1- System Clock is PIOSC (16MHZ)
        2- The Application is going to be tested together in the offline lab.
    Regarding STM32:
        1- System Clock is HSI (8MHZ)
        2- The Application is going to be tested and simulated on Proteus.

- **IMPORTANT NOTE:**

Finally, Write a report to summarize your work and tell me your SW architecture [Each peripheral in which layer and brief talk about this layer] and Each function's (description , Inputs, Output).

References:

1- https://developerhelp.microchip.com/xwiki/bin/view/software-tools/c-programming/include-directive/

The above link helps you to include files available in the project's subdirectories.

2- https://www.mediafire.com/file/rit4yzvanip11ok/Assignment.zip/file

The above link is the Proteus File of STM32

Deadline:

Wednesday 14/8/2024