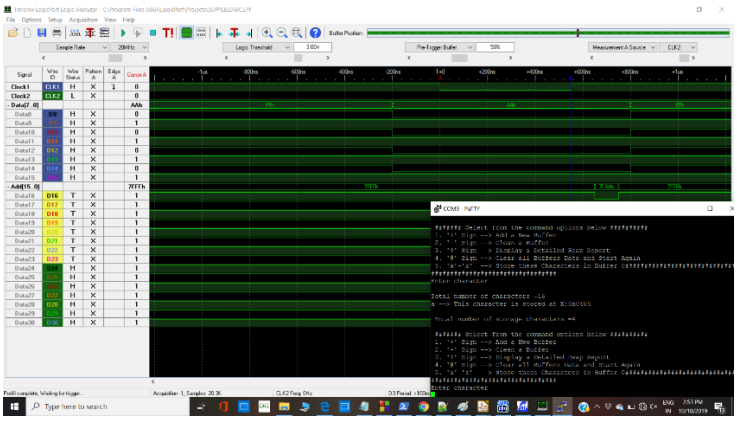
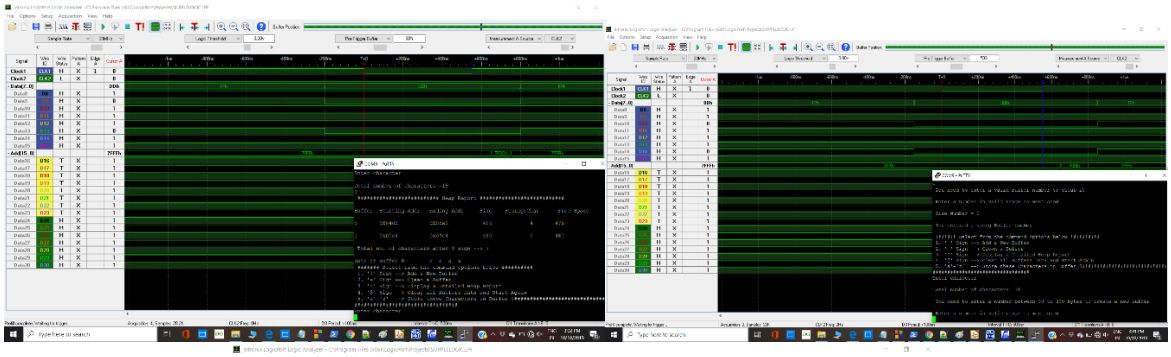
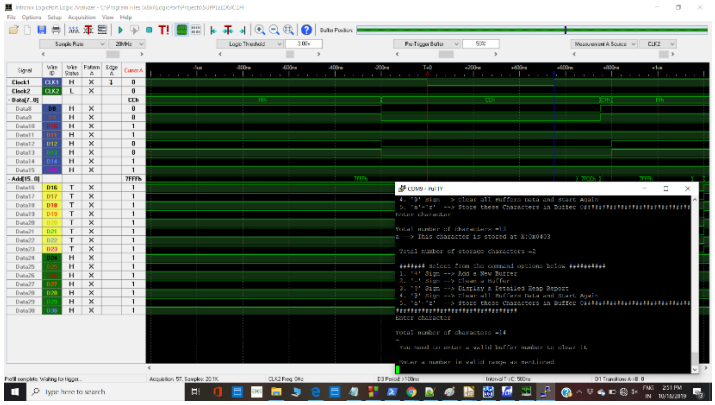
LAB 3 Writeup

1) Screenshots:

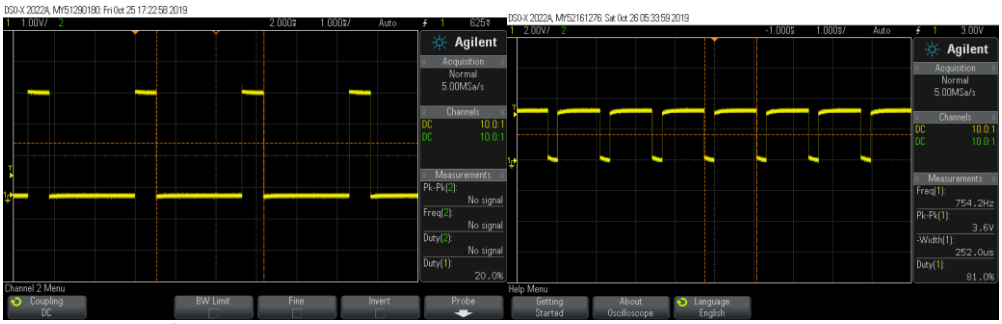
1) Debug port analyser screenshots: For different functions like +,- etc ,I have added the signals in main code.

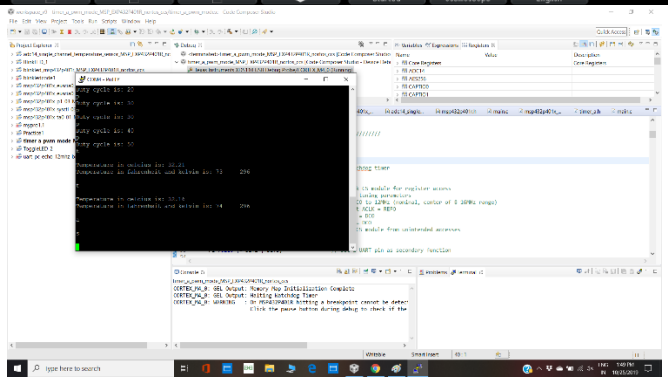






2) Included the duty cycles screenshots for pressing different buttons. Also attached the screenshot for temperature, duty cycle on putty. Supplemental part included RGB Led Glowing for different duty cycles, and timer period toggling for pressing key ‘3’, pwm mode +_5 % for keys ‘1’, ‘2’ respectively





3)Elements of lab 3

➔ Os Used : windows 10 v 1809

➔ Compiler : SDCC 3.9.0 and arm_ 18.12.2.LTS for MSP432

➔ Tools : Code Composer Studio, Flip, Code:blocks, Visual studio

➔ IDE – Code Composer Studio 9.1 and Codeblocks 17.11

➔ Challenges – PWM configuration and integratipon with Uart and RGB

4) Learnings and Challenges:

LAB Outcome:

Thus, Lab 3 acquainted me with the following Concepts, Hardware and Software

- ➔ Paulmon 2 configuration
- ➔ SDCC compiler seetiings in codeblocks
- ➔ MSP432 Architecture and learning all power modes
- ➔ UART protocol and setting of baud rate
- ➔ XRAM memory interfacing and wire wrapping on board
- ➔ Buffer memory allocation and malloc ,heap concepts
- ➔ Terminal emulator acquaintance