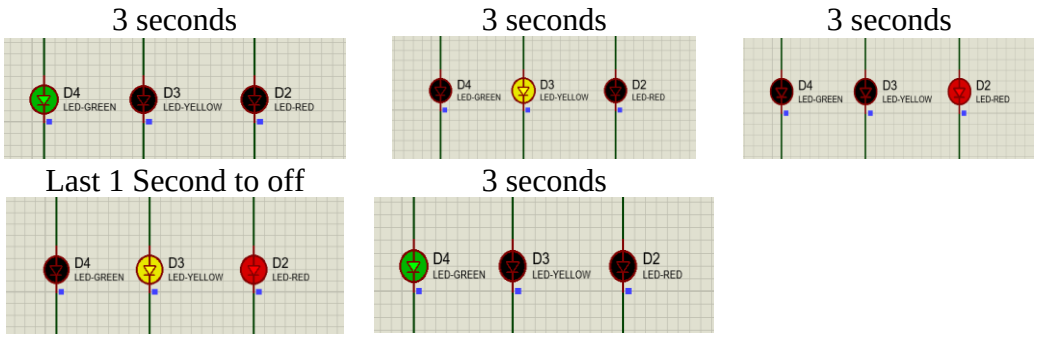
i. Write an assembly program for digital counter with RB0 Interrupt. When RB0 interrupted the program increments the counter and shows on the LCD display 0 to 99.

```
Counter: 12
Counter: 35
```

ii. Write an assembly program for simulating traffic lights. Assume at the beginning GREEN light is on. Then after 3 seconds the GREEN LED off, followed by for 3 seconds YELLOW LED will be on. After YELLOW LED offs the RED LED will be on for 3 seconds. Before RED LED off YELLOW and RED LED will be on together for 1 second. At the end LEDs' state will be turn initial position that GREEN LED is on for 3 seconds. You should use a Timer0 Module and proper PSA value for 4 MHZ oscillator.



iii. Write an assembly program that converts analog to digital LM35 temperature sensor measurement connected to the AN1 port. Use two separate one digit seven Segment Display (7SEG-MPX1 CC) to show the degree value.

Notes:

i. You can prepare solutions with a friend or alone.
ii. You must zip and add ASM files **with comments** and Proteus Simulation files to the assignment.
iii. Late submissions and e-mails will not be accepted.