LAB.4: Temperature Monitoring System

Modify your system of lab3 to display the temperature read from a temperature sensor (lm35) connected to the ADC pin of your microcontroller. The system monitors the temperature of the lab and turns on indicators (Green, Red and Yellow LEDs) depending on the temperature of the lab.

- The temperature is considered LOW if it is below 20°C
- The temperature is considered NORMAL when it is between 20°C and 30°C
- The temperature is considered HIGH when it is above 30°C

When the temperature of the room is NORMAL, the Green LED is ON while the other LEDs stay off. When the temperature is LOW, the yellow LED comes ON and when the temperature is HIGH, the Red LED comes ON.

a) Design the system described above that displays the value of temperature every *0.5 secs.*
b) Simulate, implement and test the project. Demonstrate the system performance to the lab. Instructor.
c) Present results above in a report.