Using the PIC 16 microcontroller, design and implement a program in C language that simulates the operation of a traffic light system. The traffic light should consist of three LEDs: Red, Yellow, and Green. The desired behavior of the traffic light is as follows:

1. The Red LED should be lit for a duration of 5 seconds.
2. After 5 seconds, the Yellow LED and Red LED should both be lit together for a duration of 2 seconds.
3. Subsequently, the Green LED should be lit for 5 seconds.
4. After 5 seconds of Green, the Green LED should blink on and off for 5 cycles.
5. Following the blinking of the Green LED, the Yellow LED should be lit for 2 seconds.
6. Finally, the sequence should return to the Red LED, and the cycle should repeat.

Your code should accurately represent this traffic light sequence, and you are required to provide appropriate comments and documentation to explain your code's functionality. Additionally, you must compile and test your code on a PIC 16 microcontroller (use Proteus Simulator) to ensure its correct operation.