REPUBLIC OF CAMEROON

Peace- Work-Fatherland

THE UNIVERSITY OF BAMENDA

THE COLLEGE OF TECHNOLOGY (COLTECH)

MICROPROCESSORS/MICROCONTROLLERS
ASSIGNMENT: BLINKING LED's

NAME: MBAH LESKY TAGWANG
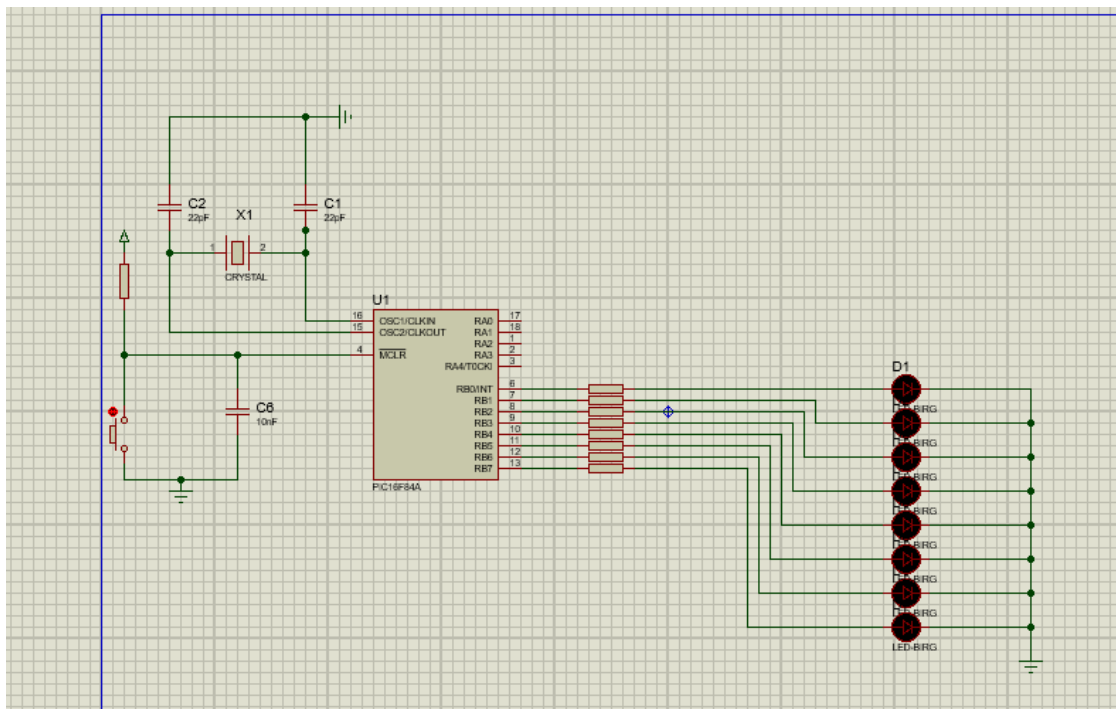**MATRICULE: UBA21PB015 (Level 300)**

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Blinking A Led

CODE:

```
Start Page [X]    blink_led.c [X]

void main() {
    TRISA = 0x1f;
    TRISB = 0x00;

    while(1) {
        PORTB = 0b11111111;
        Delay_ms(500);
        PORTB = 0b00000000;
        Delay_ms(500);
    }
}
```

Diagram:

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ASSIGNMENT 1:

Edit the above code such that when the leds of PORTA are ON, those of PORTB are OFF and vise versa. Delay is 500ms

CODE:

```c
void main() {
    TRISA = 0x00;
    TRISB = 0x00;

    while(1) {
            PORTA = 0b11111111;   // PORTA ON
            PORTB = 0b00000000; // PORTB OFF
            Delay_ms(500);
            PORTA = 0b00000000; // PORTB ON
            PORTB = 0b11111111; // PORTA OFF
            Delay_ms(500);
    }
}
```
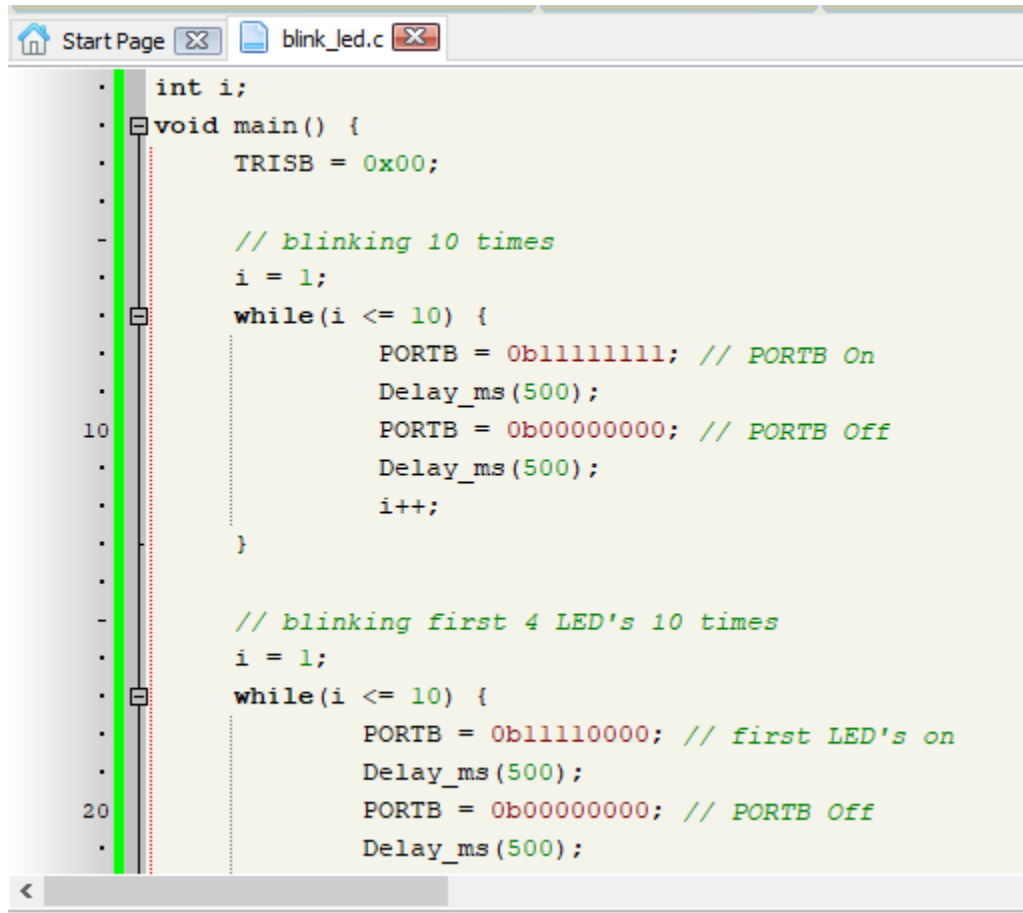
ASSIGNMENT 2:

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Blink all LED's on PORTB 10 times,
After that blink 4 LED's each for 10 times
Then blink 10101010, 01010101 10 times

CODE:

```c
int i;
void main() {
    TRISB = 0x00;

    // blinking 10 times
    i = 1;
    while(i <= 10) {
        PORTB = 0b11111111; // PORTB On
        Delay_ms(500);
        PORTB = 0b00000000; // PORTB Off
        Delay_ms(500);
        i++;
    }

    // blinking first 4 LED's 10 times
    i = 1;
    while(i <= 10) {
        PORTB = 0b11110000; // first LED's on
        Delay_ms(500);
        PORTB = 0b00000000; // PORTB Off
        Delay_ms(500);
```

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```c
        }

        // blinking first 4 LED's 10 times
        i = 1;
        while(i <= 10) {
                PORTB = 0b11110000; // first LED's on
                Delay_ms(500);
                PORTB = 0b00000000; // PORTB Off
                Delay_ms(500);
                i++;
        }

        // blinking last 4 LED's 10 times
        i = 1;
        while(i <= 10) {
                PORTB = 0b00001111; // last LED's on
                Delay_ms(500);
                PORTB = 0b00000000; // PORTB Off
                Delay_ms(500);
                i++;
        }
```

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```c
        // blinking 10101010 10 times
         i = 1;
        while(i <= 10) {
                PORTB = 0b10101010; // last LED's on
                Delay_ms(500);
                PORTB = 0b00000000; // PORTB Off
                Delay_ms(500);
                i++;
        }

        // blinking 01010101 10 times
         i = 1;
        while(i <= 10) {
                PORTB = 0b01010101; // last LED's on
                Delay_ms(500);
                PORTB = 0b00000000; // PORTB Off
                Delay_ms(500);
                i++;
        }
}
```

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