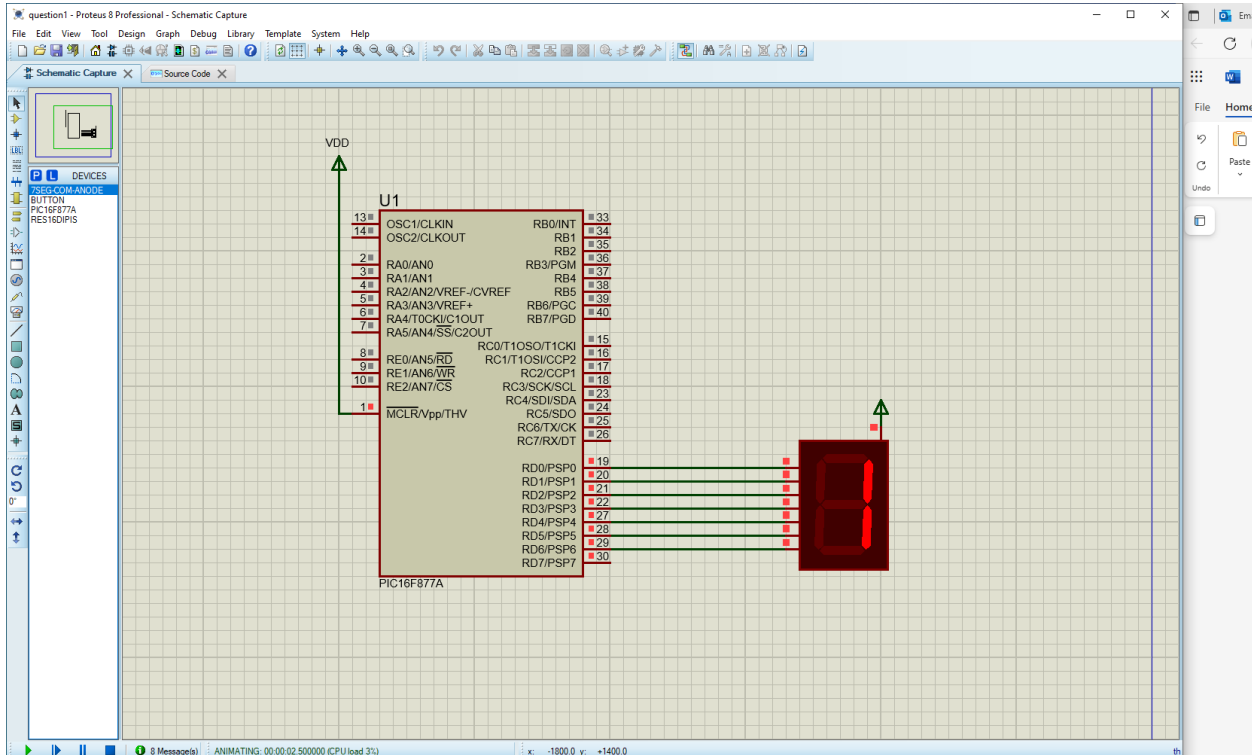
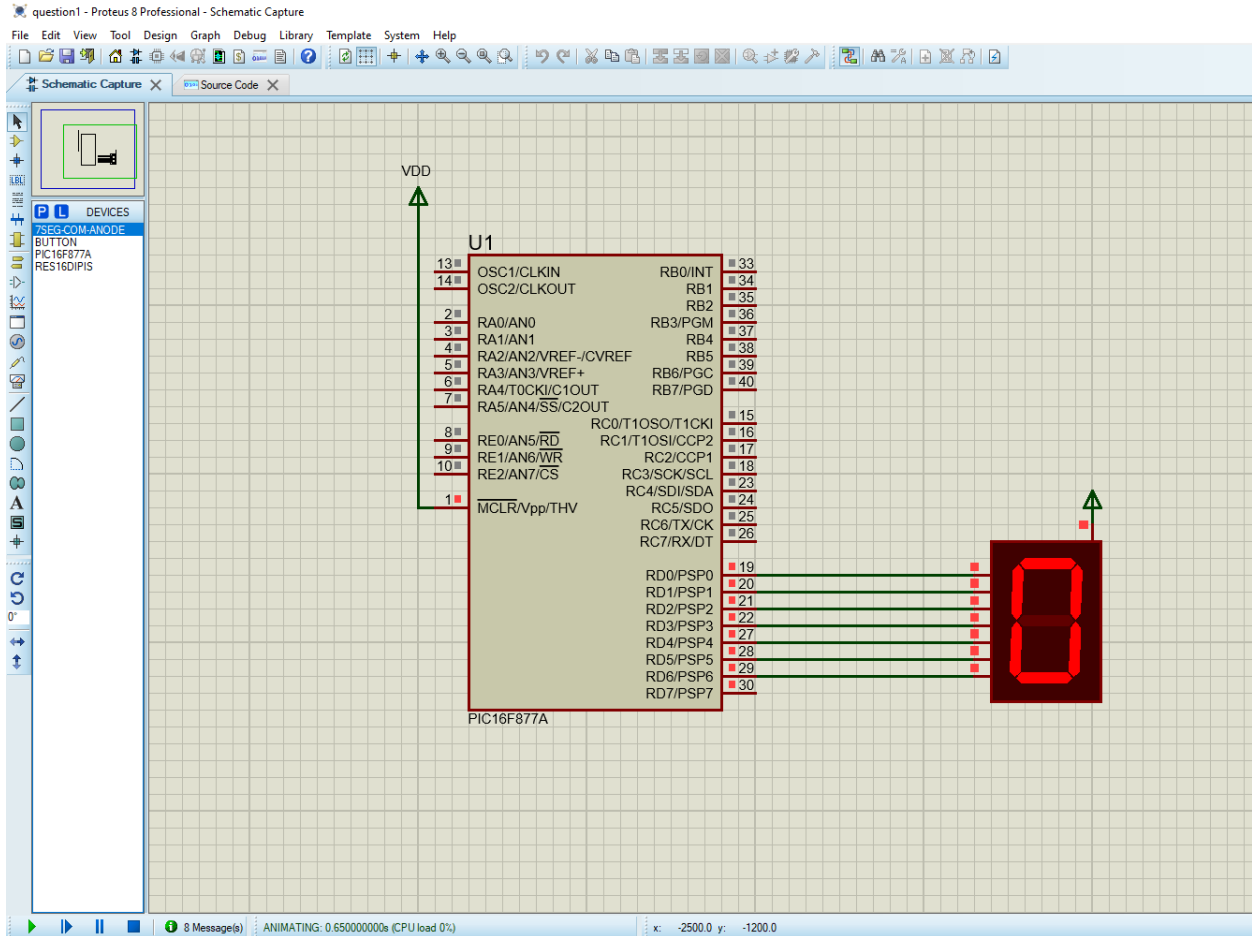
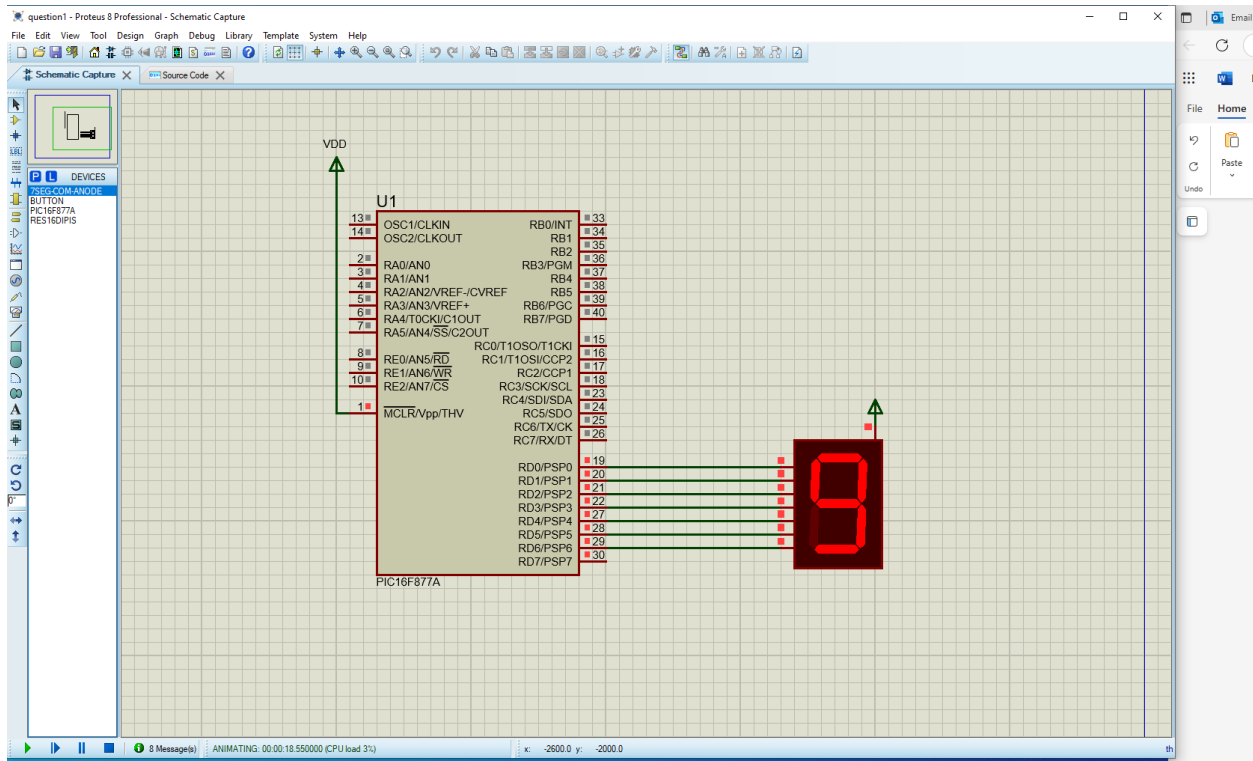


Question 1





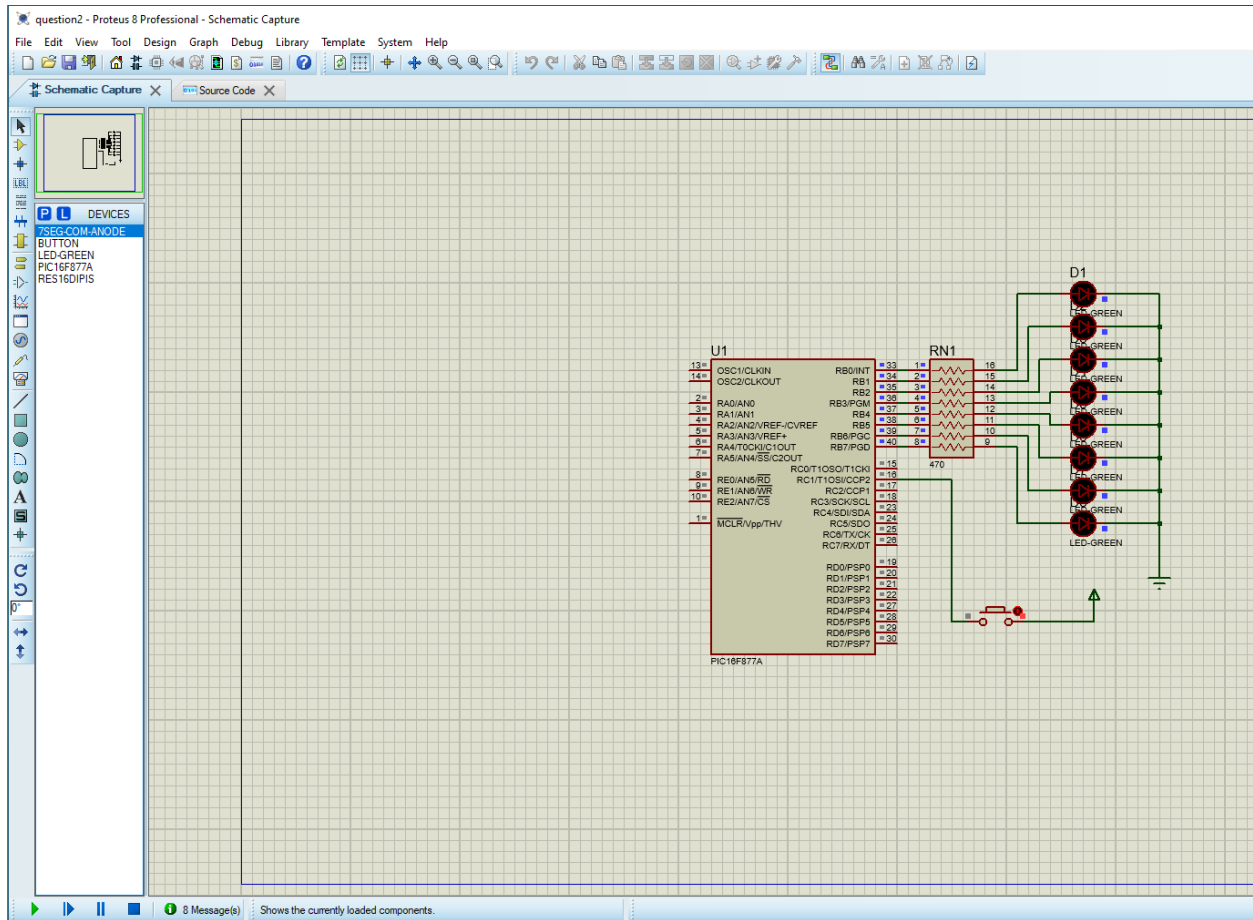
main.c

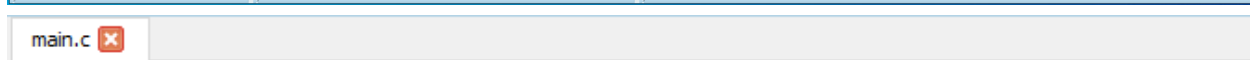
```

1  /* Main.c file generated by New Project wizard
2  *
3  * Created: Tue May 13 2025
4  * Processor: PIC16F877A
5  * Compiler: CCS for PIC
6  */
7
8  #include <16F877A.h>
9
10 #use delay(crystal=1Mhz)
11
12 unsigned int up_cnt[] = {0xc0, 0xf9, 0xa4, 0xb0, 0x99, 0x92, 0x82, 0xf8, 0x80, 0x90};
13
14 int main (void)
15 {
16     // Write your code here
17     while (1) {
18         for (unsigned int i = 0; i < 10; i++) { // Loops through up_cnt array from start to end
19             output_d(up_cnt[i]); // outputs to the 7-seg
20             delay_ms(2000); // 2 second delay
21         }
22     }
23     return 0;
24 }

```

Question 2



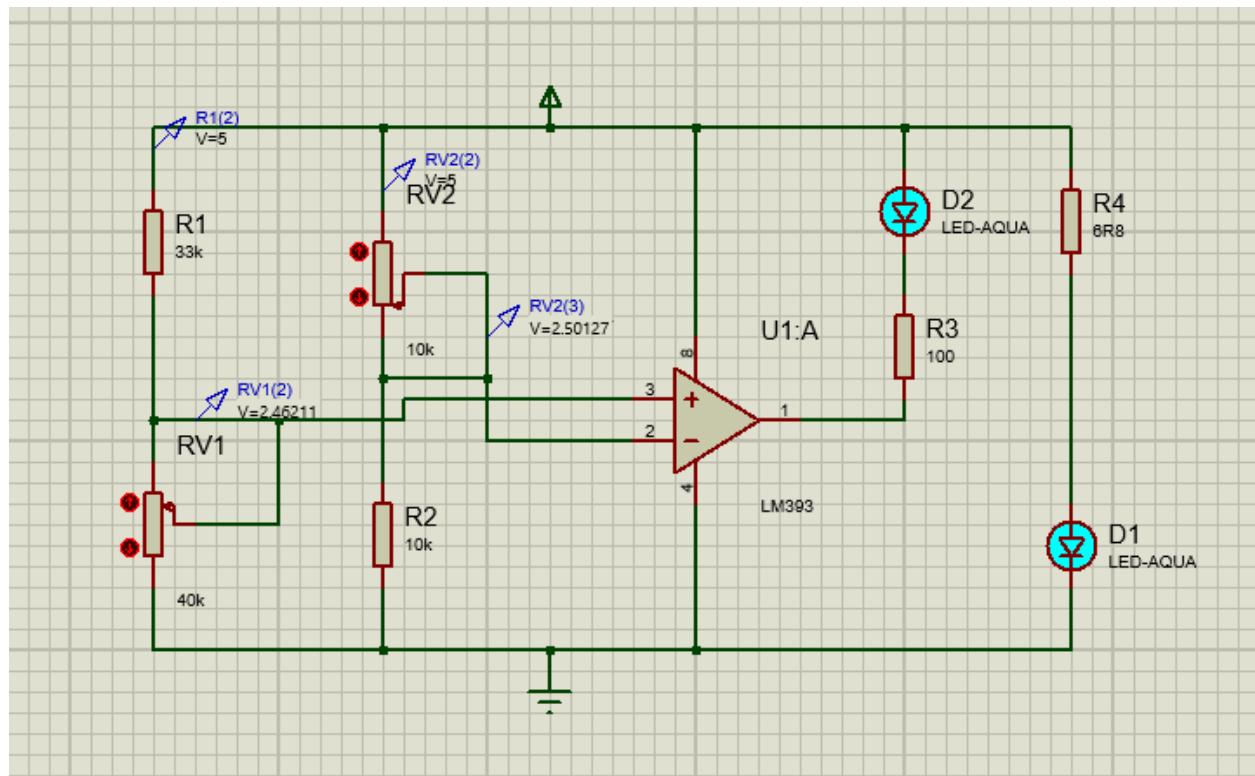


```

1  /* Main.c file generated by New Project wizard
2  *
3  * Created:   Tue May 13 2025
4  * Processor: PIC16F877A
5  * Compiler:  CCS for PIC
6  */
7
8  #include <16F877A.h>
9
10 #use delay (crystal=1Mhz)
11
12 #define BUT_PIN PIN_C1
13
14 int main (void) {
15     // Write your code here
16     while (1) {
17         if (input(BUT_PIN)) { //if button is pressed
18             output_b(0xff); //output high for all led lights
19         } else {
20             output_b(0x00); //output low for all led lights if button is not pressed
21         }
22     }
23     return 0;
24 }
25

```

Question 3



Question 4

