

## Class 2 Task Program Pull Down Method

```
24 uint8_t val; // Declare an 8-bit unsigned variable to store the input value from PORTC
25 void main(void)
26 {
27     TRISC = 0x0F; // Configure lower nibble (RC0-RC3) as input (1), upper nibble (RC4-RC7) as output
28     TRISD = 0x00; // Configure PORTD as output (all bits set to 0 for output)
29     PORTC = 0x00; // Clear PORTC (ensure all outputs are LOW initially)
30
31     while(1) // Infinite loop to continuously read inputs and update outputs
32     {
33         val = PORTC; // Read the value from PORTC (RC0-RC3 are used as input)
34         switch (val) // Check the input value and determine the corresponding output on PORTD
35         {
36             case 0x01: // If RC0 is HIGH (0000 0001 in binary)
37             {
38                 PORTD = 0x10; // Set RD4 HIGH (0001 0000 in binary)
39                 break;
40             }
41             case 0x02: // If RC1 is HIGH (0000 0010 in binary)
42             {
43                 PORTD = 0x04; // Set RD2 HIGH (0000 0100 in binary)
44                 break;
45             }
46
47             case 0x04: // If RC2 is HIGH (0000 0100 in binary)
48             {
49                 PORTD = 0x14; // Set RD4 and RD2 HIGH (0001 0100 in binary)
50                 break;
51             }
52             case 0x08: // If RC3 is HIGH (0000 1000 in binary)
53             {
54                 PORTD = 0x00; // Turn OFF all PORTD outputs
55                 break;
56             }
57             default: // If no valid input condition is met
58             {
59                 PORTD = 0x00; // Keep PORTD OFF
60             }
61         }
62         return; // This statement is never reached due to the infinite loop
63     }
```