

Class 1: Class Program

```
24  #include <xc.h>           // Include header file for PIC microcontroller
25  #define _XTAL_FREQ 20000000 // Define crystal oscillator frequency as 20 MHz
26
27  void main(void)
28  {
29      TRISD = 0x00;           // Set all PORTD pins as output (0 = output, 1 = input)
30      while(1)                // Infinite loop
31      {
32          PORTD = 0x04;        // Set RD2 (3rd pin of PORTD) high (binary: 0000 0100)
33          __delay_ms(1000);     // Delay of 1000 milliseconds (1 second)
34          PORTD = 0x00;        // Set all PORTD pins low (binary: 0000 0000)
35          __delay_ms(1000);     // Delay of 1000 milliseconds (1 second)
36      }
37  }
38
```