```
#include <p18f4520.h>   // Include Controller specific header
#include <delays.h>

#define BUZZER  PORTAbits.RA3   // Buzzer connected to PORTA 3rd PIN
#define SWITCH0 PORTBbits.RB0   // Switch0 connected to PORTB 0th PIN
#define SWITCH1 PORTBbits.RB1   // Switch1 connected to PORTB 1st PIN

void main(void) {
   TRISA = 0x00;     // RA3, Output Direction
   TRISB = 0xFF;     // RB0, B1 Input Direction
   TRISD = 0x00;     // [RD0-3=LEDs] [RD4,5=Relay1,2] Output Direction
   PORTD = 0xFF;     // [RD0-3=LEDs] [RD4,5=Relay1,2] Initialize as 0xFF

   while (1) {
      if (!SWITCH1) {       // Condition for 1st switch
         while (1) {
            BUZZER = 1;    // Buzzer On
            PORTD = 0x37;  // (Relay1=1, Relay2=1) & (LEDs sequence Left to Right=0111=7)
            Delay10KTCYx(100); // 400ms Delay
            PORTD = 0x3B;  // (LEDs sequence Left to Right=1011=B)
            Delay10KTCYx(100);
            PORTD = 0x3D;
            Delay10KTCYx(100);
            PORTD = 0x3E;
            Delay10KTCYx(100);

            if (!SWITCH0)   // Check if 2nd switch is pressed
               break;
         }
      } else if (!SWITCH0) { // Condition for 2nd switch
         while (1) {
```

```
            BUZZER = 0;    // Buzzer Off
            PORTD = 0xCE;  // (Relay1=0, Relay2=0) & (LEDs sequence Right to Left=1110=E)
            Delay10KTCYx(100);
            PORTD = 0xCD;  // LEDs sequence Right to Left=1101=D
            Delay10KTCYx(100);
            PORTD = 0xCB;
            Delay10KTCYx(100);
            PORTD = 0xC7;
            Delay10KTCYx(100);

            if (!SWITCH1)  // Check if 1st switch is pressed
               break;
         }
      }
   }
}
```