```
 1: unsigned short bcdConverter(unsigned short input);
 2:
 3:
 4:   volatile long t;
 5:   char a;
 6: void main() {
 7:   adcon1 = 0x04;
 8:   TRISA  = 0x01;              // PORTA is input
 9:   TRISC  = 0;                 // PORTC is output
10:   TRISD  = 0;                 // PORTB is output
11:    ADC_Init();
12:
13:
14:    while(1) {
15:     portc=0;
16:     t = ADC_Read(0)* 0.4887;     // Read analog voltage an  // Read analog voltage
    e and convert id convert it to degree celsius (0.489 = 500/1023)
17:     a=t%10;
18:     PORTC=bcdConverter(a+'0');
19:     PORTD.B6=1;
20:     delay_ms(10);
21:     PORTD.B6=0;
22:
23:     t=t/10;
24:     a=t%10;
25:     PORTC=bcdConverter(a+'0');
26:     PORTD.B7=1;
27:     delay_ms(10);
28:     PORTD.B7=0;
29:     delay_ms(10);
30:
31:     }
32:   }
33:
34:
35: unsigned short bcdConverter(char input) {
36: switch (input) {
37:  case '0': return 0x3F;
38:  case '1': return 0x06;
39:  case '2': return 0x5B;
40:  case '3': return 0x4F;
41:  case '4': return 0x66;
42:  case '5': return 0x6D;
43:  case '6': return 0x7D;
44:  case '7': return 0x07;
45:  case '8': return 0x7F;
46:  case '9': return 0x6F;
47:
48: default  : return 0b11111111;
49: }
50: }
```