CODE:

```
sbit LCD_EN at RB1_bit;
sbit LCD_RS at RB0_bit;
sbit LCD_D4 at RB2_bit;
sbit LCD_D5 at RB3_bit;
sbit LCD_D6 at RB4_bit;
sbit LCD_D7 at RB5_bit;

float temperature;
float Displaytemp;
char temp[4];
void main()
{
TRISD=0x80;
TRISE=0x00;
TRISC=0x08;
ADC_Init();
Lcd_Init();
Lcd_Cmd(_LCD_CLEAR);
lcd_cmd(_LCD_CURSOR_OFF);
lcd_out(1,3,"temprature");
lcd_out(2,4,"sensor");
delay_ms(1000);
```

```
Lcd_Cmd(_LCD_CLEAR);    // Clear display
lcd_cmd(_LCD_CURSOR_OFF);

while (1) {
temperature=ADC_Read(RA0);
Displaytemp=temperature*50*10/1023;
floattostr(Displaytemp,temp);
Lcd_Out(1,3, "temperature");
Lcd_Out(2,4, trim(temp));
Lcd_Out(2,8,"C");

if(PORTC.f3 == 1)
{
PORTD = 0b10000011;
delay_ms(50);
PORTD = 0b10000110;
delay_ms(50);
PORTD = 0b10001100;
delay_ms(50);
PORTD = 0b10001001;
delay_ms(50);
}
```

```
if(PORTD.f7==1)
{ PORTE.f0 = 1; }
else if(PORTD.f7==0)
{PORTE.f0 = 0;}

if(Displaytemp>25)
{PORTC.f4 = 1;}
else if(Displaytemp<25)
{PORTC.f4 = 0;}

if(Displaytemp<20)
{PORTD.f5 = 1;}
else if(Displaytemp>20)
{PORTD.f5 = 0;}
```