LAB 1.2
Compiler directives
      #include <c8051_SDCC.h>
      #include <stdio.h>
      #include <stdlib.h>
Function Prototypes
      Void Port_Init(void)
      Void Timer_Init(void)
      Void Interrrupt_Init(void)
      Void Timer0_ISR(void) __interrupt 1
      Unsigned char random(void)
Declare global variables
      Sbit PB0, PB1, SS, LED0, LED1, BILED1, BILED2, BUZZER
Main function
      Declare local variables
         (none)
      Initialization functions
         Sys_Init()
         putchar(' ')
         Port_init()
         Interrupt_Init()
         Timer_Init()

      Begin infinite loop
         Int temp=-1;
         While(TRUE)
              Turn off LEDs and buzzer
              if(SS is ON)
                  While (less than 10 times)
                      Enable timer1
                      Int ran;
                      ran=random(0,2);

                      While (ran==temp)
                          an=random(0,2)

                      temp=ran;

                      If (ran==0)
                          LED0 is lit

                      Else If (ran==1)
                          LED1 is lit

Else If (ran==2)

    Both LED0 and LED are lit

Reset counts and TIMR0

If (LED0 lit && PB0 pushed)

    Green LED lit and score++

Else if (LED1 lit && PB1 pushed)

    Green LED lit and score++

Else if (LED0 lit && LED1 lit && PB0 pushed && PB1 pushed)

    Green LED lit and score++

Else

    Red LED lit

Reprat until 10 times

    End infinite loop

End main function

Functions

    Void Port_Init(void)

        Set SFRs P2, P3, and P2MDOUT and P3MD

        So that P2.0, P3.0, P3.1 are inputs,

            P3.3, P3.4, P3.6, P3.7 are outputs

    End Port_Init

    Void Set_outputs(void)

        If *SS is off*

            BILED is **green**, and all others are **off**

            Print "slide switch is off"

        Else

            Print "slide switch is on"

            if *only PB1 is on*

                BUZZER is **on**

                Print "push button 1 is activated"

            Else if *only PB2 is on*

                LED0 is **on**

                Print "push button 2 is activated"

            Else if *both PB1 and PB2 is on*

                BILED is **red**

                Print " push button 1 and 2 are both activated"

            Else (*PB1 and PB2 are both not pushed)*

BILED and all others are **off**
Print nothing

End Set_Outputs