```c
#include "Io.h"


void sw1_Init(void){

    SYSCTL_RCGCGPIO_R|=0x20; //INTIALIZE THE CLOCK OF PORTF
    while((SYSCTL_PRGPIO_R & 0x20)==0); //delay
    GPIO_PORTF_LOCK_R = 0x4C4F434B; //Constant value
    GPIO_PORTF_AMSEL_R &=~0x10; //disable analog function
    GPIO_PORTF_CR_R |= 0x10; //setting pin p4 to change
    GPIO_PORTF_PCTL_R &=~0x000F0000; //enable digital function
    GPIO_PORTF_AFSEL_R &=~0x10; //disable alterante function
    GPIO_PORTF_DIR_R &=~0x10;   //DIR--> 0->input & 1->output
    GPIO_PORTF_PUR_R |=0x10;    //active low
    GPIO_PORTF_DEN_R |= 0x10;   //Enable digital for sw1


}

void RGB_Init(void){

    SYSCTL_RCGCGPIO_R|=0x20; //INTIALIZE THE CLOCK OF PORTF
    while((SYSCTL_PRGPIO_R & 0x20)==0); //delay
    GPIO_PORTF_LOCK_R = 0x4C4F434B; //unlocking the ports have the same value
    GPIO_PORTF_CR_R |= 0x0E;    //Allow changing pin 3,2,1 in portF
    GPIO_PORTF_AMSEL_R &=~0x0E; //disable the analog function
    GPIO_PORTF_PCTL_R &=~0x0000FFF0;
    GPIO_PORTF_AFSEL_R &=~0x0E; //disable the alternate function
    GPIO_PORTF_DIR_R |= 0x0E;   //Pin1,2,3 is output
    GPIO_PORTF_DEN_R |=0x0E;
    GPIO_PORTF_DATA_R &=~0x0E; //intialize pins 1,2,3 to be off

}

unsigned char sw1_input(void){

    return GPIO_PORTF_DATA_R&0x10;  //0001 0000
}

void RGB_Output (unsigned char data){

    GPIO_PORTF_DATA_R &=~0x0E;  //Reseting the pf321
    GPIO_PORTF_DATA_R |= data;
}
```

```
unsigned char led_out = 0x02; //red led is on 0000 0010
unsigned char button_in;

int main(void){

    sw1_Init();
    RGB_Init();

    while(1){

        if(led_out == 0x10)     //0001 0000 --> indicates that the button is not
pressed and the leds are off
        {
            led_out = 0x02; //reset led_out to red after green 0000 0010
        }
        button_in = sw1_input();    //if button clicked and saves it in the
button_in

        if(button_in !=0x10){   //Switch is pressed = 0x00

            RGB_Output(led_out);
            led_out = led_out << 1; //shift left to next pin

        }

    }

}
```