

ASSIGNMENT 3

Date	04 October 2022
Name	Mannoj Kumar
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Project Name	Project – Smart Farmer-IoT Enabled Smart Farming Application
Maximum Marks	2 Marks

TOPIC: BLINKING LED AND TRAFFIC LIGHTS USING PYTHON CODE

CODE

```
import RPi.GPIO as GPIO
import time
try:
    def lightTraffic(led1, led2, led3, delay ):
        GPIO.output(led1, 1)
        time.sleep(delay)

        GPIO.output(led1, 0)
        GPIO.output(led2, 1)
        time.sleep(delay)

        GPIO.output(led2, 0)
        GPIO.output(led3, 1)
        time.sleep(delay)

        GPIO.output(led3, 0)
        GPIO.setmode(GPIO.BCM)
        button = 19

        GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)
        ledGreen = 16
        ledYellow = 12
        ledRed = 23

        GPIO.setup(ledGreen, GPIO.OUT)
        GPIO.setup(ledYellow, GPIO.OUT)
        GPIO.setup(ledRed, GPIO.OUT)
        while True:
            input_state = GPIO.input(button)
            if input_state == False:
                print('Button Pressed')

                lightTraffic(ledGreen, ledYellow, ledRed, 1)
                else:
                    GPIO.output(ledGreen, 0)
                    GPIO.output(ledYellow, 0)

                    GPIO.output(ledRed, 0)
            except KeyboardInterrupt:
                print "You've exited the program"
            finally:
                GPIO.cleanup()
```