ASSIGNMENT 3

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Python code for blinking LED using Raspberry pi

```
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BCM)
cnt = 0
MAIL_CHECK_FREQ = 1
RED_LED = 4
GPIO.setup(RED_LED, GPIO.OUT)
while True:
ifcnt == 0 :
GPIO.output(RED_LED, False)
cnt = 1
else:
GPIO.output(RED_LED, True)
cnt = 0
time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

Python code for Traffic Lights using Raspberry pi

```
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BOARD)
GPIO.setup(7, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)
GPIO.setup(13, GPIO.OUT)
```

```
GPIO.setup(15, GPIO.IN, pull_up_down=GPIO.PUD_UP)
def turn_on(pin,seconds)
      GPIO.output(pin,GPIO.HIGH)
      time.sleep(seconds)
def turn_off(pin,seconds)
      GPIO.output(pin,GPIO.LOW)
      time.sleep(seconds)
try:
   while True:
         button_state = GPIO.input(15)
         if button_state == True:
               turn_on(13,2)
               turn_off(13,1)
               turn_on(7,4)
               turn_off(7,.1)
               turn_on(11,1)
               turn_off(11,.1)
         else:
              if  button_state == False:
                   GPIO.output(7,GPIO.LOW)
                   GPIO.output(11,GPIO.LOW)
                   GPIO.output(13,GPIO.LOW)
                   time.sleep(.1)
except keyboardInterrupt :
       GPIO.cleanup()
        print(“Traffic Light Sequence Done”)
```