ASSIGNMENT -3

KIRTHIVARSINI M

710719104054

DR.N.G.P. INSTITUTE OF TECHNOLOGY

CODE 1:

LED BLINKING

```python
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:
    if cnt == 0 :
    GPIO.output(RED_LED, False)
    cnt = 1
    else:
    GPIO.output(RED_LED, True)
    cnt = 0
time.sleep(MAIL_CHECK_FREQ)
```

```
GPIO.cleanup()
```

CODE 2:

TRAFFIC LIGHTS FOR RASPBERRY PI

```
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)
```

```python
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()
```