

### Assignment -3

Assignment Date	15 October 2022
Student Name	Mr.J.Justinraj
Student Roll Number	821919104007
Maximum Marks	2 Marks

#### Question-1:

Write a python code for blinking LED and Traffic lights for Raspberry pi. Only python code is enough, no need to execute in raspberry pi.

#### 1.LED Blinking:

##### Solution:

```
1. #-----
2. import RPi.GPIO as GPIO
3. import time
4. #assign numbering for the GPIO using BCM
5. GPIO.setmode(GPIO.BCM)
6. #assign number for the GPIO using Board
7. #GPIO.setmode(GPIO.BOARD)
8. #-----
9. cnt = 0
10. MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds
11. RED_LED = 4
12. GPIO.setup(RED_LED, GPIO.OUT)
13. while True:
14. if cnt == 0 :
15. GPIO.output(RED_LED, False)
16. cnt = 1
17. else:
18. GPIO.output(RED_LED, True)
```

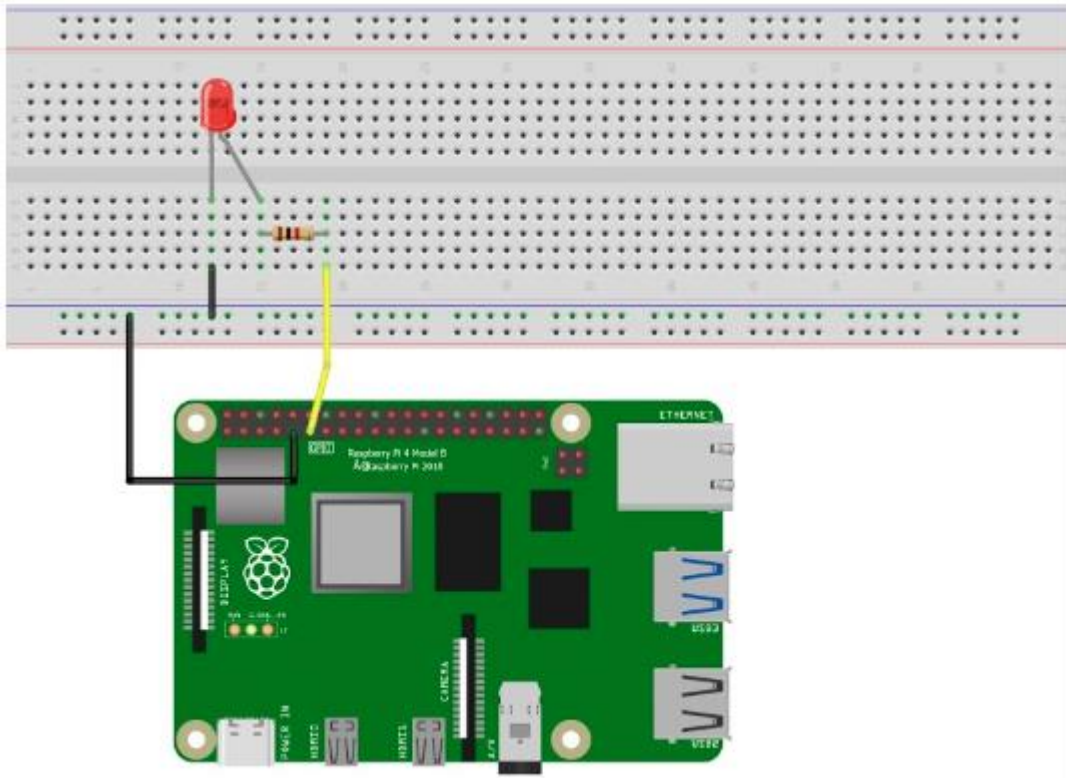
19.cnt = 0

20.

21.time.sleep(MAIL\_CHECK\_FREQ)

22.GPIO.cleanup()

### Circuit Diagram/Output:



(The LED will blink)

## 2.Traffic Lights:

### Solution:

1. from gpiozero import Button, TrafficLights, Buzzer
2. from time import sleep
- 3.
4. buzzer = Buzzer(15)
5. button = Button(21)
6. lights = TrafficLights(25, 8, 7)

- 7.
8. while True:
9.     button.wait\_for\_press()
10.    buzzer.on()
11.    light.green.on()
12.    sleep(1)
13.    lights.amber.on()
14.    sleep(1)
15.    lights.red.on()
16.    sleep(1)
17.    lights.off()
18.    buzzer.off()

**Circuit Diagram/Output:**

