

Assignment -3

Assignment Date	17 October 2022
Student Name	Ms.D.Priyadharshini
Student Roll Number	821919104018
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.

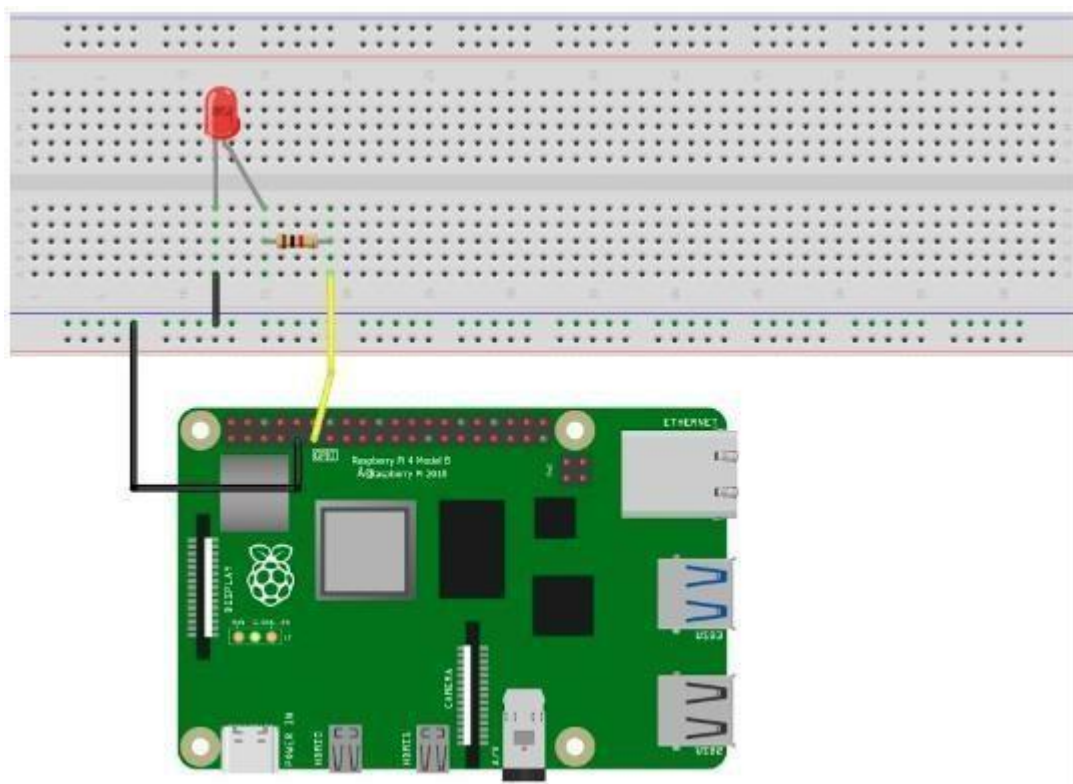
1.LED Blinking:

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. #assignn number for the GPIO using Board
7. #GPIO.setmode(GPIO.BOARD)
8. #-----
9. cnt = 0
10. MAIL_CHECK_FREQ = 2 # change LED status every 1 seconds
11. RED_LED = 5
12. GPIO.setup(RED_LED, GPIO.OUT)
13. **while** True:

```
14. ifcnt == 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(0)
13.        lights.amber.on()
14.        sleep(1)
15.        lights.red.on()
16.        sleep(1)
17.        lights.off()
18.        buzzer.off()
```

Circuit Diagram/Output:

