

Assignment -3

Assignment Date	17 October 2022
Student Name	Ms.L.Rabiya
Student Roll Number	821919104020
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.

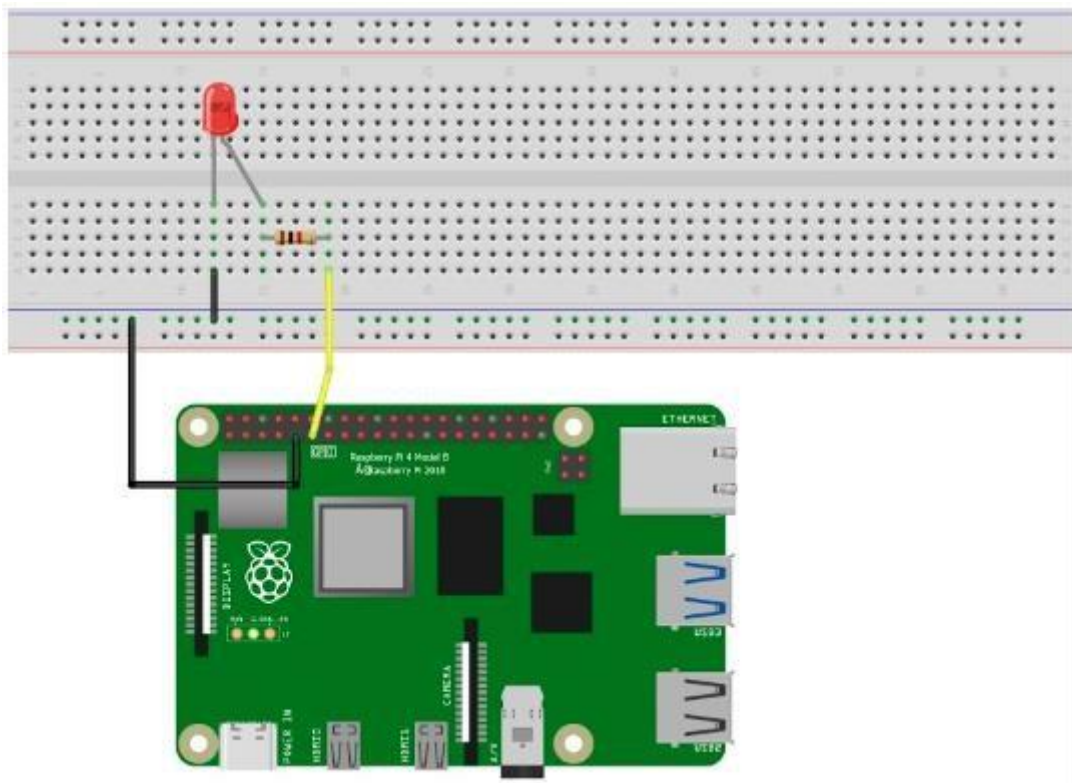
1.LED Blinking:

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:

