# ASSIGNMENT-3 IOT

1. **Python code for blinking LED for Raspberry pi.**

import RPi.GPIO as GPIO

**import** time

#assign numbering for the GPIO using BCM GPIO.setmode(GPIO.BCM)

#assingn number for the GPIO using Board #GPIO.setmode(GPIO.BOARD)

cnt = 0

MAIL\_CHECK\_FREQ = 1 # change LED status every 1 seconds 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 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) 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()

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