

IBM ASSIGNMENT – 3

Python Programming

Assignment Date	07 October 2022
Student Name	Sowmiya N
Student Roll Number	710019106044

Write python code for blinking LED and Traffic lights for Raspberry Pi.

1.CODE FOR BLINKING LED:

```
import RPi.GPIO as GPIO
import time

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

#assign 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()
```

2.CODE FOR TRAFFIC LIGHTS:

```
from gpio zero import Button, Traffic Lights, Buzzer
from time import sleep
buzzer = Buzzer(15)
button = Button(21)
lights = Traffic Lights(25, 8, 7)
while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
```

```
lights.red.on()
```

```
sleep(1)
```

```
lights.off()
```

```
buzzer.off()
```