IBM – NAALAIYA THIRAN

lot based safety gadget for child safety monitoring and notification

ASSIGNMENT 3

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

Blinking LED

```
import RPi.GPIO as GPIO import
time

#assign number 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 if cnt==0:

GPIO.output(RED_LED,False)
cnt=1 else:

GPIO.output(RED_LED,True) cnt=0:

time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

Traffic light 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")

LightTrafic(ledGreen,ledYellow,ledRed,1) else:

GPIO.output(ledGreen,0)

GPIO.output(ledYellow,0)

GPIO.output(ledRed,0)

```
except KeyboardInterrupt
        Print
        “You have exited the program”
finally:
        GPIO.cleanup()
```