

**ASSISGNMENT 3**  
**Team ID : PNT2022TMID16026**

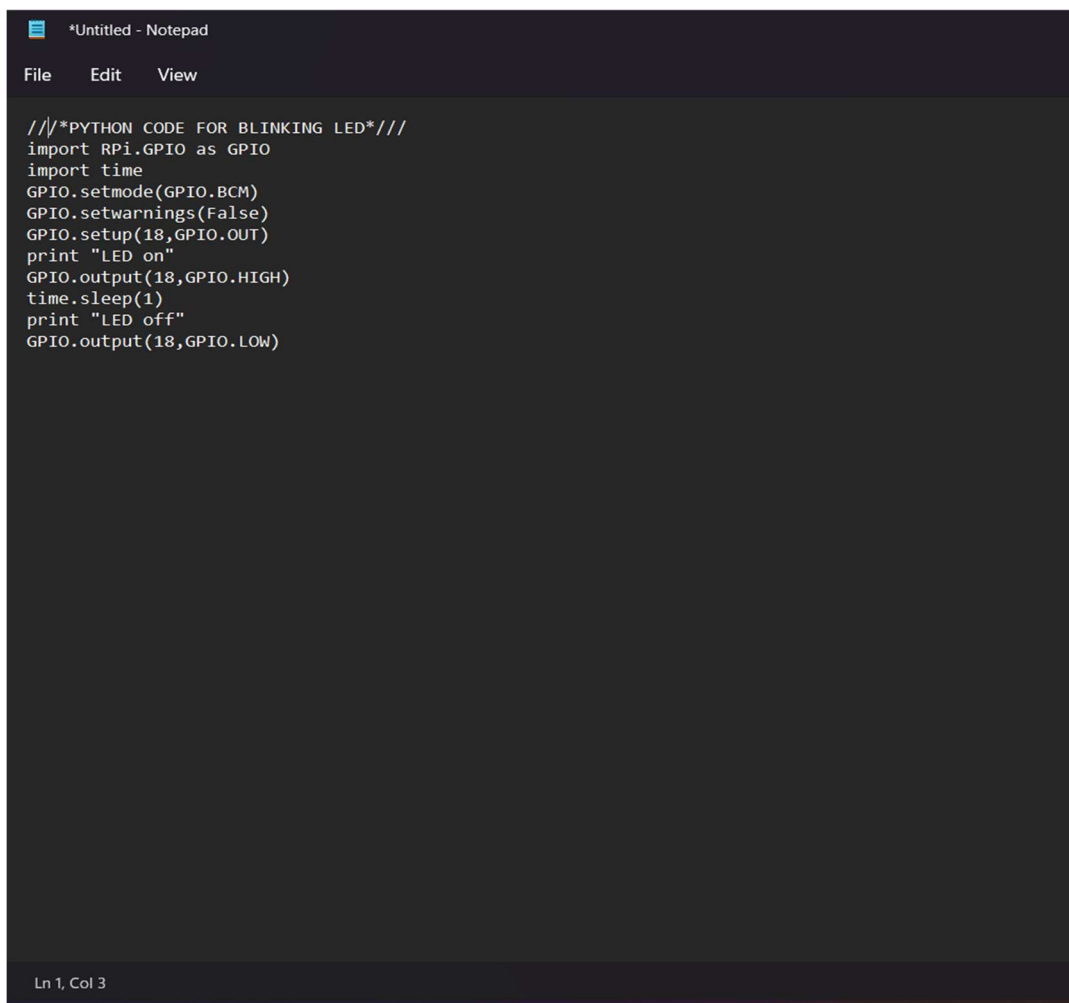
**PYTHON CODE FOR BLINKING LED (Raspberry pi)**

```
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BCM)
GPIO.setwarnings(False)
GPIO.setup(18,GPIO.OUT)
print "LED on"
GPIO.output(18,GPIO.HIGH)
time.sleep(1)
print "LED off"
GPIO.output(18,GPIO.LOW)
```

**PYTHON CODE FOR TRAFFIC LIGHT (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()
```

A screenshot of a Notepad window titled '\*Untitled - Notepad'. The window has a dark background and a menu bar with 'File', 'Edit', and 'View'. The text area contains the following Python code:

```
///  
//**PYTHON CODE FOR BLINKING LED**//  
import RPi.GPIO as GPIO  
import time  
GPIO.setmode(GPIO.BCM)  
GPIO.setwarnings(False)  
GPIO.setup(18,GPIO.OUT)  
print "LED on"  
GPIO.output(18,GPIO.HIGH)  
time.sleep(1)  
print "LED off"  
GPIO.output(18,GPIO.LOW)
```

The status bar at the bottom left shows 'Ln 1, Col 3'.

```
///  
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()
```