

ASSISGNMENT 3

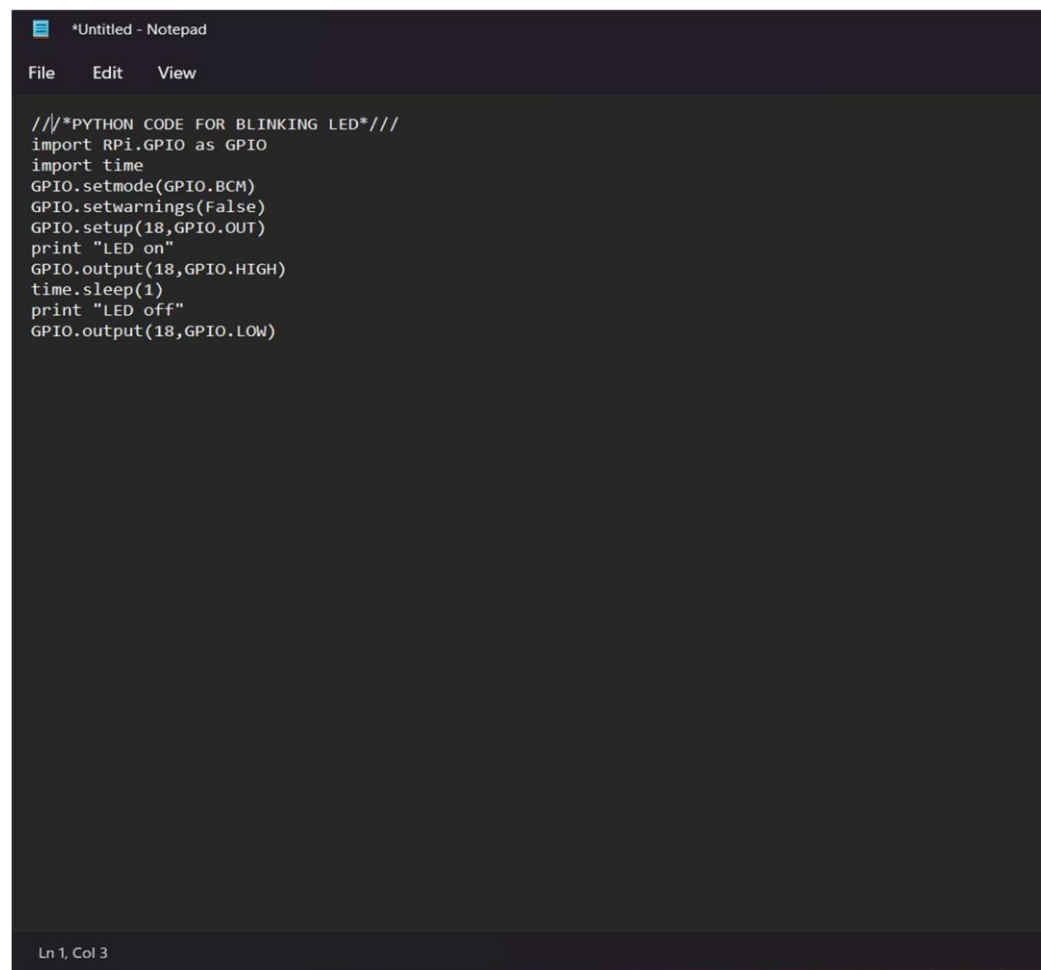
PYTHON CODE FOR BLINKING LED (Raspberry pi)

```
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 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 indicates "Ln 1, Col 3".

```
#!/usr/bin/env python
# coding: utf-8

/* PYTHON CODE FOR 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')
                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()
```