ASSISGNMENT 3

Build a Python code for Binking LEDs and Traffic lights for Raspberry Pi

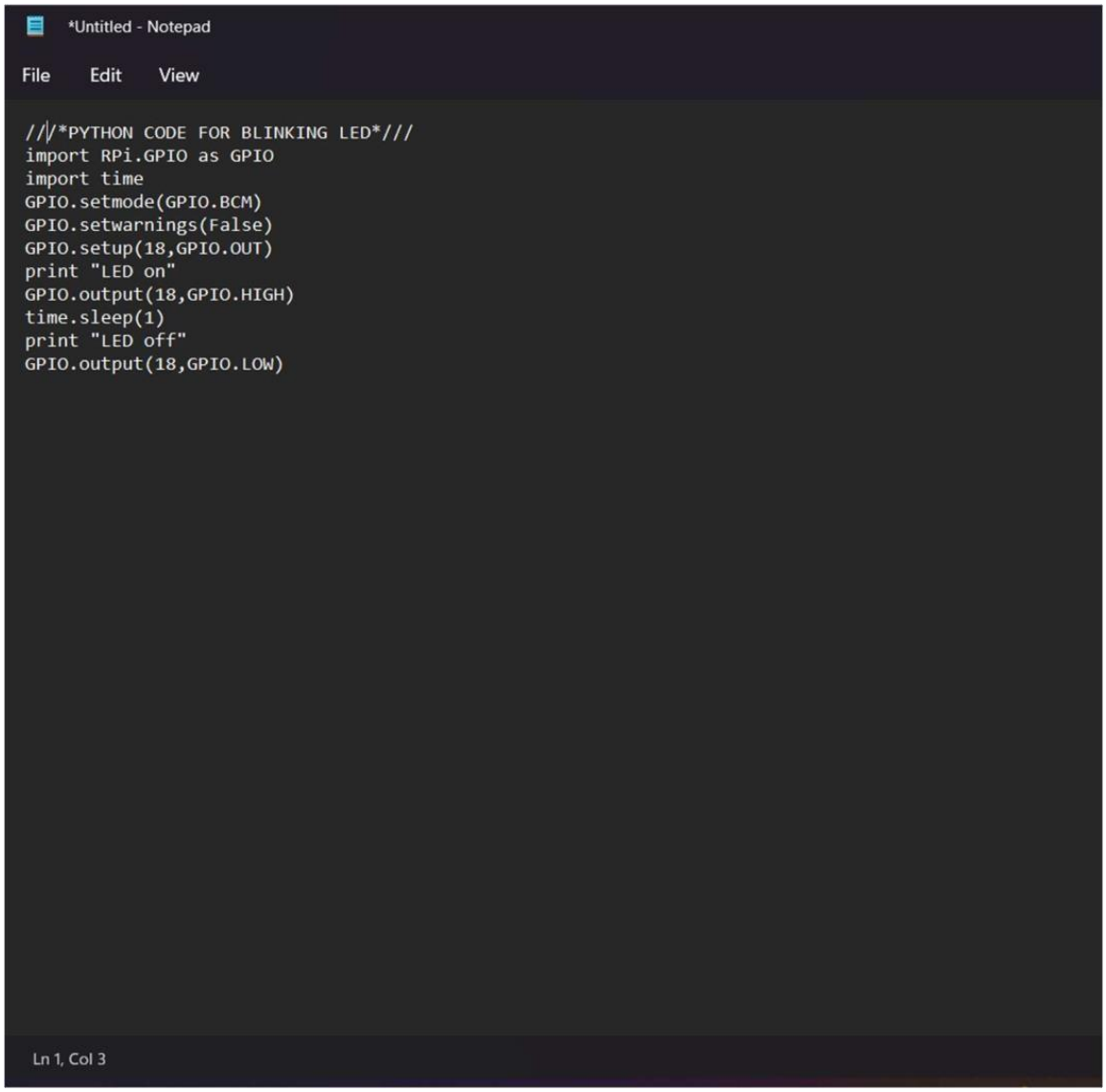
PYTHON CODE FOR BLINKING LED

```
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)
```

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()
```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File Edit View
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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)
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```
///* 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()
```