Assignment 3

Python code for blinking LED and Traffic lights for Raspberry pi.

Assignment Date	5 October 2022
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Question:

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

Only python code is enough, no need to execute in raspberry pi.

Solution :

```python
import time

import RPi.GPIO as GPIO      ## Import GPIO library

GPIO.setmode(GPIO.BOARD)      ## Use board pin numbering

GPIO.setup(11, GPIO.OUT)      ## Setup GPIO Pin 11 to OUT

while True:

        GPIO.output(11,True)  ## Turn on Led

        time.sleep(1)        ## Wait for one second

        GPIO.output(11,False) ## Turn off Led

        time.sleep(1)        ## Wait for one second


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)
```

```python
        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()
```