ASSIGNMENT 3

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TOPIC : Python code for blinking LED ad Traffic lights for Raspberry pi

PROGRAM

```
import time
import RPi.GPIO as GPIO
GPIO.setmode(GPIO.BOARD)
GPIO.setup(11, GPIO.OUT)
GPIO.setup(12, GPIO.OUT)
GPIO.setup(13, GPIO.OUT)
while True:
        GPIO.output(11,True)  ## Turn on redLed
        time.sleep(1)
        GPIO.output(11,False) ## Turn off redLed
        time.sleep(1)
        GPIO.output(12,True) ## Turn on yellowLed
        time.sleep(1)
        GPIO.output(12,False) ## Turn off yellowLed
        time.sleep(1)
        GPIO.output(13,True) ## Turn on greenLed
        time.sleep(1)
        GPIO.output(13,False) ## Turn off greenLed
        time.sleep(1)
```

Editor window:

```
import RPi.GPIO as GPIO
import time
import signal
import sys
#setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)
#Turn off all lights
def allLightOff(signal, frame):
    GPIO.output(9,False)
    GPIO.output(10,False)
    GPIO.output(11,False)
    GPIO.cleanup()
    sys.exit(0)
signal.signal(signal.SIGINT, allLightsOff)
#Forever Loop
while True:
    #Red
    GPIO.output(9, True)
    time.sleep(3)
    GPIO.output(10, True)
    time.sleep(1)
    #Green
    GPIO.output(9,False)
    GPIO.output(10,False)
    GPIO.output(11,True)
    time.sleep(5)
    #Amber
    GPIO.output(11,False)
    GPIO.output(10,True)
    time.sleep(2)
    #Amber off
    GPIO.output(10,False)
```

Blinking of LED:

Editor window:

led_blink.py - D:\ibm_proj\assignment\py\led_blink.py (3.9.6)

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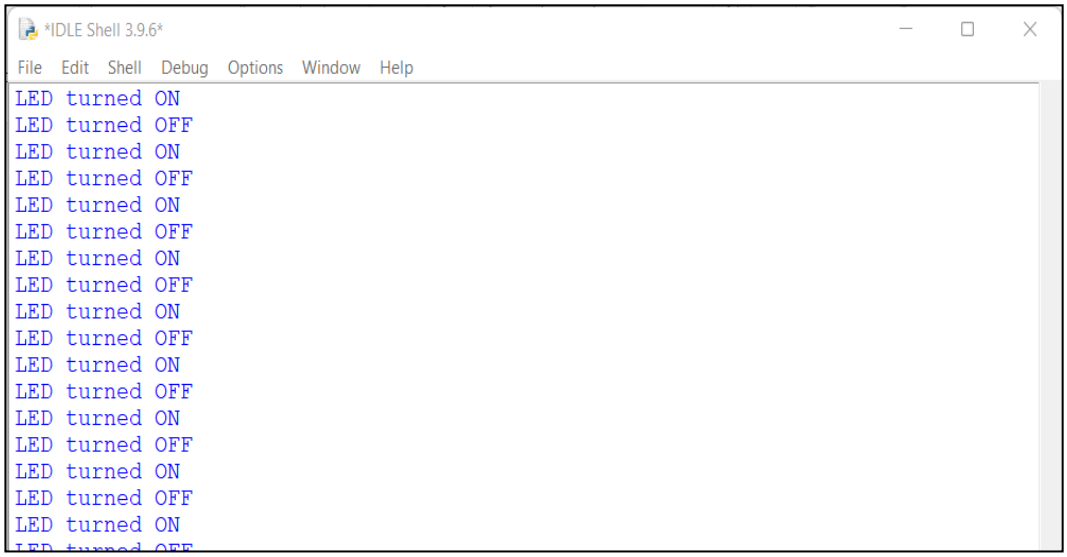
```
#import RPi.GPIO as GPIO
#from gpiozero import LED
from time import sleep
#led = LED(17)
while True:
    #led.on()
    print("LED turned ON")
    sleep(1)
    #led.off()
    print("LED turned OFF")
    sleep(1)
```

Output:


IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
LED turned ON
LED turned OFF
LED turned ON
LED turned OFF
LED turned ON
LED turned OFF
LED turned ON
LED turned OFF
LED turned ON
LED turned OFF
LED turned ON
LED turned OFF
LED turned ON
LED turned OFF
LED turned ON