

IBM - NALAYA THIRAN PROJECT

ASSIGNMENT – 3

TITLE: Signs with Smart Connectivity for Better Road Safety

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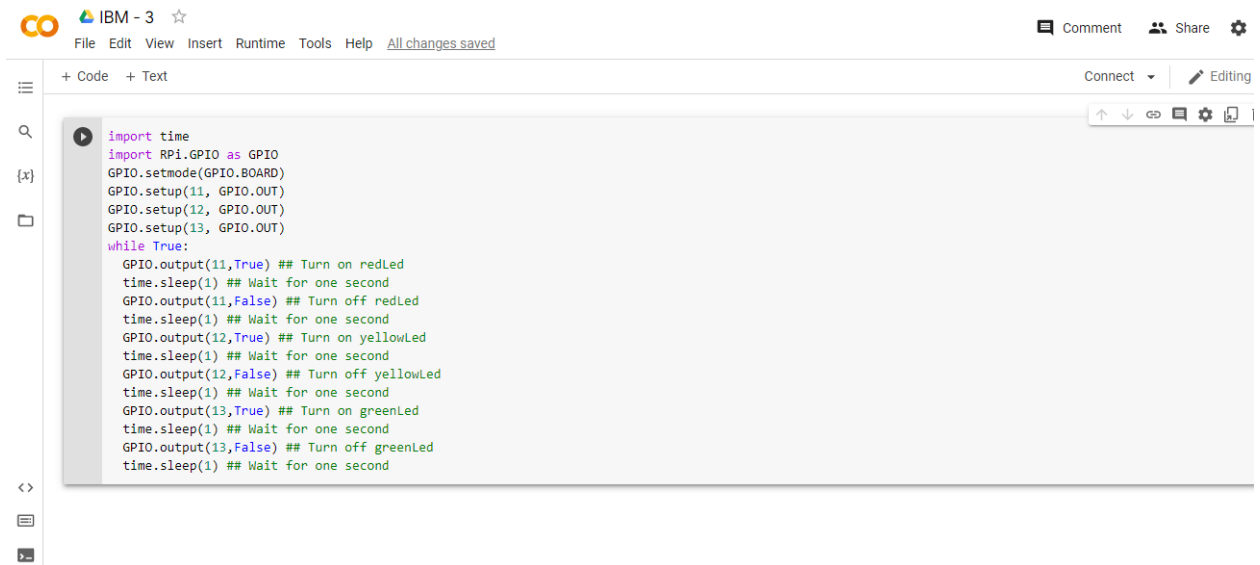
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QUESTION: Write Python code for Blinking LED and Traffic Lights for Raspberry Pi. Only the Python code is enough and need not to execute it in the board.

SOURCE CODE:

```
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) ## Wait for one second
    GPIO.output(11,False) ## Turn off redLed
    time.sleep(1) ## Wait for one second
    GPIO.output(12,True) ## Turn on yellowLed
    time.sleep(1) ## Wait for one second
    GPIO.output(12,False) ## Turn off yellowLed
    time.sleep(1) ## Wait for one second
    GPIO.output(13,True) ## Turn on greenLed
    time.sleep(1) ## Wait for one second
```

```
GPIO.output(13,False) ## Turn off greenLed  
time.sleep(1) ## Wait for one second
```



The screenshot shows a code editor interface with a menu bar (File, Edit, View, Insert, Runtime, Tools, Help) and a status bar (All changes saved). The editor contains a Python script for controlling three LEDs (red, yellow, and green) on a Raspberry Pi. The script uses the RPi.GPIO library and the time module. It sets up three GPIO pins (11, 12, and 13) as outputs and then enters a while loop that turns each LED on for one second and then off for one second, repeating this sequence for each LED.

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