

IBM - NALAYA THIRAN PROJECT

ASSIGNMENT -3

TITLE: Signs with Smart Connectivity for Better Road Safety

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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

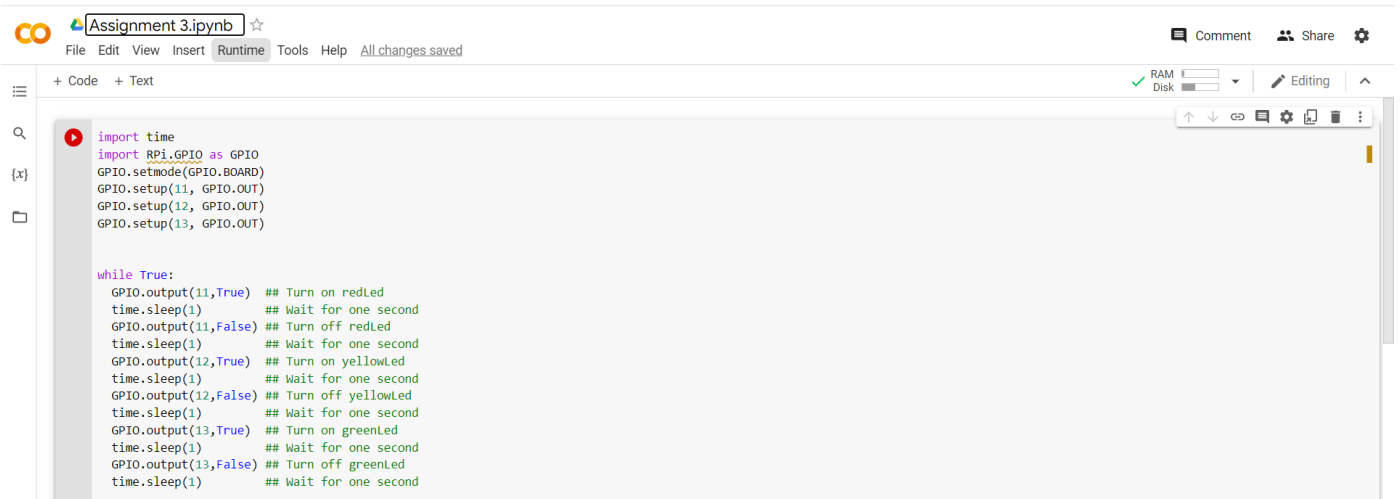
time.sleep(1)    ## Wait for one second

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 Jupyter Notebook window titled "Assignment 3.ipynb". The interface includes a top menu bar with "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help". Below the menu bar, there are tabs for "+ Code" and "+ Text". On the right side, there are icons for "Comment", "Share", and "Settings", along with a "RAM Disk" indicator. The main area displays a Python script with the following 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
```