

Assignment -3

Python Programming

Assignment Date	11 October 2022
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Question-1:

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

Solution:

```
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 when its end
def allLightsOff(signal, frame):
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, False)
    GPIO.cleanup()
    sys.exit(0)
```

```
signal.signal(signal.SIGINT, allLightsOff)
```

```
# Loop for led light
while True:
    # RED LIGHT
    GPIO.output(9, True)
    time.sleep(3)

    # RED AND YELLOW
    GPIO.output(10, True)
    time.sleep(1)

    # GREEN LIGHT
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, True)
    time.sleep(5)

    # YELLOW LIGHT
    GPIO.output(11, False)
    GPIO.output(10, True)
    time.sleep(2)

    #YELLOW OFF (red start from first loop)
    GPIO.output(10, False)
```