

Assignment -3
Python Programming

Assignment Date	08 October 2022
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Maximum Marks	2 Marks

Question:

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

Solution:

For LED:

```
import RPi.GPIO as
GPIO
from time import sleep
GPIO.setwarnings (False)
GPIO.setmode(GPIO.BOARD)
GPIO.setup(8,GPIO.OUT,initial=GPIO.LOW)

while True:
    GPIO.output(8,GPIO.HIGH)
    sleep(1)
    GPIO.output(8,GPIO.LOW)
    sleep(1)
```

For Traffic Lights:

```
import Rpi.GPIO as GPIO
import time
import signal
import sys
GPIO.setmode(GPIO.BCM)
GPIO.setup(9,GPIO.OUT)
```

```
GPIO.setup(10,GPIO.OUT)
GPIO.setup(11,GPIO.OUT)
def allLightsOff(signal,framer):
    GPIO.output(9,False)
    GPIO.output(10,False)
    GPIO.output(11,False)
    GPIO.cleanup()
sys.exit(0)
signal.signal(signal.SIGINT,allLightsOff)
```

```
while True:
```

```
    #Red
```

```
    GPIO.output(9,True)
```

```
    Time.sleep(3)
```

```
    #Red and amber
```

```
    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(red comes on at top of loop)
```

```
    GPIO.output(10,False)
```