

Assignment -3
Python Programming

Assignment Date	08 October 2022
Student Name	S.Sudharsan Balaji
Student Roll Number	921319106230
Maximum Marks	2 Marks

Question:

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

Solution

```
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)
```

```
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,frame):
```

```
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)
```