

ASSIGNMENT 3

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MAXIMUM MARK	2

QUESTION: WRITE A PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHT FOR

.RASPBERRY PI

:CODE

Python program for blinking LED on Raspberry Pi#

```
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 user ends demo
```

```
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 forever
```

```
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)
```