

Assignment -3
Python Programming

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| Assignment Date | 08 October 2022 |
| Student Name | R.GAYATHIRIVARSHINI |
| Student Roll Number | 710419106018 |
| Maximum Marks | 2 Marks |

Question:

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

Solution:

**PYTHON CODE FOR
BLINKING LED**

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)
```