

ASSIGNMENT- 3

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Date	29-09-2022
Team ID	PNT2022TMID46404
Project Name	Smart Farmer- IOT Enabled Smart Farming Application
Maximum Marks	2 Marks

QUESTION- 1:

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

Solution :

#LED BLINKING :

```
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: #infinite loop
    GPIO.output(8, GPIO.HIGH) # Turn on
    print("The LED is ON")
    sleep(5) # Sleep for 5 second
    GPIO.output(8, GPIO.LOW) # Turn off
    print("The LED is OFF")
    sleep(5) # Sleep for 5 second
```

#TRAFFIC LIGHT CODE :

```
from gpiozero import LED
from time import sleep
```

```
red= LED(17) #pin numbers connected to Led's
amber=(22)
green=(27)
```

```
while True:
```

```
    red.on() #RED light
```

```
    print("&quot;Red light is ON&quot;")
```

```
    for i in range(60,0,-1):
```

```
        print("&quot;Remaining time: &quot;,,i)
```

```
        sleep(1)
```

```
    red.off()
```

```
    amber.on() # AMBER light
```

```
    print("&quot;Yellow light is ON&quot;")
```

```
    for i in range(5,0,-1):
```

```
        print("&quot;Remaining time: &quot;,,i)
```

```
        sleep(1)
```

```
    amber.off()
```

```
    green.on #GREEN light
```

```
    print("&quot;Green light is ON&quot;")
```

```
    for i in range(40,0,-1):
```

```
        print("&quot;Remaining time: &quot;,,i)
```

```
        sleep(1)
```

```
    green.off()
```