**Assignment -3**

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| Assignment Date | 12 October 2022 |
| Student Name | Dhamodaran.S.M |
| Student Roll Number | 713319CS028 |
| Maximum Marks | 2 Marks |

**Question-1:**

Write python code for blinking LED and Traffic lights for Raspberry pi. Only python code is enough, no need to execute in raspberry pi.

**Solution :**

**Traffic Light :**

```
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep
lights = TrafficLights(25, 8, 7)
while True:
    button.wait_for_press()
    lights.on()
    button.wait_for_release()
    lights.off()
buzzer = Buzzer(15)
while True:
    lights.blink()
    buzzer.beep()
    button.wait_for_press()
    lights.off()
    buzzer.off()
    button.wait_for_release()
while True:
    button.wait_for_press()
    lights.green.on()
    sleep(1)
```

```
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
```

**Led Blinking :**

```
import RPi.GPIO as GPIO
import time

ledPin = 22

def setup():
        GPIO.setmode(GPIO.BOARD)
        GPIO.setup(ledPin, GPIO.OUT)
        GPIO.output(ledPin, GPIO.LOW)

def loop():
        while True:
                print 'LED on'
                GPIO.output(ledPin, GPIO.HIGH)
                time.sleep(1.0)
                print 'LED off'
                GPIO.output(ledPin, GPIO.LOW)
                time.sleep(1.0)
def endprogram():

        GPIO.output(ledPin, GPIO.LOW)
        GPIO.cleanup()

if __name__ == '__main__':
```

```
setup()
try:
    loop()
except KeyboardInterrupt:
    endprogram()
```