Assignment -3

Python Programming for Raspberry Pi

Assignment Date	1 September 2022
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Maximum Marks	2 Marks

Question-1:

Write python code for Blinking LED for Raspberry Pi.

```
import RPi.GPIO as GPIO
import time

ledPin = 17

def setup():
        GPIO.setmode(GPIO.BOARD)
        GPIO.setup(ledPin, GPIO.OUT)    # Numbering of Pins
        GPIO.output(ledPin, GPIO.LOW)    # Set ledPin as output
                                         # Set ledPin to LOW to turn Off the
LED

def loop():
        while True:
                print 'LED on'
                GPIO.output(ledPin, GPIO.HIGH)     # LED On
                time.sleep(3.0)                     # LED On
                                                    # wait 3 sec
                print 'LED off'
                GPIO.output(ledPin, GPIO.LOW)     # LED Off
                time.sleep(3.0)                   # LED Off
                                                  # wait 3 sec
def endprogram():

        GPIO.output(ledPin, GPIO.LOW)
        GPIO.cleanup()                     # LED Off

if __name__ == '__main__':
        setup()
        try:
                loop()
        except KeyboardInterrupt: #'Ctrl+C' is pressed, the destroy() will
be executed.
                endprogram()
```

Question-2:

Write python code for Traffic Lights Simulation for Raspberry Pi.

Traffic Light Simulation - Python Code for Raspberry Pi.

```
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep
buzzer = Buzzer(17)
button = Button(21)
lights = TrafficLights(26, 9, 5)
 while True:
            button.wait_for_press()
            buzzer.on()
            light.green.on()
            sleep(3)
            lights.amber.on()
            sleep(3)
            lights.red.on()
            sleep(3)
            lights.off()
            buzzer.off()
```