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.

```python
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.

```python
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()
```