Assignment -3
Python Programming

Assignment Date	06 October 2022
Student Name	SHAIMA M
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Maximum Marks	2 Marks

Question-1:

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

Code:

```python
import RPi.GPIO as GPIO
import time
try:
  def lightTraffic(led1, led2, led3, delay ):
   GPIO.output(led1, 1)
   time.sleep(delay)
   GPIO.output(led1, 0)
   GPIO.output(led2, 1)
   time.sleep(delay)
   GPIO.output(led2, 0)
   GPIO.output(led3, 1)
   time.sleep(delay)
   GPIO.output(led3, 0)
  GPIO.setmode(GPIO.BCM)
  button = 19
  GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)
  ledGreen = 16
  ledYellow = 12
  ledRed = 23
  GPIO.setup(ledGreen, GPIO.OUT)
```

```python
    GPIO.setup(ledYellow, GPIO.OUT)

    GPIO.setup(ledRed, GPIO.OUT)

    while True:

      input_state = GPIO.input(button)

      if input_state == False:

        print('Button Pressed')

        lightTraffic(ledGreen, ledYellow, ledRed, 1)

      else:

        GPIO.output(ledGreen, 0)

        GPIO.output(ledYellow, 0)

        GPIO.output(ledRed, 0)

except KeyboardInterrupt:

  print("You've exited the program")

finally:

  GPIO.cleanup()
```