Assignment   3

Python Programming

Assignment Date	02 October 2022
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Maximum Marks	2 Marks

Question

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

Traffic Light

```
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
```

```python
ledYellow=12 ledRed=23

GPIO.setup(ledGreen,GPIO.OUT)
    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,
        bledYellow, 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()
```

Blinking LED :

```python
Import RPi.GPIO as GPIO # Import Raspberry PiGPIO library

From time import sleep # Import the sleep function from the time module


GPIO.setwarnings(False) # Ignore warning for now


GPIO.setmode(GPIO.BOARD) # Use physical pin numbering


GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an output pi
and set initial value to low (off)


While True: # Run forever GPIO.output(8,


GPIO.HIGH) # Turn on


sleep(1) # Sleep for 1 second GPIO.output(8, GPIO.LOW) # Turn off


sleep(1) # Sleep for 1 second
```