Assignment -3

Python Programming for Raspberry pi

Assignment Date	13October 2022
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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.

Note: you are allowed to use web search and complete the assignment.

SOLUTION :

PYTHON CODE FOR BLINKING LED FOR RASPBERRY PI

```
#blinking with gpiozero library
From gpiozero import LED
From time import sleep
Led = LED(23)
While True:
   Led.on()
   Print('LED ON')
   Sleep(1)
   Led.off()
   Print('LED OFF')
   Sleep(1)
```

PYTHON CODE FOR TRAFFIC LIGHTS FOR RASPBERRY PI

```
import RPi.GPIO as GPIO
import time
GPIO.setmode( GPI0.BOARD)
GPIO.setup(7, GPIO.OUT)# Green LED
```

```
 GPIO.setup(11,GPIO.0UT)#Yellow LED
 GPIO.setup(13,GPI0.0UT)#Red LED
 GPI0.setup(15, GPIO.IN, pull_up_down=GPIO.PUD UP) #Button

 def turn on (pin,seconds):
 def GPIO.output (pin, GPIO . HIGH)
 time.sleep(pin, seconds)

 def trun of(pin, seconds)
 GPI0.output (pin, GPIO .LOW)
 time.sleep(seconds)

try:
while True:
  Button State= GPI0.input(15)
If button State= True:
      turn on(13,2)
      turn off(13,.1)
      turn on (7,4)
      turn off(7, .1)
      turn on(11,1)
      turn off(11,.1)
else:
  if button state = False:
     GPIO.output(7,GPIO.LOW)
     GPIO.output(11,GPIO.LOW)
     GPIO.output(13,GPIO.LOW)
     time.sleep(.1)
except Keyboard Interrupt:
  GPI0.cleanup()
```