Assignment - 3

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Question:

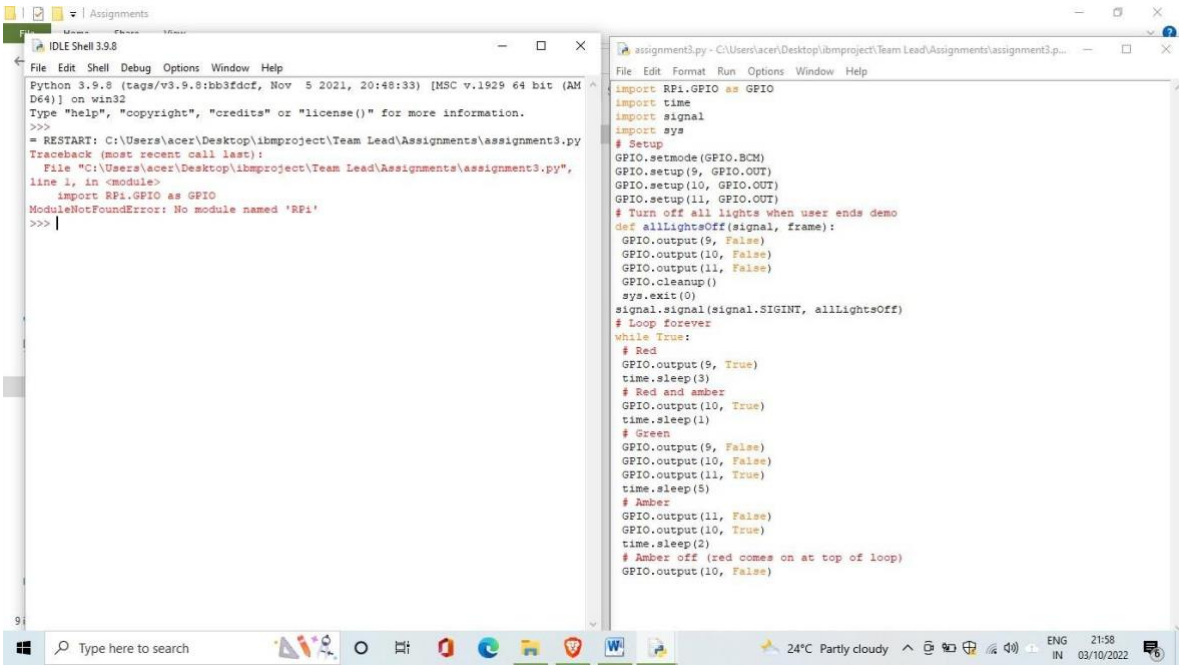
Write a python code for blinking LED and Traffic Lights for Raspberry Pi

Code:

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library

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

moduleGPIO.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 pin and set initial valuetolow (off)

while True: # Run forever

GPIO.output(8, GPIO.HIGH) # Turn

onsleep(1) # Sleep for 1 second

GPIO.output(8, GPIO.LOW) # Turn

offsleep(1) # Sleep for 1 second


#Traffic lights for
RaspberryPiimport
RPi.GPIO as GPIO

import time

import

signal

import sys

# Setup

GPIO.setmode(GPIO.BC

M)GPIO.setup(9,

GPIO.OUT)

GPIO.setup(10

,GPIO.OUT)

GPIO.setup(11

,GPIO.OUT)
```

```
# Turn off all lights when user ends
demodef allLightsOff(signal, frame):
GPIO.output(9, False)
 GPIO.output(10,
False)GPIO.output(11,
False)GPIO.cleanup()
sys.exit(0)
signal.signal(signal.SIGINT,
allLightsOff)# Loop
forever while True:
 # Red
 GPIO.output(9,
 True)time.sleep(3
 )# Red and amber
 GPIO.output(10,
 True)time.sleep(1
 )# Green
 GPIO.output(9, False)
 GPIO.output(10,
 False)GPIO.output(11,
 True) time.sleep(5)
 # Amber
 GPIO.output(11,
 False)GPIO.output(10,
 True) time.sleep(2)
 # Amber off (red comes on at top of
 loop)GPIO.output(10, False)
```

Output:


IDLE Shell 3.9.8
File Edit Shell Debug Options Window Help
Python 3.9.8 (tags/v3.9.8:bb3fdcf, Nov 5 2021, 20:48:33) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\acer\Desktop\ibmproject\Team Lead\Assignments\assignment3.py
Traceback (most recent call last):
File "C:\Users\acer\Desktop\ibmproject\Team Lead\Assignments\assignment3.py", line 1, in <module>
import RPi.GPIO as GPIO
ModuleNotFoundError: No module named 'RPi'
>>>
assignment3.py - C:\Users\acer\Desktop\ibmproject\Team Lead\Assignments\assignment3.p...
File Edit Format Run Options Window Help
import RPi.GPIO as GPIO
import time
import signal
import sys
# Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)
# Turn off all lights when user ends demo
def allLightsOff(signal, frame):
GPIO.output(9, False)
GPIO.output(10, False)
GPIO.output(11, False)
GPIO.cleanup()
sys.exit(0)
signal.signal(signal.SIGINT, allLightsOff)
# Loop forever
while True:
# Red
GPIO.output(9, True)
time.sleep(3)
# Red and amber
GPIO.output(10, True)
time.sleep(1)
# Green
GPIO.output(9, False)
GPIO.output(10, False)
GPIO.output(11, True)
time.sleep(5)
# Amber
GPIO.output(11, False)
GPIO.output(10, True)
time.sleep(2)
# Amber off (red comes on at top of loop)
GPIO.output(10, False)
Type here to search
24°C Partly cloudy
ENG IN
21:58 03/10/2022