ASSIGNMENT-3

Date	04-10-2022
Team ID	PNT2022TMID24496
Project Name	Smart Waste management system for metropolitan cities
Maximum Marks	2 Marks

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

CODE:

1) PYTHON CODE FOR BLINKING LED

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO 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 pin and set initial value to low

(off)

while True: # Run forever

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

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

2) PYTHON CODE FOR TRAFFIC LIGHT

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