**Assignment -3**

Python Programming

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| Assignment Date | 08 October 2022 |
| Student Name | Shriya R |
| Student Roll Number | 953619104037 |
| Maximum Marks | 2 Marks |

**Question:**

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

**Solution:**

// Code for Blinking LED

import RPi.GPIO as GPIO

import time

LED\_PIN = 17

GPIO.setmode(GPIO.BCM)

GPIO.setup(LED\_PIN, GPIO.OUT)

try:

while True:

GPIO.output(LED\_PIN, GPIO.HIGH)

time.sleep(1)

GPIO.output(LED\_PIN, GPIO.LOW)

time.sleep(1)

except KeyboardInterrupt:

GPIO.cleanup()

// Code for Traffic Lights

import RPi.GPIO as GPIO

import time

import signal

import sys

GPIO.setmode(GPIO.BCM)

GPIO.setup(9, GPIO.OUT)

GPIO.setup(10, GPIO.OUT)

GPIO.setup(11, GPIO.OUT)

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)

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)

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