**ASSIGNMENT-3**

**Python Programming**

|  |  |
| --- | --- |
| Assignment Date | 02 October 2022 |
| Student Name | Mark Gerald |
| Student Roll Number | 311119106028 |
| Maximum Marks | 2 |

**Question**:

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

**Blinking LED:**

import time

import RPi.GPIO as GPIO ## Import GPIO library

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

GPIO.setup(11, GPIO.OUT) ## Setup GPIO Pin 11 to OUT

while True:

GPIO.output(11,True) ## Turn on Led

time.sleep(1) ## Wait for one second

GPIO.output(11,False) ## Turn off Led

time.sleep(1) ## Wait for one second

**Traffic Lights:**

**# 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)