**Assignment -3**

Python Programming

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| Assignment Date | 06 October 2022 |
| Student Name | M.Abinaya |
| Student Roll Number | 710019106001 |
| Maximum Marks | 2 Marks |

**Question-1:**

Write a python code for LED BLINKING using Rasperrypi

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| **Solution:** |
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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

**Question-2:**

Write python code for Traffic lights for Rasperry pi

**Solution:**

import RPi.GPIO as GPIO

import time

try:

def lightTraffic(led1, led2, led3, delay ):

GPIO.output(led1, 1)

time.sleep(delay)

GPIO.output(led1, 0)

GPIO.output(led2, 1)

time.sleep(delay)

GPIO.output(led2, 0)

GPIO.output(led3, 1)

time.sleep(delay)

GPIO.output(led3, 0)

GPIO.setmode(GPIO.BCM)

button = 19

GPIO.setup(button, GPIO.IN, pull\_up\_down=GPIO.PUD\_UP)

ledGreen = 16

ledYellow = 12

ledRed = 23

GPIO.setup(ledGreen, GPIO.OUT)

GPIO.setup(ledYellow, GPIO.OUT)

GPIO.setup(ledRed, GPIO.OUT)

while True:

input\_state = GPIO.input(button)

if input\_state == False:

print('Button Pressed')

lightTraffic(ledGreen, ledYellow, ledRed, 1)

else:

GPIO.output(ledGreen, 0)

GPIO.output(ledYellow, 0)

GPIO.output(ledRed, 0)

except KeyboardInterrupt:

print "Program executed for traffic light sequence"

finally:

GPIO.cleanup()