Assignment -3

Python Assignment

Assignment Date	10 October 2022
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Maximum Marks	2 marks

Question-1:

Write a Python code for Blinking LED and Traffic Light for Raspberry Pi

Solution:

Blinking LED for Raspberry *pi*

```
import RPi.GPIO as
GPIO import time
#assign numbering for the GPIO using
BCM GPIO.setmode(GPIO.BCM)
#assign number for the GPIO using
Board GPIO.setmode(GPIO.BOARD)
tms = 0
MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds
RED_LED = 4
GPIO.setup(RED_LED, GPIO.OUT)
while True:
iftms == 0 :
GPIO.output(RED_LED, False)
tms = 1
else:
GPIO.output(RED_LED, True)
tms = 0
time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

Traffic Lights for Raspberry

pi 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)
```