

IBM ASSIGNMENT -3

Assignment Date	06 October 2022
Student Name	P.Kavitha
Student roll no	510119104012
Maximum marks	2 marks

QUESTIONS:

Write a python code for blink LED and traffic signal in Raspberry pi

CODE FOR TRAFFIC SIGNAL:

```
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 yellow
    GPIO.output(10, True)
    time.sleep(1)
    #Yellow
    GPIO.output(11, False)
    GPIO.output(10, True)
    time.sleep(2)
    #Yellow off(red comes on at top of loop)
    GPIO.output(10, False)
    #Green
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, True)
    time.sleep(5)
```

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                           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
    GPIO.output(8,GPIO.LOW)     #Turn off
    sleep(1)
```