**IBM IoT Assignment – 3**

1. **Write python code for blinking LED and Traffic lights for Raspberry pi. Only python code is enough, no need to execute in raspberry pi. (Note: you are allowed to use web search and complete the assignment.)**

**Python code:**

import time

import RPi.GPIO as GPIO

GPIO.setmode(GPIO.BOARD)

GPIO.setup(11, GPIO.OUT) while True: GPIO.output(11,True)

time.sleep(1)

GPIO.output(11,False)

time.sleep(1)

from gpiozero import Button, TrafficLights, Buzzer buzzer = Buzzer(15)

button = Button(21)

lights = TrafficLights(25, 8, 7) while True: button.wait\_for\_press()

light.green.on()

sleep(1)

lights.amber.on()

sleep(1)

lights.red.on()

sleep(1)

lights.off() while True:

lights.on()

buzzer.off()

button.wait\_for\_press()

lights.off()

buzzer.on()

button.wait\_for\_release() while True:

lights.blink()

buzzer.beep()

button.wait\_for\_press()

lights.off()

buzzer.off()

button.wait\_for\_release()

**Python Code for Separate Function:**

//Code for Blinking LED//

import RPi.GPIO as GPIO

import time

LED = 40

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup(LED, GPIO.OUT)

while True:

GPIO.output(LED,GPIO.HIGH)

time.sleep(1)

GPIO.output(LED,GPIO.LOW)

time.sleep(1)

//Code for Traffic Light System//

from gpiozero import Button, TrafficLights, Buzzer

from time import sleep

buzzer = Buzzer(15)

button = Button(21)

lights = TrafficLights(25, 8, 7)

while True:

button.wait\_for\_press()

buzzer.on()

light.green.on()

sleep(1)

lights.amber.on()

sleep(1)

lights.red.on()

sleep(1)

lights.off()

buzzer.off()