Assignment 3

Question:

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

CODE 1:

LED BLINKING

```
import RPi.GPIO as GPIO   import
time
GPIO.setmode(GPIO.BCM)
cnt = 0
MAIL_CHECK_FREQ = 1
RED_LED = 4
GPIO.setup(RED_LED, GPIO.OUT)
while True:     if cnt == 0 :
        GPIO.output(RED_LED, False)
        cnt = 1
else:
        GPIO.output(RED_LED, True)
        cnt = 0
time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

CODE 2:

TRAFFIC LIGHTS FOR RASPBERRY PI

```
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 ("You've exited the program")
finally:
  GPIO.cleanup()
```