

**Assignment -3**  
Python Programming

|                     |                  |
|---------------------|------------------|
| Assignment Date     | 06 October 2022  |
| Student Name        | Mr. ABDUL AZIZ M |
| Student Roll Number | 812419106002     |
| Maximum Marks       | 2 Marks          |

**Question-1:**

Write a python code for led blinking in raspberry pi

**Solution:**

```
import RPi.GPIO as GPIO

import time

#assign numbering for the GPIO using BCM

GPIO.setmode(GPIO.BCM)

#assignn number for the GPIO using Board

#GPIO.setmode(GPIO.BOARD)


cnt = 0

MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds

RED_LED = 4

GPIO.setup(RED_LED, GPIO.OUT)

while True:

    if cnt == 0 :

        GPIO.output(RED_LED, False)

        cnt = 1

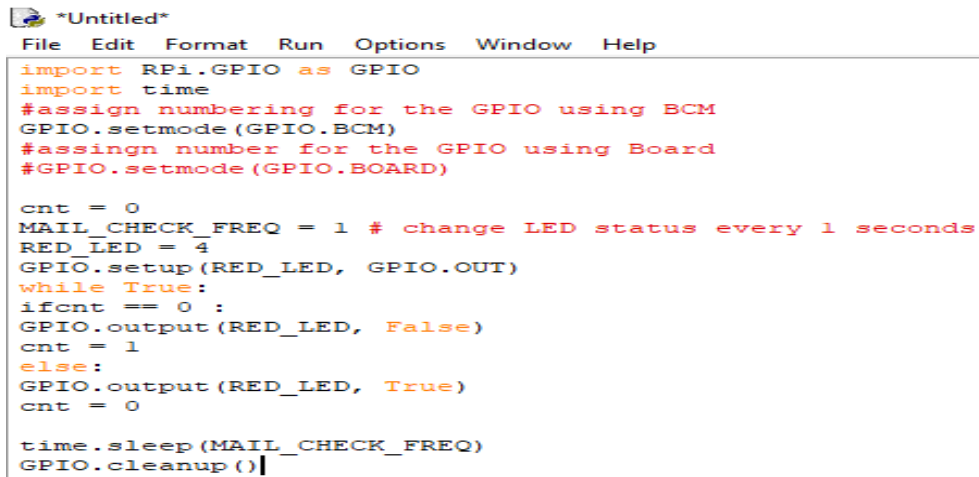
    else:

        GPIO.output(RED_LED, True)

        cnt = 0

    time.sleep(MAIL_CHECK_FREQ)

GPIO.cleanup()
```



```

import RPi.GPIO as GPIO
import time
#assign numbering for the GPIO using BCM
GPIO.setmode(GPIO.BCM)
#assignn number for the GPIO using Board
#GPIO.setmode(GPIO.BOARD)

cnt = 0
MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds
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()

```

## Question-2:

Write a python code for traffic light in raspberry pi

## Solution:

```

from gpiozero import Button, TrafficLights, Buzzer
from time import sleep

```

```

buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25, 8, 7)

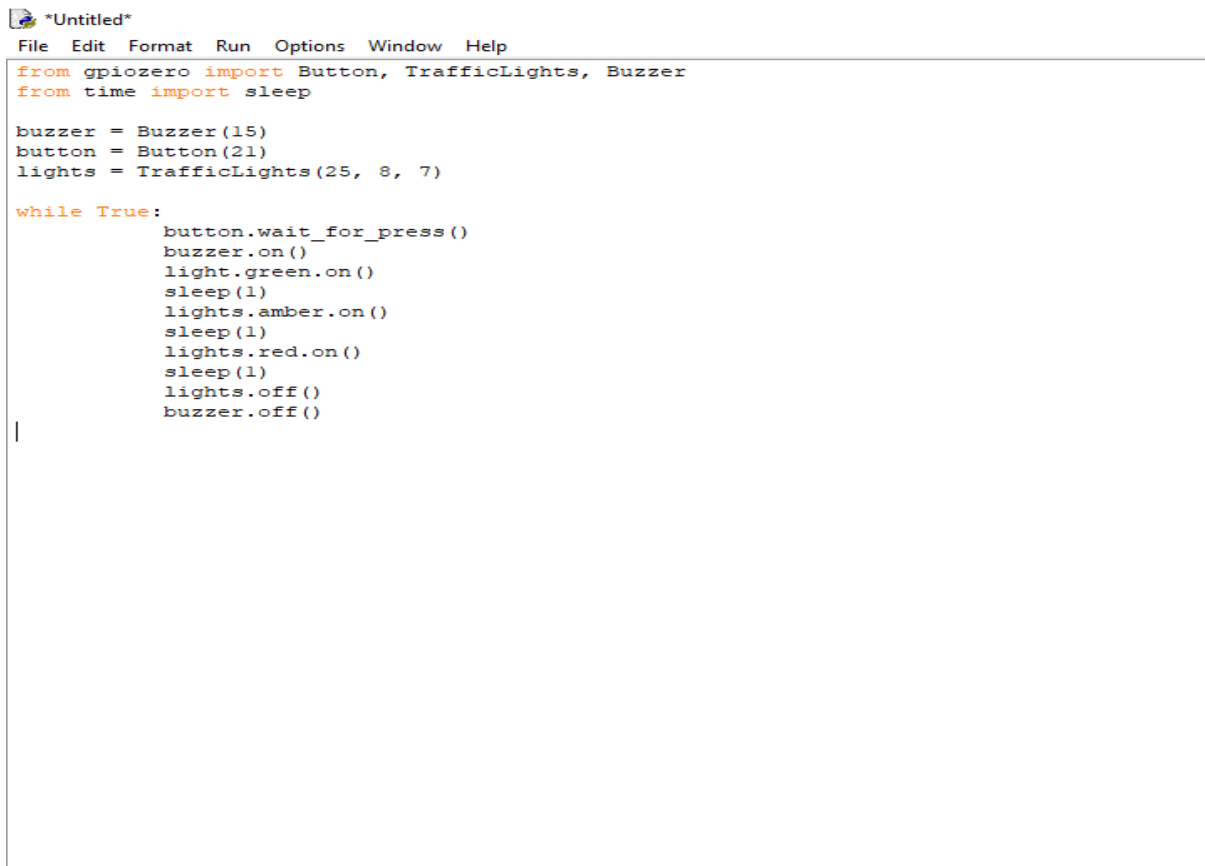
```

```

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()
```



A screenshot of a Python IDE window titled "\*Untitled\*". The window has a menu bar with "File", "Edit", "Format", "Run", "Options", "Window", and "Help". The code editor contains the following Python code:

```
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()
```

A vertical cursor is visible on the left side of the editor, positioned on the line following the last line of code.