KAVIYA D
917719C042

ASSIGNMENT 3

TASK ASSIGNED:

Write a python code for blinking LED and Traffic lights for Raspberry Pi.

PYTHON CODE FOR BLINKING LED:

```
from gpiozero import Button,LED
from time import sleep
button = Button(21)
led=LED(25)
while True:
    led.blink()
    button.wait_for_press()
    led.off()
    button.wait_for_release()
```

- Run the code and you'll see the LED blink on and off until the button is pressed, at which point it will turn off completely. When the button is released, it will start blinking again.
- Try adding some parameters to blink to make it blink faster or slower:
    - led.blink(2, 2) - 2 seconds on, 2 seconds off
    - led.blink(0.5, 0.5) - half a second on, half a second off

PYTHON CODE FOR TRAFFIC LIGHTS:

```
from gpiozero import Button,TrafficLights
from time import sleep
button=Button(21)
lights=TrafficLights(25,8,7)
while True:
    lights.blink()
    button.wait_for_press()
    lights.off()
    button.wait_for_release()
```

To perform an automated sequence of LEDs being lit:

```
from gpiozero import TrafficLights
from time import sleep
lights=TrafficLights(25,8,7)
while True:
    lights.green.on()#pin 25
    sleep(1)
    lights.amber.on()#pin 8
    sleep(1)
    lights.red.on()#pin 7
    sleep(1)
    lights.off()
```