ASSIGNMENT-3

Python Programming

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Question-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.

Solution:

```
from gpiozero import Button

button = Button(21)

while True:

print(button.is_pressed)

while True:

if button.is_pressed:

print("Hello")

else:

print("Goodbye")

while True:

button.wait_for_press()

print("Pressed")

button.wait_for_release()

print("Released")

from gpiozero import Button, LED

led = LED(25)

while True:

button.wait_for_press()

led.on()

button.wait_for_release()
```

```
led.off()
while True:
led.on()
button.wait_for_press()
led.off()
button.wait_for_release()
while True:
led.blink()
button.wait_for_press()
led.off()
button.wait_for_release()
from gpiozero import Button, TrafficLights
lights = TrafficLights(25, 8, 7)
while True:
button.wait_for_press()
lights.on()
button.wait_for_release()
lights.off()
while True:
lights.blink()
button.wait_for_press()
lights.off()
button.wait_for_release()
from gpiozero import Button, TrafficLights, Buzzer
buzzer = Buzzer(15)
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()
from time import sleep
while True:
lights.green.on()
sleep(1)
lights.amber.on()
sleep(1)
lights.red.on()
sleep(1)
lights.off()
while True:
button.wait_for_press()
lights.green.on()
sleep(1)
lights.amber.on()
sleep(1)
```

```
lights.red.on()

sleep(1)

lights.off()
```