# Assignment -1

Problem Statement :

lo T-Based Industry - Real-Time River Water Quality Monitoring and Control

System Domain :

Internet of Thing

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| Assignment Date | 28 October 2022 |
| Student Name | V.SARANRAJ |
| Student Roll Number | 623019103015 |
| Maximum Marks | 2 Marks |

# 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()