

ASSIGNMENT -3

Python Programming for Raspberry pi

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| Assignment Date | 13 October 2022 |
| Student Name | YESUDAS S |
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| Team ID | PNT2022TMID31899 |
| 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.

SOLUTION :

PYTHON CODE FOR BLINKING LED FOR RASPBERRY PI

```
import RPi.GPIO as GPIO # Import Raspberry Pi GPIO library
from time import sleep # Import the sleep function from the time module
```

```
GPIO.setwarnings(False) # Ignore warning for now
GPIO.setmode(GPIO.BOARD) # Use physical pin numbering
GPIO.setup(8, GPIO.OUT, initial=GPIO.LOW) # Set pin 8 to be an output pin and set initial value to low (off)
```

```
while True: # Run forever
    GPIO.output(8, GPIO.HIGH) # Turn on
    sleep(1) # Sleep for 1 second
    GPIO.output(8, GPIO.LOW) # Turn off
    sleep(1) # Sleep for 1 second
```

PYTHON CODE FOR TRAFFIC LIGHT SYSTEM USING RASPBERRY PI

```
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()
```