# Assignment -3

## Python Programming

| | |
|---|---|
| **Assignment Date** | **06 October 2022** |
| **Student Name** | **Hari Shankhar M** |
| **Student Roll Number** | **412519106303** |

**Question-1:**

**Write python code for blinking LED and Traffic lights for Raspberry pi.**

**Solution:**

```python
import RPi.GPIO as GPIO
import time
import signal
import sys




# Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)




# Turn off all lights when its end
def allLightsOff(signal, frame):
        GPIO.output(9, False)
        GPIO.output(10, False)
        GPIO.output(11, False)
        GPIO.cleanup()
        sys.exit(0)
```

```python
signal.signal(signal.SIGINT, allLightsOff)




# Loop for led light
while True:
        # RED LIGHT
        GPIO.output(9, True)
        time.sleep(3)

        # RED AND YELLOW
        GPIO.output(10, True)
        time.sleep(1)

        # GREEN LIGHT
        GPIO.output(9, False)
        GPIO.output(10, False)
        GPIO.output(11, True)
        time.sleep(5)

        # YELLOW LIGHT
        GPIO.output(11, False)
        GPIO.output(10, True)
        time.sleep(2)

        #YELLOW OFF (red start from first loop)
        GPIO.output(10, False)
```