SPRINT – 3

PROJECT - Signs With Smart Connectivity For Better Road Safety

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GOALS :-

1. **Integration of hardware like IOT sensors and Digital Signboard to IBM cloud using Node Red**.

CODING :

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials

organization - z78lx0
deviceType - raspberrypi
deviceId - 12345
authMethod - use-token-auth
auth-token – 12345678

 # Initialize GPIO

#print(cmd)

 try:
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth   method":
authMethod, "auth-token": authToken}
deviceCli = ibmiotf.device.Client(deviceOptions)

#.....

except Exception as e:
 print("Caught exception connecting device: %s" % str(e))
sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
"greeting" 10 times

deviceCli.connect()
while True:
#Get Sensor Data from DHT11

speed=random.randint(50,100);
data = { 'speed' : speed }
```

```
#print data
def myOnPublishCallback():
print ("Published Driver Speed = %s km" % speed, "to IBM Watson")
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
if not success:
print("Not connected to IoTF")
time.sleep(5)
deviceCli.commandCallback = 'myCommandCallback'

# Disconnect the device and application from the cloud

deviceCli.disconnect()
```