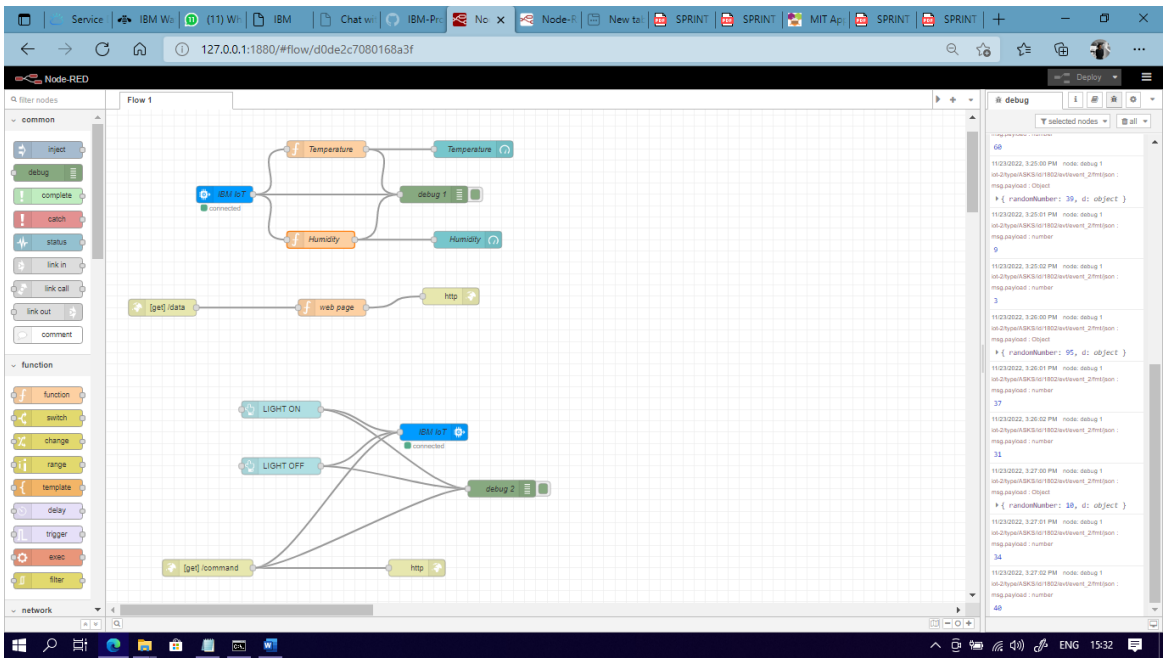
SPRINT - 4

Team ID	PNT2022TMID47529
Project Name	**Project** - Gas Leakage Monitoring and Alerting System
Maximum Marks	2 Marks
Team Members Team Head Team Member 1 Team Member 2 Team Member 3	 AJAY KUMAR K – 910419106001 SNEHA R M – 910419106301 KANNAKI M – 910419106003 SUBITSHA R – 910419106009

NODE-RED



CODE:

```
IMPORT TIME
IMPORT SYS
IMPORT IBMIOTF.APPLICATION
IMPORT IBMIOTF.DEVICE
IMPORT RANDOM
#PROVIDE YOUR IBM WATSON DEVICE CREDENTIALS
ORGANIZATION = "R0CXW7"
DEVICETYPE = "ASKS"
DEVICEID = "1802"
AUTHMETHOD = "TOKEN"
AUTHTOKEN = "WYQPYB74LOS8@UGKWD"
# INITIALIZE GPIO
DEF MYCOMMANDCALLBACK(CMD):
   PRINT("COMMAND RECEIVED: %S" % CMD.DATA['COMMAND'])
   STATUS=CMD.DATA['COMMAND']
   IF STATUS=="LIGHTON":
      PRINT ("LED IS ON")
   ELIF STATUS == "LIGHTOFF":
      PRINT ("LED IS OFF")
   ELSE :
      PRINT ("PLEASE SEND PROPER COMMAND")

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
   TEMP=RANDOM.RANDINT(90,110)
   HUMID=RANDOM.RANDINT(60,100)

   DATA = { 'TEMP' : TEMP, 'HUMID': HUMID }
   #PRINT DATA
   DEF MYONPUBLISHCALLBACK():
      PRINT ("PUBLISHED TEMPERATURE = %S C" % TEMP,
"HUMIDITY = %S %%" % HUMID, "TO IBM WATSON")

   SUCCESS = DEVICECLI.PUBLISHEVENT("IOTSENSOR", "JSON",
DATA, QOS=0, ON_PUBLISH=MYONPUBLISHCALLBACK)
IF NOT SUCCESS:
   PRINT("NOT CONNECTED TO IOTF")
   TIME.SLEEP(10)

   DEVICECLI.COMMANDCALLBACK = MYCOMMANDCALLBACK
# DISCONNECT THE DEVICE AND APPLICATION FROM THE
CLOUD
DEVICECLI.DISCONNECT()
```