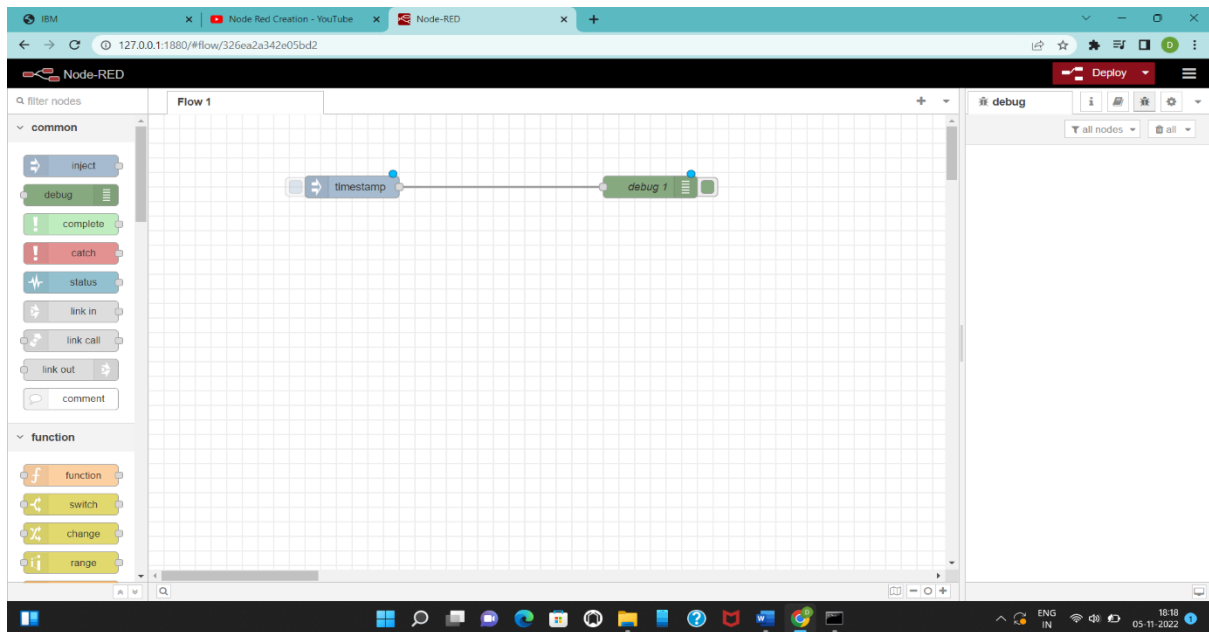


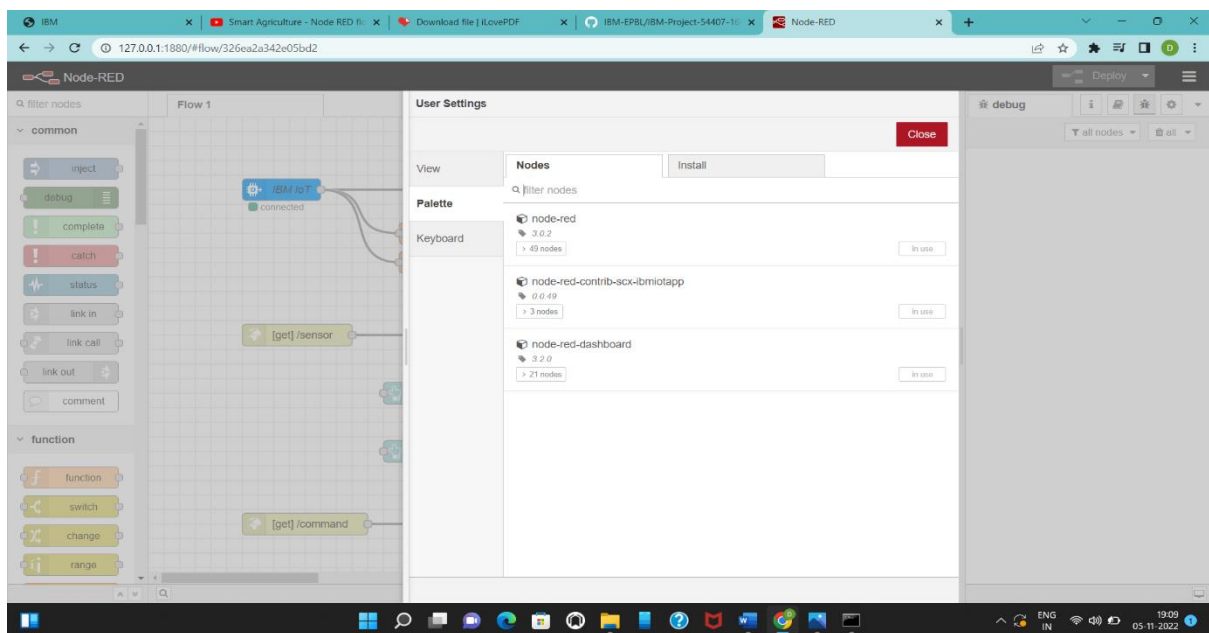
# Build A Web Application Using Node-RED

Date	1 November 2022
Team ID	PNT2022TMID41338
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

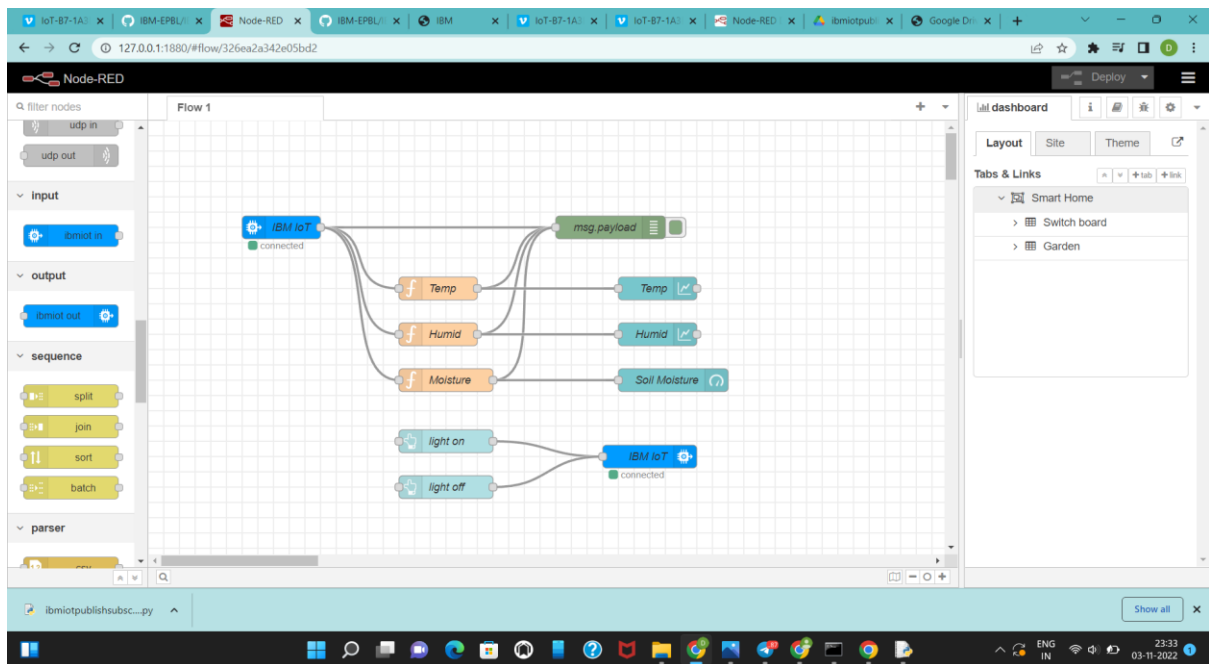
## Open a Node-RED



## Installing a node-red-contrib-scx-ibmiotapp and node-red-dashboard



# Designing A Web Application



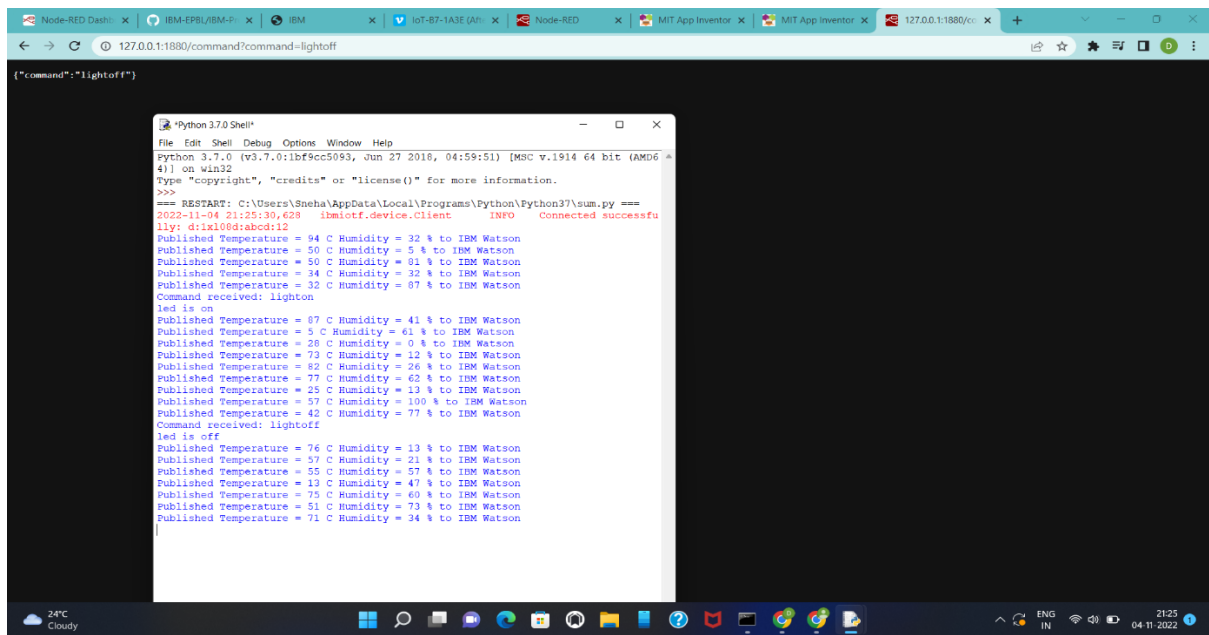
## Checking IoT Sensor Output in IBM Watson

The screenshot shows the IBM Watson IoT Platform dashboard. The 'Recent Events' tab is selected, displaying a table of live stream data. The table has four columns: Event, Value, Format, and Last Received. The data shows five events from an 'IoT Sensor' with values for temperature and humidity in JSON format, received a few seconds ago.

Event	Value	Format	Last Received
IoT Sensor	{"temp":19,"Humid":62}	json	a few seconds ago
IoT Sensor	{"temp":26,"Humid":100}	json	a few seconds ago
IoT Sensor	{"temp":24,"Humid":42}	json	a few seconds ago
IoT Sensor	{"temp":35,"Humid":56}	json	a few seconds ago
IoT Sensor	{"temp":48,"Humid":29}	json	a few seconds ago

Items per page 50 | 1-1 of 1 item

## Checking IoT sensor using command in Node-RED



The screenshot shows a web browser window with the URL `127.0.0.1:1880/command?command=lightoff`. The main content area displays the output of a Python 3.7.0 shell. The output includes a restart message, a successful connection to an IBM IoT device, and a series of sensor readings (Temperature and Humidity) published to IBM Watson. The output also shows the execution of the `lighton` and `lightoff` commands, with corresponding status messages and sensor readings.

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 [v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51] [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:\Users\Sneha\AppData\Local\Programs\Python\Python37\sum.py ==
3022-11-04 21:25:30.628 |bmiothf.device.Client |INFO |connected successfully: d:ix108d:abcd:12
Published Temperature = 94 C Humidity = 32 % to IBM Watson
Published Temperature = 50 C Humidity = 5 % to IBM Watson
Published Temperature = 50 C Humidity = 01 % to IBM Watson
Published Temperature = 34 C Humidity = 32 % to IBM Watson
Published Temperature = 32 C Humidity = 87 % to IBM Watson
Command received: lighton
led is on
Published Temperature = 87 C Humidity = 41 % to IBM Watson
Published Temperature = 5 C Humidity = 61 % to IBM Watson
Published Temperature = 28 C Humidity = 0 % to IBM Watson
Published Temperature = 73 C Humidity = 12 % to IBM Watson
Published Temperature = 82 C Humidity = 26 % to IBM Watson
Published Temperature = 77 C Humidity = 42 % to IBM Watson
Published Temperature = 25 C Humidity = 13 % to IBM Watson
Published Temperature = 57 C Humidity = 100 % to IBM Watson
Published Temperature = 42 C Humidity = 77 % to IBM Watson
Command received: lightoff
led is off
Published Temperature = 76 C Humidity = 13 % to IBM Watson
Published Temperature = 57 C Humidity = 21 % to IBM Watson
Published Temperature = 55 C Humidity = 57 % to IBM Watson
Published Temperature = 13 C Humidity = 47 % to IBM Watson
Published Temperature = 75 C Humidity = 60 % to IBM Watson
Published Temperature = 51 C Humidity = 73 % to IBM Watson
Published Temperature = 71 C Humidity = 34 % to IBM Watson
```

## Output in Node-RED Dashboard

