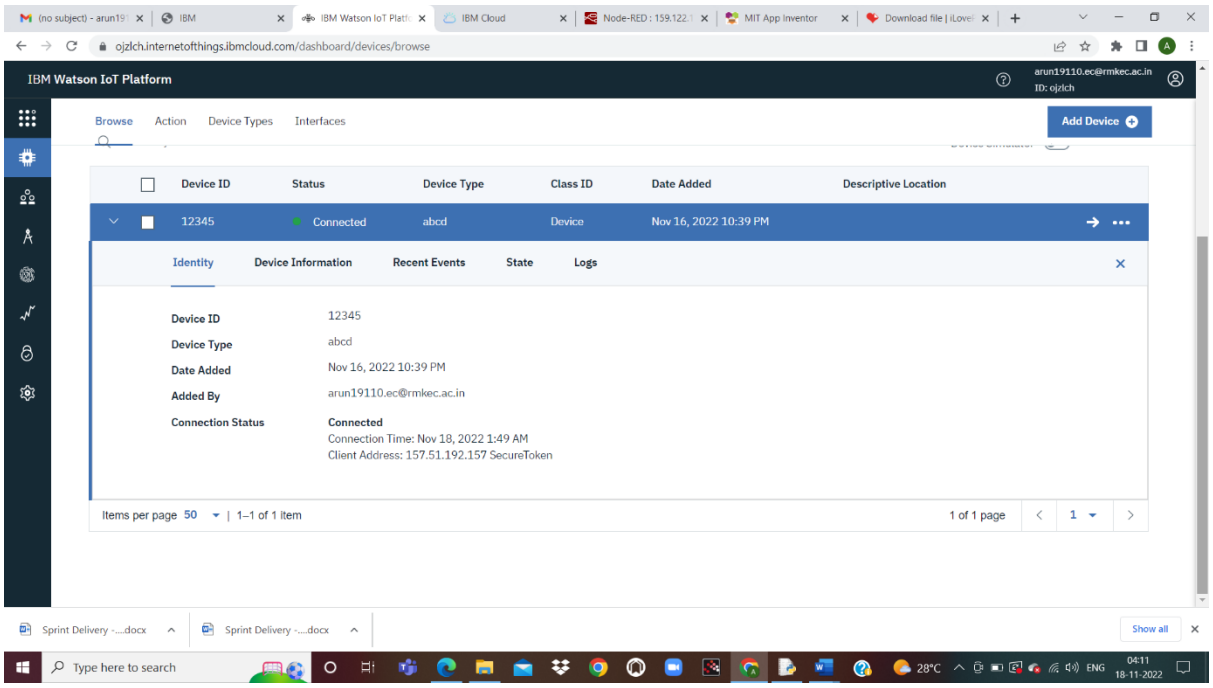
SmartFarmer - IoT Enabled Smart Farming Application

Project Development Phase – Sprint 2

IBM Watson IOT Platform

- **Create a device**



Organization ID - ojzlch

Device Type - abcd

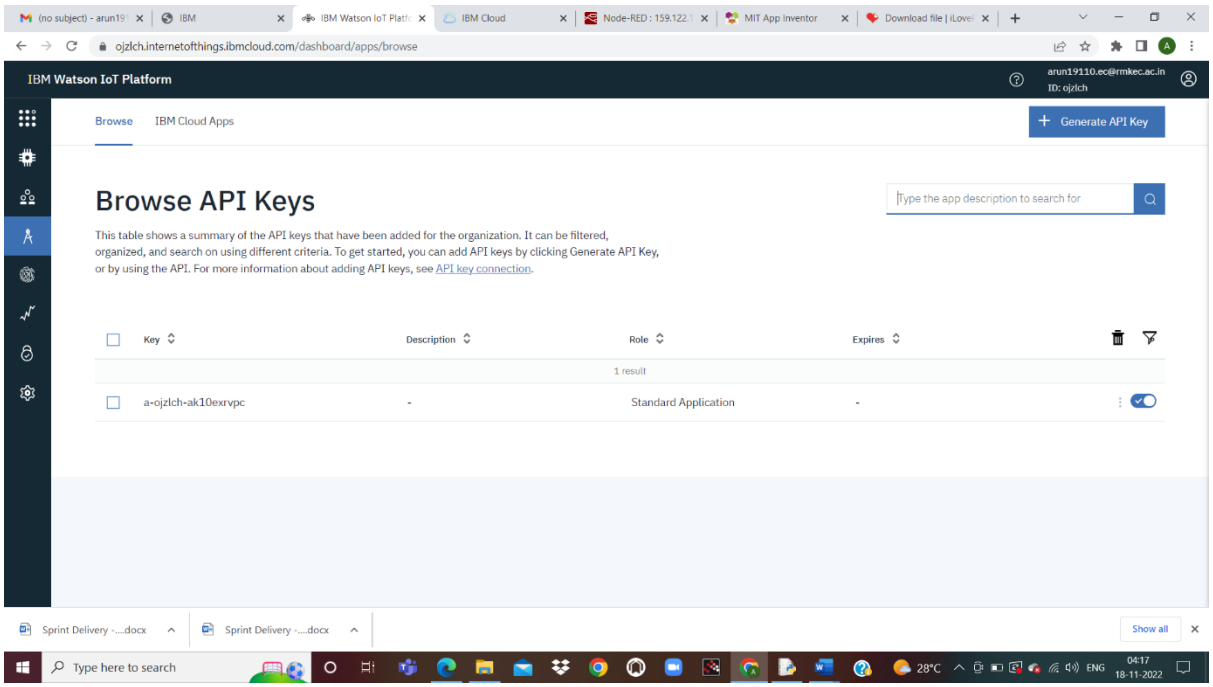
Device ID – 12345

Authentication Method - use-token-auth

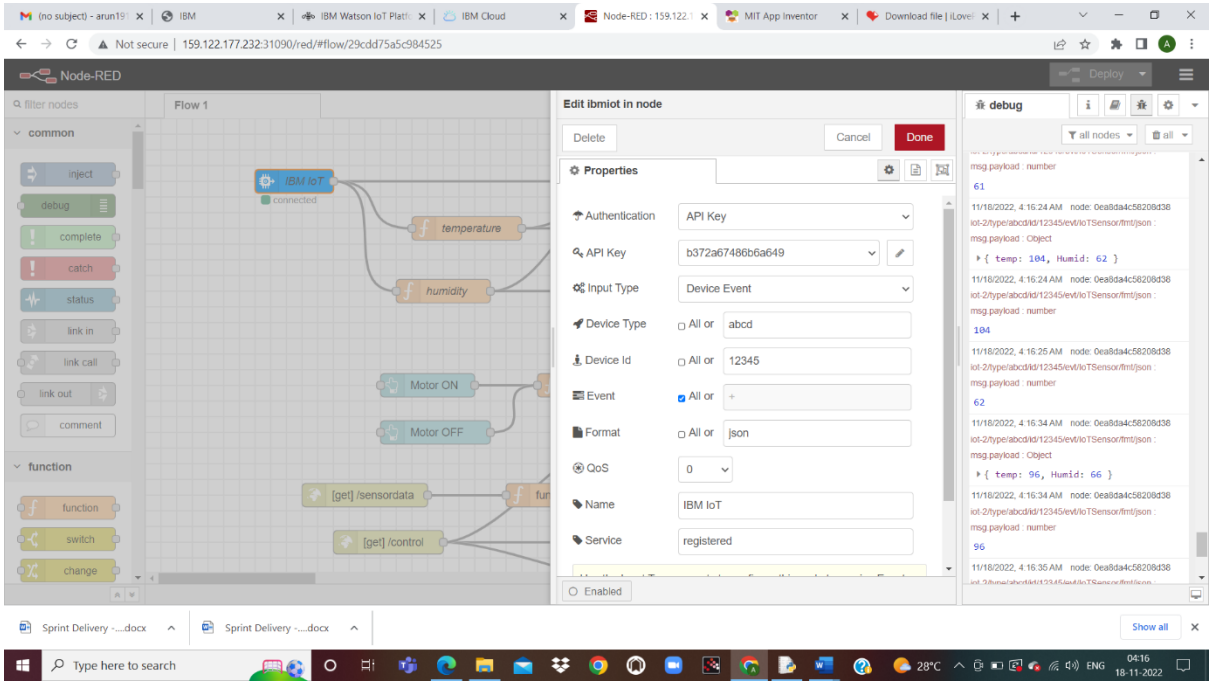
Authentication Token – 12345678

Configuration of Node-Red to collect IBM cloud data

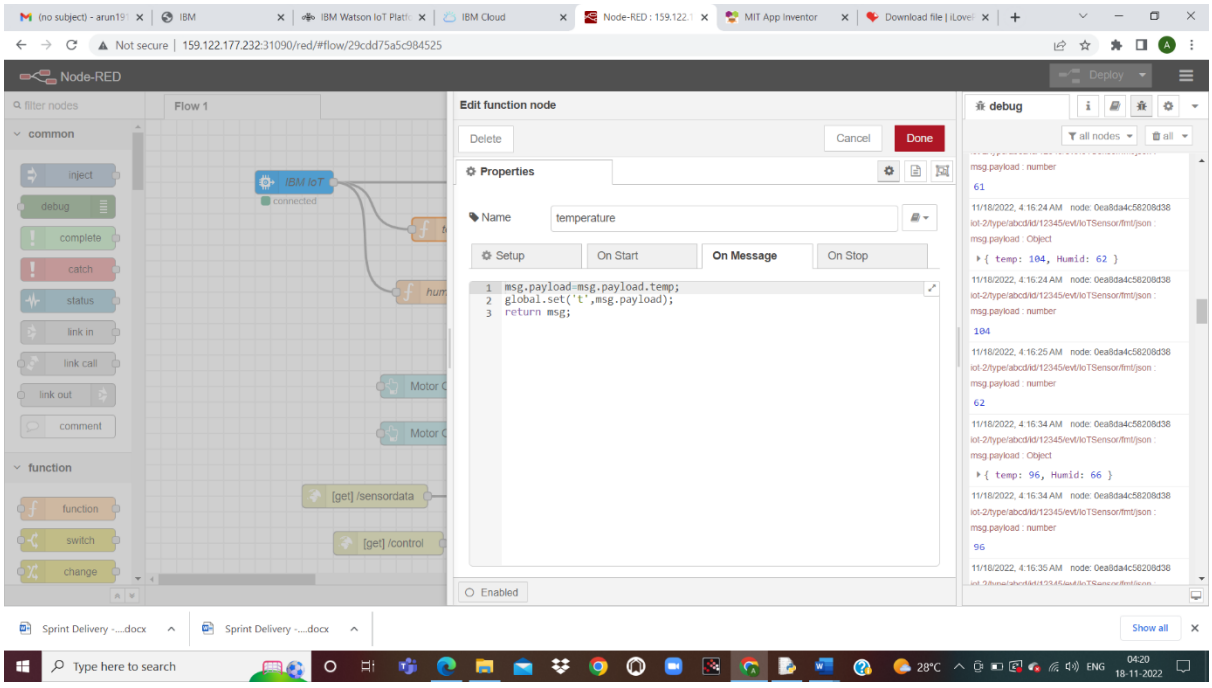
- **Generate API Key in IBM Watson platform**



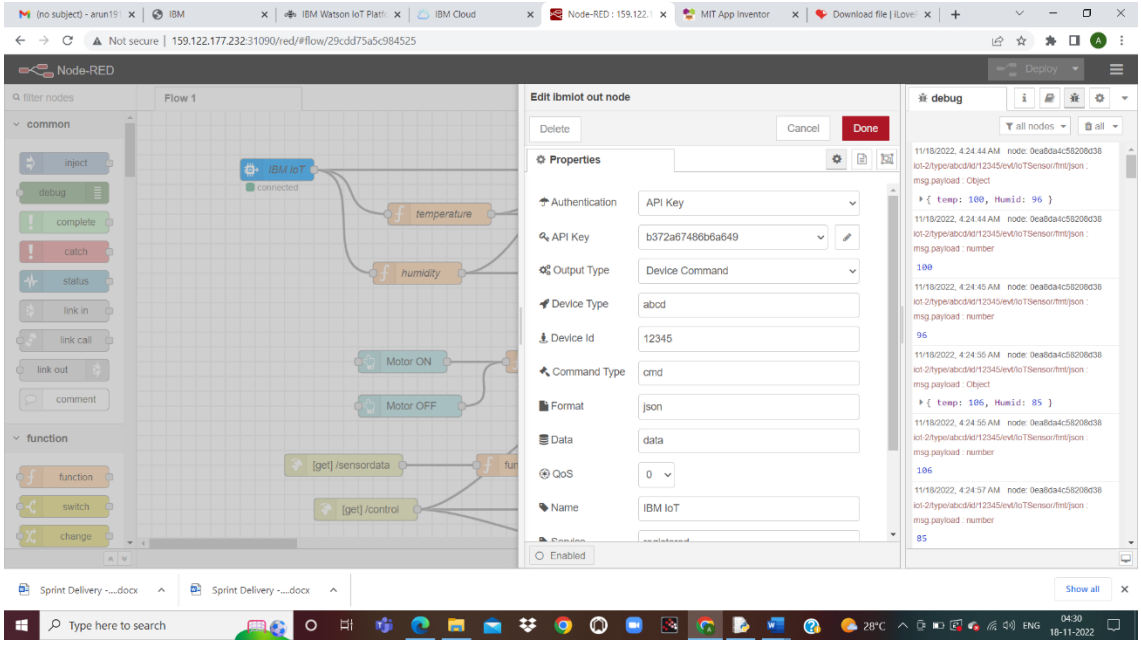
- **API key - a-ojzlch-ak10exrvpc**
- **API token - 9ytp@m&GQxWYIs5J2h**

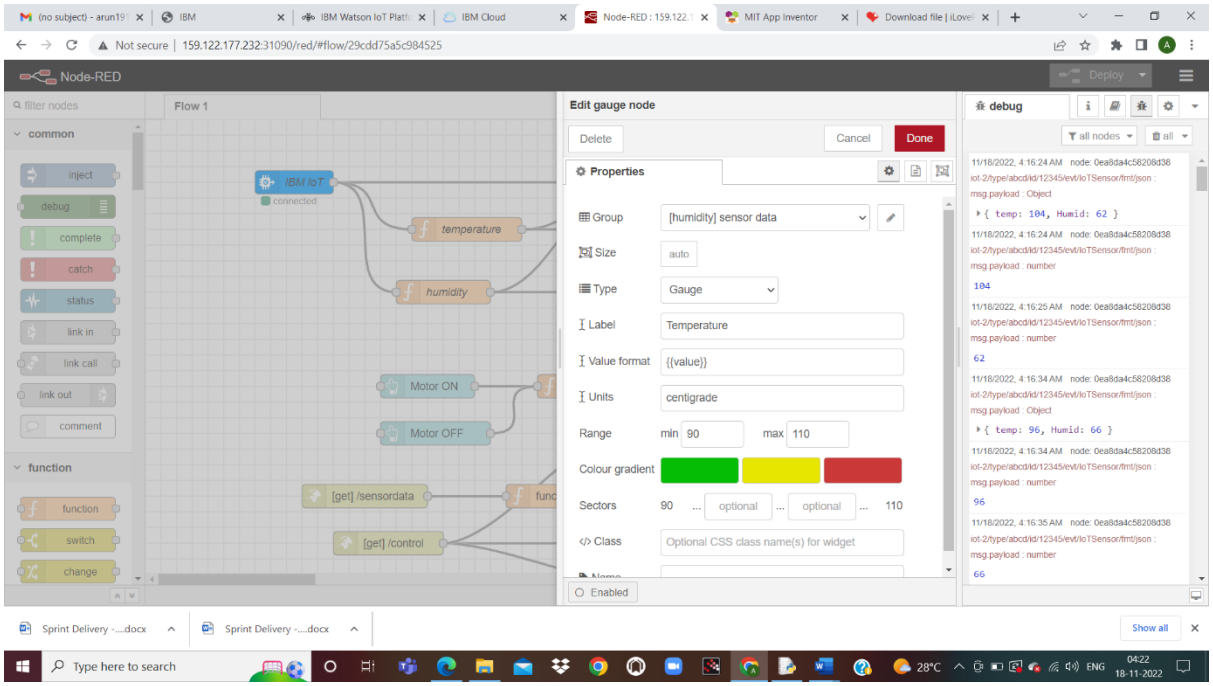


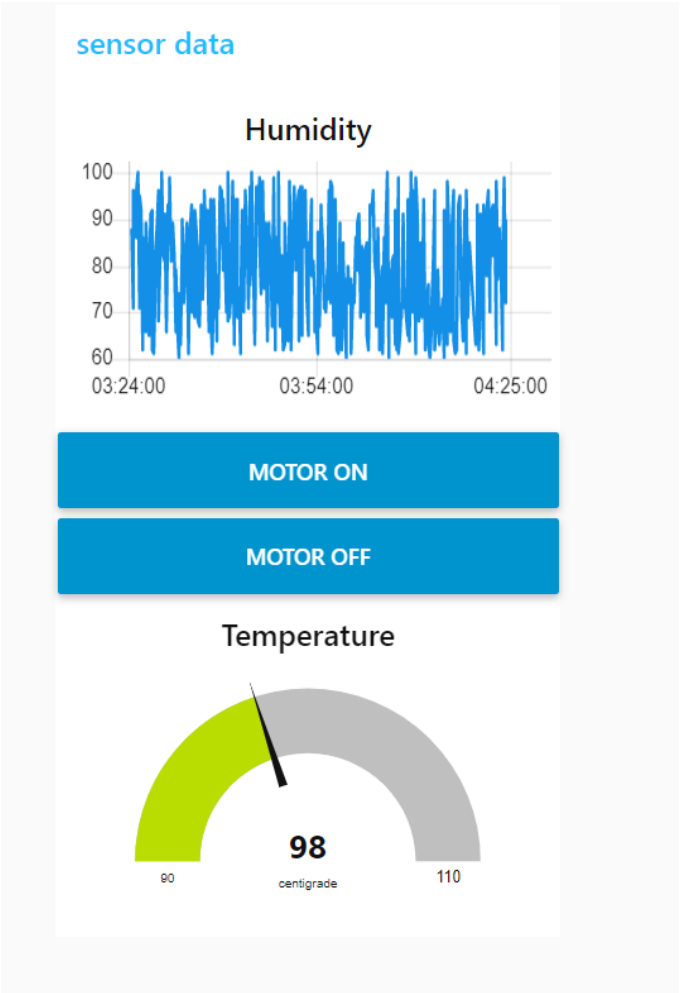
- **The node IBM IoT App In is added to Node-Red workflow. Then the appropriatedevice credentials obtained earlier are entered into the node to connect and fetch device telemetry to Node red.**
- **Once it is connected Node-Red receives data from the deviceDisplay the data using debug node for verification Connect function node and write the Java script code to get each readingseparately.**



- **The Java script code for the function node is: msg.payload=msg.payload.d.temperature; returnmsg;**
- **Finally connect Gauge nodes from dashboard to see the data in UI.**




Node-RED
Flow 1
Edit gauge node
Delete
Cancel
Done
Properties
Group
[humidity] sensor data
Size
auto
Type
Gauge
Label
Temperature
Value format
{{value}}
Units
centigrade
Range
min 90
max 110
Colour gradient
Sectors
90 ... optional ... optional ... 110
Class
Optional CSS class name(s) for widget
Enabled
debug
IBM IoT
connected
temperature
humidity
Motor ON
Motor OFF
[get] /sensordata
[get] /control
inject
debug
complete
catch
status
link in
link call
link out
comment
function
switch
change


sensor data
Humidity
100
90
80
70
60
03:24:00
03:54:00
04:25:00
MOTOR ON
MOTOR OFF
Temperature
98
90
centigrade
110