**BuildaWebApplicationUsingNode-RED**

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| Date | 17November 2022 |
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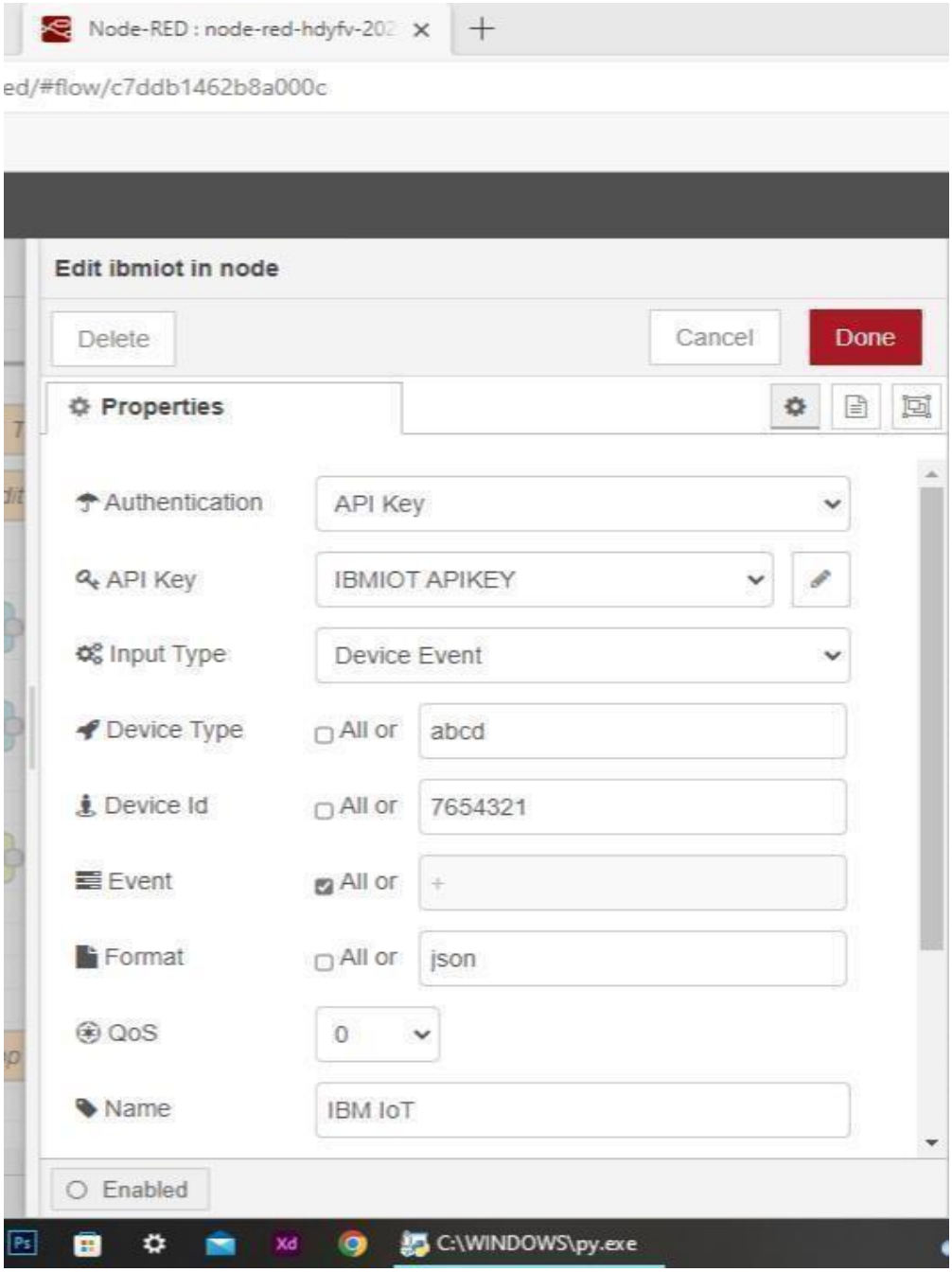
| ProjectName | Project – Smart Farmer-IoT Enabled smartFarmingApplication |

## ConfigurationofNode-Redtosendcommands toIBMcloud

ibmiot out node I used to send data from Node-Red to IBM Watson device.
So,afteraddingittotheflowweneedtoconfigureitwithcredentialsofourWatsondevice.



Hereweaddtwo buttonsinUI1->formotoron

2->formotoroff

Weusedafunctionnodetoanalysesthedatareceivedandassigncommandtoeachnumber.

The Java script code for the analyses

is:if(msg.payload===1)

msg.payload={"command”:

“ON"};else

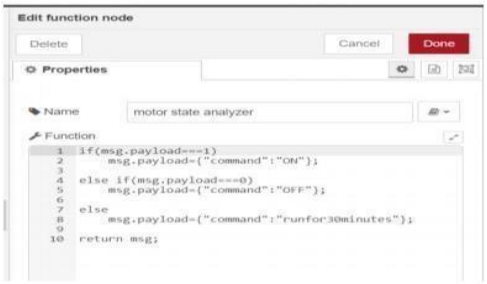
if(msg.payload===0)msg.payload={

"command”:“OFF"};

Then we use another function node to parse the data and get the command and represent it visually with text node.

The Java script code for that function node is:

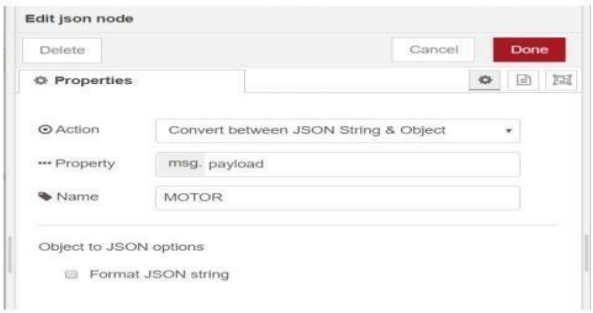
```
var state=msg.payload;
msg.payload = state.command;
return msg;
```



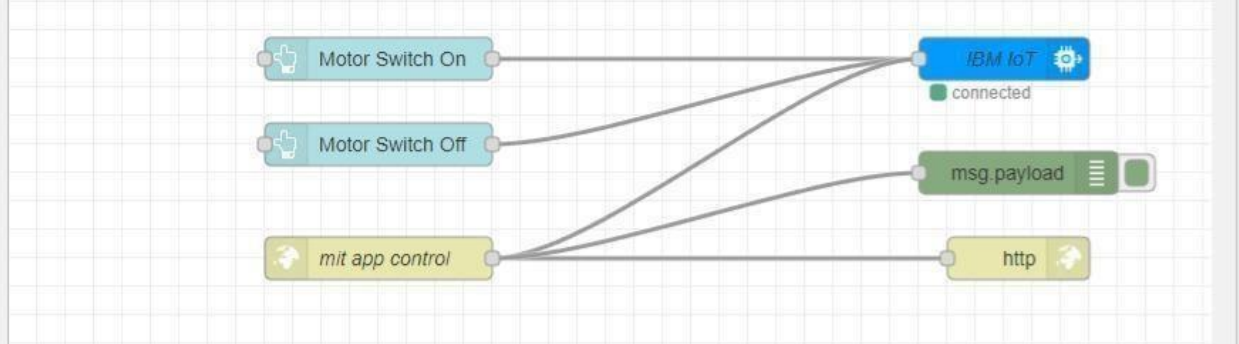


The above images show the java script codes of analyser and state function nodes.

Then we add edit Json node to the conversion between JSON string & object and finally connect it to IBM IoT Out.




Edit JSON node needs to be configured like this



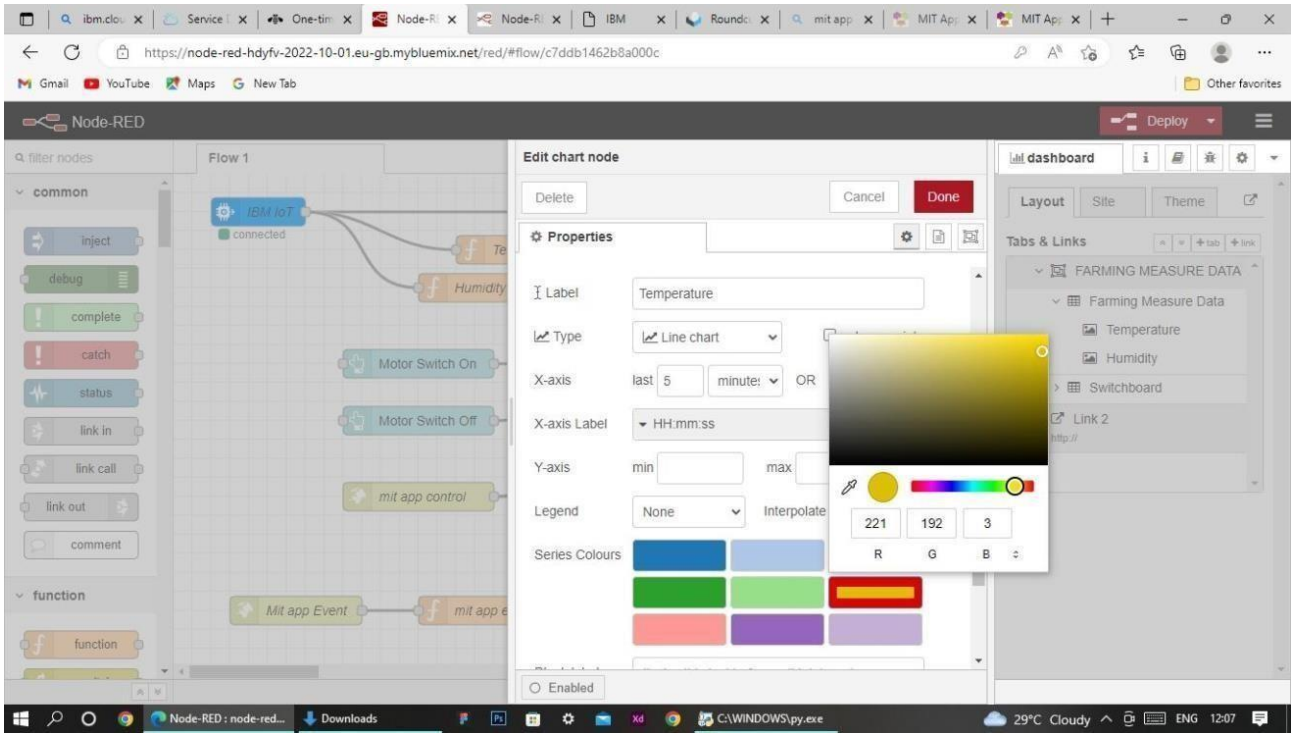

ThisistheprogramflowforsendingcommandstoIBMcloud.

## AdjustingUserInterface

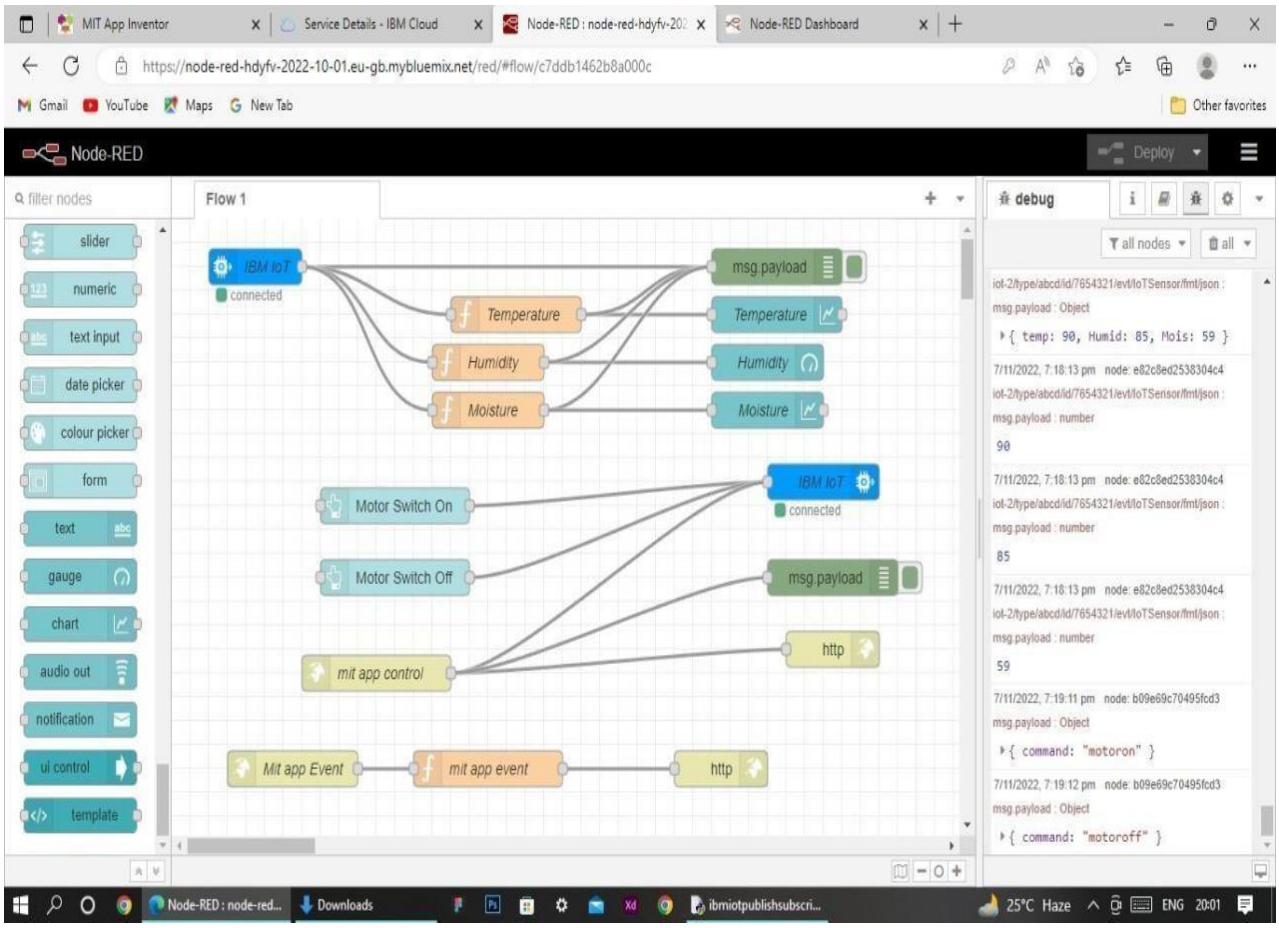
InordertodisplaytheparsedJSONdataaNode-Reddashboardis created

HerewareusingGauges,textandbuttonnodestodisplayintheUIandhelpstomonitortheparametersandcontrolthefarmequipment.

BelowimagesaretheGauge,textandbuttonnodeconfigurations.



## CompleteProgramFlow



# Web APPUIHomeTab