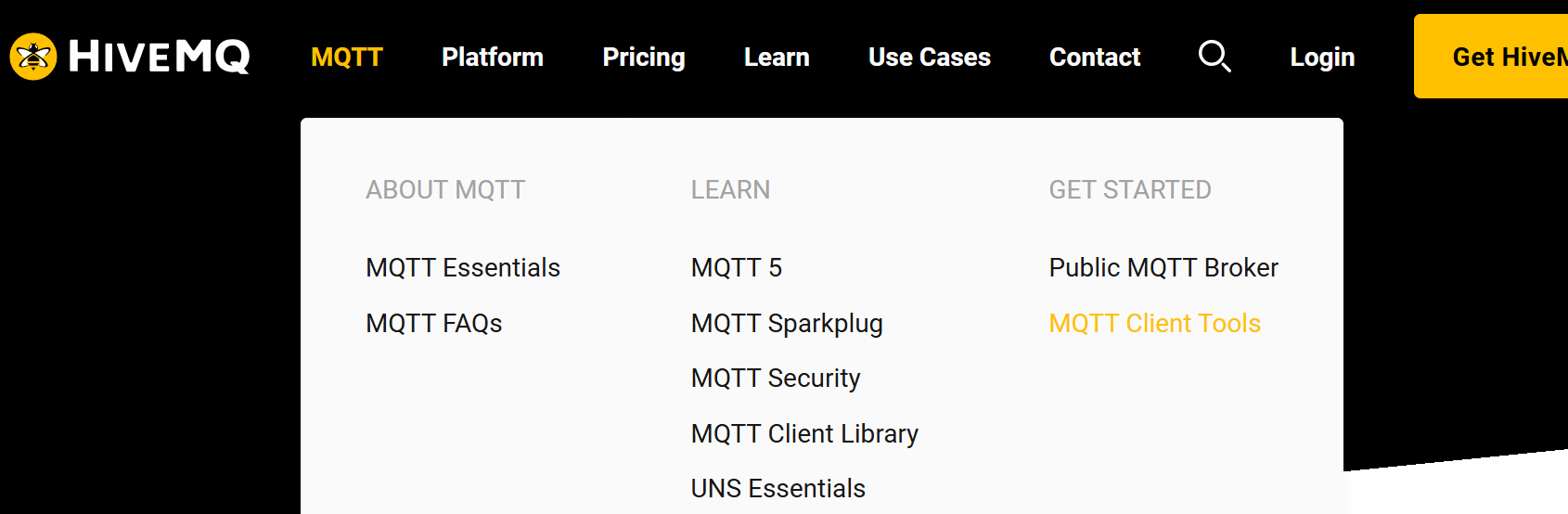
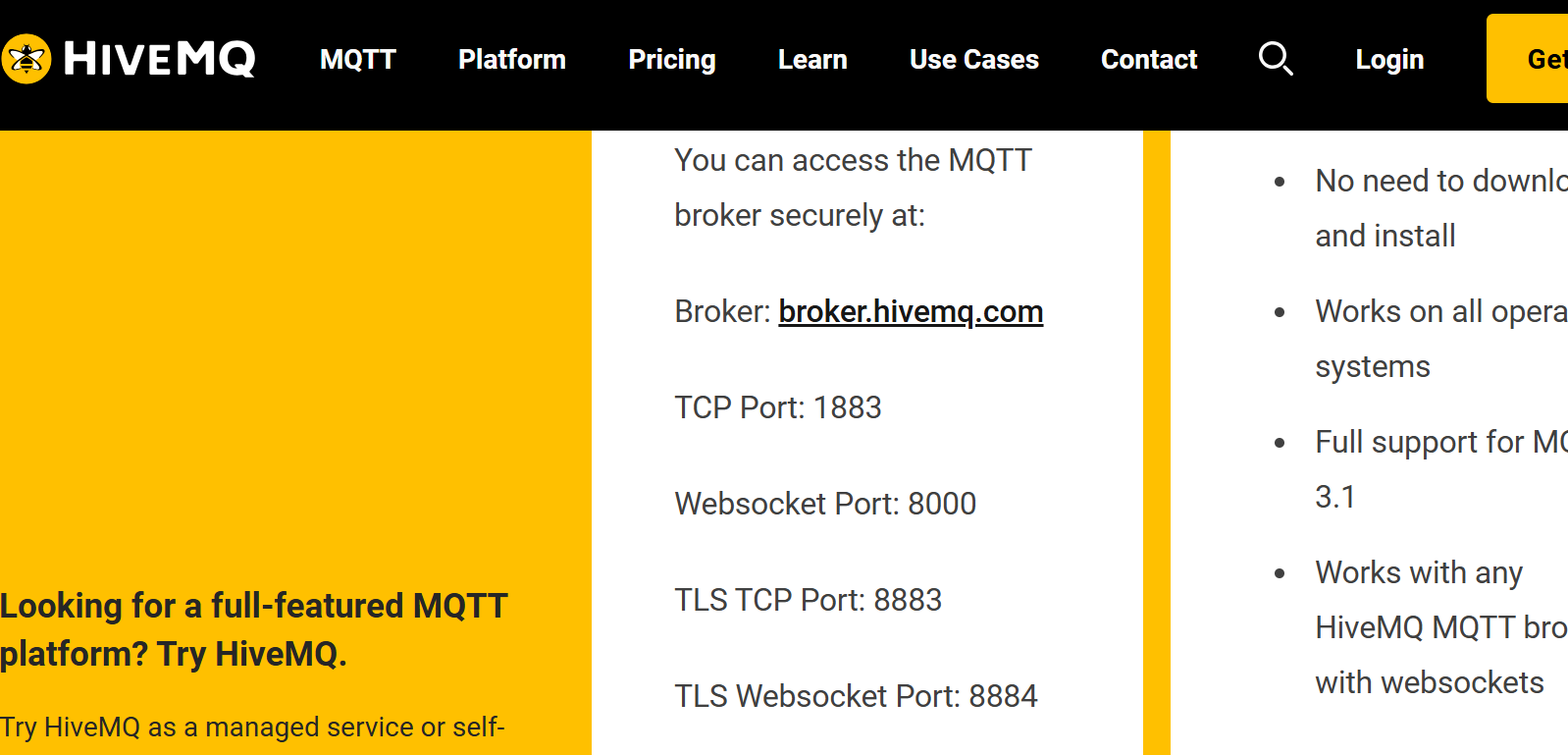
**Cloud:-hivemq**





**Program for connecting NodeMCU(client) to HiveMQ(Server) using MQTT publish**

#include<ESP8266WiFi.h>

#include<PubSubClient.h>

#include<DHT.h>

#define DHTPIN D2

String ssid="S22";

String password="12345678";

const char\* mqtt\_server="broker.hivemq.com";

DHT dht(DHTPIN,DHT11);

WiFiClient esp;     //NodeMCU object

PubSubClient client(esp);   //NodeMCU esp (MQTT Client)

int temp,humi;

void setup() {

  // put your setup code here, to run once:

dht.begin();

Serial.begin(115200);

WiFi.begin(ssid,password);

while(WiFi.status()!=WL\_CONNECTED)

{

  delay(500);

  Serial.print(".");

}

Serial.print("connected to the hotspot");

Serial.print(WiFi.localIP());

client.setServer(mqtt\_server,1883);

}

void loop() {

  // put your main code here, to run repeatedly:

 if(!client.connected())

 {

   reconnect();  //function call

 }

 client.loop(); //stay connected with the server (connection alive)

 humi=dht.readHumidity();

 temp=dht.readTemperature();

 Serial.print("temp=");

 Serial.print(temp);

 Serial.print("hum=");

 Serial.print(humi);

 client.publish("TempWeather",String(temp).c\_str());   //(Topic,Sensor value)

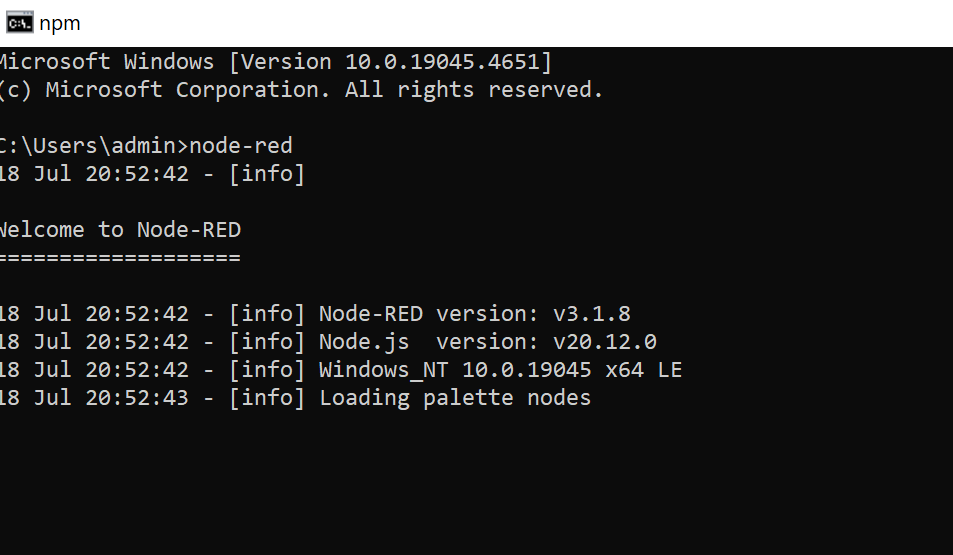
 client.publish("HumiWeather",String(humi).c\_str());

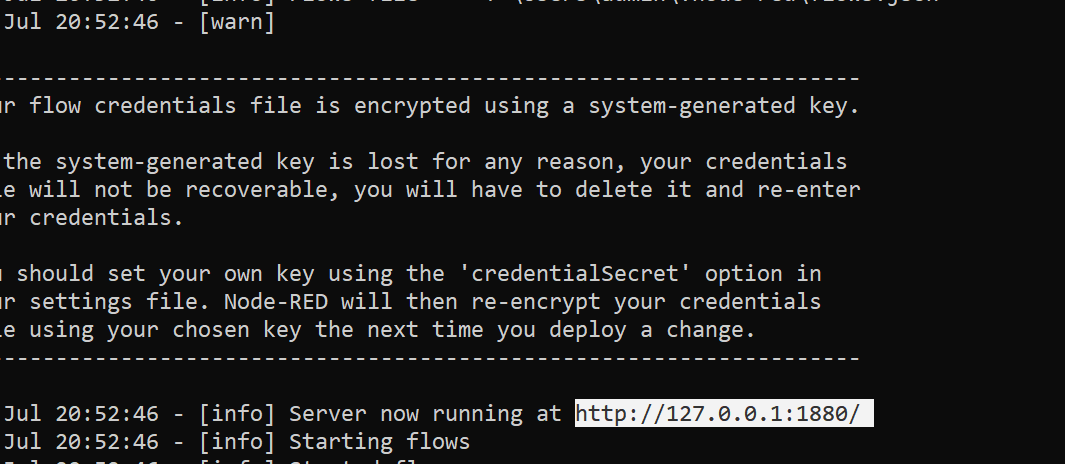
 delay(1000);

}

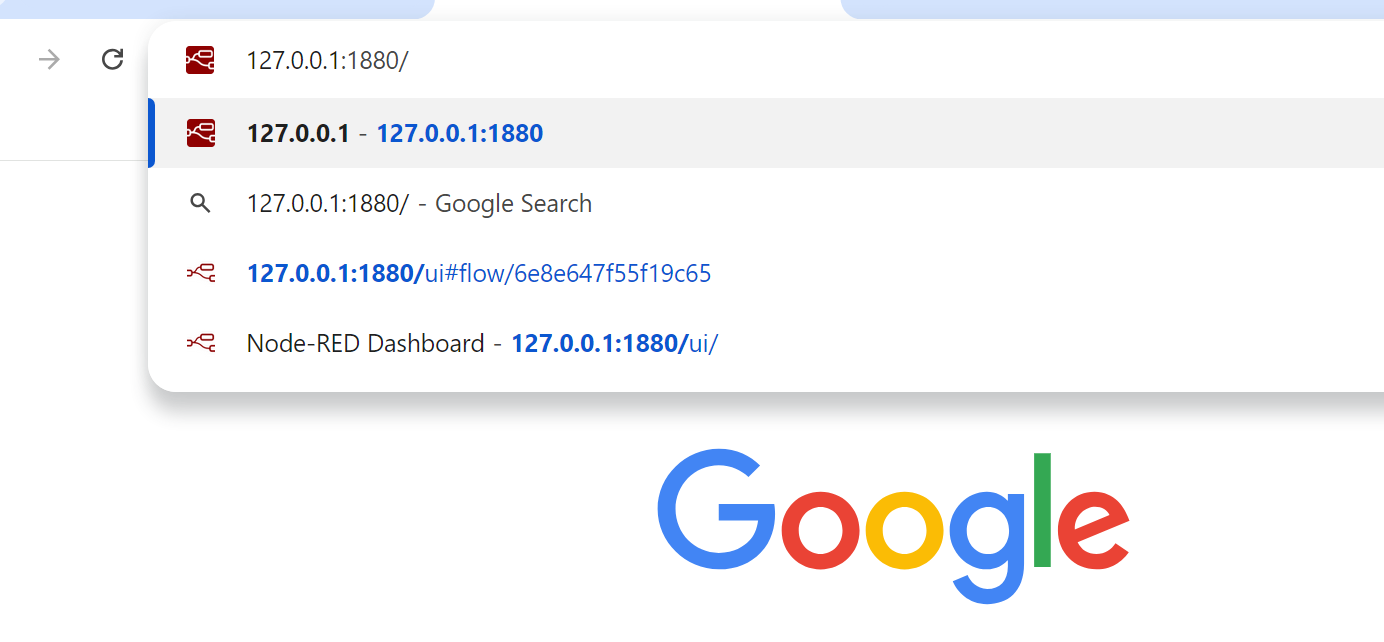
**Making Dashboard using NodeRED**

Type node-red in the command prompt

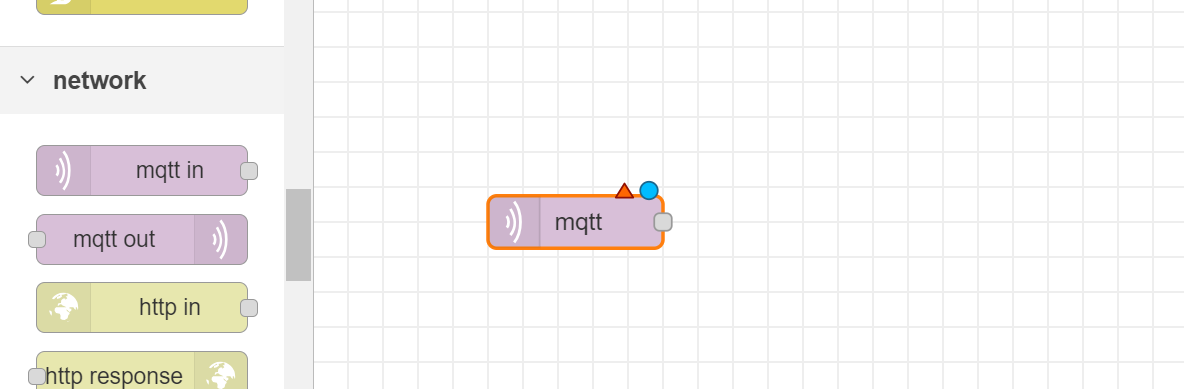




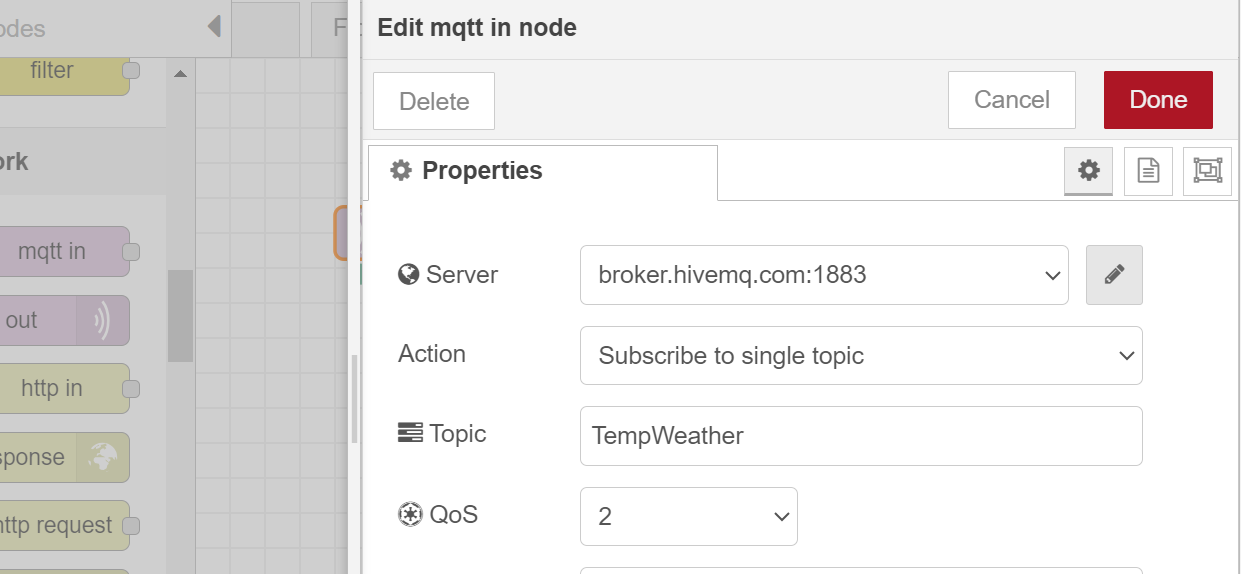
Enter the local ip address running on the system

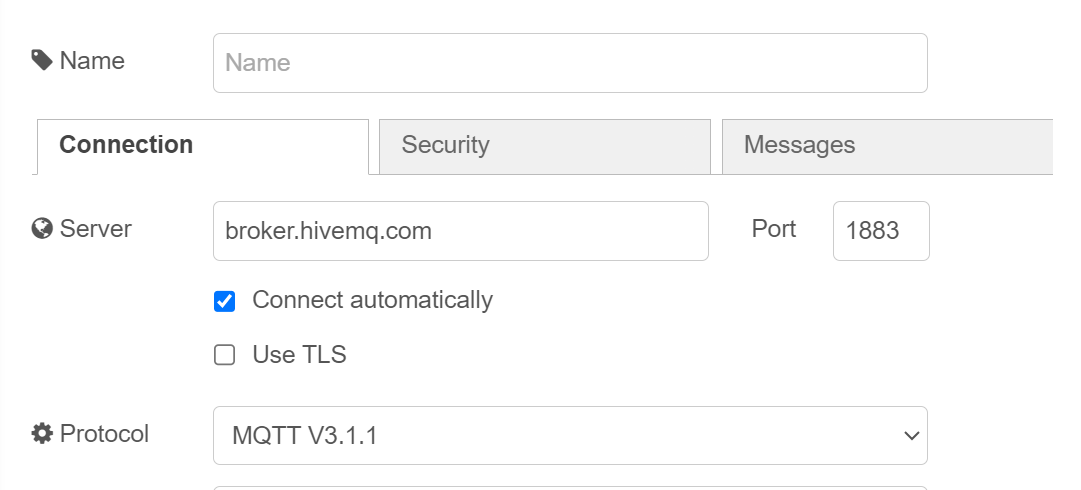


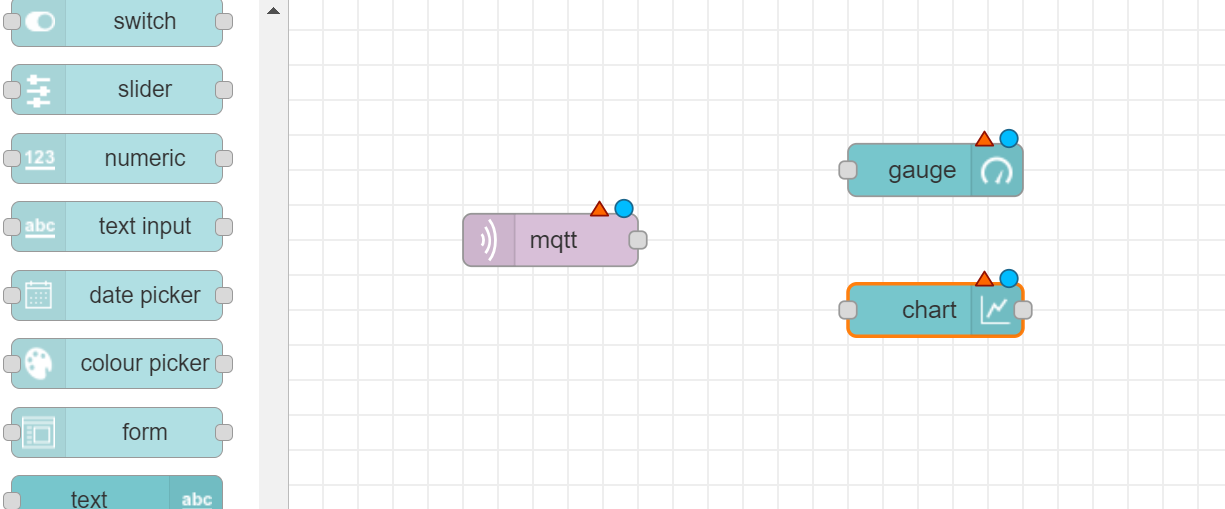
Select mqtt in network block



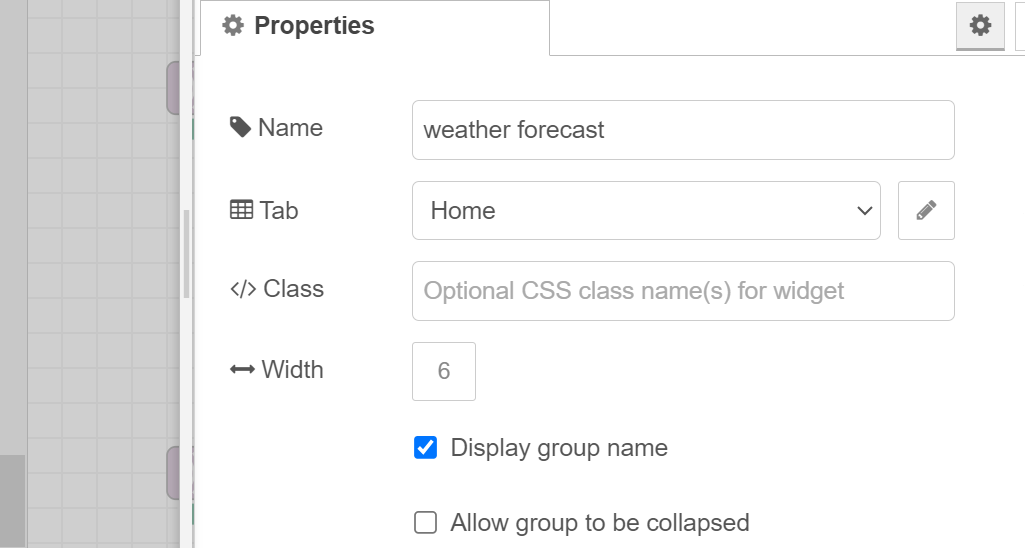
Configure the mqtt in block

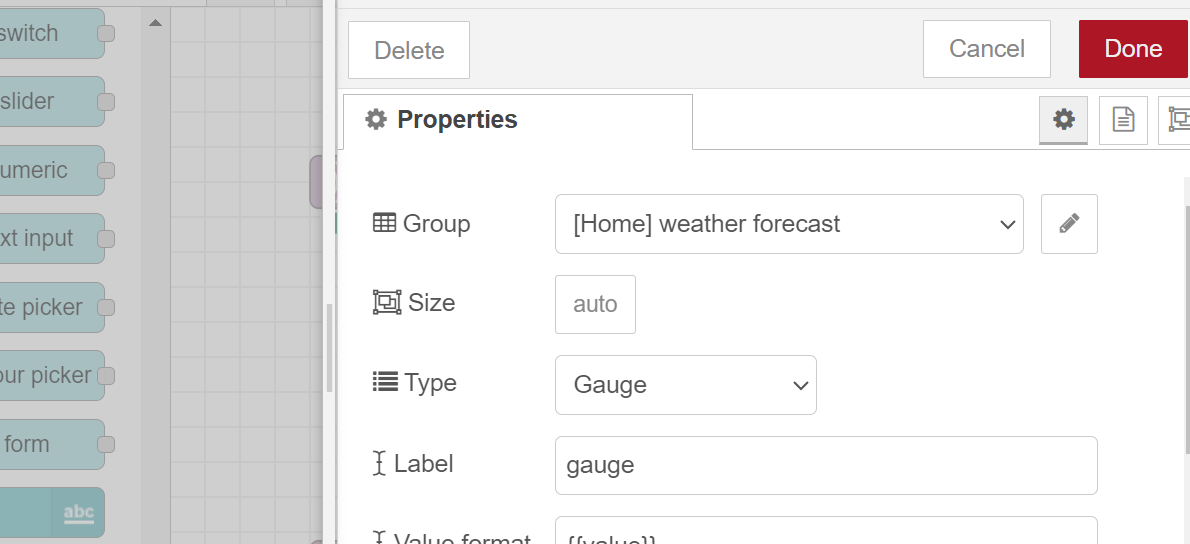




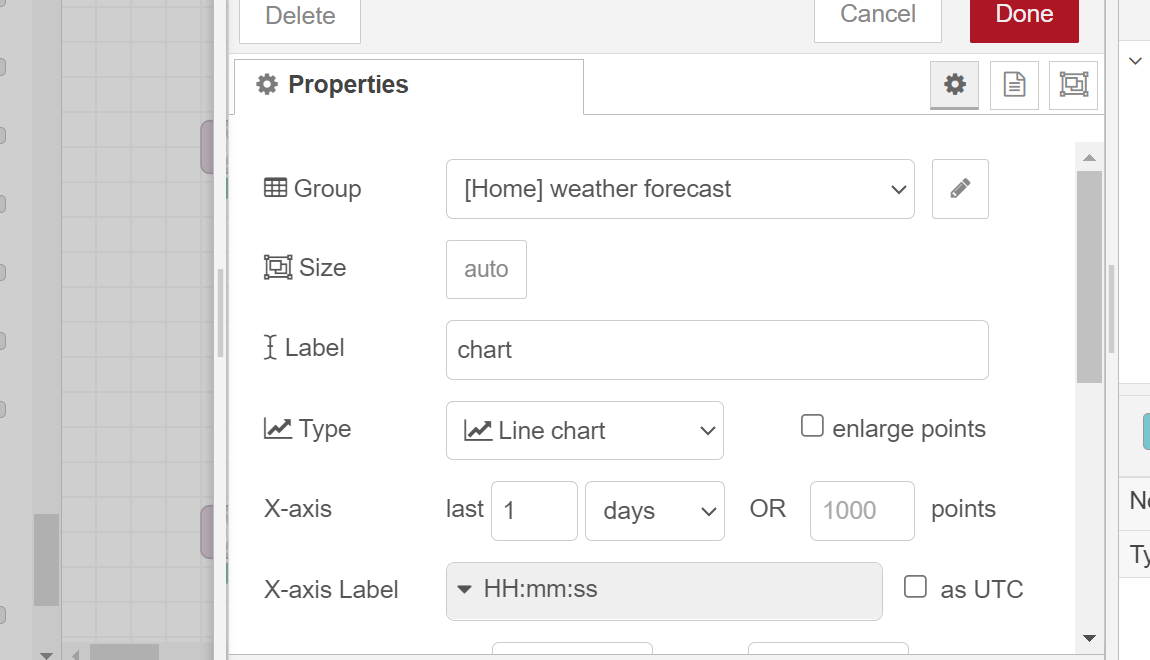


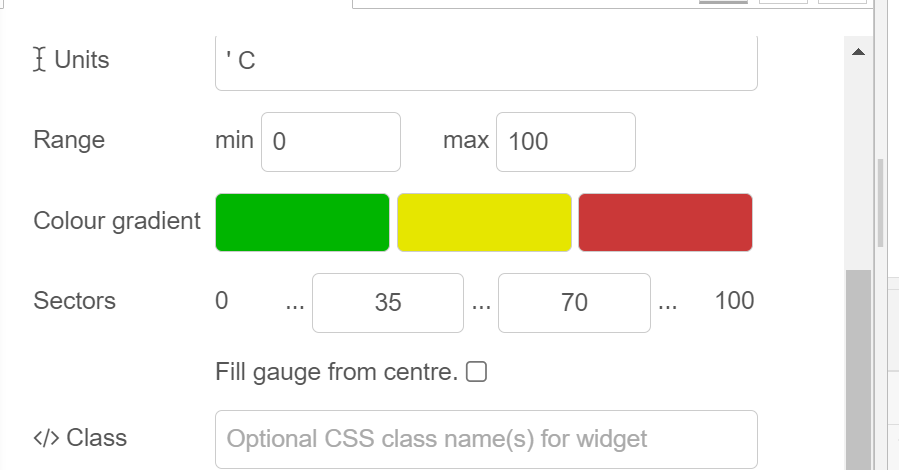
Double click on gauges and give name to the dashboard





Double click on chart 🡪Group->select->weathercast





Similarly configuring for the humidity

Once providing the server name and port number to the **mqtt in** block it will act as a mqtt client for the mqtt broker hivemq.

And its receives the data from the cloud from the particular topic.

