Develop a Python Script

Publish Data to the IBM Cloud

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Project Name	Project Name - Signs with Smart Connectivity for better Road Safety.
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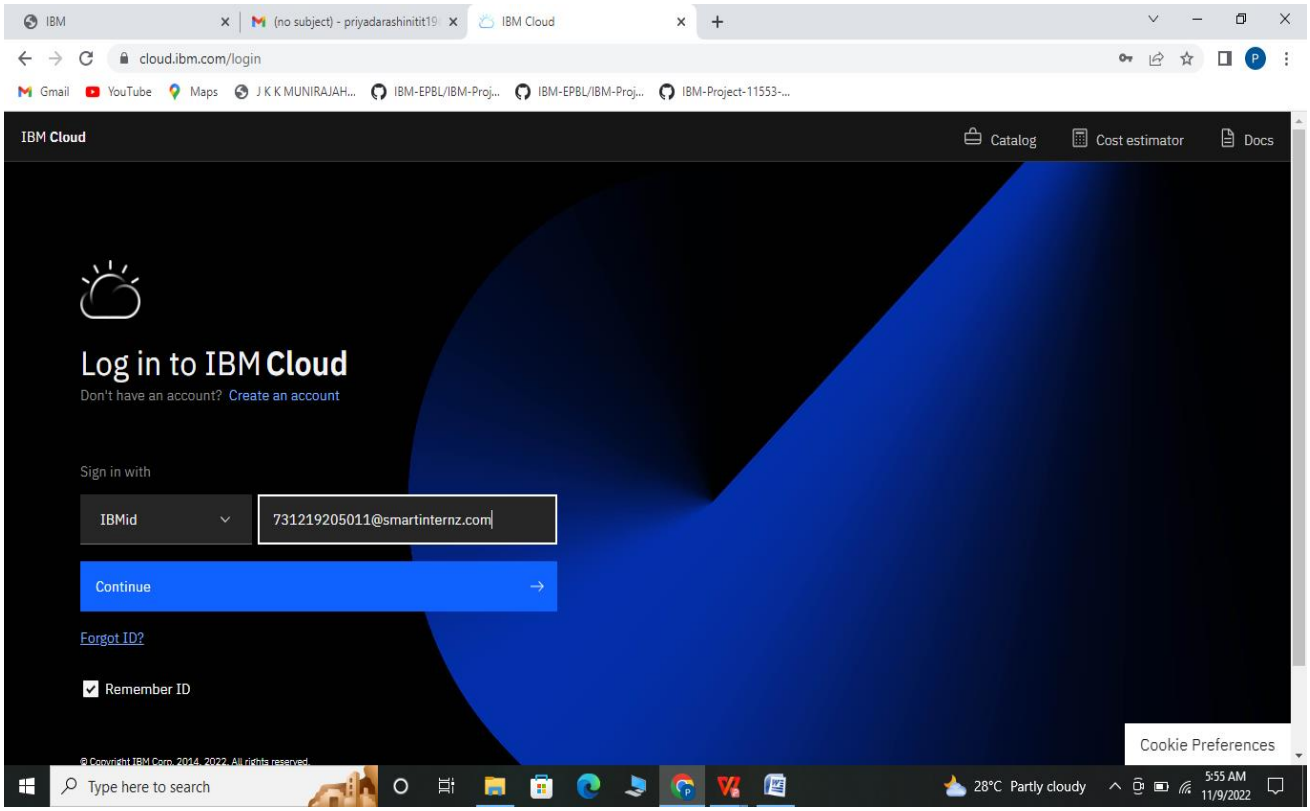
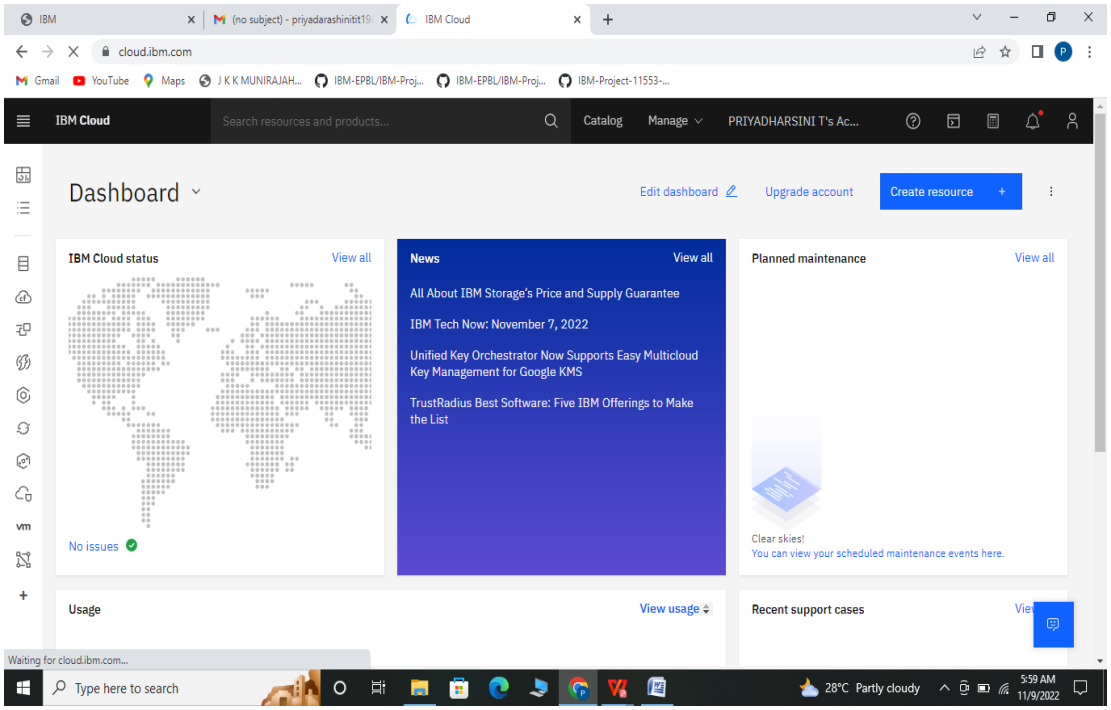
STEPS INVOLVED

Step-1: Create a device in IBM Watson:

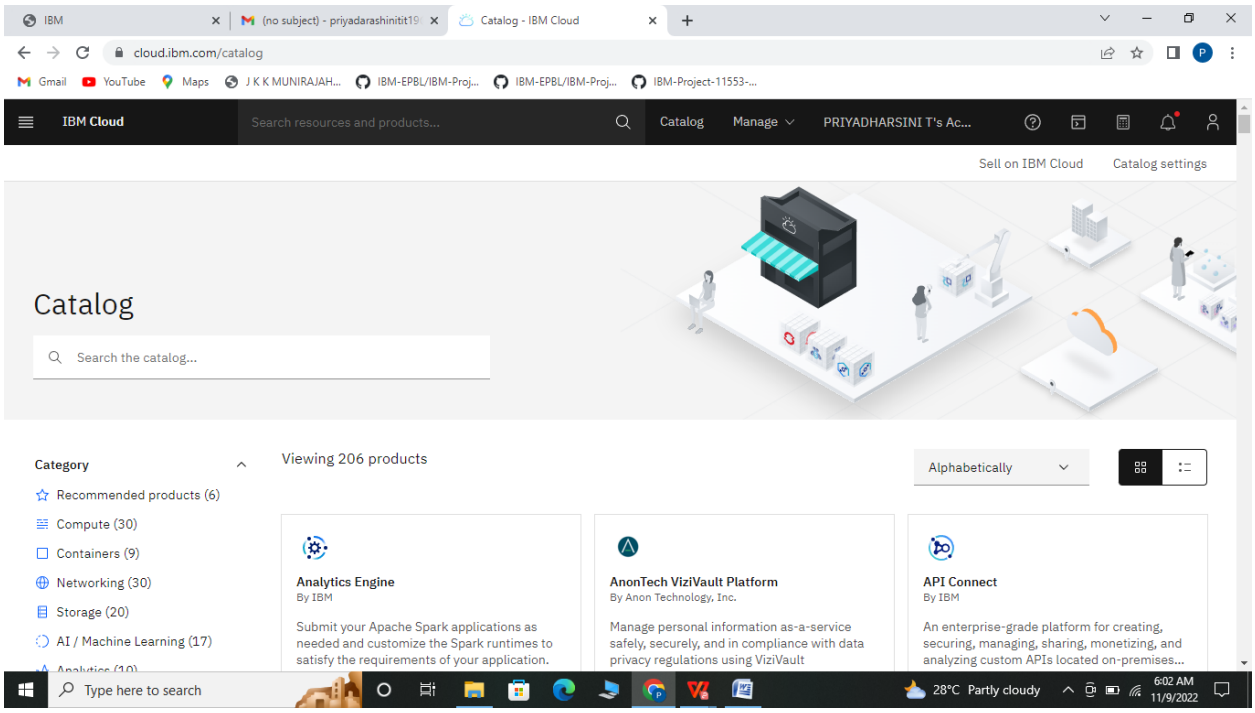
- Firstly, login into your IBM-Bluemix account with your e-mail ID and Password.



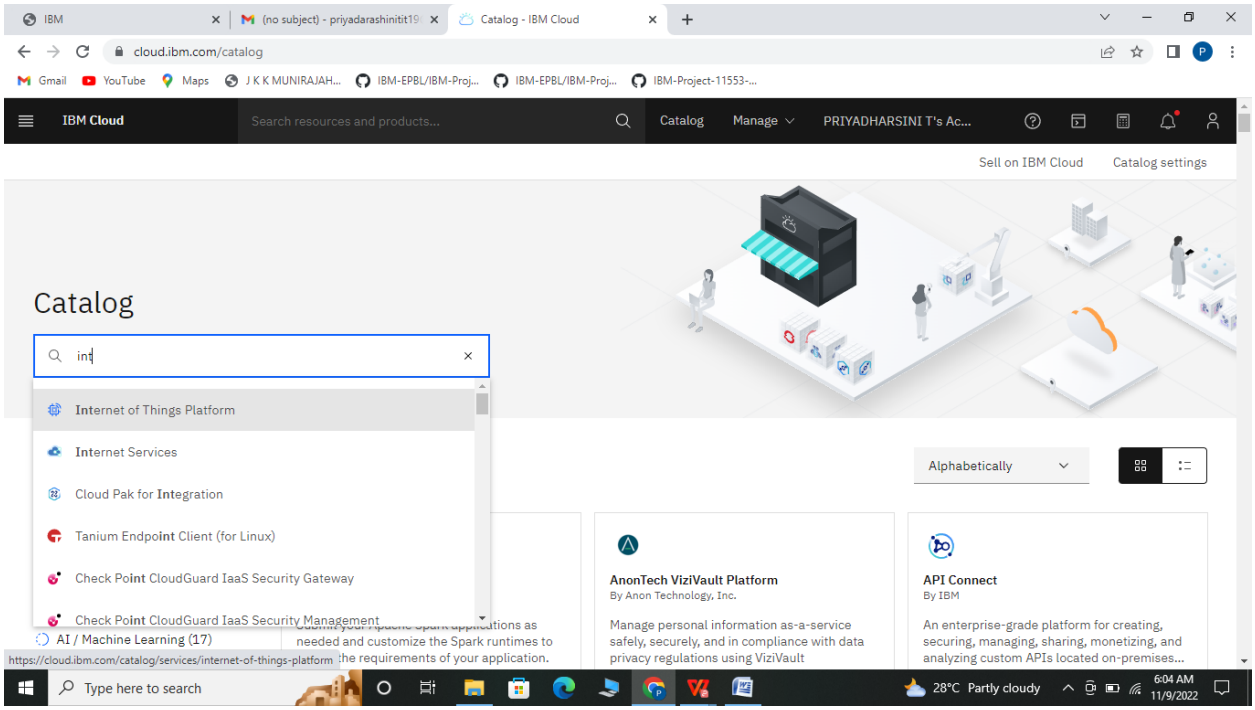
- Click on catalog on your dashboard screen



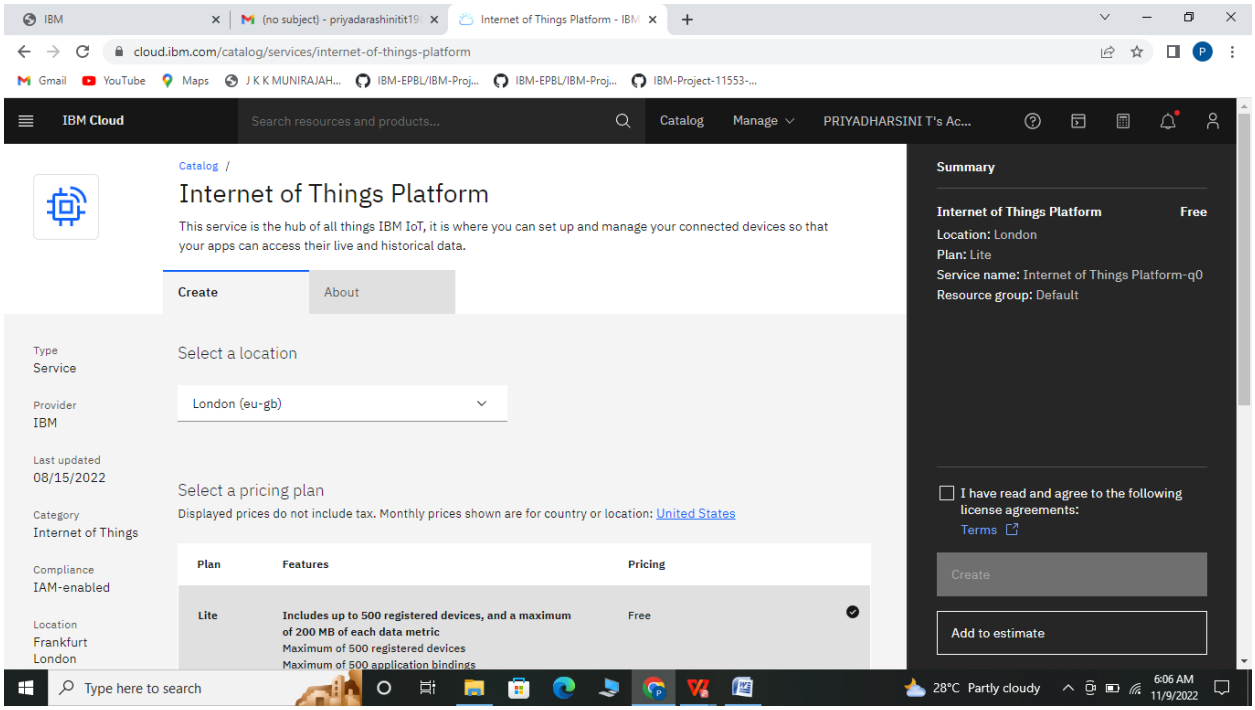
- Under Platforms Go to Internet of Things.



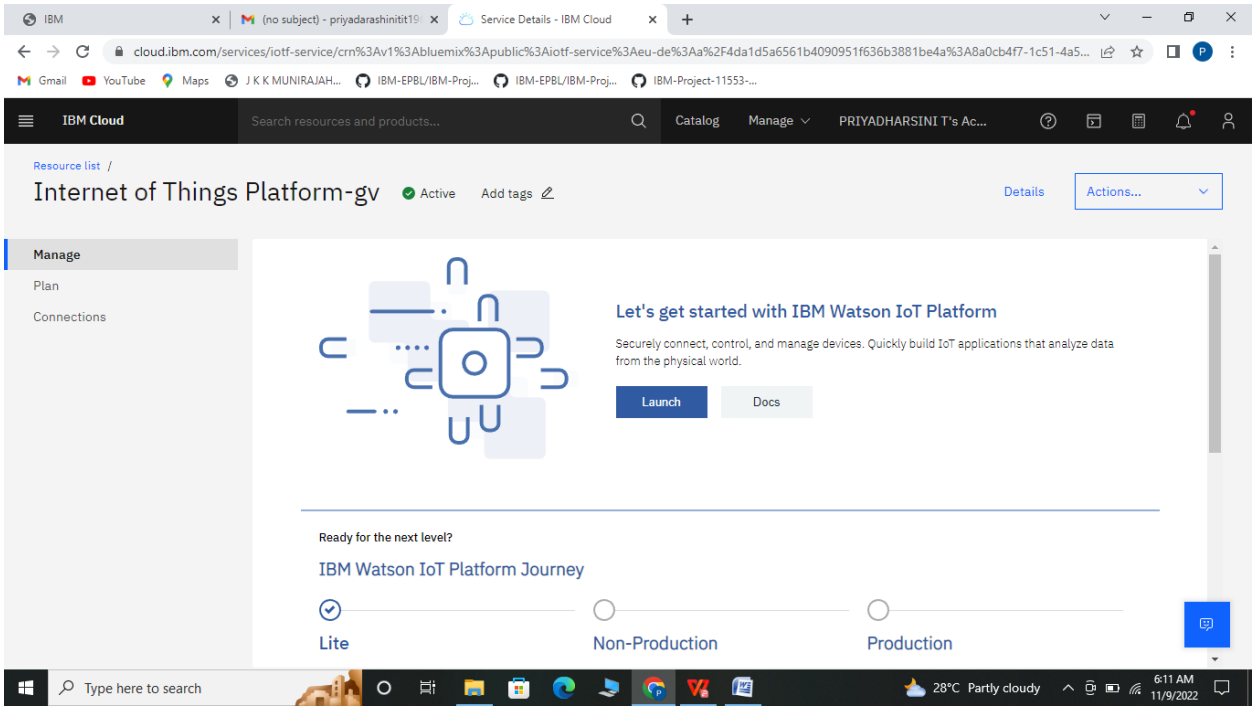
- Under Internet of Things Internet of Things Platform



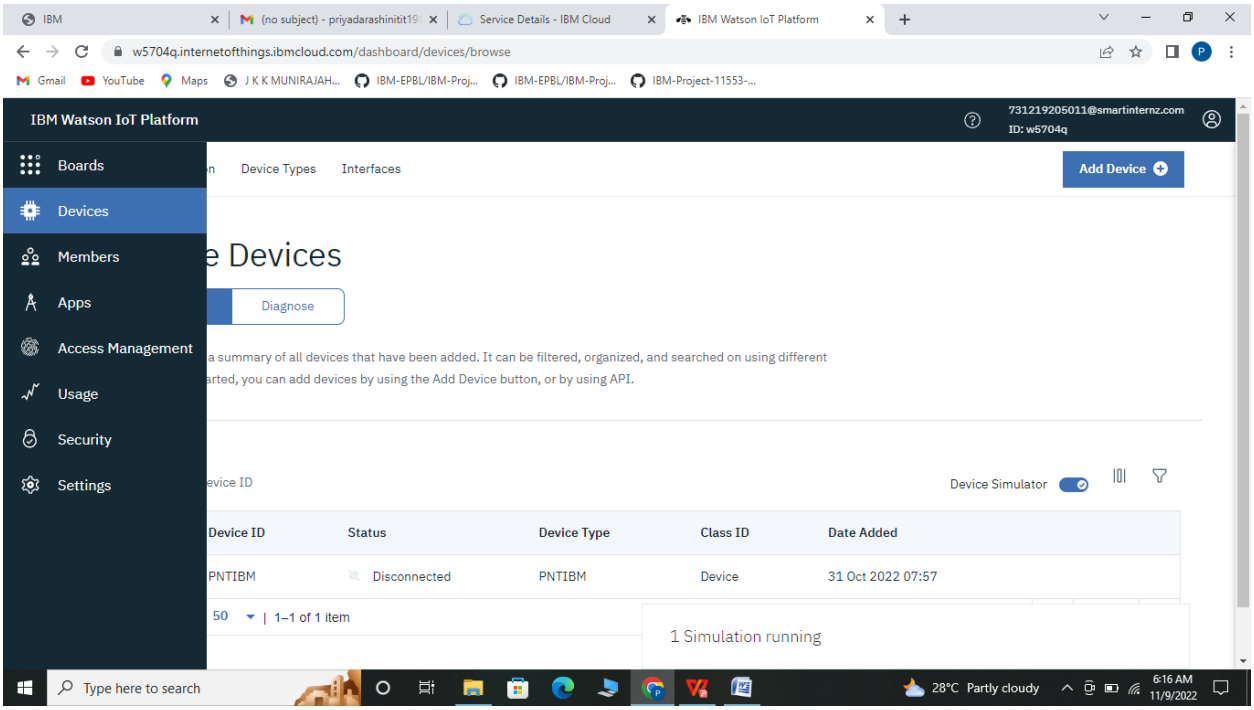
- Then give a name for your Service name and click on Create



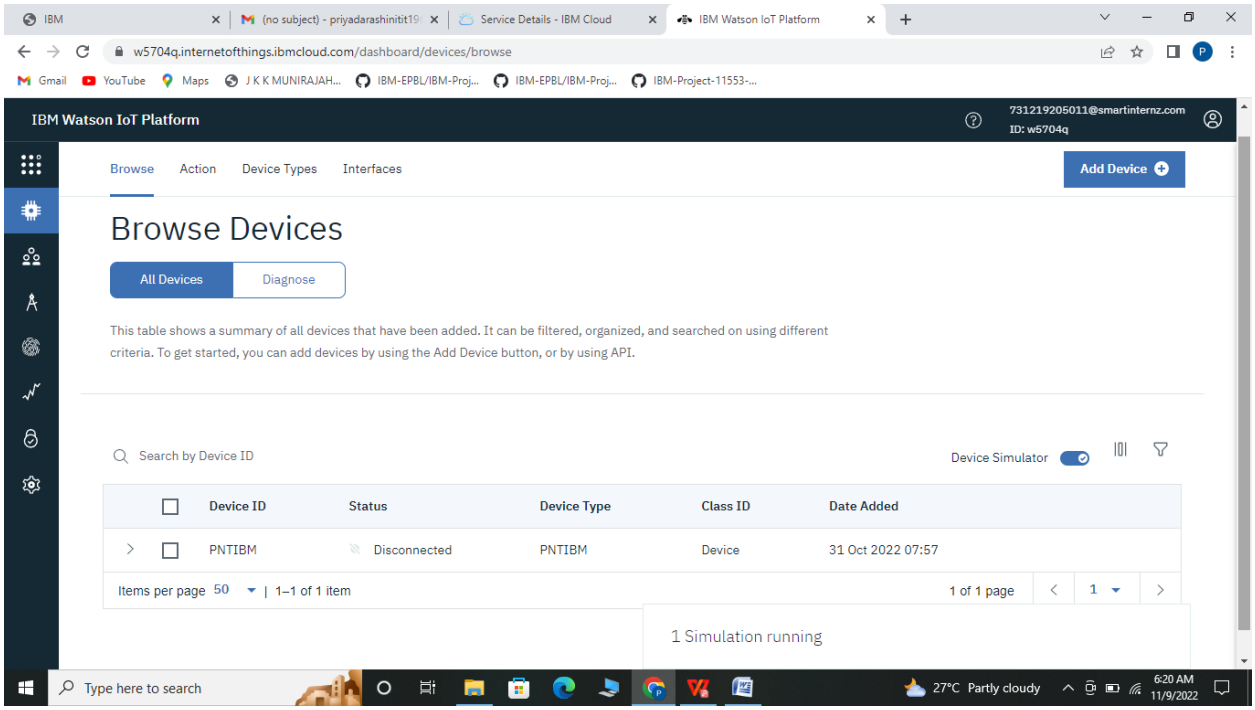
- After getting into your service click on Launch



- Then you get into IBM Watson Platform .Then click on Devices



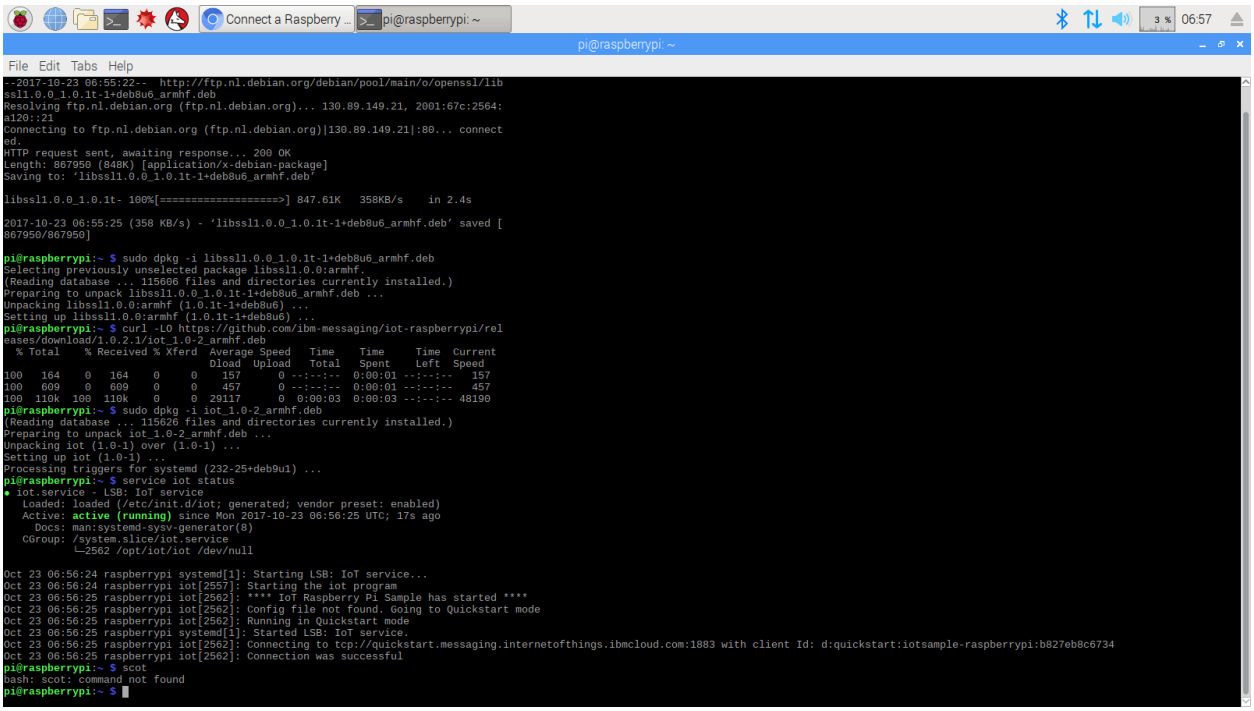
- When you get into Devices you find a button called +Add Device click on it.



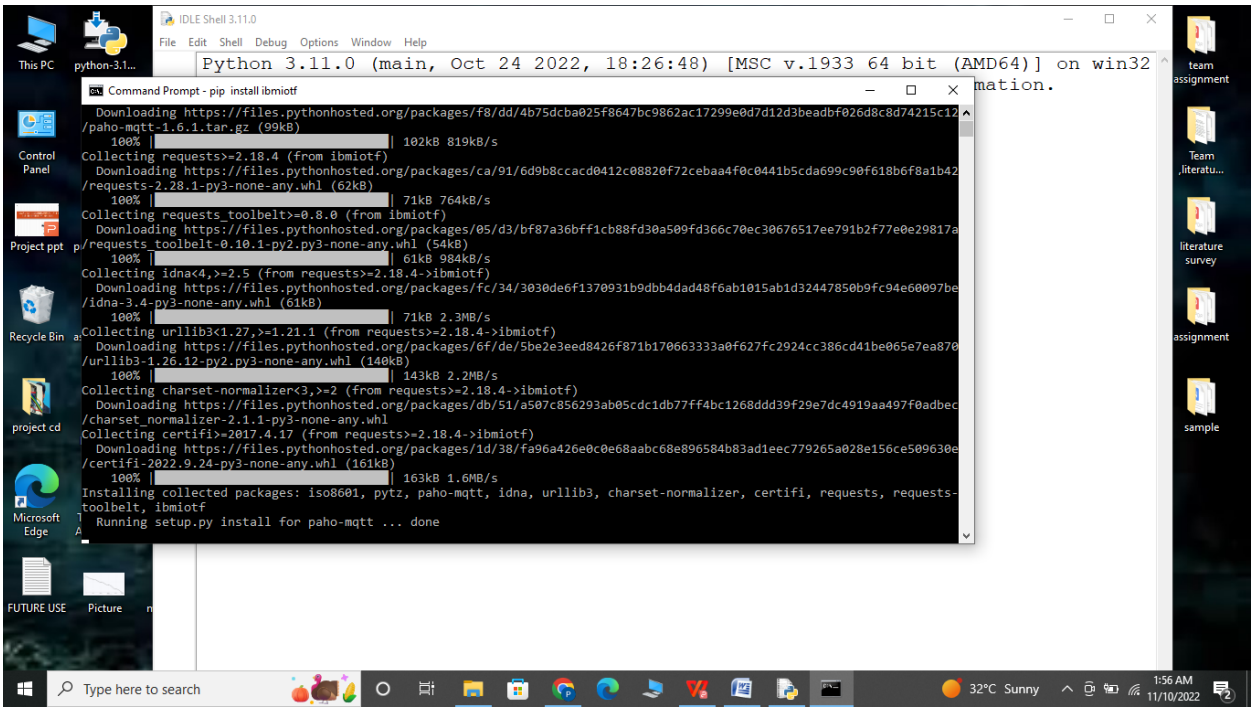
- If successfully created Device Then Finally you get your device Credentials which you can use later. Copy them and paste them in a notepad for future uses.

STEP-2: INSTALLING NECESSARY PACKAGES ON YOUR PI:

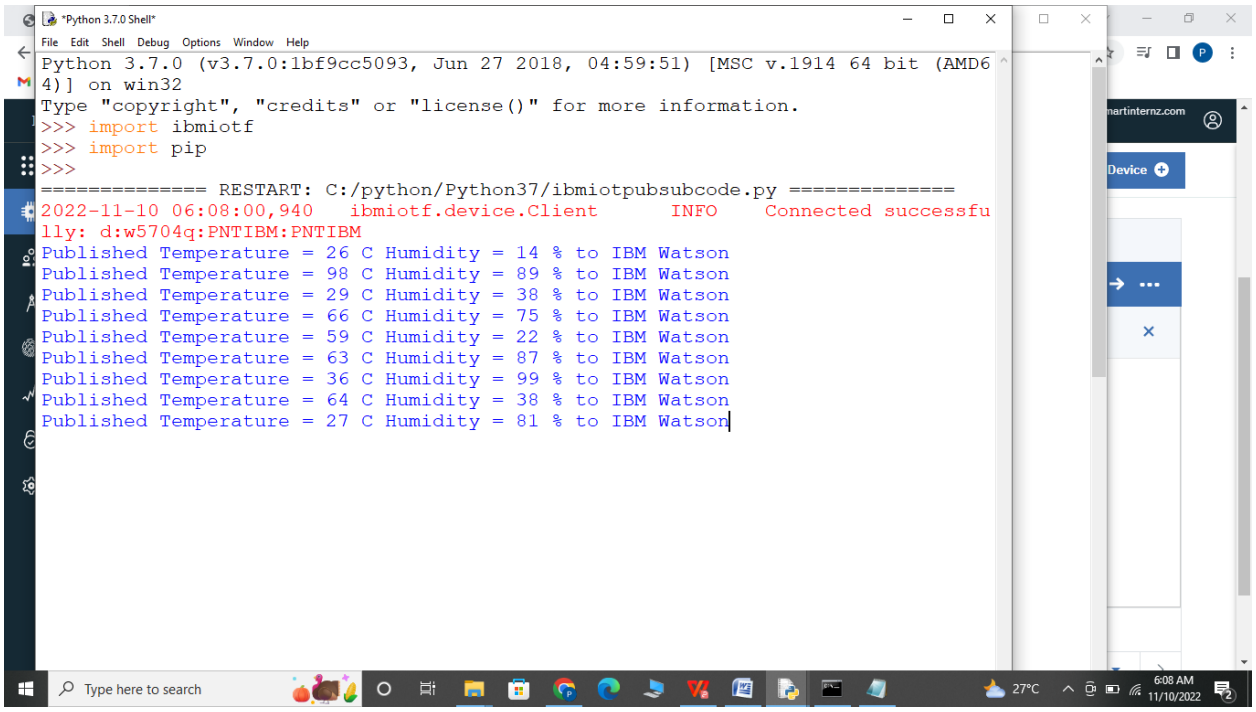
- Now we are going to install necessary packages on your pi.
- Open your terminal in your pi and type the following commands
- curl -LO https://github.com/ibm-messaging/iot-raspberrypi/releases/download/1.0.2.1/io t_1.0-2_armhf.deb
    - sudo dpkg -i iot_1.0-2_armhf.deb service iot status Following are the images as to what appears on your pi's terminal when u type these commands:



- Then open your terminal and type pip install ibmiotf

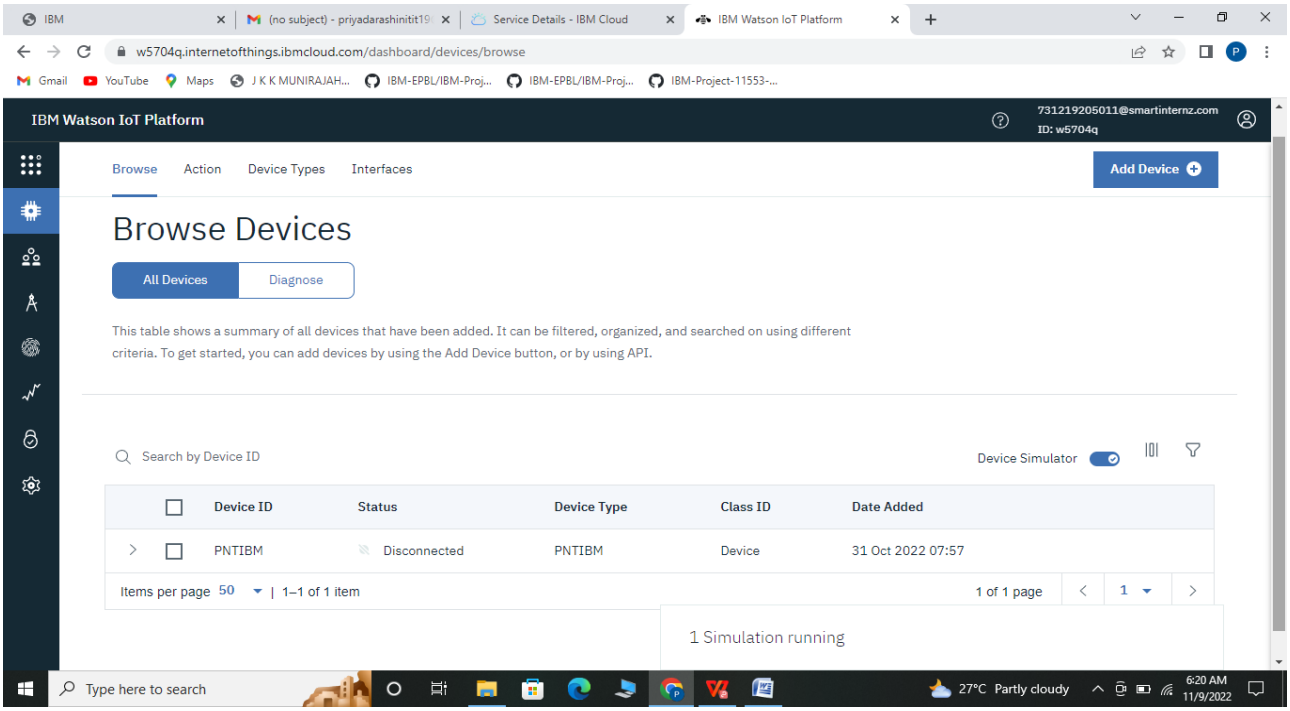


- I have sent DHT-11 Sensors data to ibm bluemix .To get the code u need to login into IOT GYAN.
- Then I get the image as follows in my pi's shell:



Step-3: checking your data sent on IBM Bluemix:

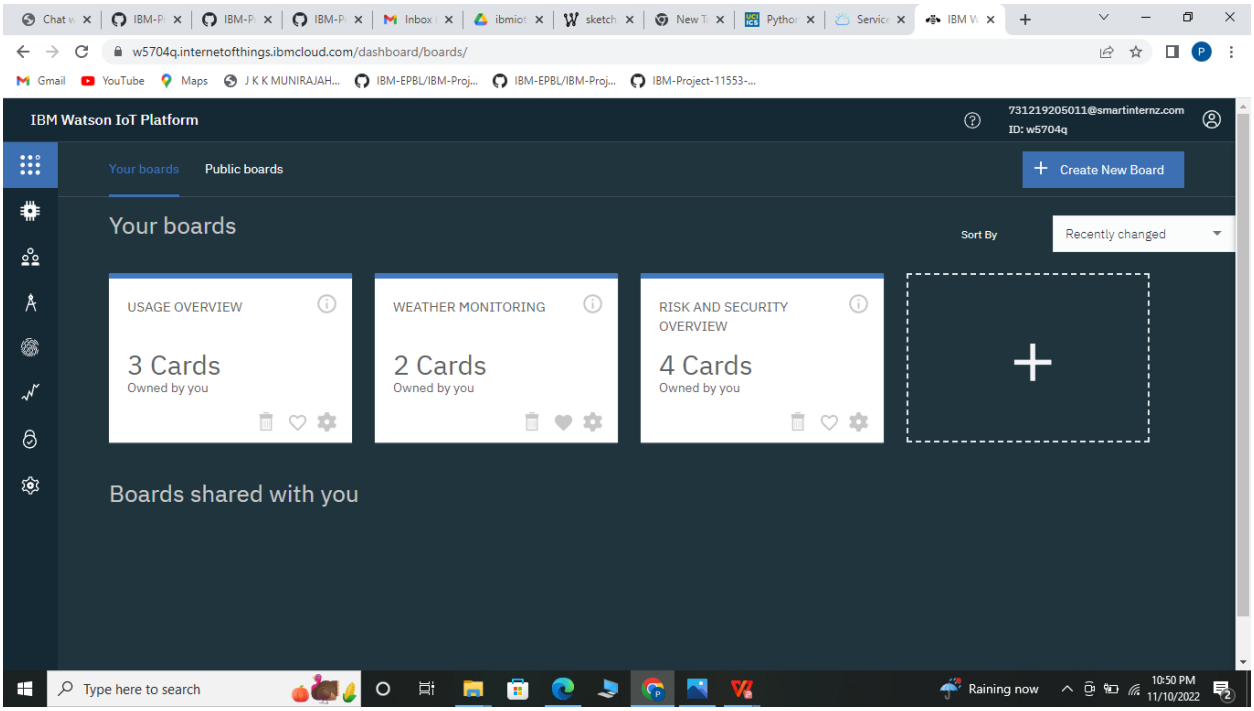
● After you have sent your sensors data you can check whether it is received at your iot platform Just look at the image below and if u see the same wifi kind of symbol on your created device then your dta is being received.



- After double clicking on your created device you can see the received data as shown in image

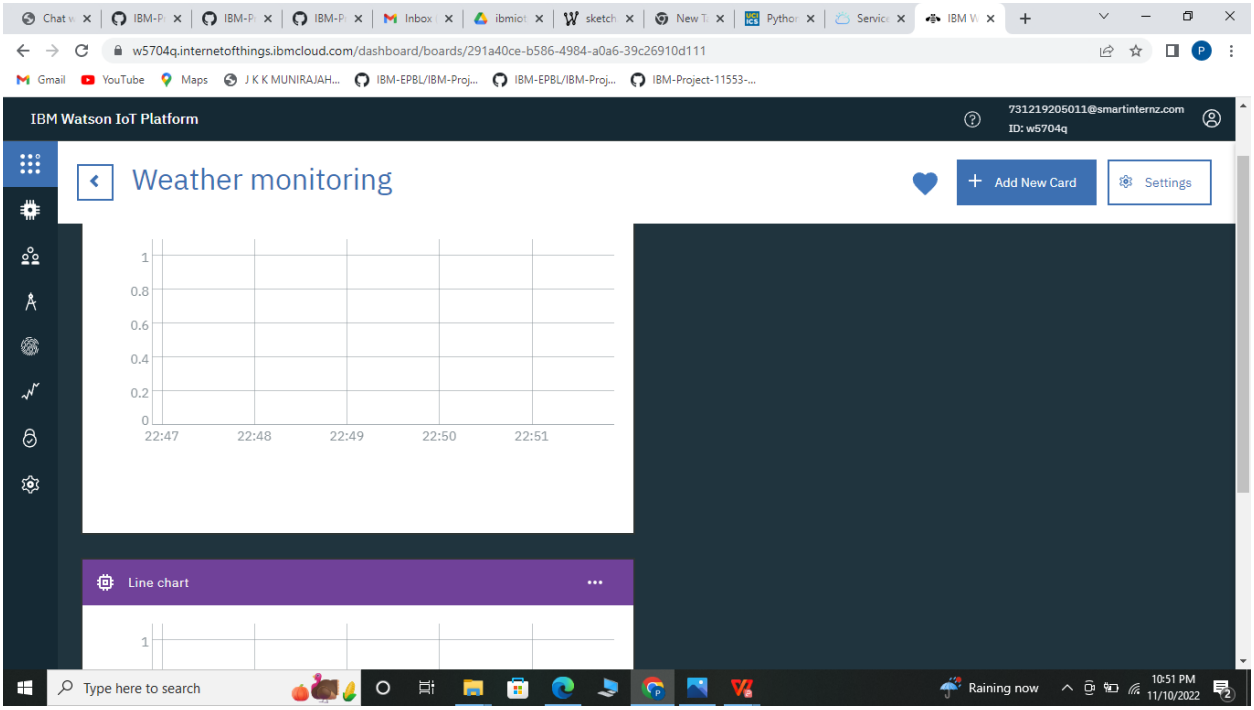
Step-4:Creating boards and cards for visualization of data:

- In your Watson platform you have an option called board. Click on it and you get the following window on your screen

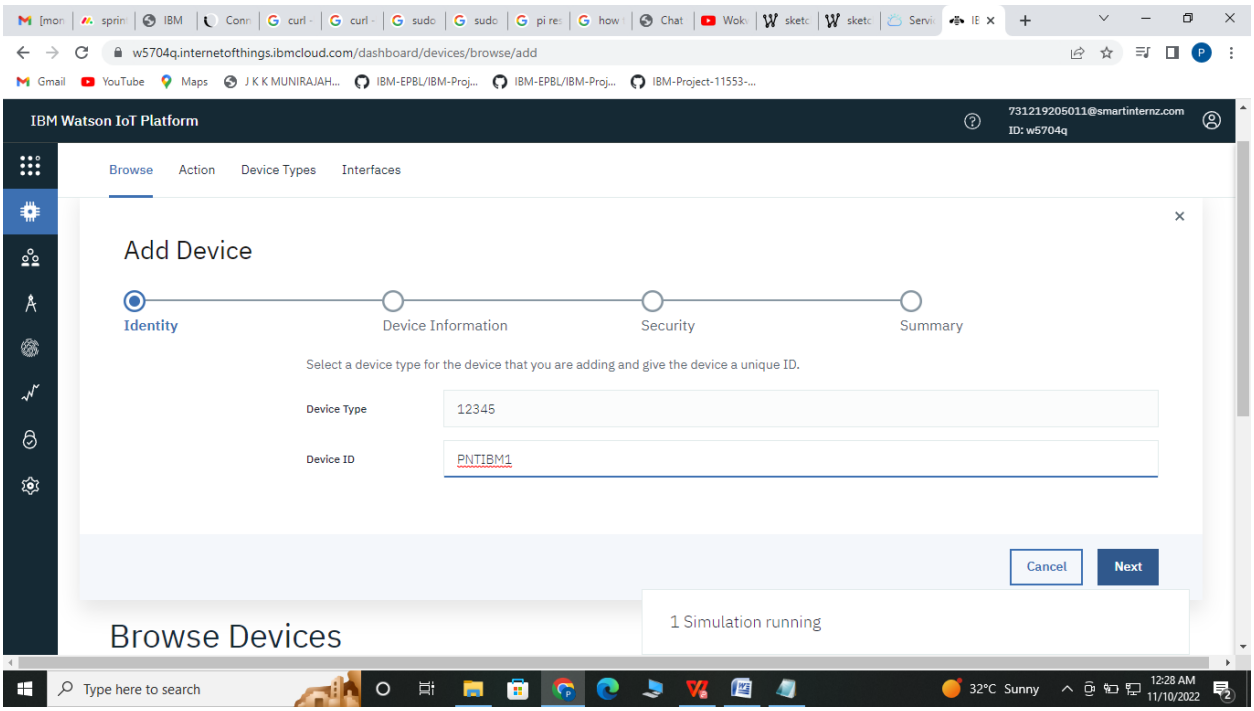


- **Click on Create a new board to create a board .**

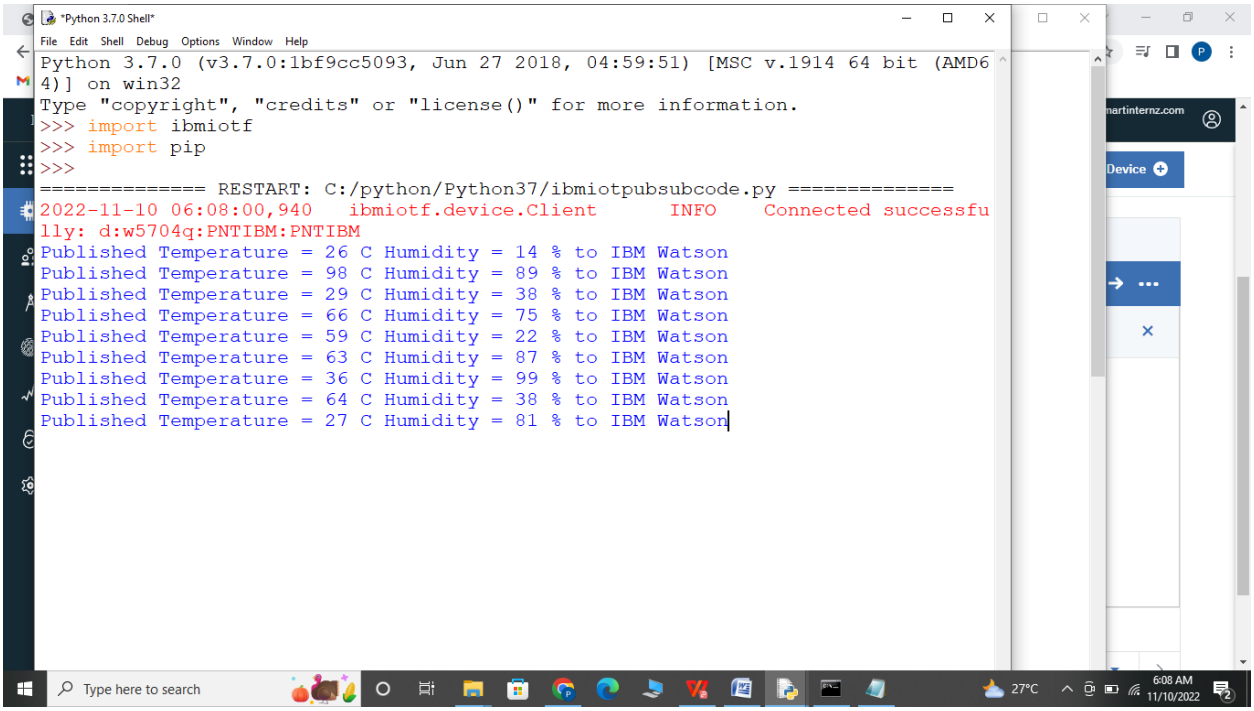
The given below window appears give a name and description to your board as shown in the window below



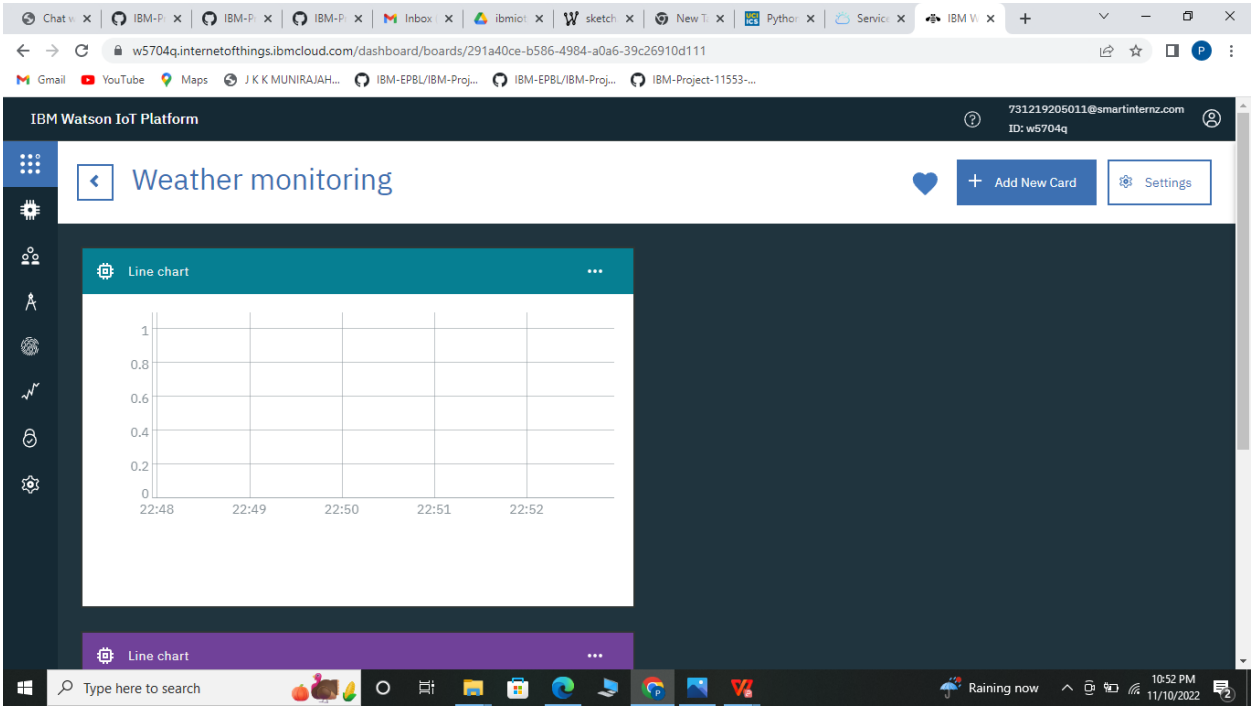
- Then click on Next you get the below window then again click on ADD
- Select the type of Graph u want accordingly and Click next
- You get the below window



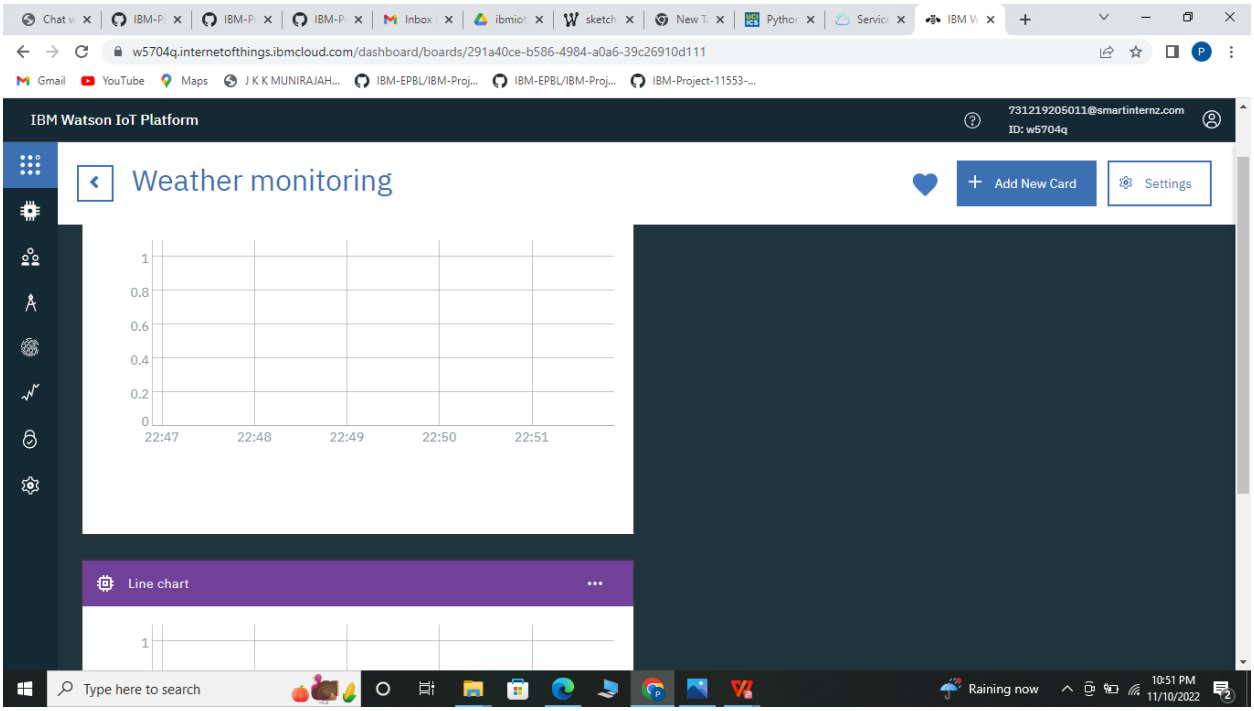
- Tick mark your device name as shown above and then click on next.
- Select the event ,property to be visualized on your graph and click next .In my case it is humidity



● Then select the size of the graph and color of the graph board you want and click next



● You get your desired data in the form of a graph as shown below



Conclusion: Hence, we were able to send data fromour pi to IBM Watson and visualize it on a graph