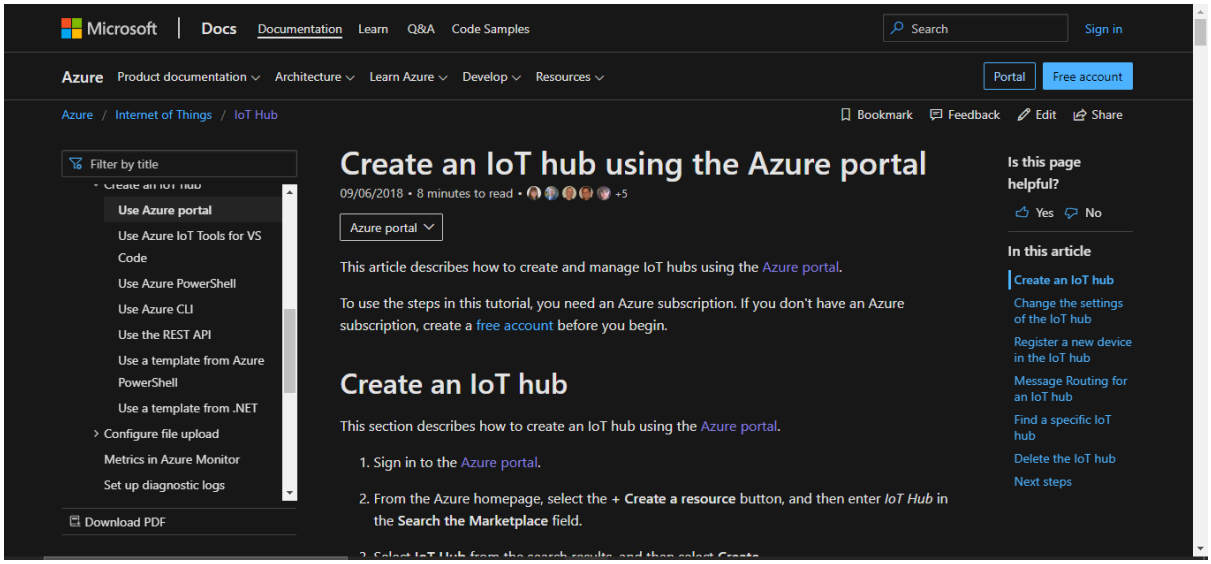
AZURE IOT HUB CREATION

Step 1:

Go to azure iot hub portal:

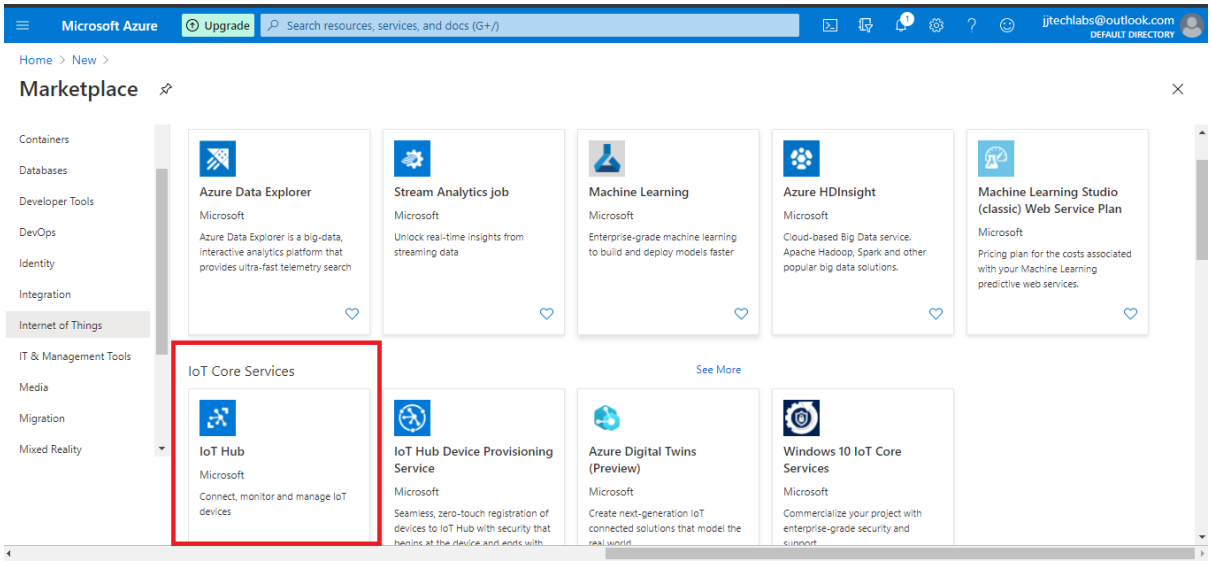
https://docs.microsoft.com/en-us/azure/iot-hub/iot-hub-create-through-portal

And click on the portal icon on the webpage if you have an account already and then sign it.



Step 2:

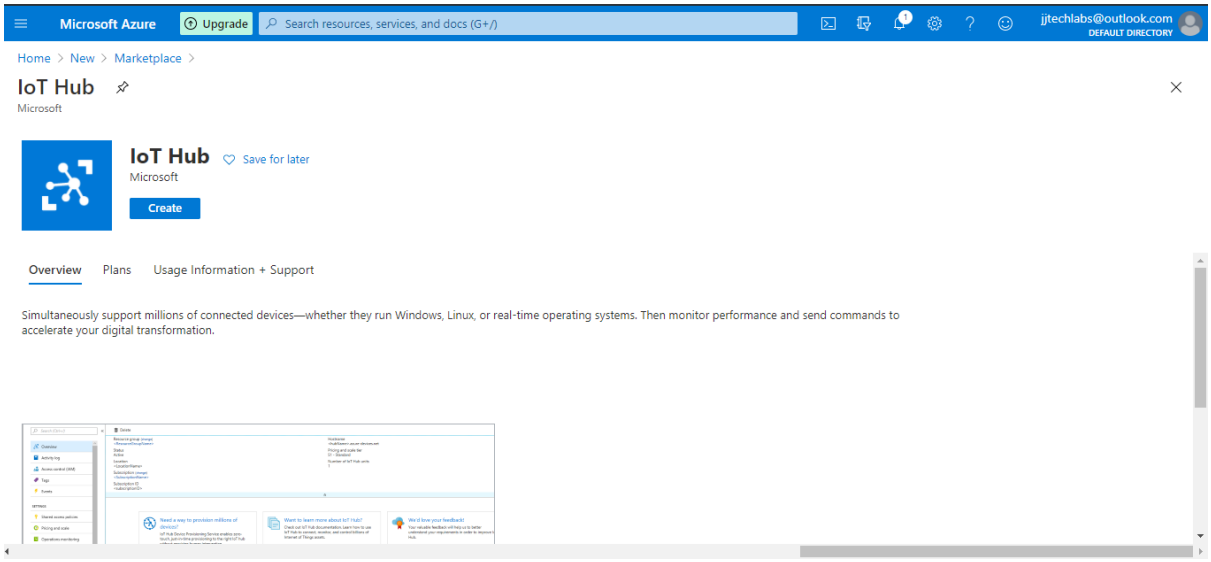
On azure portal search for *internet of things* and click on IoT Hub listed on it (on red rectangle).



Step 3:

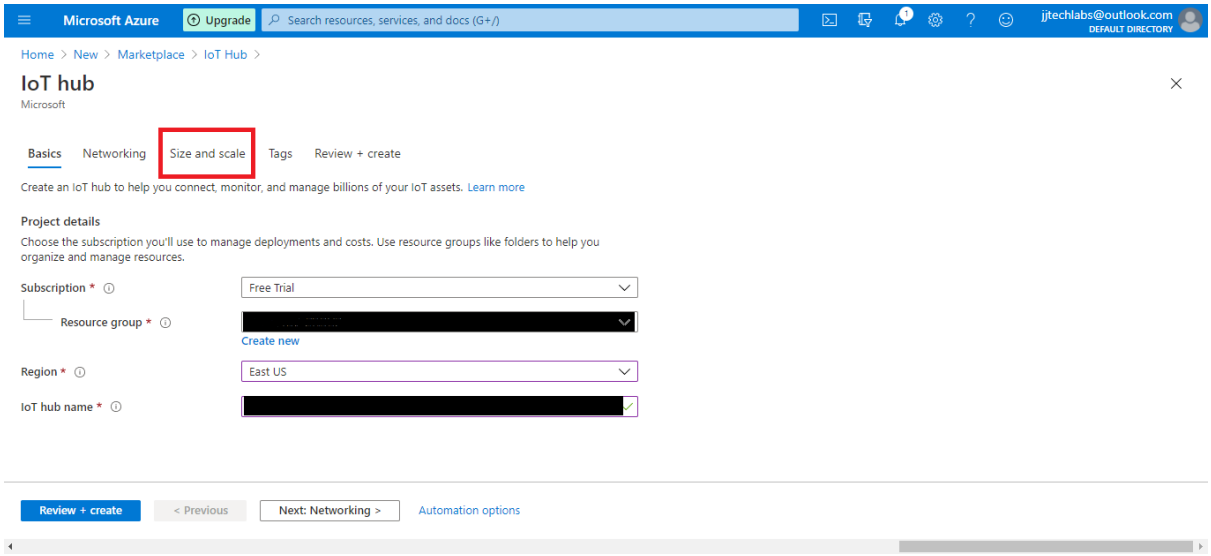
The listed IoT hub will display like this below window:

And click on ***create*** button for iot hub creation.



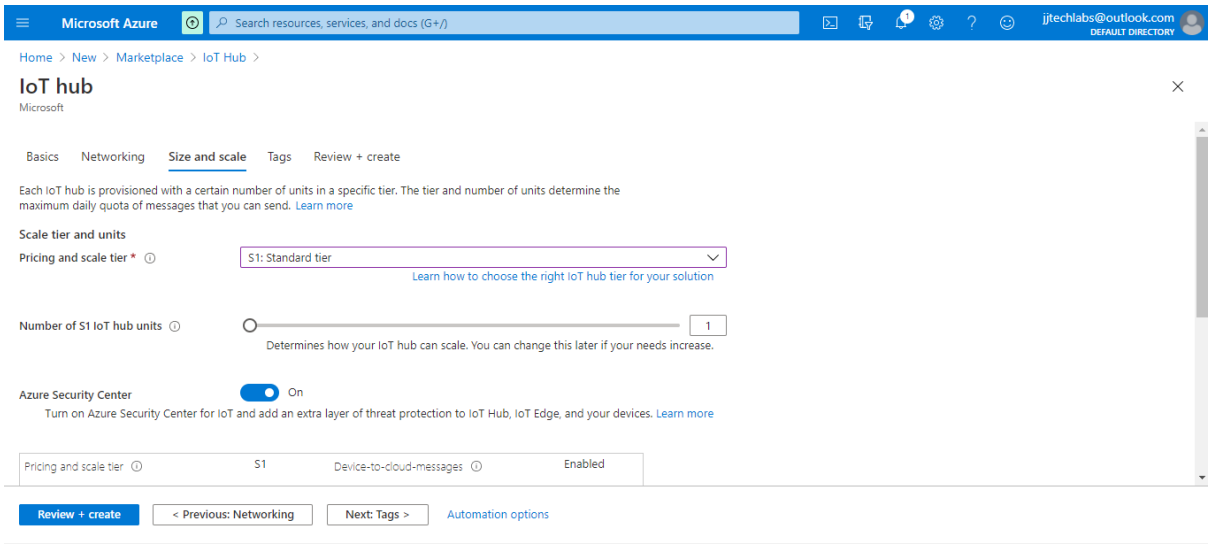
Step 4:

On next window select subscription option as free trial. ***Resource Group:*** Create a resource group to host the IoT Hub. You can also use an existing resource group if you had created one earlier. ***Location:*** Select the location based on your requirement. Here I selected East US.And at last provide a convenient iot hub name and go *to* ***size and scaling*** option above.

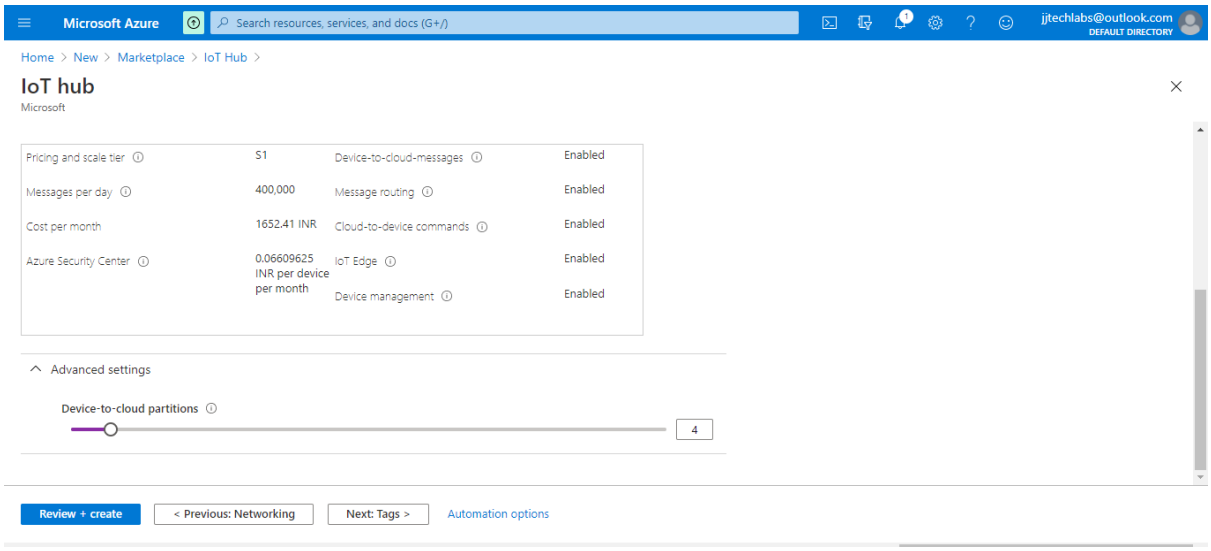


Step 5:

From ***Pricing and Scale Tier:*** Select appropriate option according to the need of your application and based on your budget. The prices and capacities are shown in a new pane once you click on this option. I choose S1 tier here.

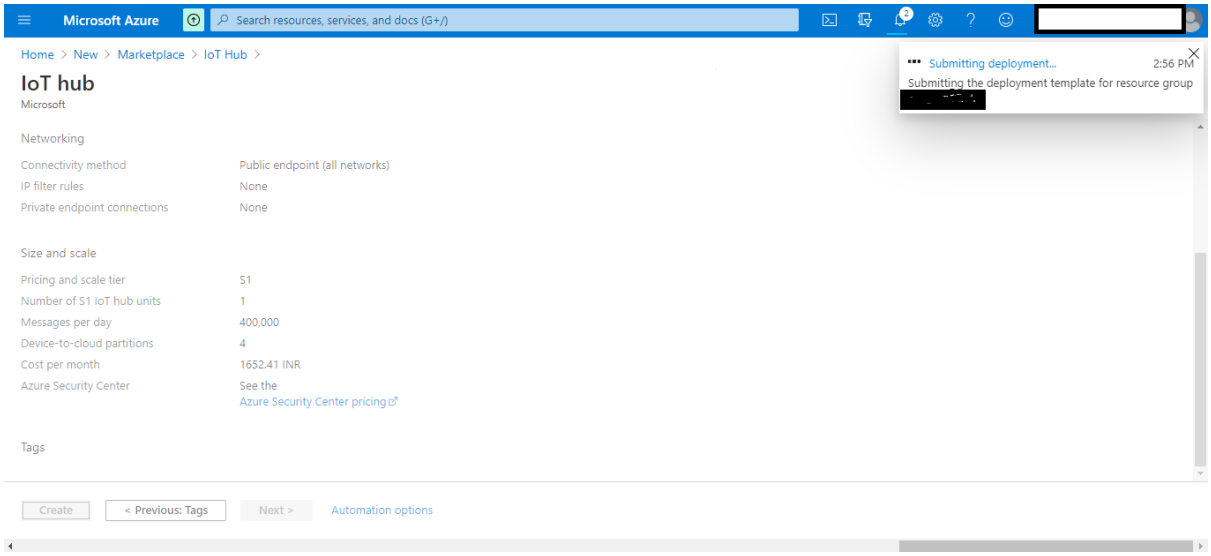


On scrolling down to below we can see the available communication and its cost per month information's there. And you can choose ***Device to cloud*** partitions based on your requirement.And here I opted it as 4.

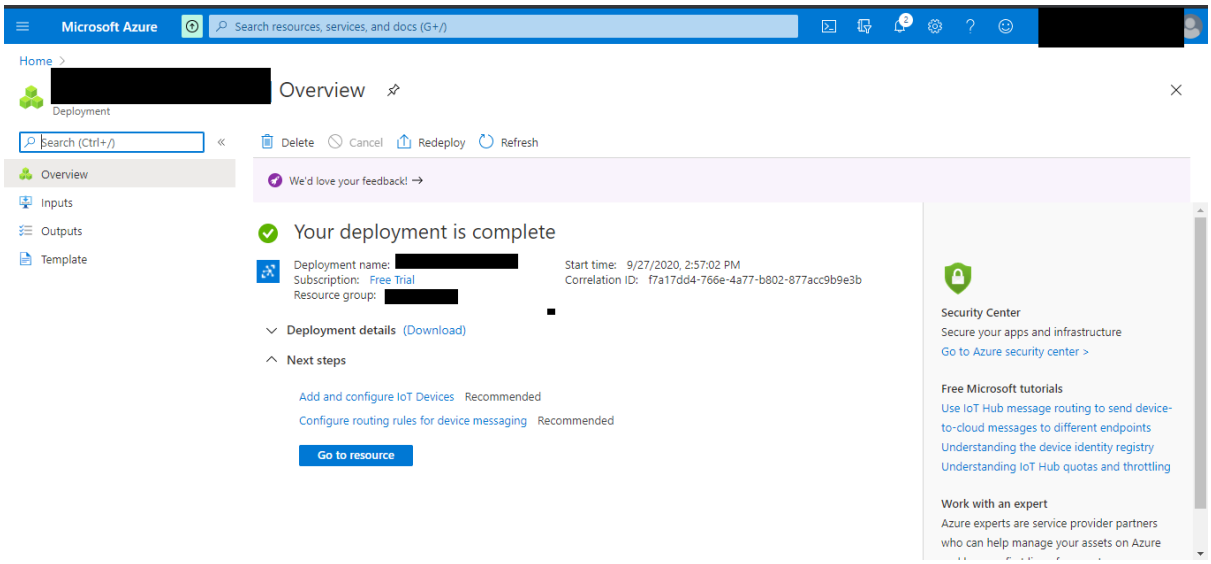


Step 6:

On this step click on ***review and create*** option for final settings and wait until its creation is done.



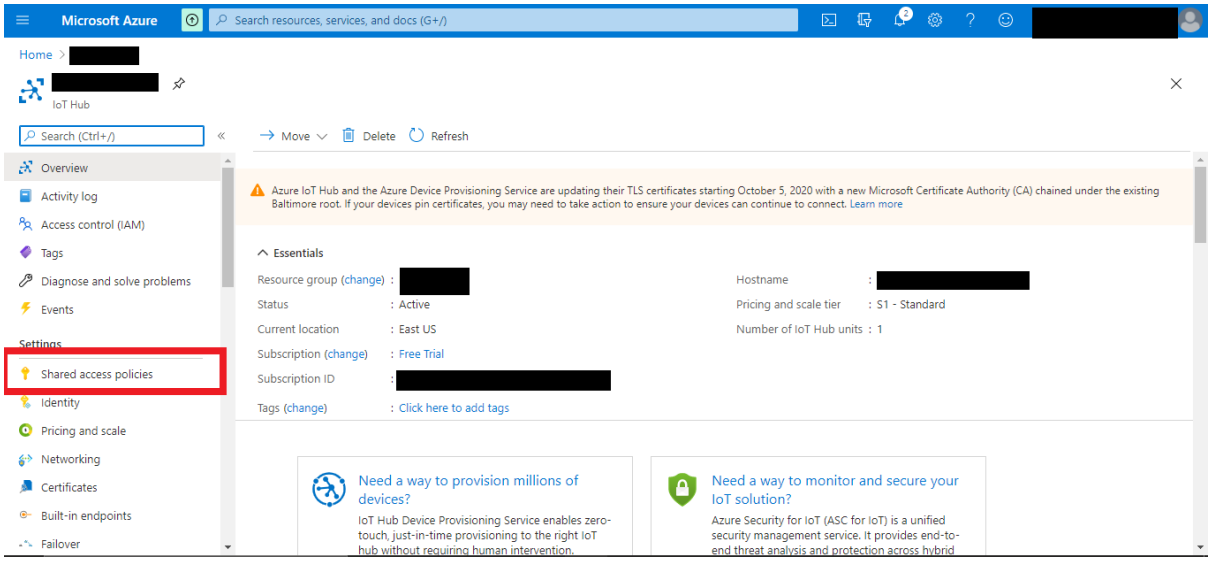
And after deployment success a window will appear like this.



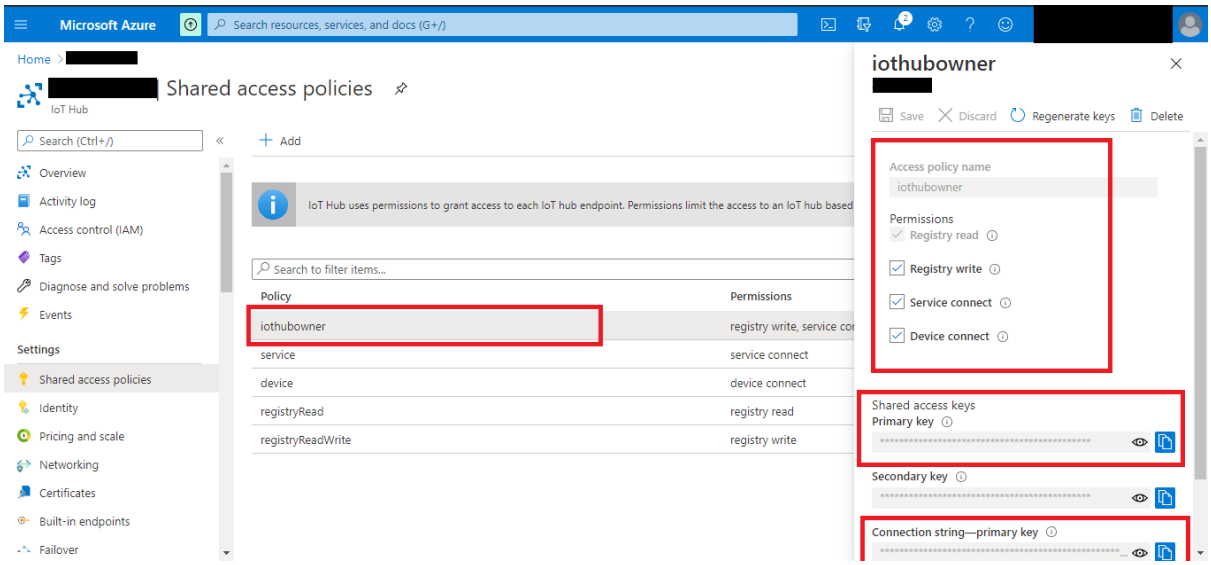
As we come to the home page again, we can see our created iot hub device. And click on it we can see the details as same as we created. From there note down the ***hostname*** and ***connection parameters.***

Step 6:

Click on ***shared access policies*** for getting our connection parameters that should provided in ESP8266.

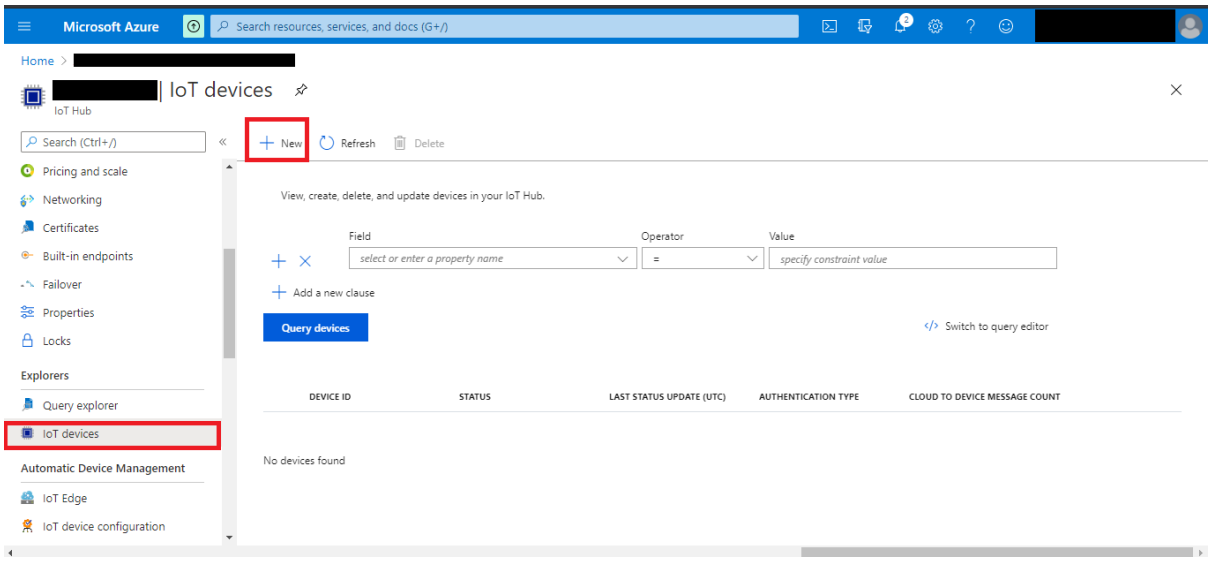


Next a pop-up window will appear from side by clicking on ***iot hub owner***. The owner shows the necessary policies that required to work with our end device. And copy the ***primary*** and ***connection string key*** from the side window for future use in ESP8266 client connection to hub.



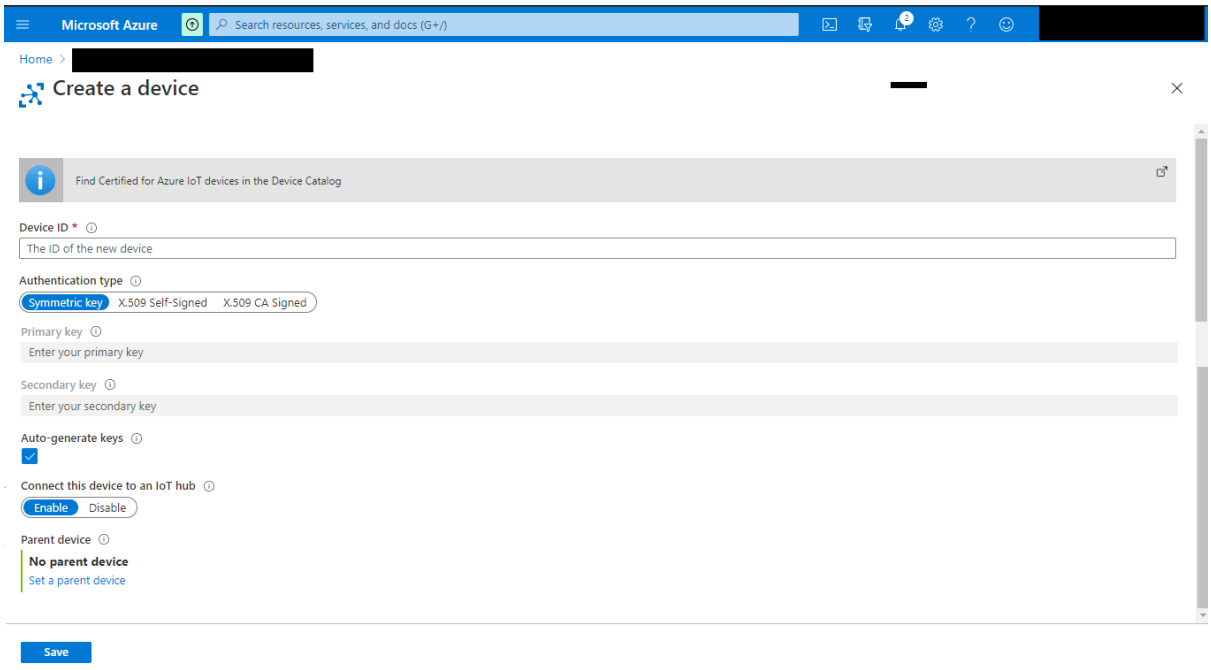
Step 7:

For registering a device, we have to go to ***Explores → Iot devices → New***:



And a window comes with few details to fill up.

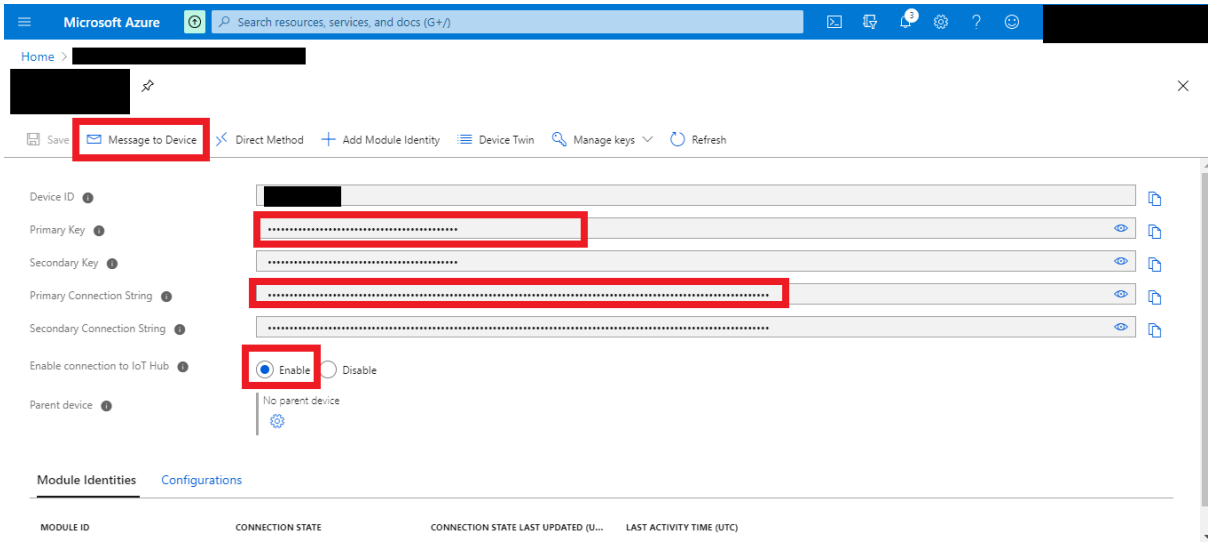
- Enter your ***Device ID*** there, it must the Iot hub name or a unique name other than it.
- ***Authentication Type:*** Select Symmetric Key.
- ***Auto Generate Keys:*** Select this check box.
- ***Connect Device to IoT Hub:*** toggle Enable.



By clicking ***SAVE***, Once the device is created, it will be listed in the ***Explorer*** option from where we added the device. Click on the name of the device. This will open the ***Device Details*** pane.

Step 8:

The device details pane be like this below:



Copy the ***Device ID, primary key*** and ***connection string*** from the window pane.You can later use the ***message to device*** option for sending message to the ESP8266.