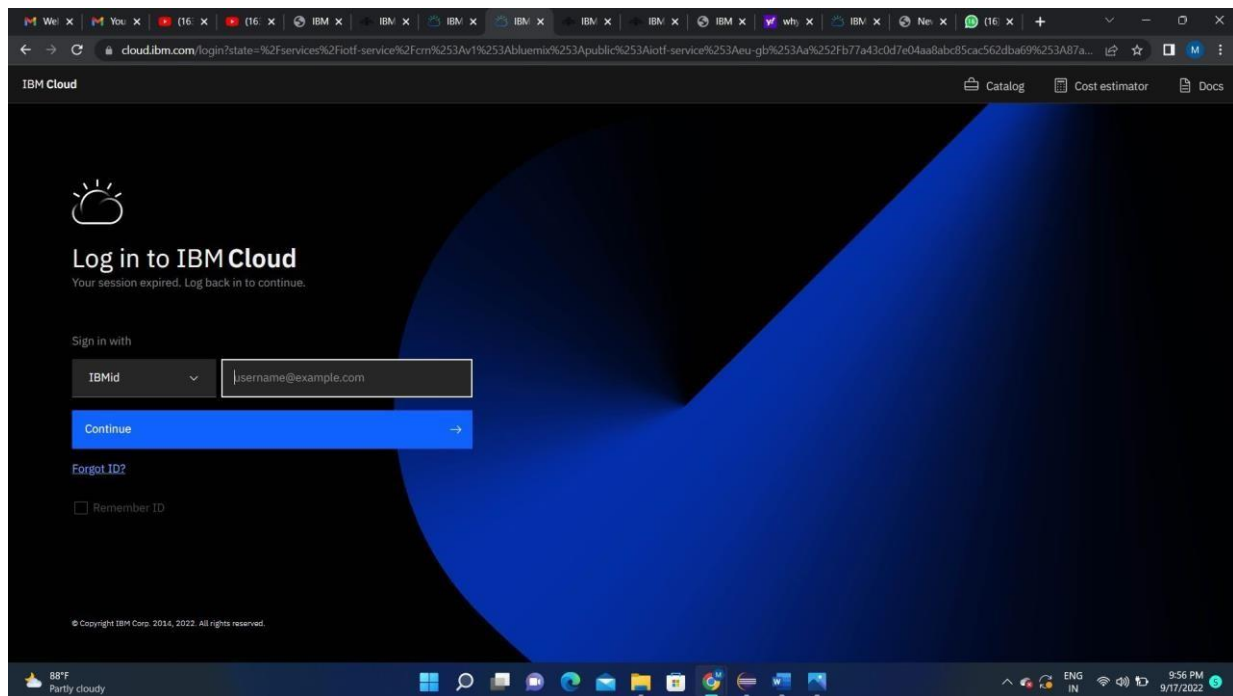


## CREATE IBM WATSON IOT PLATFORM AND DEVICE AIM:

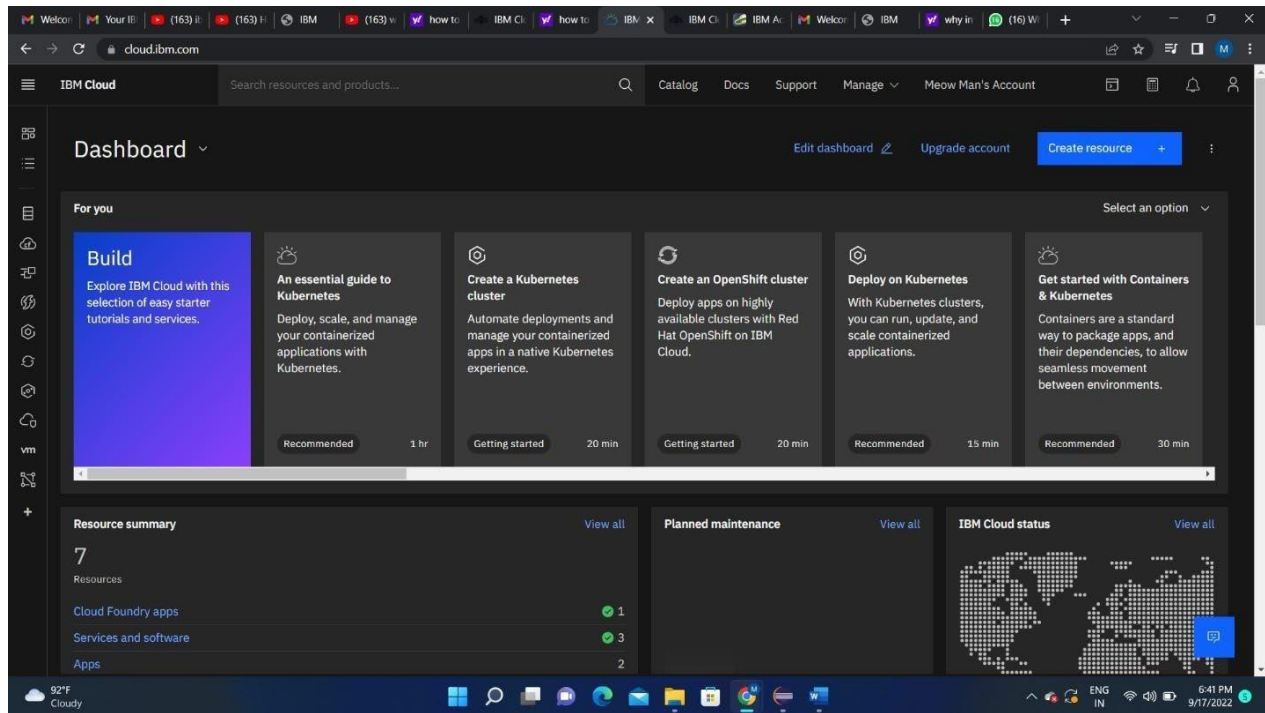
To create the IBM Watson IoT platform and device

### STEPS:

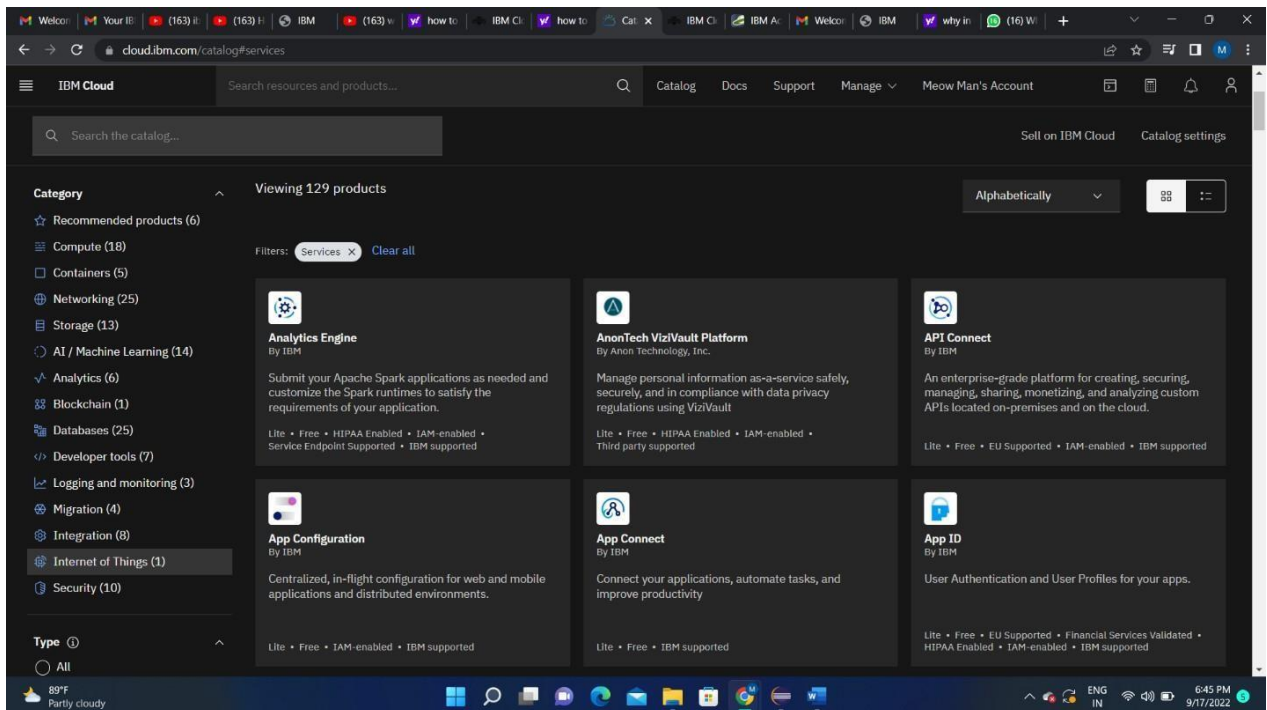
1. Firstly create an IBM cloud account with IBMid and password



2. Home page of IBM cloud



3. Click on the catalog on the top



#### 4. Click on IoT in the category mentioned

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The page is in the 'Create' tab, showing a location dropdown set to 'Dallas (us-south)' and a pricing plan table. The table has three columns: Plan, Features, and Pricing. The 'Lite' plan is selected, showing features like up to 500 registered devices and 200 MB of data metric. The pricing is 'Free'. A summary panel on the right shows the service details and a warning about existing Lite plan instances.

**Internet of Things Platform**

This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.

**Create** About

Type: Service

Provider: IBM

Updated on: 08/15/2022

Category: Internet of Things

Compliance: IAM-enabled

Location: Frankfurt, London, Dallas, Washington DC

Related links: Docs, Terms

Select a location: Dallas (us-south)

Select a pricing plan: Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric. Maximum of 500 registered devices Maximum of 500 application bindings Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed	Free

The Lite service plan for Internet of Things Platform includes up to 500 registered devices, and a maximum of 200 MB each of data exchanged, data analyzed, and edge data analyzed per month.

**Summary**

**Internet of Things Platform** Free

Location: Dallas  
Plan: Lite  
Service name: Internet of Things Platform-bb  
Resource group: Default

**Existing Lite plan instance**  
You can have only 1 Lite plan instance of this service per resource group. [Delete](#) your current Lite plan instance in Default resource group to create a new one, or [view the existing instance](#).

☐ I have read and agree to the following license agreements: [Terms](#)

Create

Add to estimate

#### 5. If already a lite is present delete it else u can't create another

cloud.ibm.com/catalog/services/internet-of-things-platform

IBM Cloud

Search resources and products...

Catalog Docs Support Manage Meow Man's Account

### Internet of Things

Compliance  
IAM-enabled

Location  
Frankfurt  
London  
Dallas  
Washington DC

Related links  
Docs  
Terms

Plan	Features	Pricing
Lite	<p>Includes up to 500 registered devices, and a maximum of 200 MB of each data metric</p> <ul style="list-style-type: none"><li>Maximum of 500 registered devices</li><li>Maximum of 500 application bindings</li><li>Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed</li></ul> <p>The Lite service plan for Internet of Things Platform includes up to 500 registered devices, and a maximum of 200 MB each of data exchanged, data analyzed, and edge data analyzed per month.</p> <p>Lite plan services are deleted after 30 days of inactivity.</p>	Free

### Configure your resource

Service name  
Internet of Things Platform-bb

Select a resource group  
Default

Tags  
Examples: env:dev, version-1

Access management tags  
Examples: access:dev, proj:version-1

### Summary

Internet of Things Platform Free

Location: London  
Plan: Lite  
Service name: Internet of Things Platform-bb  
Resource group: Default

**Existing Lite plan instance**

You can have only 1 Lite plan instance of this service per resource group. [Delete](#) your current Lite plan instance in Default resource group to create a new one, or [view the existing instance](#).

☐ I have read and agree to the following license agreements:  
[Terms](#)

Create

Add to estimate

89°F  
Partly cloudy

6:47 PM  
9/17/2022

6.

Team ID	PNT2022TMID19925
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Enter the location and in the configure your resource type the service name and choose the plan, tick the agree with agreements and then click on create

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The page is in a dark theme. The main content area is titled 'Internet of Things Platform' and includes a description: 'This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.' Below this, there are two tabs: 'Create' and 'About'. The 'Create' tab is active, showing a 'Select a location' dropdown menu with 'Dallas (us-south)' selected. Below this is a 'Select a pricing plan' section with a table of plans. The 'Lite' plan is selected, showing features like 'Includes up to 500 registered devices, and a maximum of 200 MB of each data metric' and 'Maximum of 500 registered devices'. The pricing is listed as 'Free'. On the right side, there is a 'Summary' section with details: 'Internet of Things Platform', 'Free', 'Location: Dallas', 'Plan: Lite', 'Service name: Internet of Things Platform-2w', and 'Resource group: Default'. Below the summary, there is a warning box titled 'Existing Lite plan instance' with a message: 'You can have only 1 Lite plan instance of this service per resource group. Delete your current Lite plan instance in Default resource group to create a new one, or view the existing instance.' At the bottom, there is a checkbox for 'I have read and agree to the following license agreements:' with a link to 'Terms'. Below this are two buttons: 'Create' and 'Add to estimate'. The bottom of the page shows a Windows taskbar with various icons and a system tray with the date and time: '7:23 PM 9/17/2022'.

IBM Cloud

Search resources and products...

Catalog Docs Support Manage Meow Man's Account

Internet of Things Platform

This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.

Create About

Type Service

Provider IBM

Updated on 08/15/2022

Category Internet of Things

Compliance IAM-enabled

Location Frankfurt London Dallas Washington DC

Related links Docs Terms

Select a location

Dallas (us-south)

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

Plan	Features	Pricing
Lite	<p>Includes up to 500 registered devices, and a maximum of 200 MB of each data metric</p> <p>Maximum of 500 registered devices</p> <p>Maximum of 500 application bindings</p> <p>Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed</p>	Free

The Lite service plan for Internet of Things Platform includes up to 500 registered devices, and a maximum of 200 MB each of data exchanged, data analyzed, and edge data analyzed per month.

Summary

Internet of Things Platform Free

Location: Dallas

Plan: Lite

Service name: Internet of Things Platform-2w

Resource group: Default

Existing Lite plan instance

You can have only 1 Lite plan instance of this service per resource group. [Delete](#) your current Lite plan instance in Default resource group to create a new one, or [view the existing instance](#).

☐ I have read and agree to the following license agreements: [Terms](#)

Create

Add to estimate

89°F Partly cloudy

7:23 PM 9/17/2022

7.

Team ID

PNT2022TMID19925

The screenshot displays the IBM Cloud console for the Internet of Things Platform. The main content area is titled 'Internet of Things Platform' and shows a table with columns for Plan, Features, and Pricing. The 'Lite' plan is selected, which includes up to 500 registered devices and a maximum of 200 MB of each data metric. The pricing is listed as 'Free'. Below the table, there is a 'Configure your resource' section with fields for 'Service name' (set to 'Internet of Things Platform-child\_safety'), 'Select a resource group' (set to 'Default'), 'Tags' (with examples: env:dev, version-1), and 'Access management tags' (with examples: access:dev, proj:version-1). On the right side, a 'Summary' panel shows the 'Internet of Things Platform' with a 'Free' price tag, location 'London', and plan 'Lite'. It also lists the service name as 'Internet of Things Platform-child\_safety' and the resource group as 'Default'. At the bottom right, there is a 'Create' button and an 'Add to estimate' button. The top navigation bar includes links for Catalog, Docs, Support, and Manage, along with the user's account 'Meow Man's Account'. The bottom status bar shows the temperature as 89°F, weather as 'Partly cloudy', and the time as 7:26 PM on 9/17/2022.

Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric. Maximum of 500 registered devices Maximum of 500 application bindings Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed	Free

**Configure your resource**

Service name: Internet of Things Platform-child\_safety

Select a resource group: Default

Tags: Examples: env:dev, version-1

Access management tags: Examples: access:dev, proj:version-1

**Summary**

**Internet of Things Platform** **Free**

Location: London  
Plan: Lite  
Service name: Internet of Things Platform-child\_safety  
Resource group: Default

☒ I have read and agree to the following license agreements:  
[Terms](#)

**Create**

Add to estimate

Internet of Things Platform Child\_safety will be created, where there are different options like manage, plan, and connection (manage is for launch, Plan gives us the idea about the payment package and its upgrades, and lastly the connection is for to connect IoT with other services)

8.

Team ID

PNT2022TMID19925

Resource list / Internet of Things Platform-child\_safety Active Add tags Details Actions...

**Manage**

Plan

Connections

**Let's get started with IBM Watson IoT Platform**

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

[Launch](#) [Docs](#)

**Ready for the next level?**

**IBM Watson IoT Platform Journey**

**Lite**

The Lite service plan provides a lightweight development environment to get you started with the connectivity capabilities of Watson IoT Platform.

- Free

**Non-Production**

The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.

- Starts at \$500 per month

**Production**

The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

- Includes IBM Service & Support

89°F Partly cloudy

Resource list / Internet of Things Platform-child\_safety Active Add tags Details Actions...

**Manage**

**Plan**

Connections

**Current plan**

**Lite**

**Features**

- Includes up to 500 registered devices, and a maximum of 200 MB of each data metric
- Maximum of 500 registered devices
- Maximum of 500 application bindings
- Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed

**Current usage**

**N/A**

Lite plan services are deleted after 30 days of inactivity.

**Change pricing plan**

Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric Maximum of 500 registered devices Maximum of 500 application bindings Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed	Free

https://cloud.ibm.com/services/iotf-service/cm%3Av1%3Abluemix%3Apublic%3Aiotf-service%3Aeu-gb%3Aa%2Fb77a43cd7e04aa8abc85cac562dba699%3A87a72bdb-1bf7-44a2-b735-4cd2b61b2403%3A%3A?panelid=plan&new=true

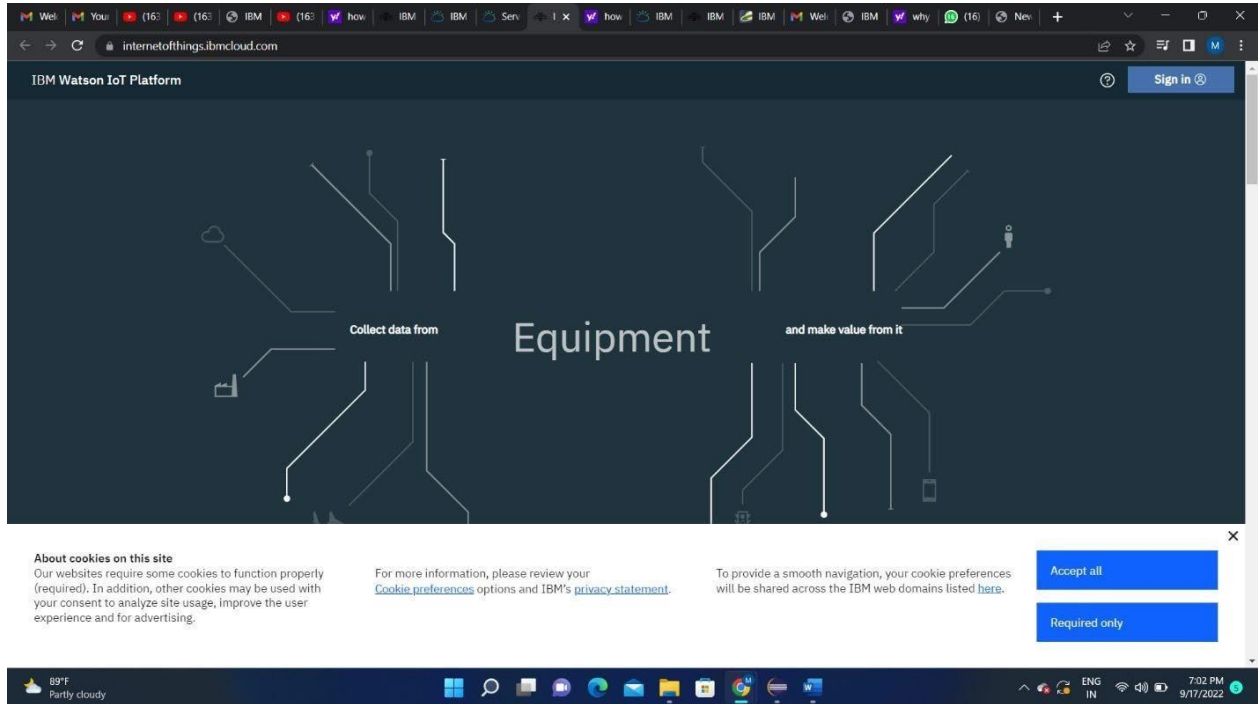
89°F Partly cloudy

Clicking on the launch button in the manage tab, it will open to this

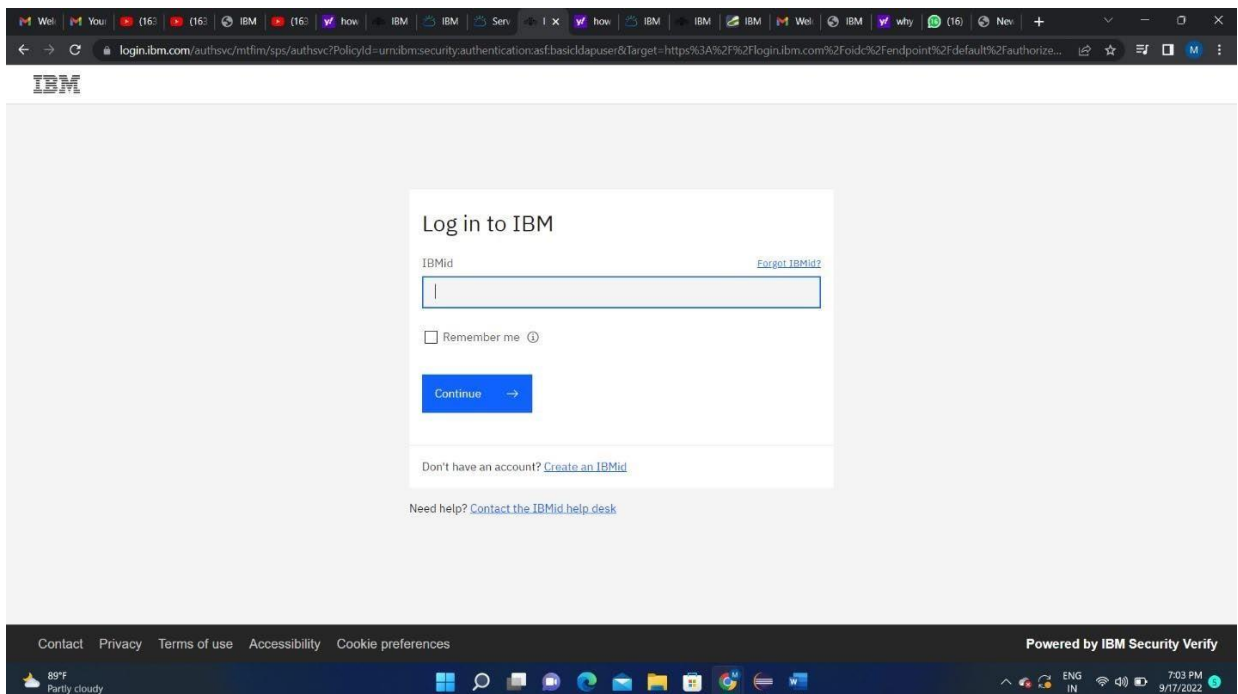


9.

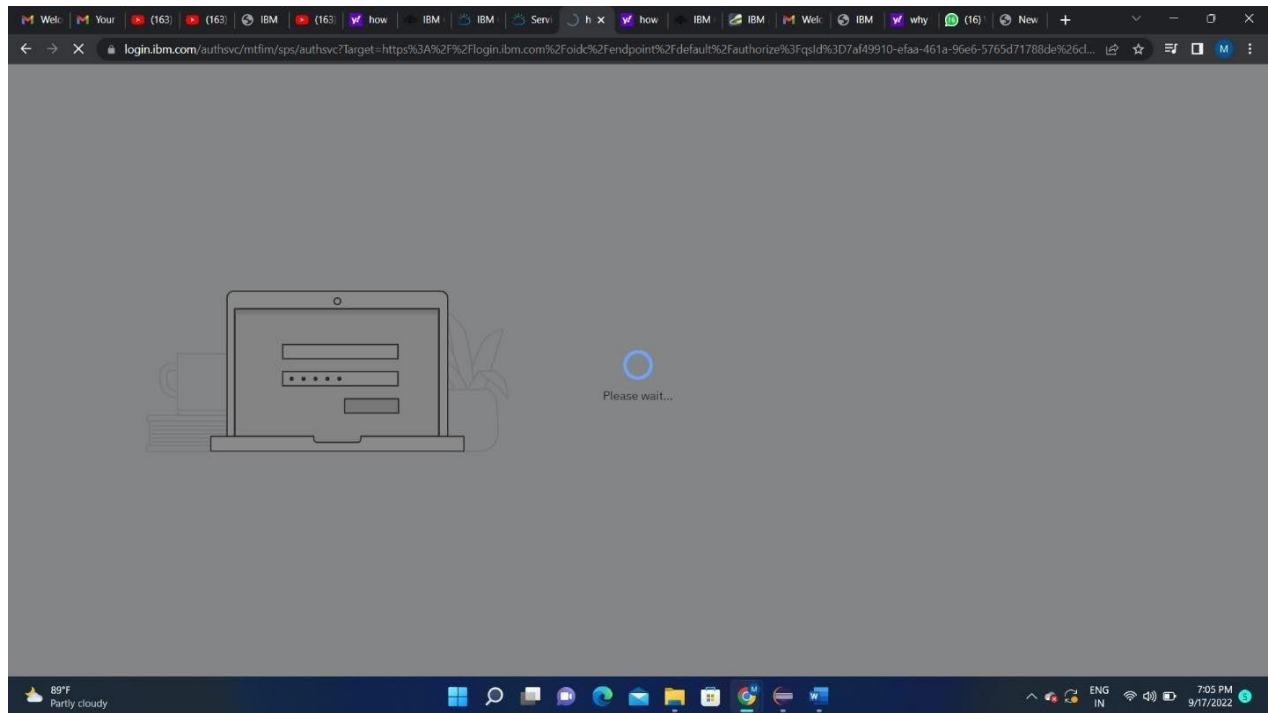
Team ID	PNT2022TMID19925
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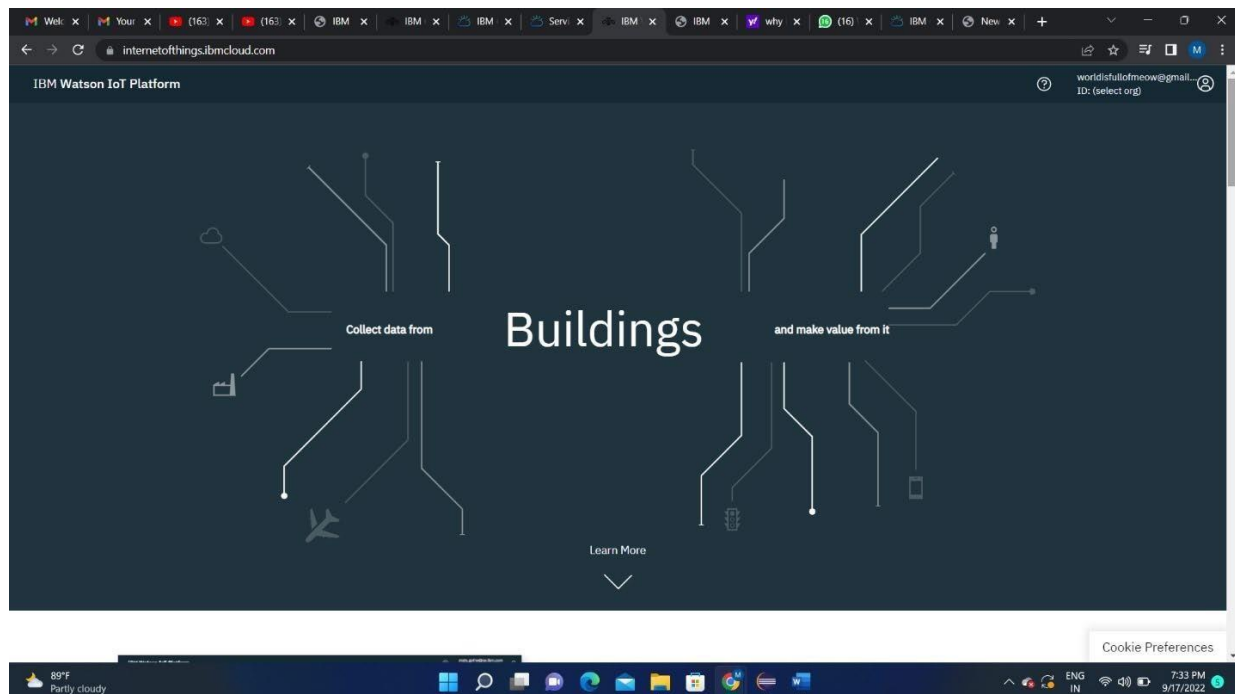
9. Enter the details to sign in to the Watson Cloud to create a device



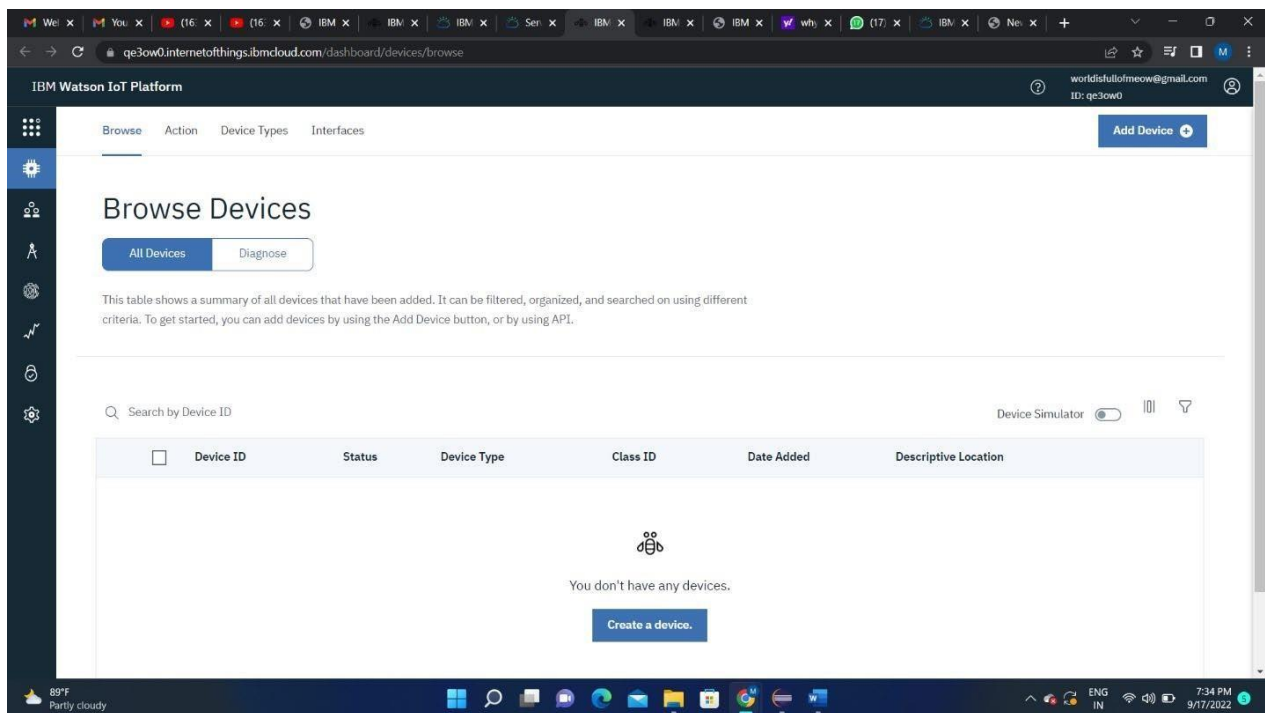




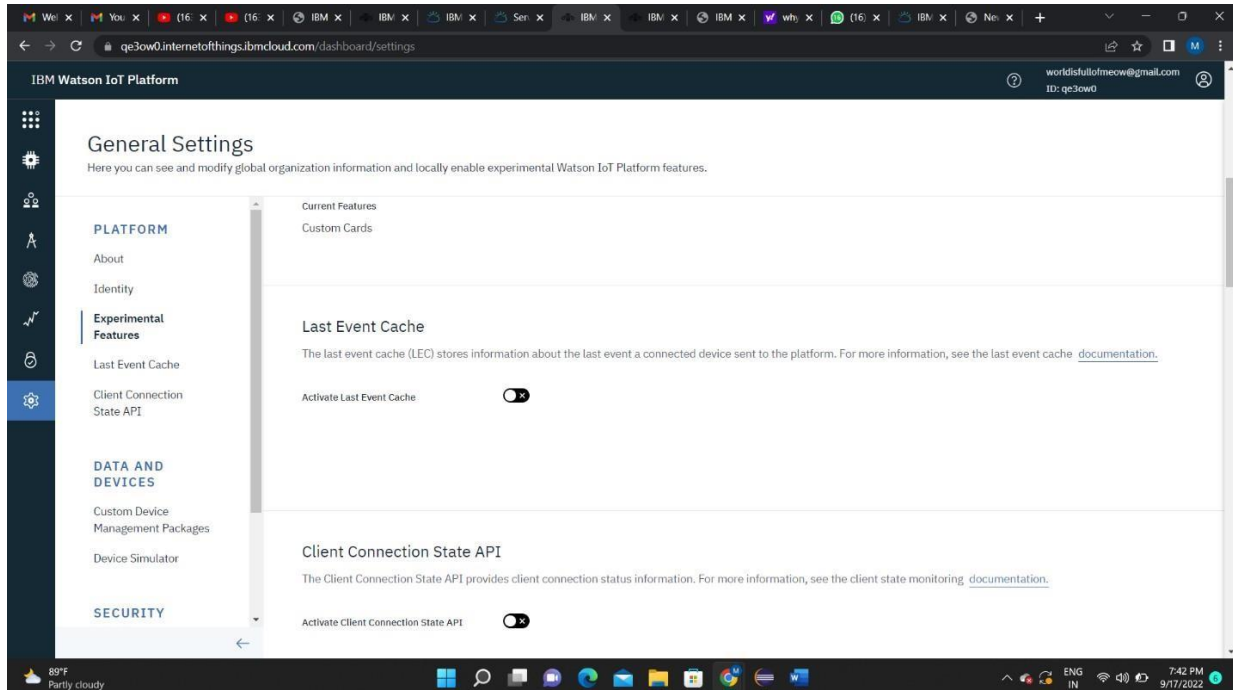
10. Once logged in the name will be displayed and it goes back to the first page



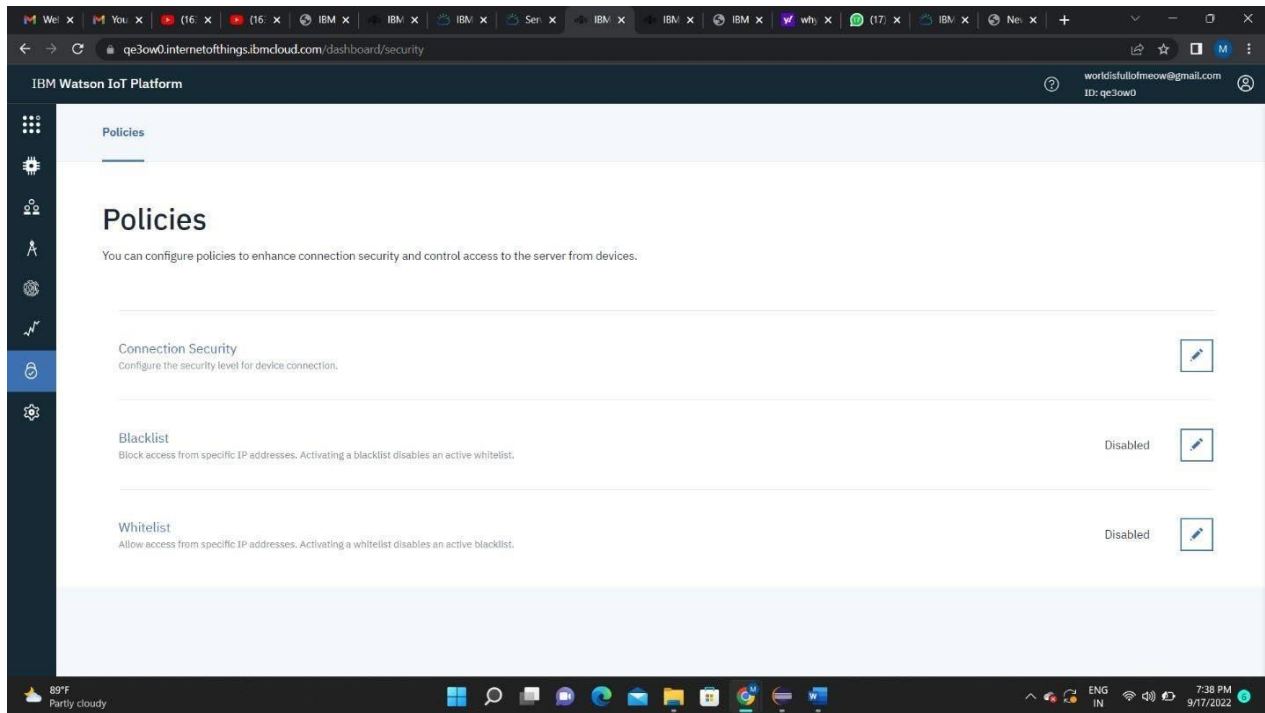
11. And again clicking on the launch button will open this tab, the device will help in the creation of the devices, the addition of devices, and the display of details of the devices.



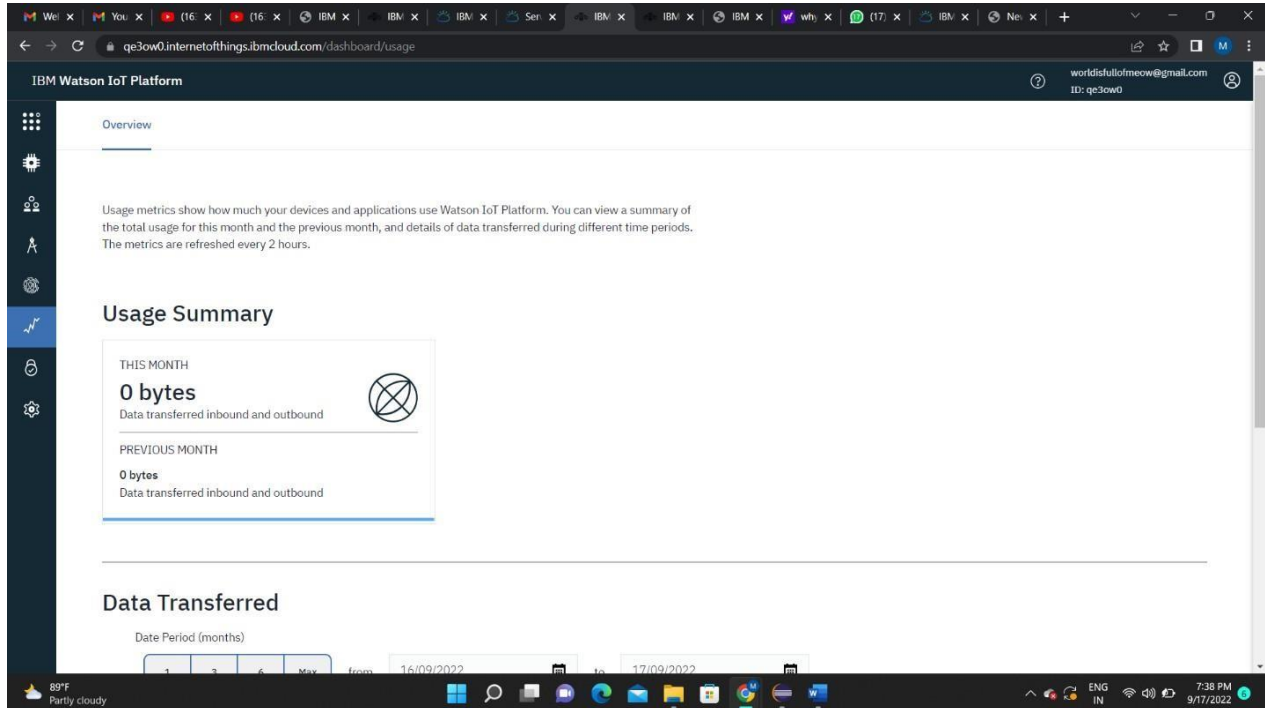
12. The setting tab is used to change the general setting if needed for the project.



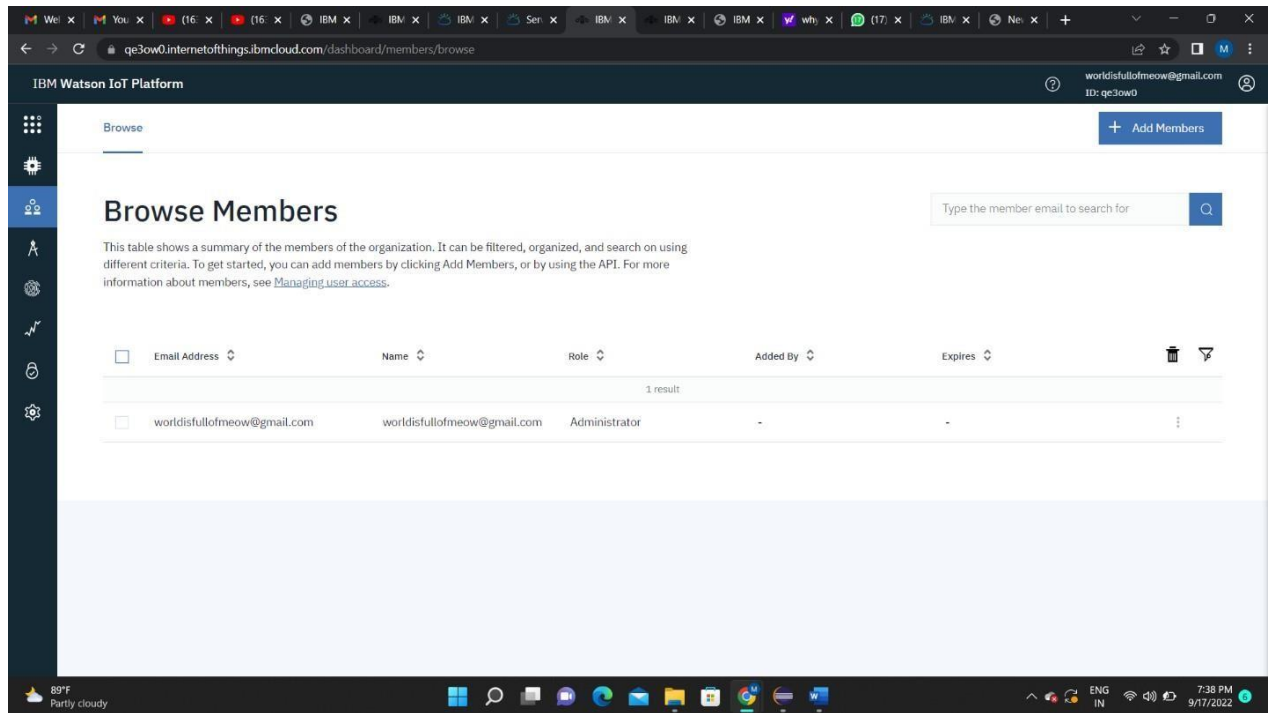
13. In the security tab we can choose the type of security connection and can change according to specification



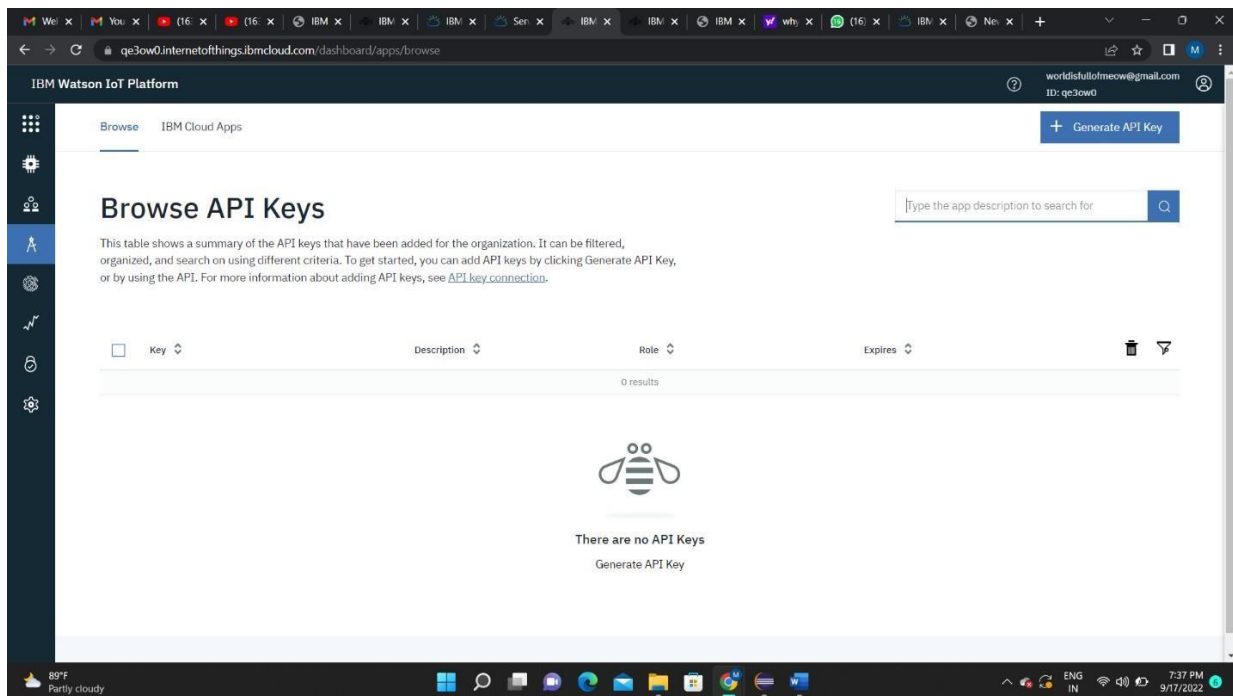
14. Usage gives the summary of how many bytes are used between the devices and the IBM cloud.



15. The member tab is add the teams members to work in the platform



16. This tab is used when you want to connect to some other platform and to integrate with other services.



17. Click on the device tab and click on the add device button, then give the device type and device id and click next

Team ID

PNT2022TMID19925

The screenshot shows the IBM Watson IoT Platform dashboard. The left sidebar contains navigation links: Boards, Devices (selected), Members, Apps, Access Management, Usage, Security, and Settings. The main content area is titled 'Devices' and includes a 'Diagnose' button. Below the title, there is a summary of devices and a table with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The table is currently empty, and a message states 'You don't have any devices.' with a 'Create a device.' button. The top right corner shows the user's email (worldisfullofmeow@gmail.com) and ID (qe3ow0). The bottom status bar indicates a temperature of 89°F and a 'Partly cloudy' weather condition.

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform. The wizard has four steps: Identity, Device Information, Security, and Summary. The 'Identity' step is currently active. It prompts the user to 'Select a device type for the device that you are adding and give the device a unique ID.' There are two input fields: 'Device Type' with a dropdown menu labeled 'Select or create a device type...' and 'Device ID' with a text input labeled 'Enter Device ID'. At the bottom right of the wizard, there are 'Cancel' and 'Next' buttons. The background shows the 'Browse Devices' section with 'All Devices' and 'Diagnose' buttons. The bottom status bar shows a temperature of 89°F and a 'Partly cloudy' weather condition.

The screenshot shows the 'Add Device' form in the IBM Watson IoT Platform. The form is titled 'Add Device' and has a progress bar with four steps: Identity, Device Information, Security, and Summary. The 'Identity' step is currently active, indicated by a blue circle and the text 'Identity' below it. The instructions state: 'Select a device type for the device that you are adding and give the device a unique ID.' There are two input fields: 'Device Type' with the value 'Nodemcu' and 'Device ID' with the value '199795'. At the bottom right of the form are 'Cancel' and 'Next' buttons. Below the form is a 'Browse Devices' section with 'All Devices' and 'Diagnose' buttons. The browser address bar shows 'qe3ow0.internetofthings.ibmcloud.com/dashboard/devices/browse/add'. The user's email 'worldisfullofmeow@gmail.com' and ID 'qe3ow0' are visible in the top right corner. The Windows taskbar at the bottom shows the date and time as 7:45 PM on 9/17/2022.

IBM Watson IoT Platform

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

Select a device type for the device that you are adding and give the device a unique ID.

Device Type Nodemcu

Device ID 199795

Cancel Next

Browse Devices

All Devices Diagnose

18. This page to enter extra details and of the hardware

The screenshot shows the 'Add Device' form in the IBM Watson IoT Platform, now at the 'Device Information' step. The progress bar shows 'Identity' as completed (with a checkmark) and 'Device Information' as the current step. The instructions state: 'You can modify the default device information and enter more information about the device for identification purposes.' There are two columns of input fields. The left column includes 'Serial Number' (Enter Serial Number), 'Model' (Enter Model), 'Description' (Enter Description), and 'Hardware Version' (Enter Hardware Version). The right column includes 'Manufacturer' (Enter Manufacturer), 'Device Class' (Enter Device Class), 'Firmware Version' (Enter Firmware Version), and 'Descriptive Location' (Enter Descriptive Location). At the bottom left of the form is an 'Add Metadata' button with a plus icon. At the bottom right are 'Back' and 'Next' buttons. The browser address bar and user information remain the same as in the previous screenshot. The Windows taskbar at the bottom shows the date and time as 9:46 PM on 9/17/2022.

IBM Watson IoT Platform

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

You can modify the default device information and enter more information about the device for identification purposes.

Serial Number Enter Serial Number

Model Enter Model

Description Enter Description

Hardware Version Enter Hardware Version

Manufacturer Enter Manufacturer

Device Class Enter Device Class

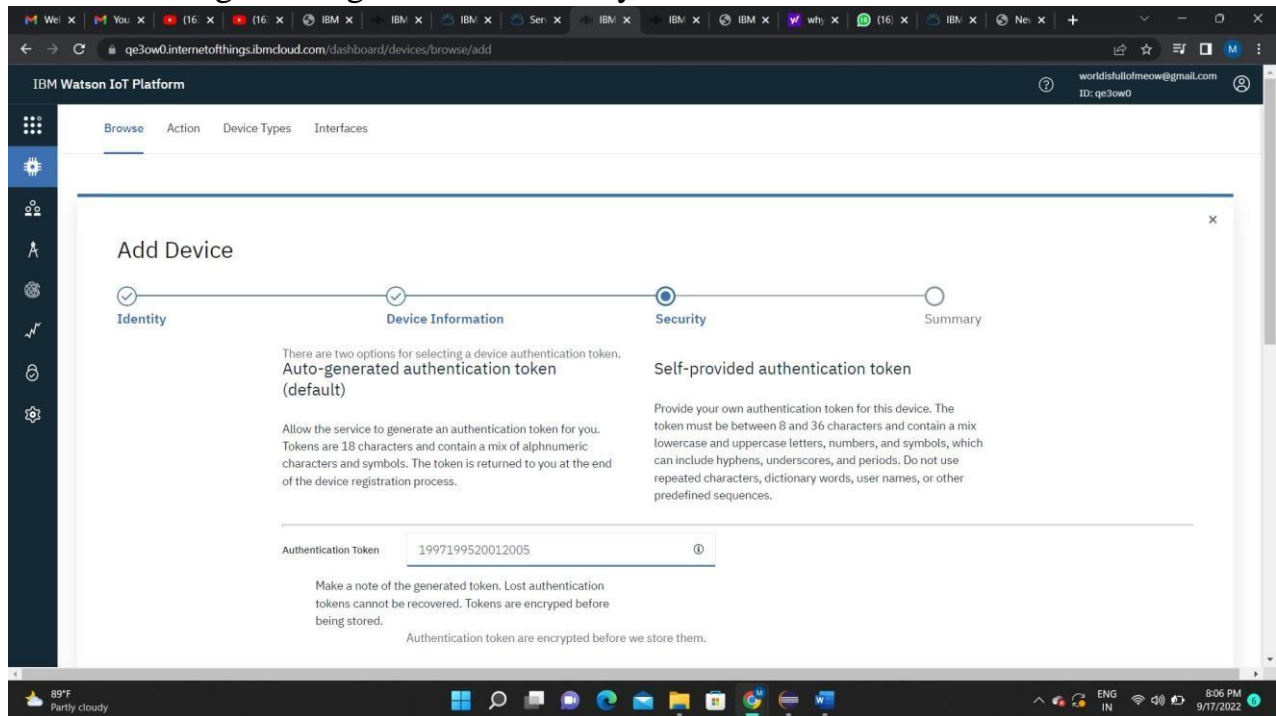
Firmware Version Enter Firmware Version

Descriptive Location Enter Descriptive Location

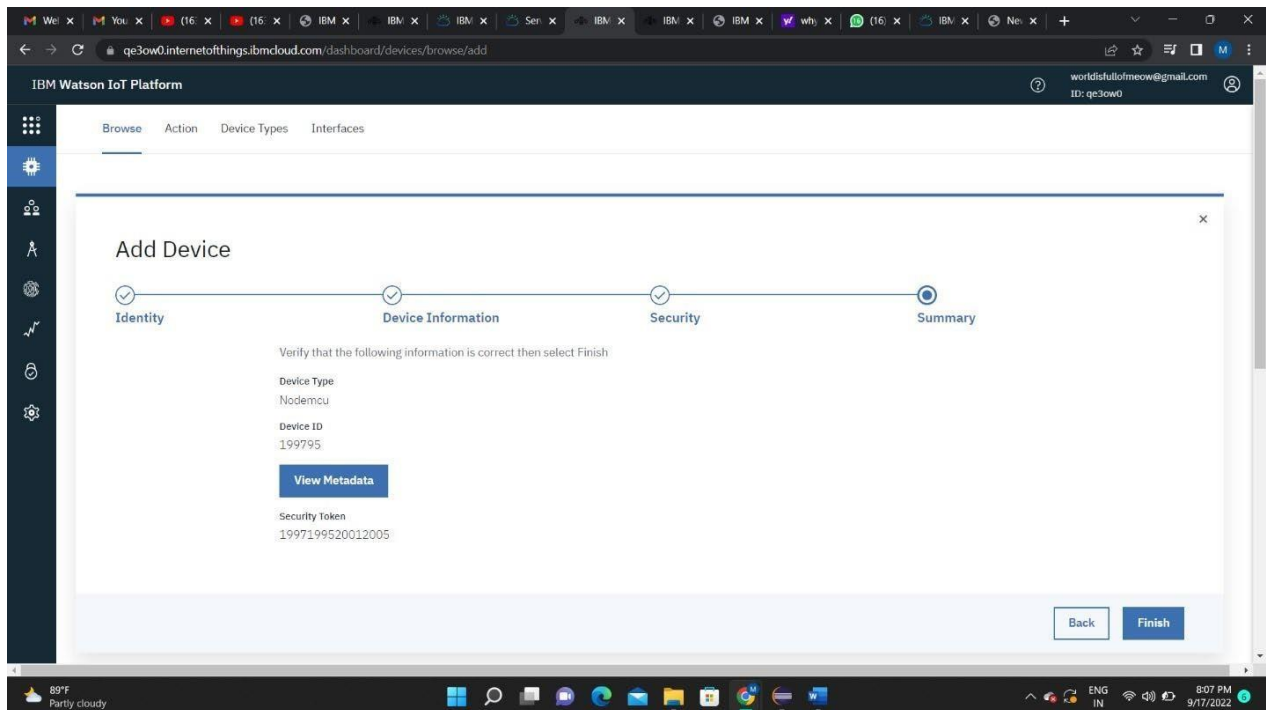
Add Metadata

Back Next

19. Clicking next it goes to the security where we do authentication token id.

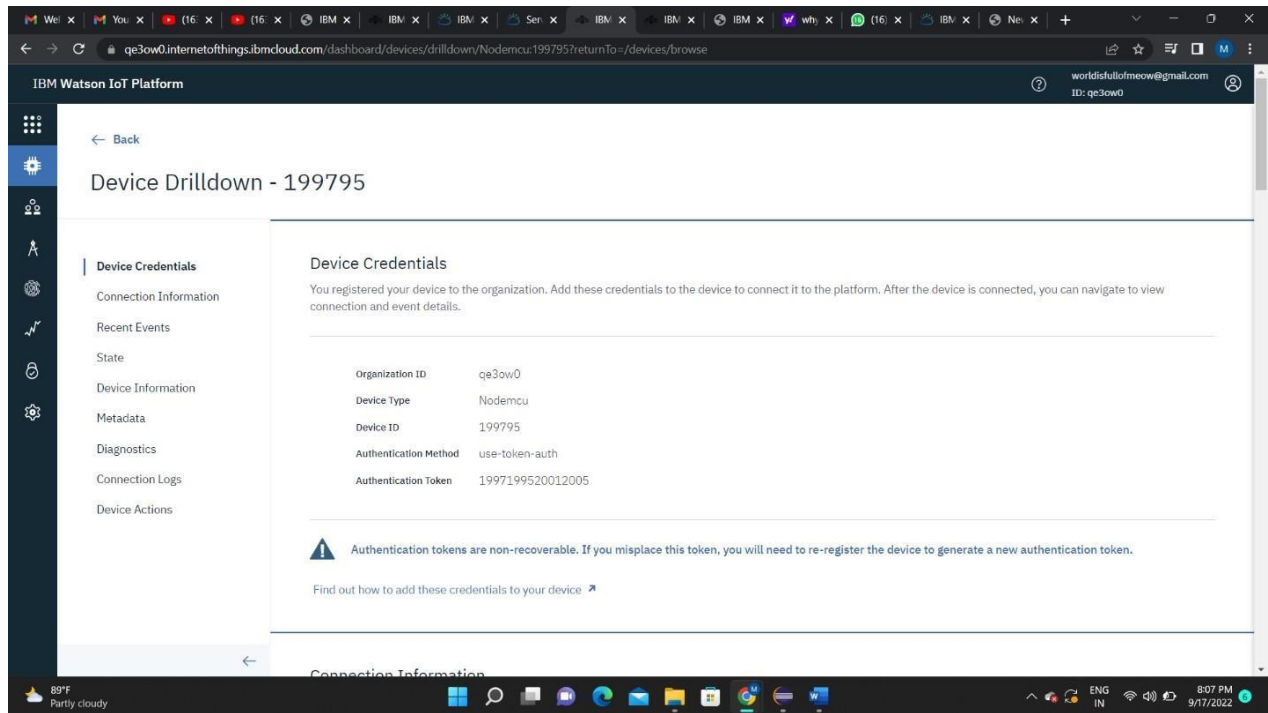


20. Clicking on next it goes to the summary of the device then click finish



21. The device credentials will be displayed with all the details





IBM Watson IoT Platform

### Device Drilldown - 199795

**Device Credentials**

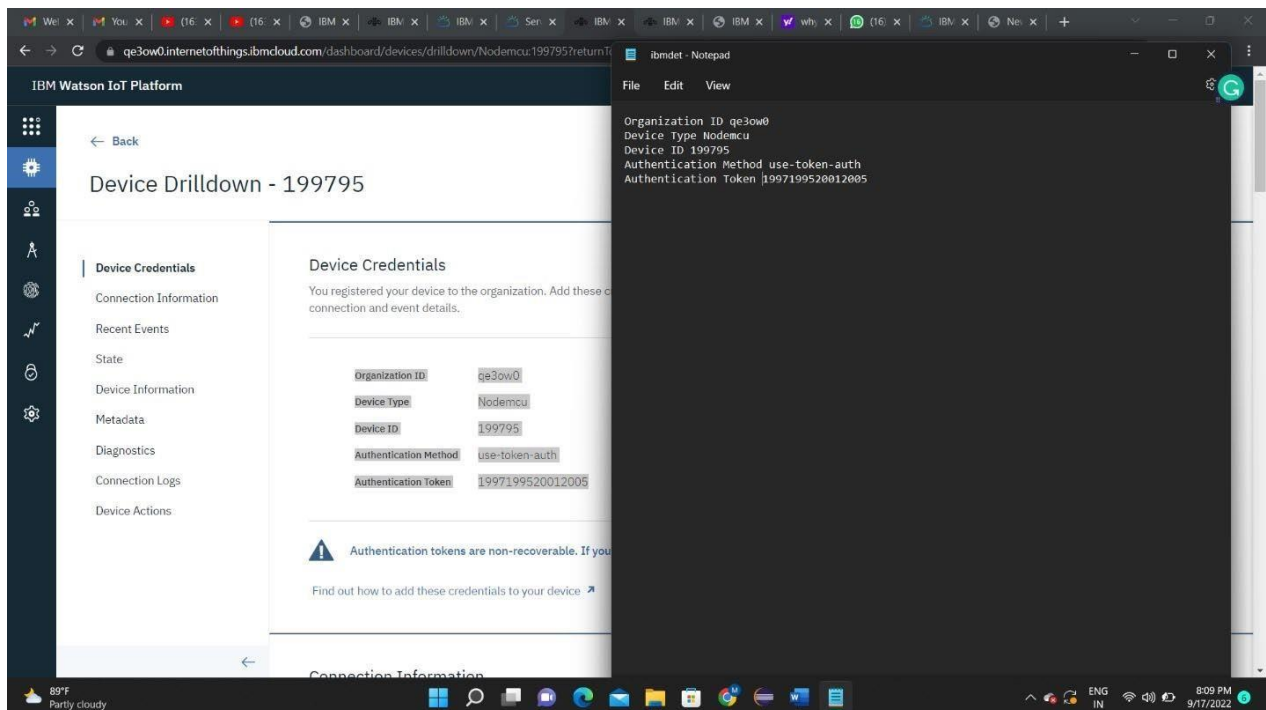
You registered your device to the organization. Add these credentials to the device to connect it to the platform. After the device is connected, you can navigate to view connection and event details.

Organization ID	qe3ow0
Device Type	Nodemcu
Device ID	199795
Authentication Method	use-token-auth
Authentication Token	1997199520012005

⚠ Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to generate a new authentication token.

[Find out how to add these credentials to your device](#)

22. Save the details of the device as the authentication tokens are non-recoverable and if misplaced then we have to create a new one.



IBM Watson IoT Platform

### Device Drilldown - 199795

**Device Credentials**

You registered your device to the organization. Add these credentials to the device to connect it to the platform. After the device is connected, you can navigate to view connection and event details.

Organization ID	qe3ow0
Device Type	Nodemcu
Device ID	199795
Authentication Method	use-token-auth
Authentication Token	1997199520012005

⚠ Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to generate a new authentication token.

[Find out how to add these credentials to your device](#)

ibmdet - Notepad

```
File Edit View
Organization ID qe3ow0
Device Type Nodemcu
Device ID 199795
Authentication Method use-token-auth
Authentication Token 1997199520012005
```

23. Clicking on the device tab we can now see the added device. Clicking on it will display the other details.

It has different tabs like Identity, Device Information, State and login.

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. A table lists devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The first device is 199795, status 'Disconnected', type 'Nodemcu', class 'Device', added on '17 Sep 2022 20:07'. Below the table, the 'Recent Events' tab is selected, showing a message: 'The recent events listed show the live stream of data that is coming and going from this device.' Below this message is a table with columns: Event, Value, Format, and Last Received. The bottom status bar shows '89°F Partly cloudy' and the time '8:11 PM 9/17/2022'.

The screenshot shows the IBM Watson IoT Platform dashboard with the 'Device Information' tab selected for device 199795. The table below the tabs displays the following details:

Device ID	199795
Device Type	Nodemcu
Date Added	17 Sep 2022 20:07
Added By	worldisfullofmeow@gmail.com
Connection Status	Disconnected

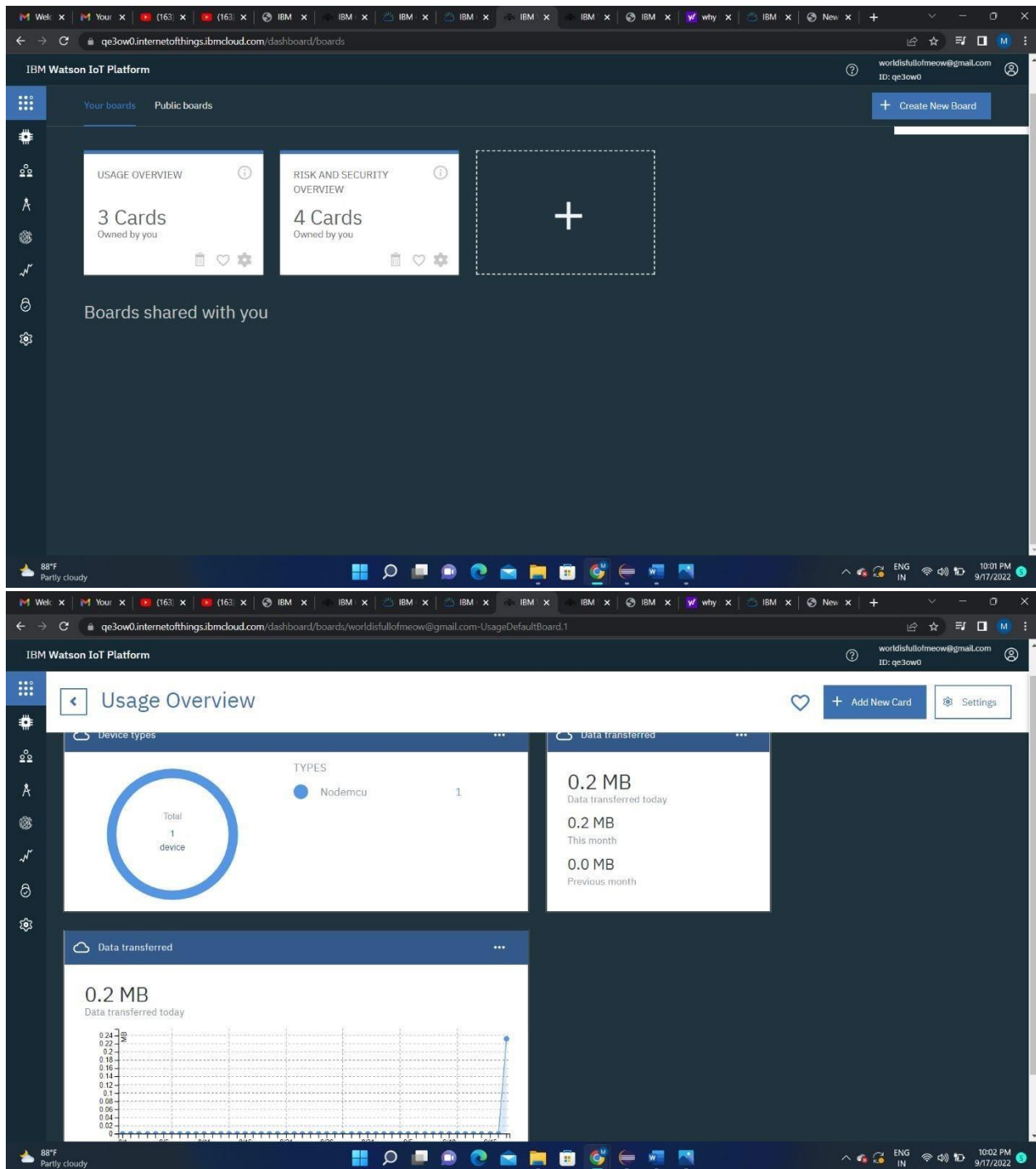
At the bottom, it shows 'Items per page 50' and '1 of 1 page'.

In a similar way, we can create n number of devices with a 50 per page limit as per the requirement of our project.

24. The Boards will display card for the project.

Team ID

PNT2022TMID19925



## RESULT:

An IBM Watson cloud for IoT and a device is created