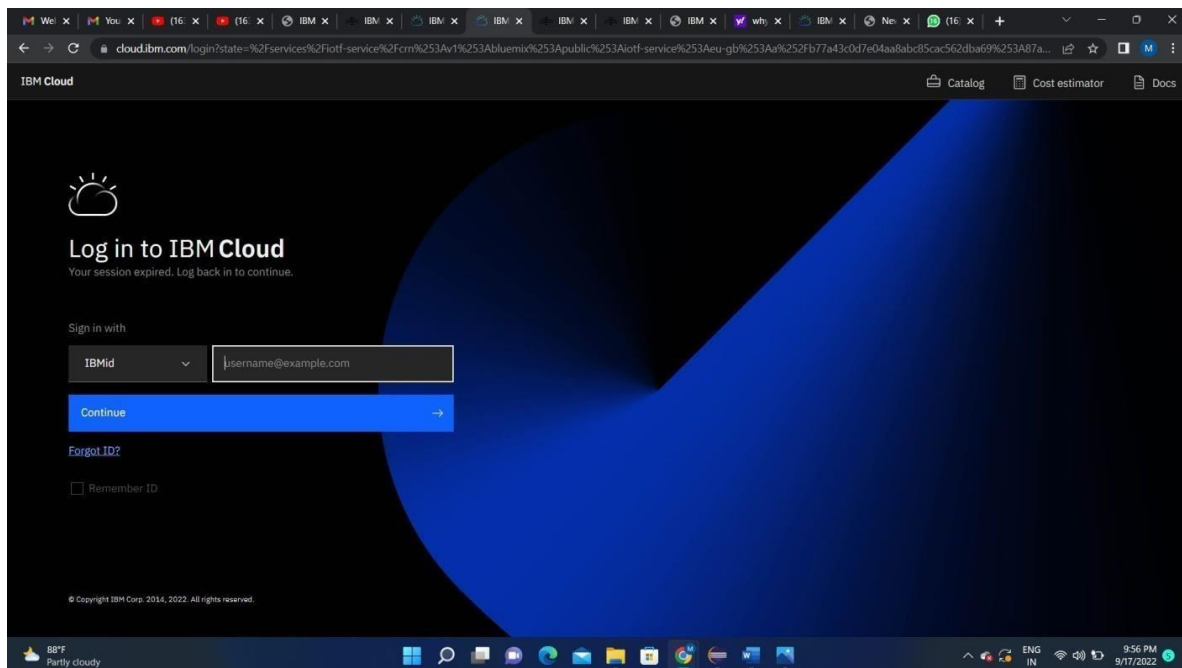


CREATE IBM WATSON IOT PLATFORM AND DEVICE

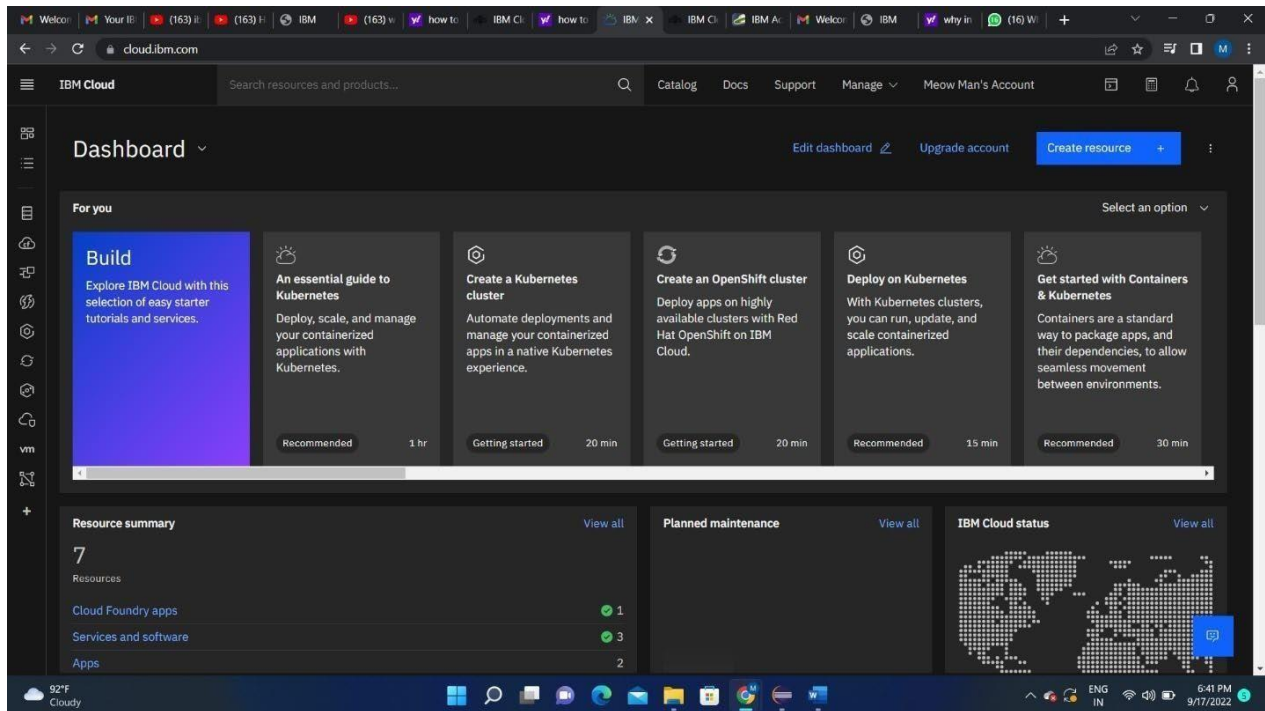
Date	11-11-2022
Team ID	PNT2022TMID31679
Project Name	IOT based safety gadget for child safety monitoring and notification
Maximum Marks	4Marks
Submitted By	DEENA V

STEPS:

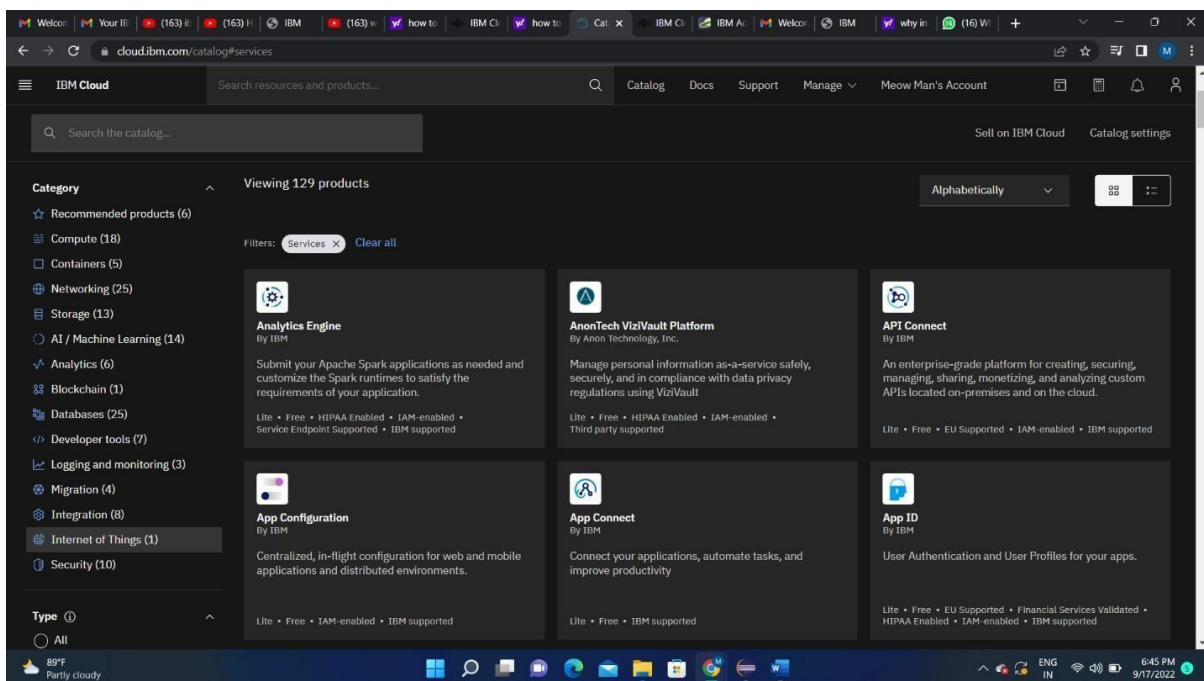
1. Firstly create an IBM cloud account with IBM id and password



2. Homepage of IBM cloud



3. Click on the catalog on the top



Click on IOT in the category mentioned

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The 'Create' tab is active, displaying a 'Select a location' dropdown menu with 'Dallas (us-south)' selected. Below this, a 'Select a pricing plan' section shows a table with one plan, 'Lite', which is free. The table columns are Plan, Features, and Pricing. The 'Lite' plan includes up to 500 registered devices and a maximum of 200 MB of each data metric. The 'Summary' panel on the right shows the service name as 'Internet of Things Platform-bb' and the resource group as 'Default'. A warning message states: '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.' The 'Create' button is disabled.

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

4. If already alite is present delete it else you can't create another

The screenshot shows the 'Configure your resource' section of the IBM Cloud Internet of Things Platform page. The 'Service name' field is filled with 'Internet of Things Platform-bb'. The 'Select a resource group' dropdown menu shows 'Default' selected. The 'Tags' field is filled with 'Examples: env:dev, version=1'. The 'Access management tags' field is filled with 'Examples: access:dev, proj:version=1'. The 'Summary' panel on the right shows the service name as 'Internet of Things Platform-bb' and the resource group as 'Default'. A warning message states: '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.' The 'Create' button is disabled.

5. 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

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	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-2w

Resource group: Default

Existing Lite plan instance

You can have only 1 Lite plan instances 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

IBM Cloud

Search resources and products...

Catalog Docs Support Manage Meow Man's Account

Internet of Things Platform

Compliance: IAM-enabled

Location: Frankfurt, London, Dallas, Washington DC

Related links: Docs, Terms

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.

Lite plan services are deleted after 30 days of inactivity.

Configure your resource

Service name:

Select a resource group:

Tags:

Access management tags:

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

6. 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)

The screenshot shows the IBM Cloud IoT Platform console. The left sidebar has a 'Manage' tab selected. The main content area displays a 'Let's get started with IBM Watson IoT Platform' section with a 'Launch' button. Below this is the 'IBM Watson IoT Platform Journey' section, which includes three options: 'Lite', 'Non-Production', and 'Production'. The 'Lite' option is currently selected.

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

The screenshot shows the IBM Cloud IoT Platform console with the 'Plan' tab selected. The main content area displays the 'Current plan' as 'Lite' and 'Current usage' as 'N/A'. Below this is the 'Change pricing plan' section, which includes a table of available plans.

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

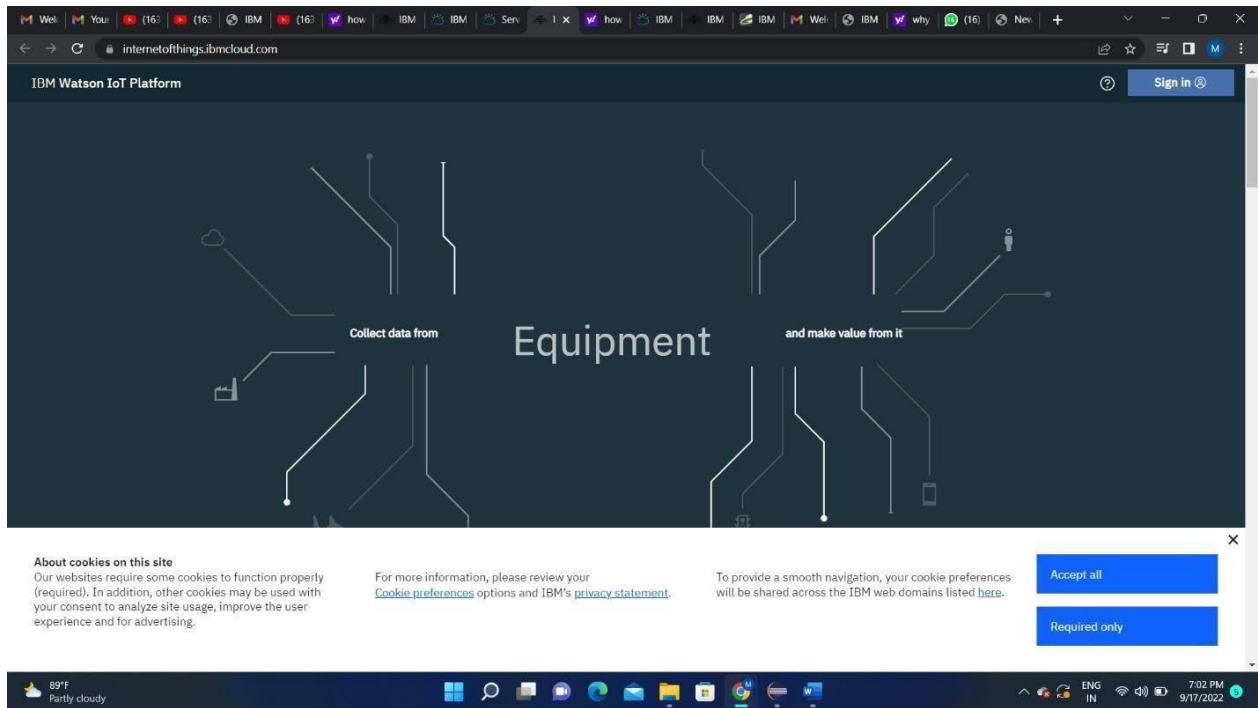
N/A

Lite plan services are deleted after 30 days of inactivity.

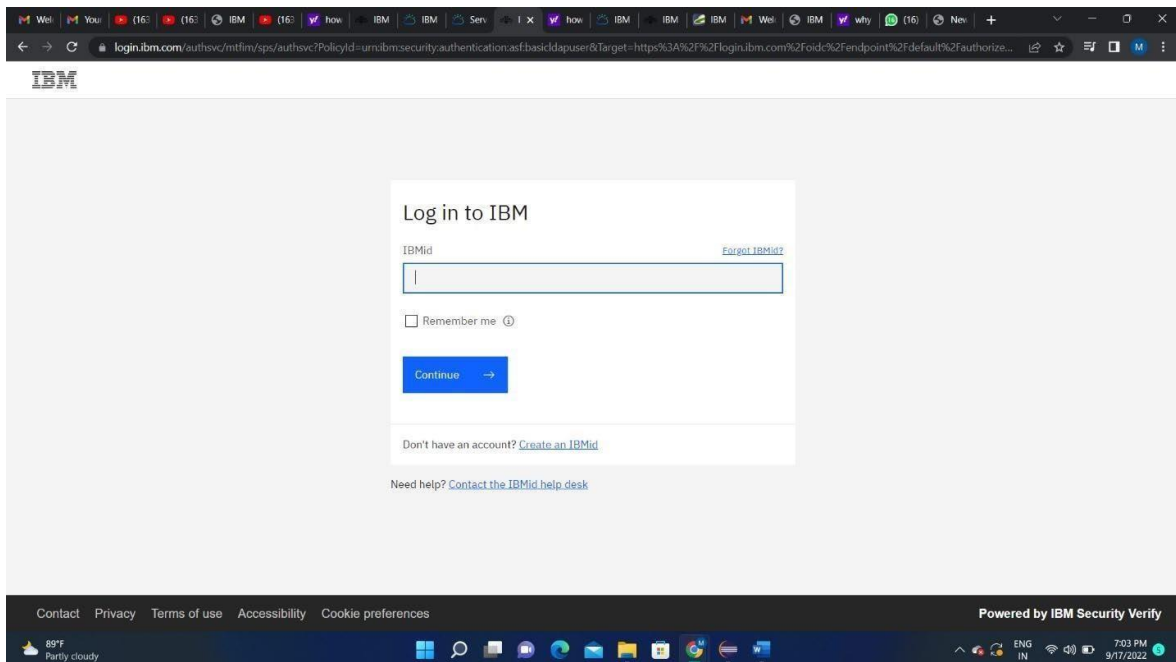
Change pricing plan

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

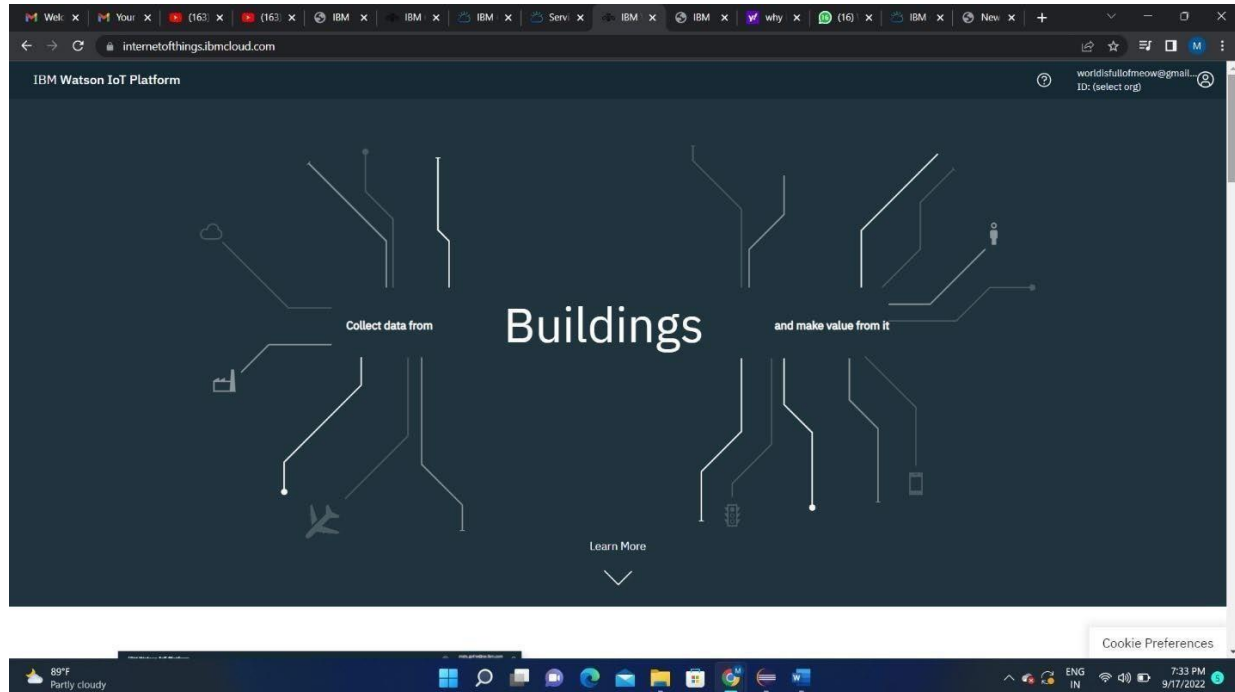
7. Clicking on the launch button in the manage tab, it will open to this.



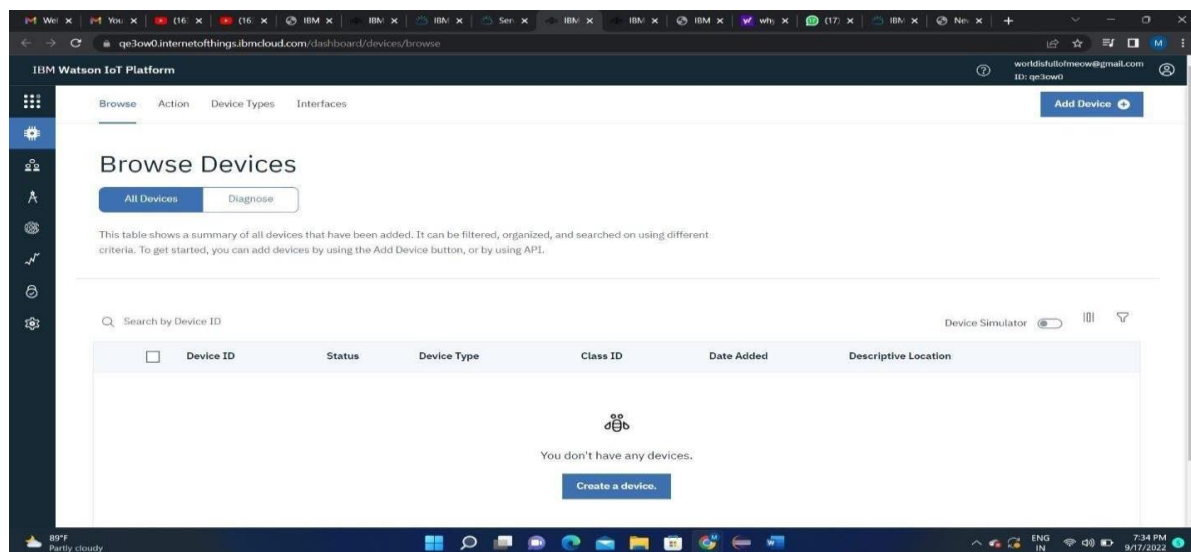
8. Enter the details to sign in to the Watson Cloud to create a device



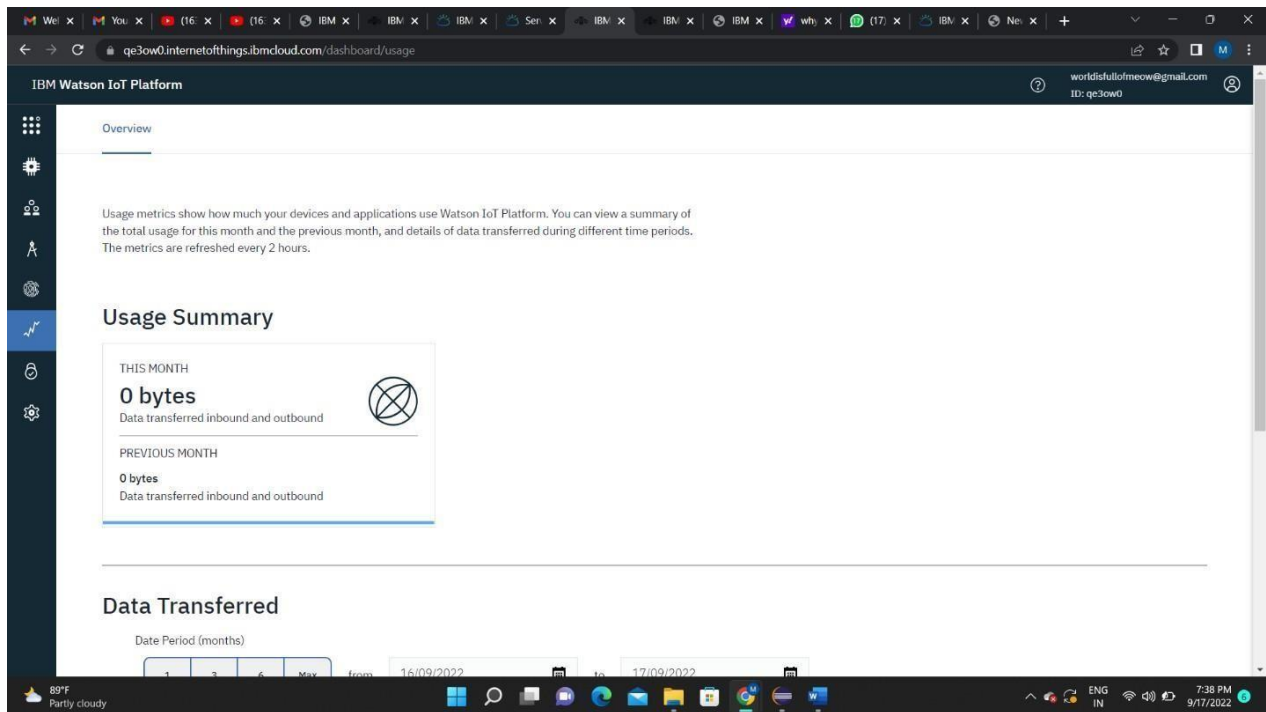
9. Once logged in the name will be displayed and it goes back to the first page



10. 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



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



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

The screenshot shows the 'Browse Members' page in the IBM Watson IoT Platform. The page title is 'Browse Members'. There is a search bar with the placeholder text 'Type the member email to search for'. Below the search bar, there is a table with columns: Email Address, Name, Role, Added By, and Expires. The table shows one result for the user 'worldisfulofmeow@gmail.com' with the role 'Administrator'. The page includes a sidebar with navigation icons and a top bar with the user's email and ID. The bottom of the screen shows a Windows taskbar with various application icons and system information like temperature and time.

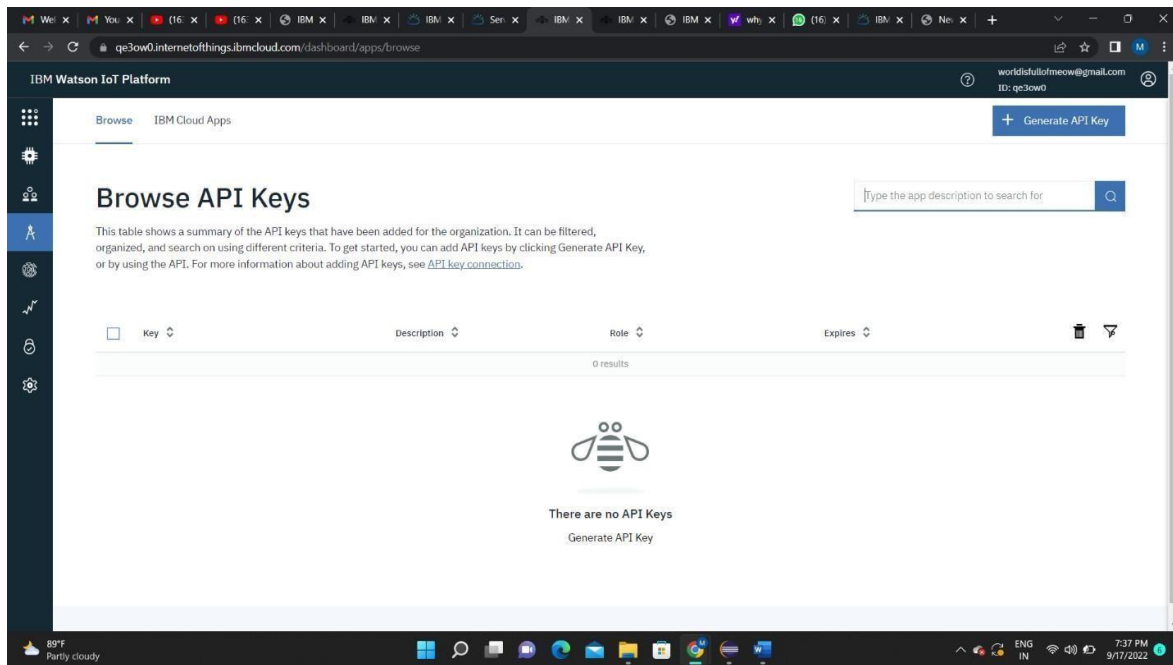
Browse Members

Type the member email to search for

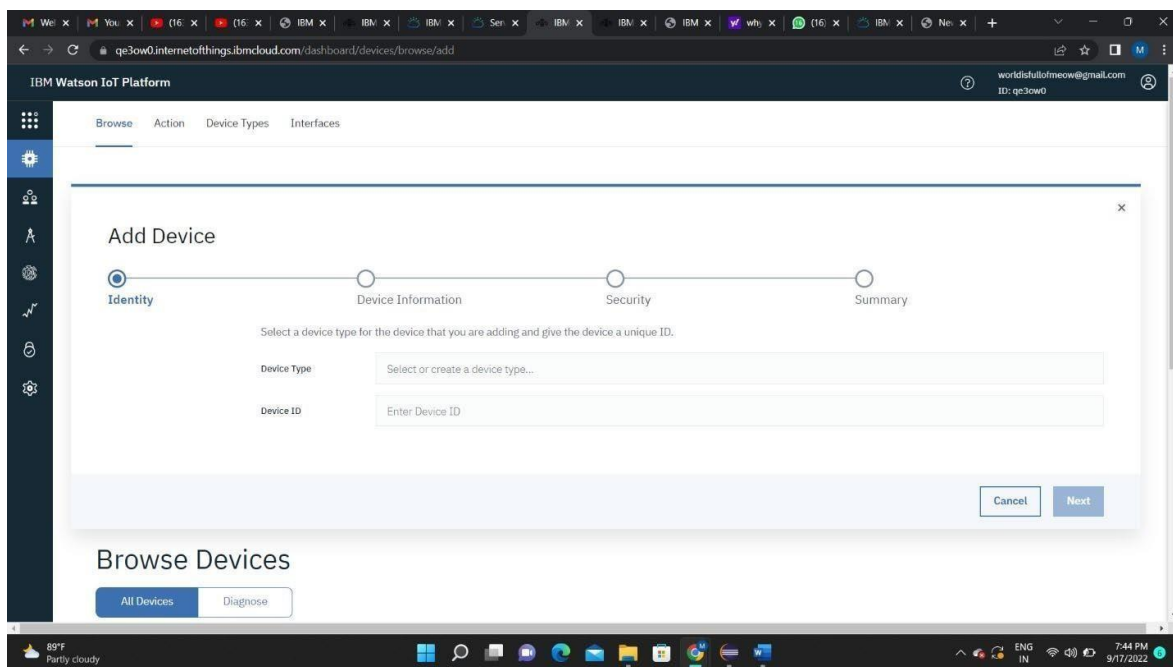
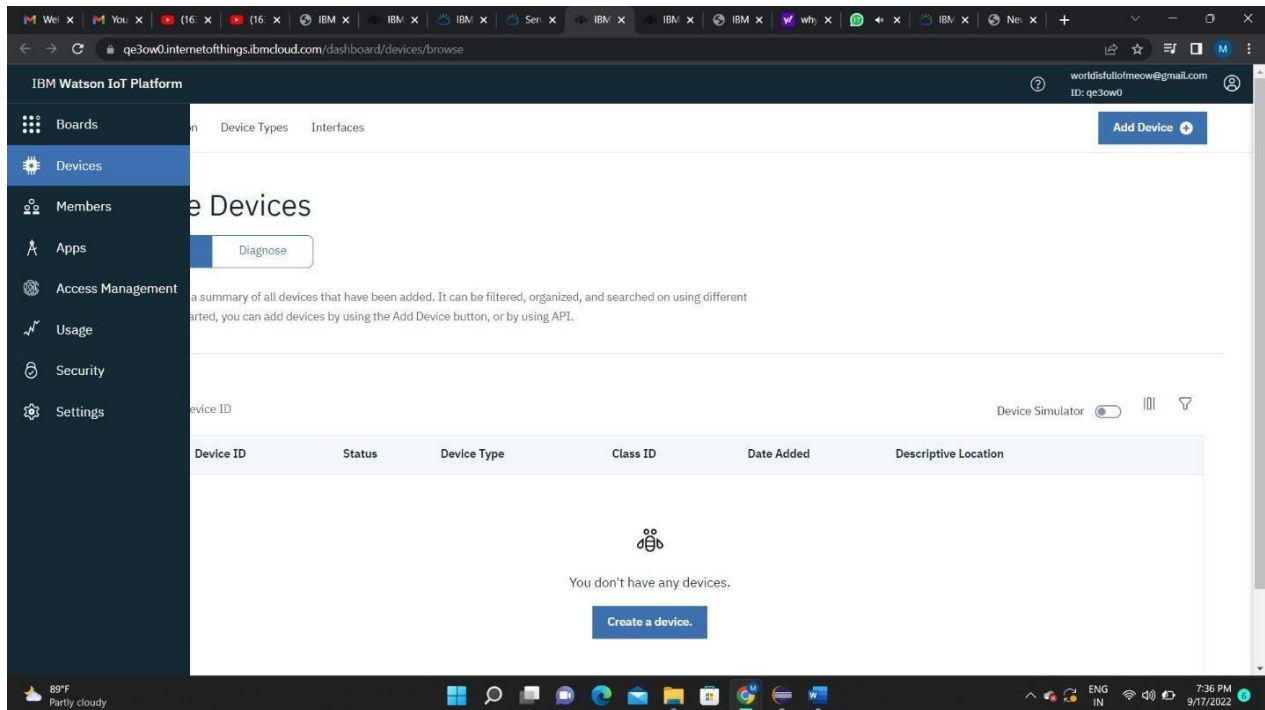
This table shows a summary of the members of the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add members by clicking Add Members, or by using the API. For more information about members, see [Managing user access](#).

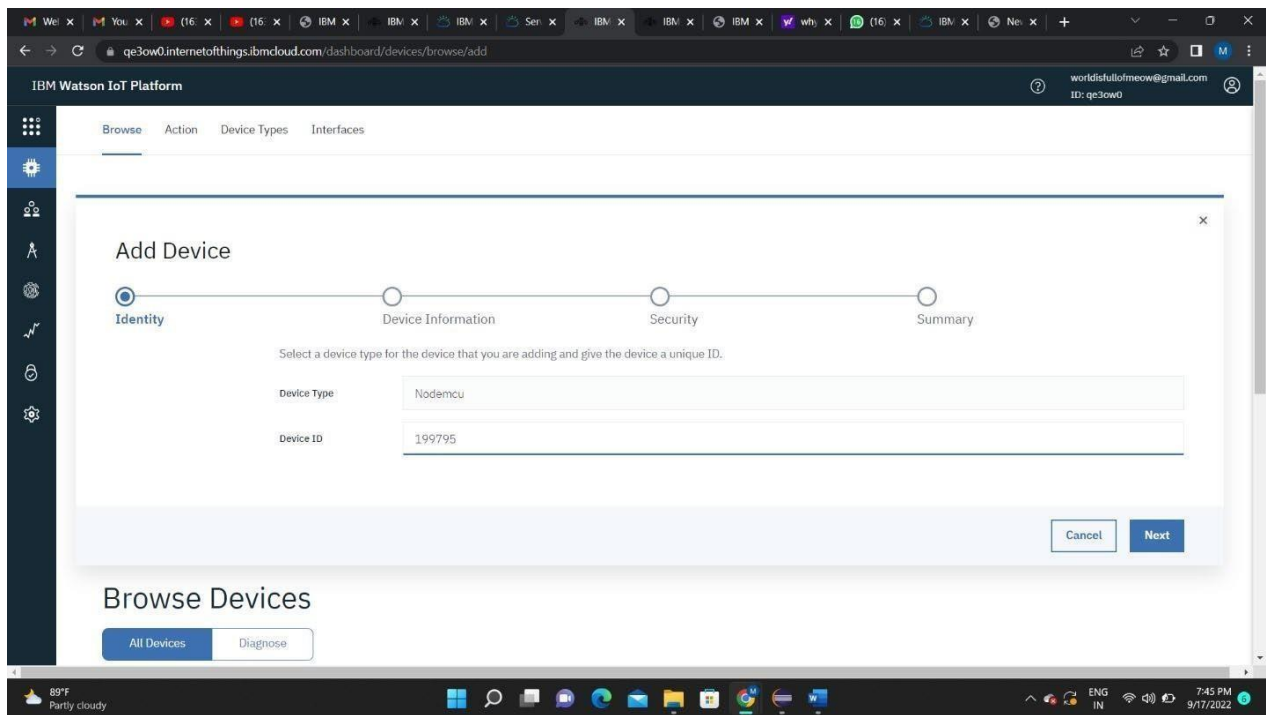
<input type="checkbox"/>	Email Address	Name	Role	Added By	Expires	
1 result						
<input type="checkbox"/>	worldisfulofmeow@gmail.com	worldisfulofmeow@gmail.com	Administrator	-	-	

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

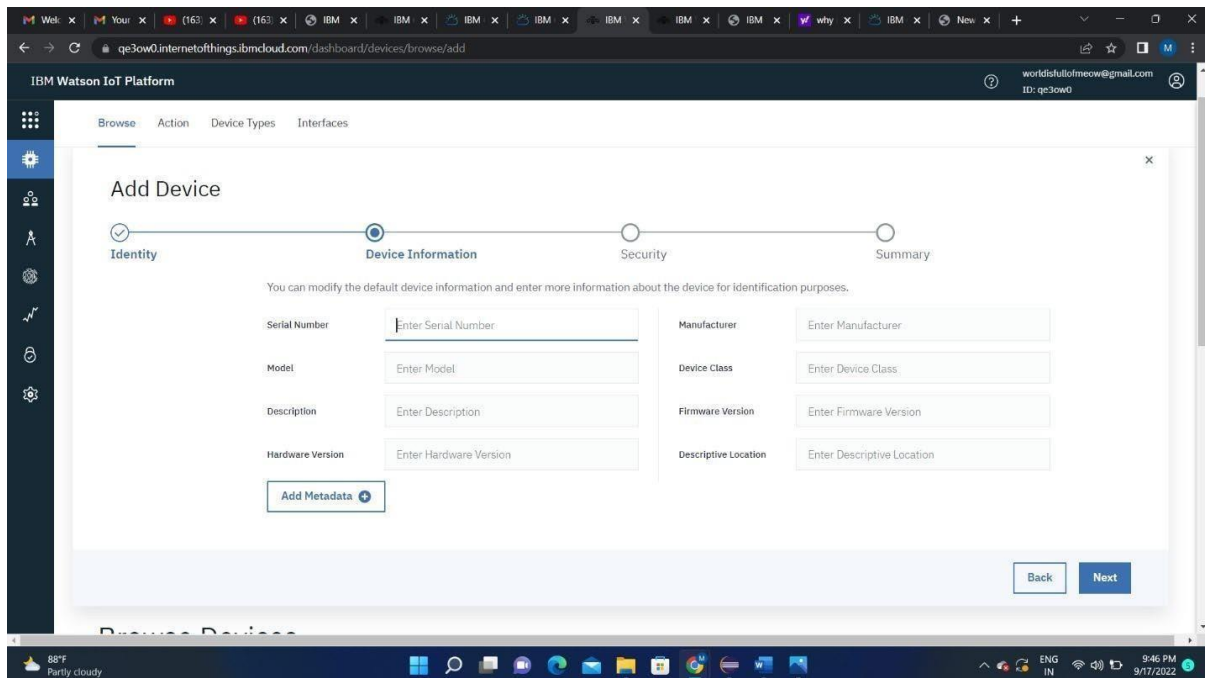


14. Click on the device tab and click on the add device button, then give the device type and device id and click next.





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



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

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform. The 'Security' step is active, showing two options for authentication: 'Auto-generated authentication token (default)' and 'Self-provided authentication token'. The 'Auto-generated' option is selected, and a text box displays the generated token: '1997199520012005'. Below the token, a note states: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.' A link 'Authentication token are encrypted before we store them.' is also present. The wizard progress bar at the top shows four steps: Identity, Device Information, Security (current), and Summary.

IBM Watson IoT Platform

worldisfullofmeow@gmail.com
ID: qe3ow0

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

There are two options for selecting a device authentication token.

Auto-generated authentication token (default)

Allow the service to generate an authentication token for you. Tokens are 18 characters and contain a mix of alphanumeric characters and symbols. The token is returned to you at the end of the device registration process.

Authentication Token: 1997199520012005

Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.

Authentication token are encrypted before we store them.

Self-provided authentication token

Provide your own authentication token for this device. The token must be between 8 and 36 characters and contain a mix of lowercase and uppercase letters, numbers, and symbols, which can include hyphens, underscores, and periods. Do not use repeated characters, dictionary words, user names, or other predefined sequences.

89°F Partly cloudy 8:06 PM 9/17/2022

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

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform, now at the 'Summary' step. The 'Summary' step is active, showing a summary of the device information: 'Device Type: NodeMCU', 'Device ID: 199795', and 'Security Token: 1997199520012005'. A 'View Metadata' button is visible. At the bottom, there are 'Back' and 'Finish' buttons. The wizard progress bar at the top shows four steps: Identity, Device Information, Security, and Summary (current).

IBM Watson IoT Platform

worldisfullofmeow@gmail.com
ID: qe3ow0

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

Verify that the following information is correct then select Finish

Device Type: NodeMCU

Device ID: 199795

View Metadata

Security Token: 1997199520012005

Back Finish

89°F Partly cloudy 8:07 PM 9/17/2022

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

The screenshot shows the IBM Watson IoT Platform interface. The left sidebar contains navigation icons for various functions. The main content area is titled 'Device Drilldown - 199795'. Under the 'Device Credentials' tab, a table displays the following information:

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

Below the table, a warning icon and text state: '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'.

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

This screenshot shows the same IBM Watson IoT Platform interface as in the previous image. A Notepad window titled 'ibmdet - Notepad' is open on the right side of the screen, containing the following text:

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

The Notepad window is positioned over the 'Device Credentials' section of the IoT Platform page, indicating that the credentials are being saved for future use.

20. 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 first screenshot shows the 'Recent Events' tab for device 199795, which is disconnected. The second screenshot shows the 'Device Information' tab for the same device.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
199795	Disconnected	Nodemcu	Device	17 Sep 2022 20:07	

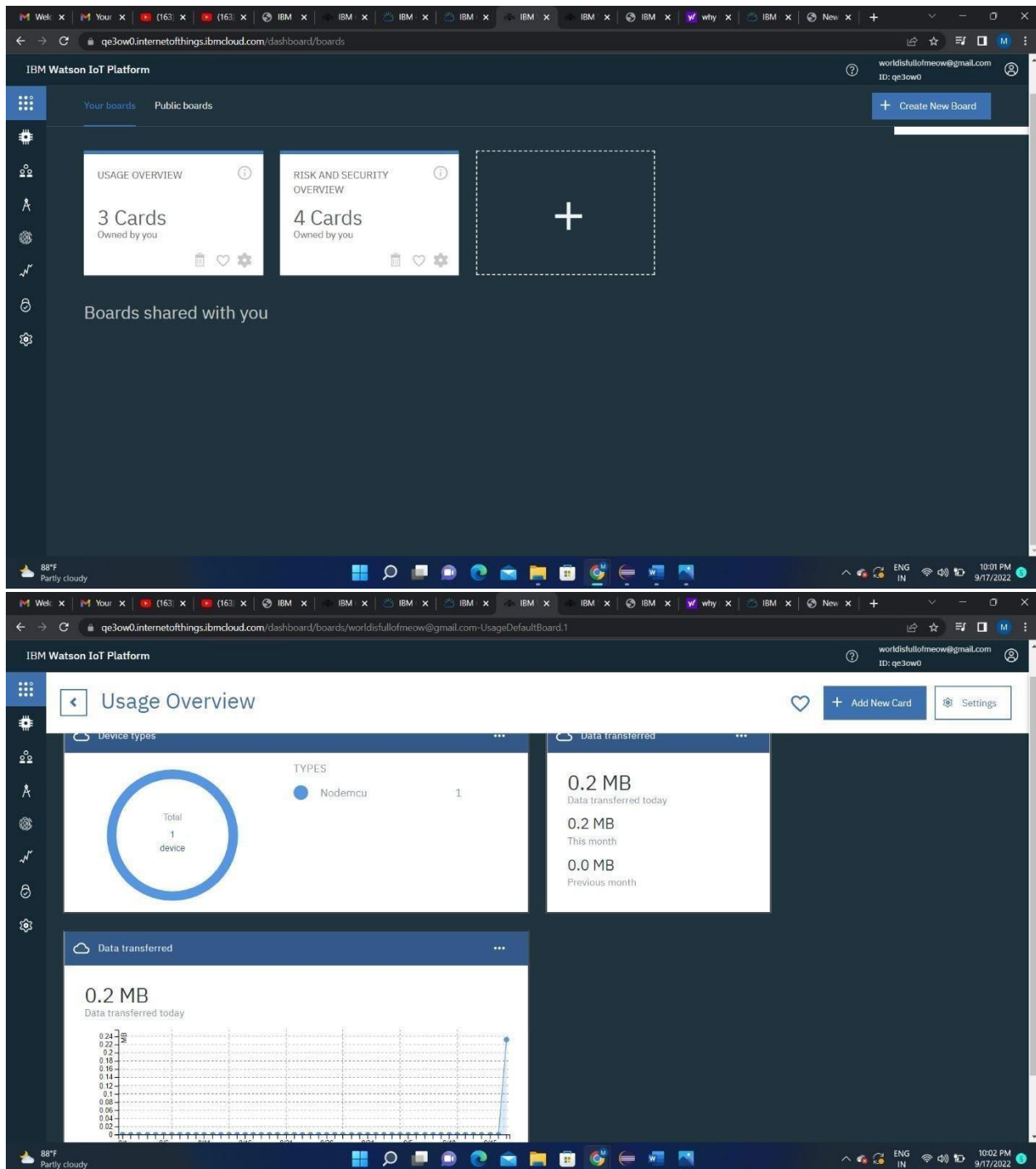
Event	Value	Format	Last Received
Waiting for device events...			

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

In a similar way, we can create n number of devices with a 50 per page limit as

Per the requirement of our project.

21. The Boards will display card for the project.



RESULT:

An IBM Watson cloud for IoT and a device is created