

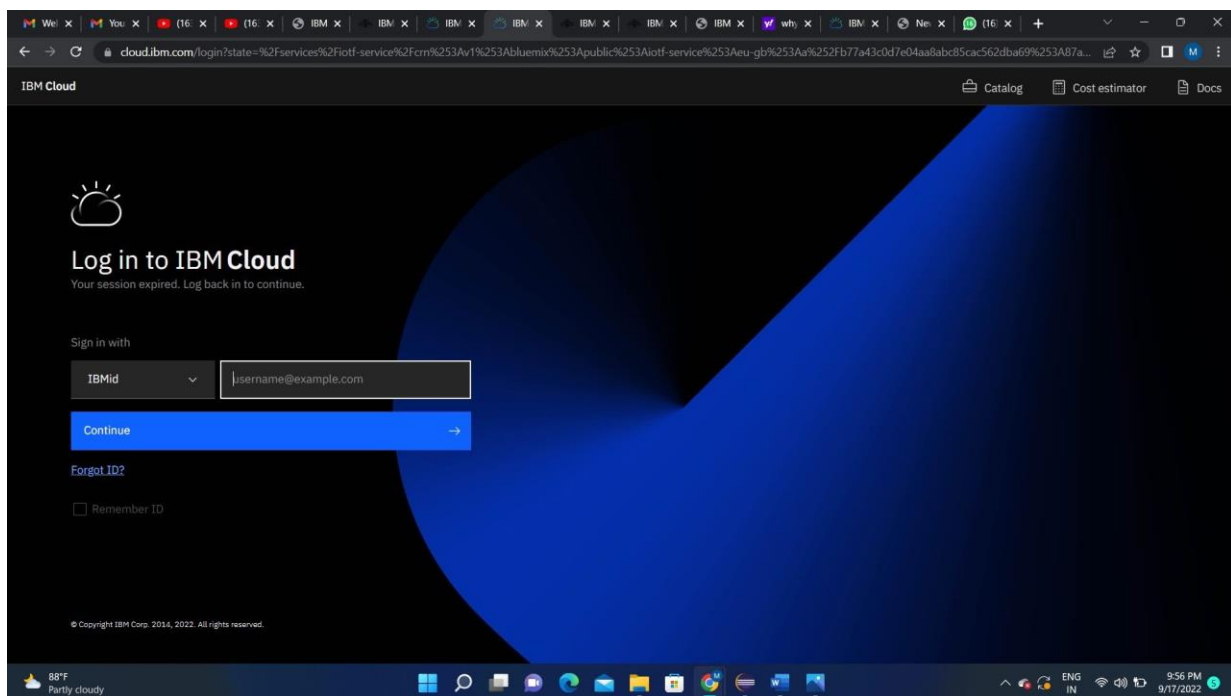
## CREATE IBM WATSON IOT PLATFORM AND DEVICE

### AIM:

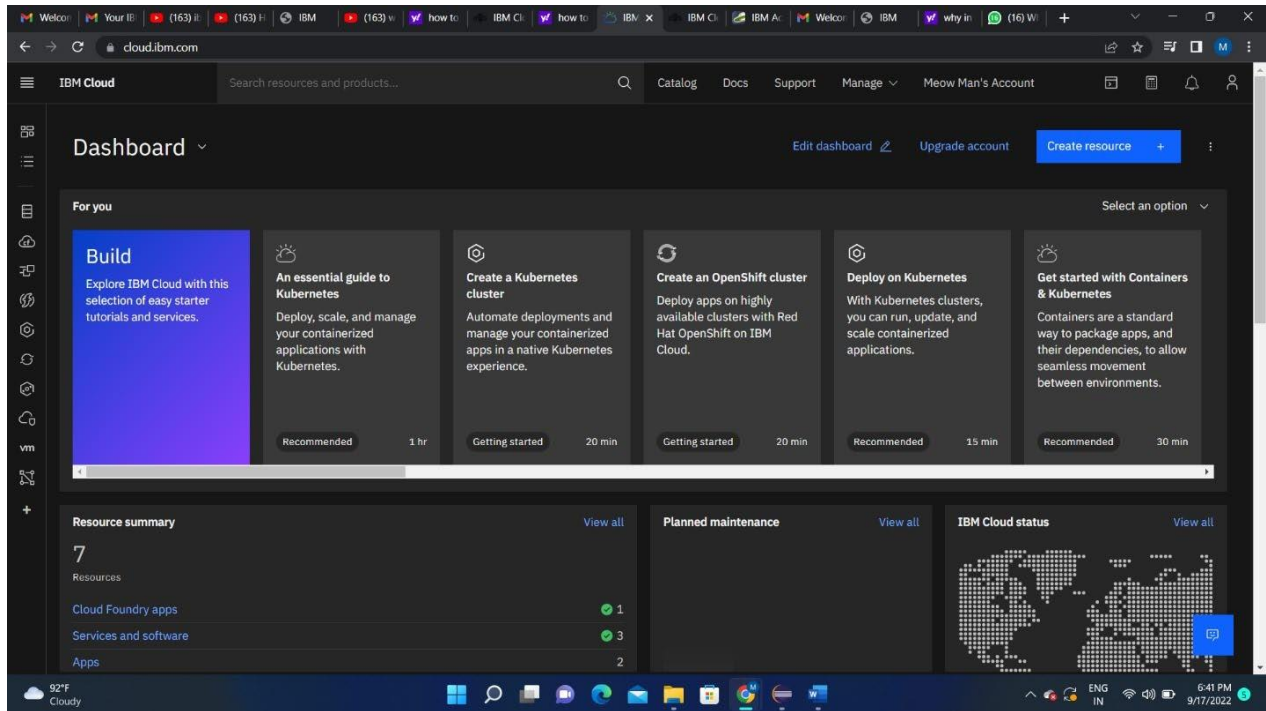
To create the IBM Watson IoT platform and device

### STEPS:

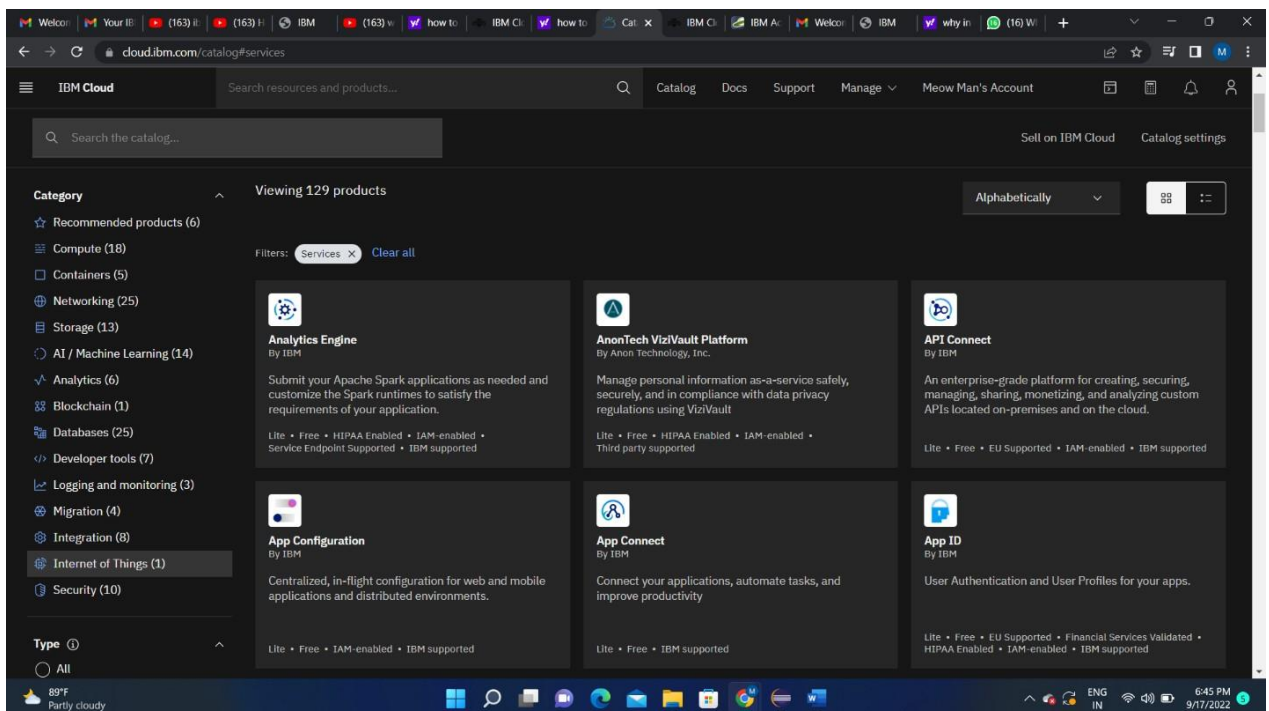
1. Firstly create an IBM cloud account with IBMid and password



2. Home page of IBM cloud



3. Click on the catalog on the top



4. Click on IoT in the category mentioned

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.

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

IBM Cloud

Search resources and products...

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Lite plan services are deleted after 30 days of inactivity.

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

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Create

Add to estimate

6. 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 Catalog / Internet of Things Platform

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**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](#)

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Add to estimate

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Related links: Docs, Terms

Select a location: Dallas (us-south)

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Plan	Features	Pricing
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Lite plan services are deleted after 30 days of inactivity.

**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

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

Create

Add to estimate

7. 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, there's a 'Ready for the next level?' section titled 'IBM Watson IoT Platform Journey' with three options: 'Lite', 'Non-Production', and 'Production'. The 'Lite' option is selected and shows a 'Free' price point.

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

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, there's a 'Change pricing plan' section with a table showing the 'Lite' plan features and pricing.

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

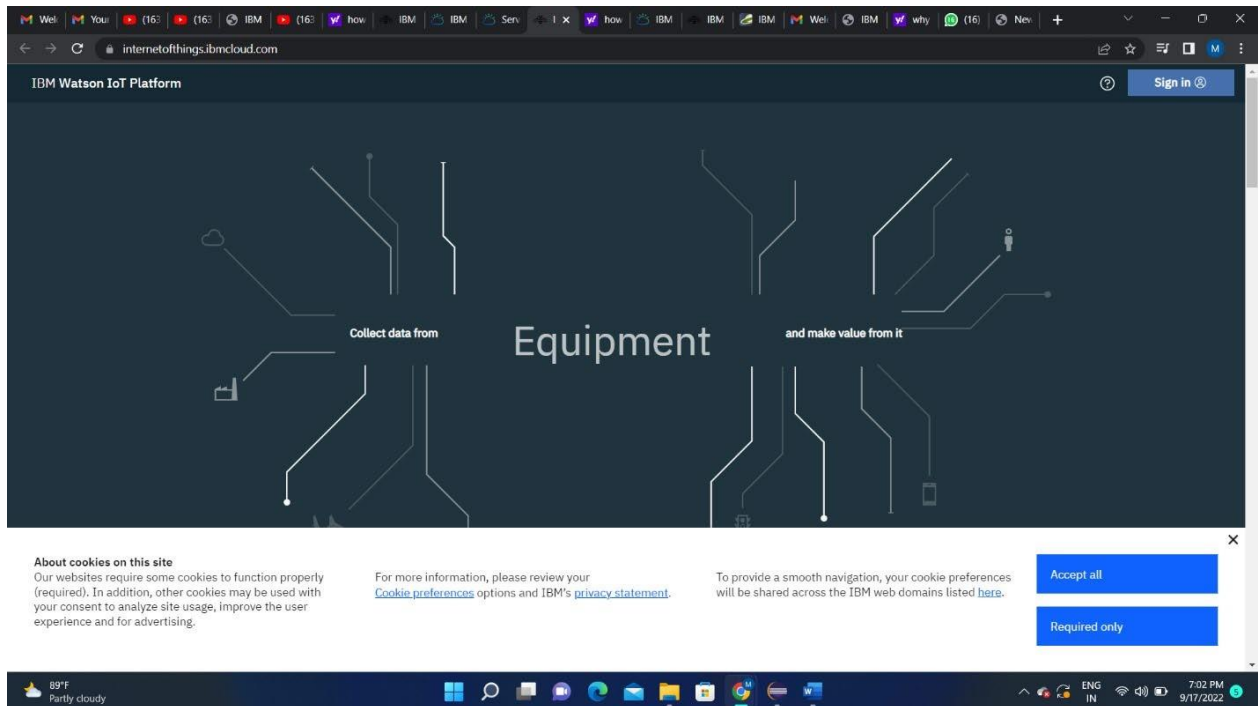
Lite plan services are deleted after 30 days of inactivity.

Change pricing plan

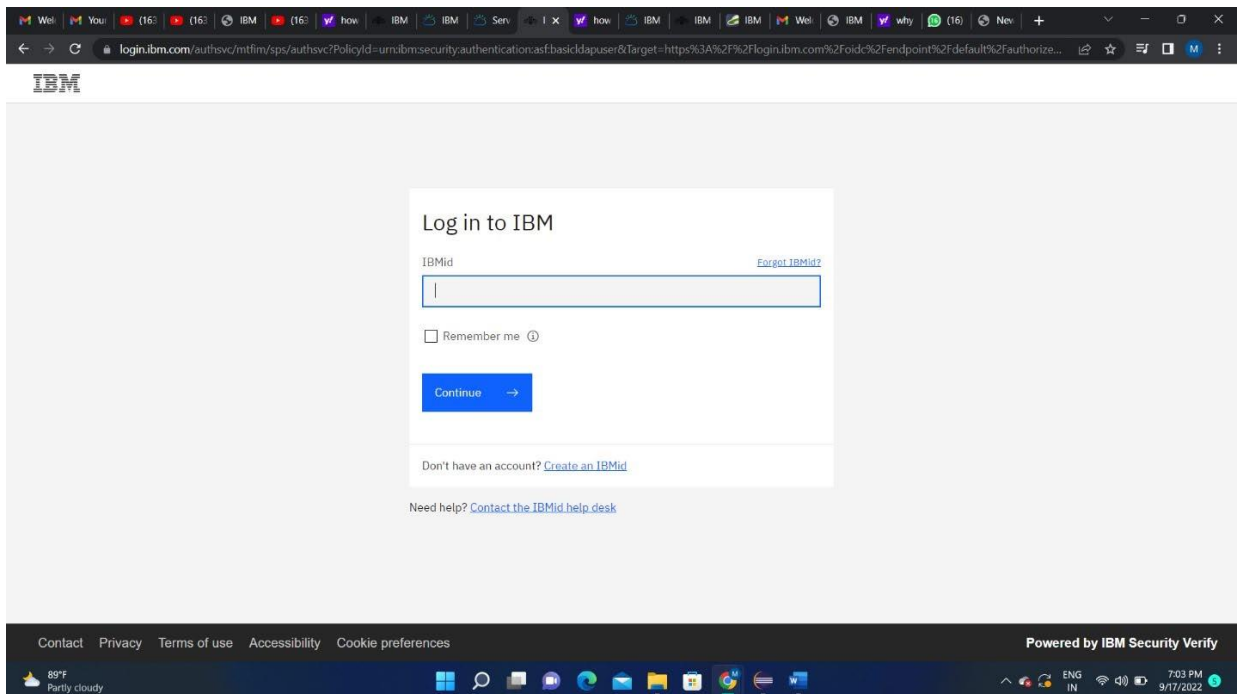
Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric Maximum of 500 registered devices Maximum of 500 application bindings Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed	Free

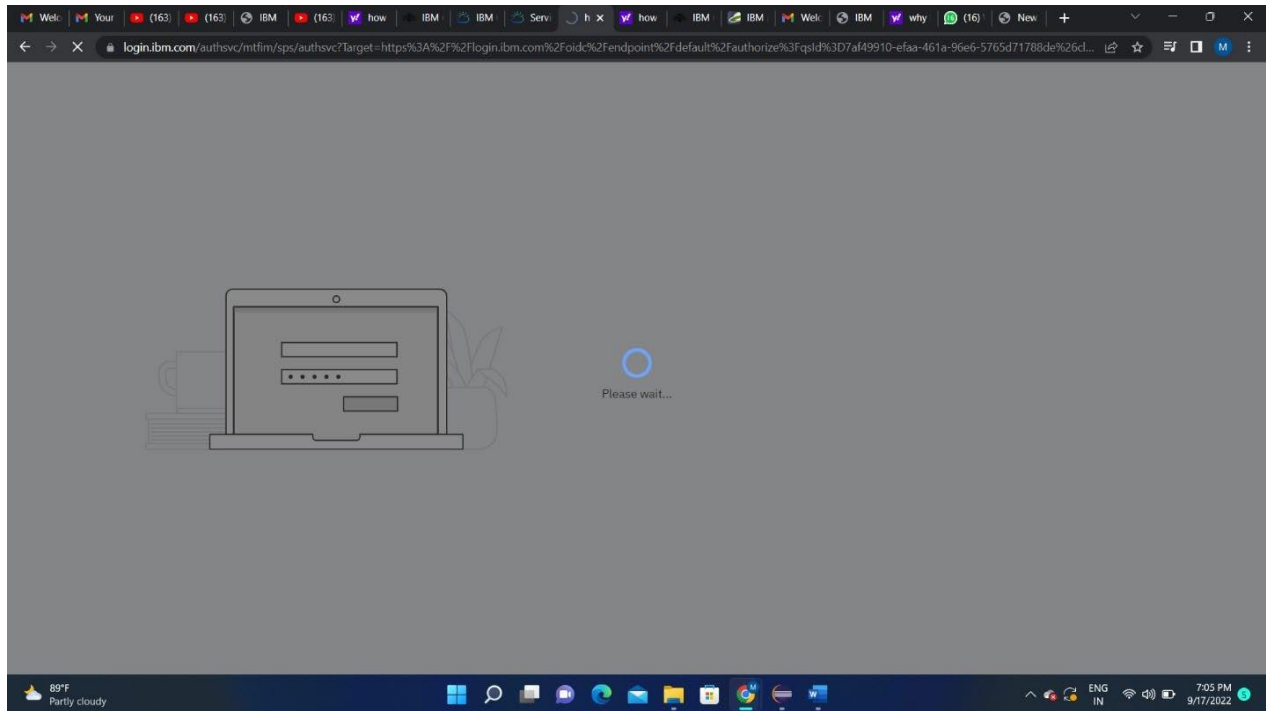


8. Clicking on the launch button in the manage tab, it will open to this

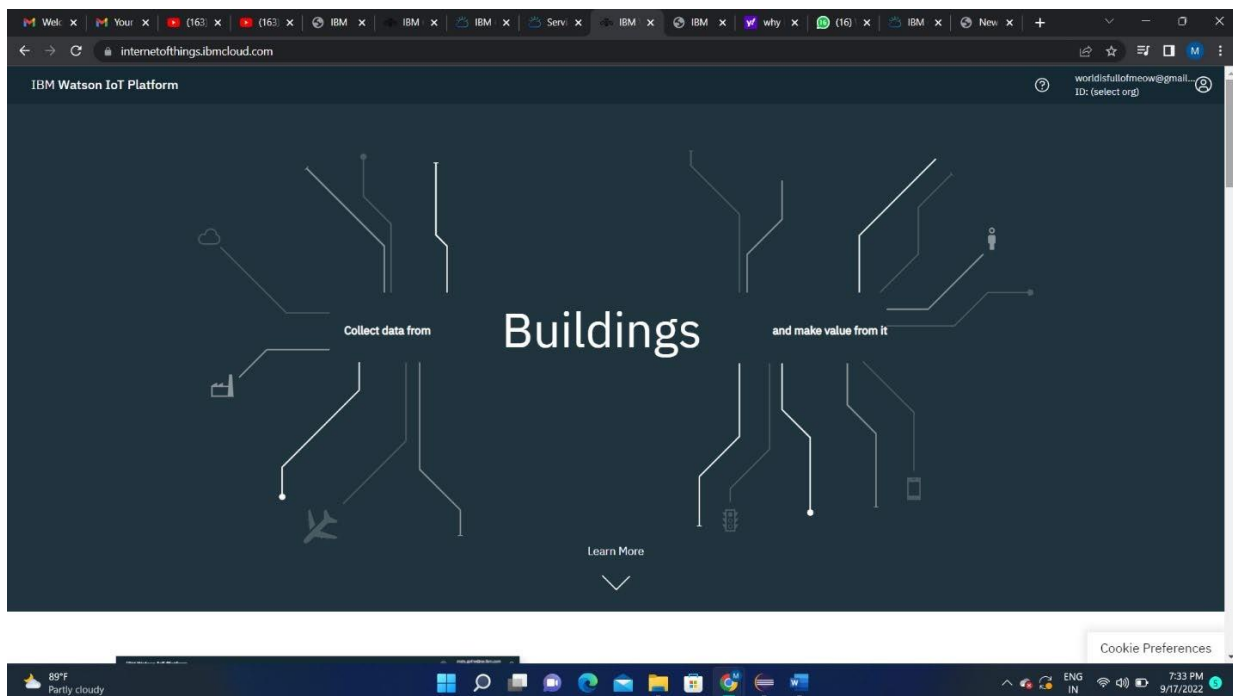


9. Enter the details to sign in to the Watson Cloud to create a device

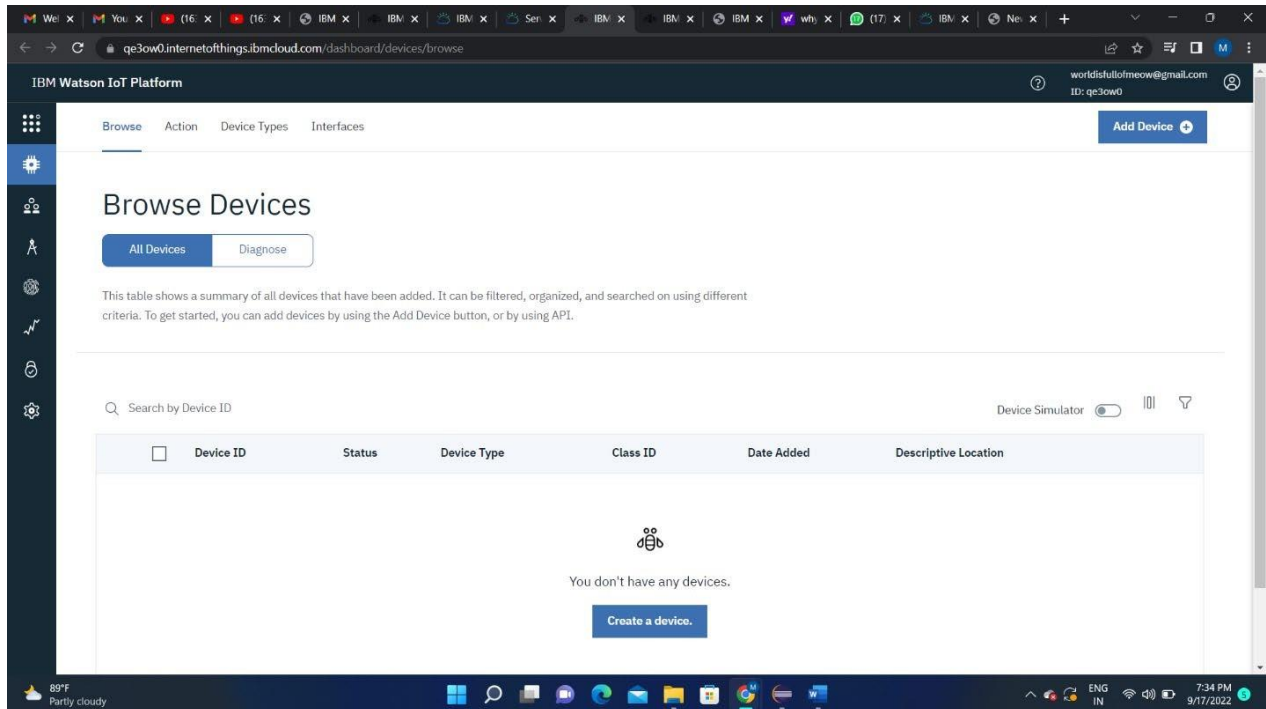




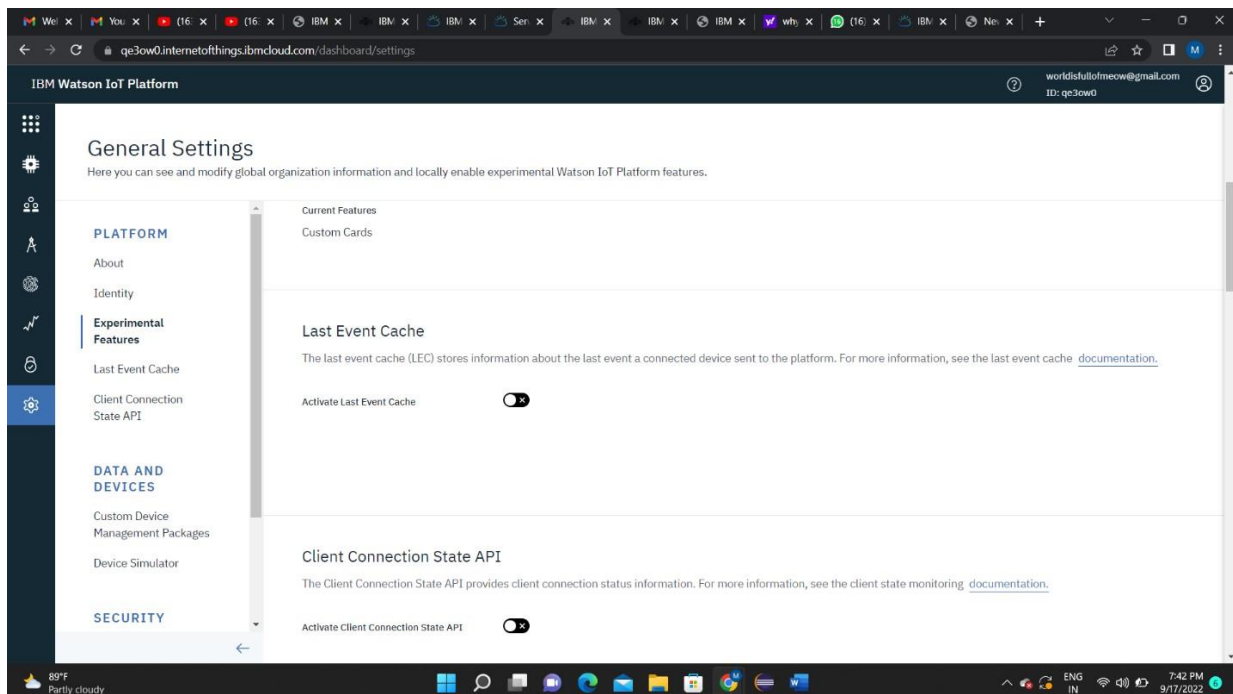
10. Once logged in the name will be displayed and it goes back to the first page



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.

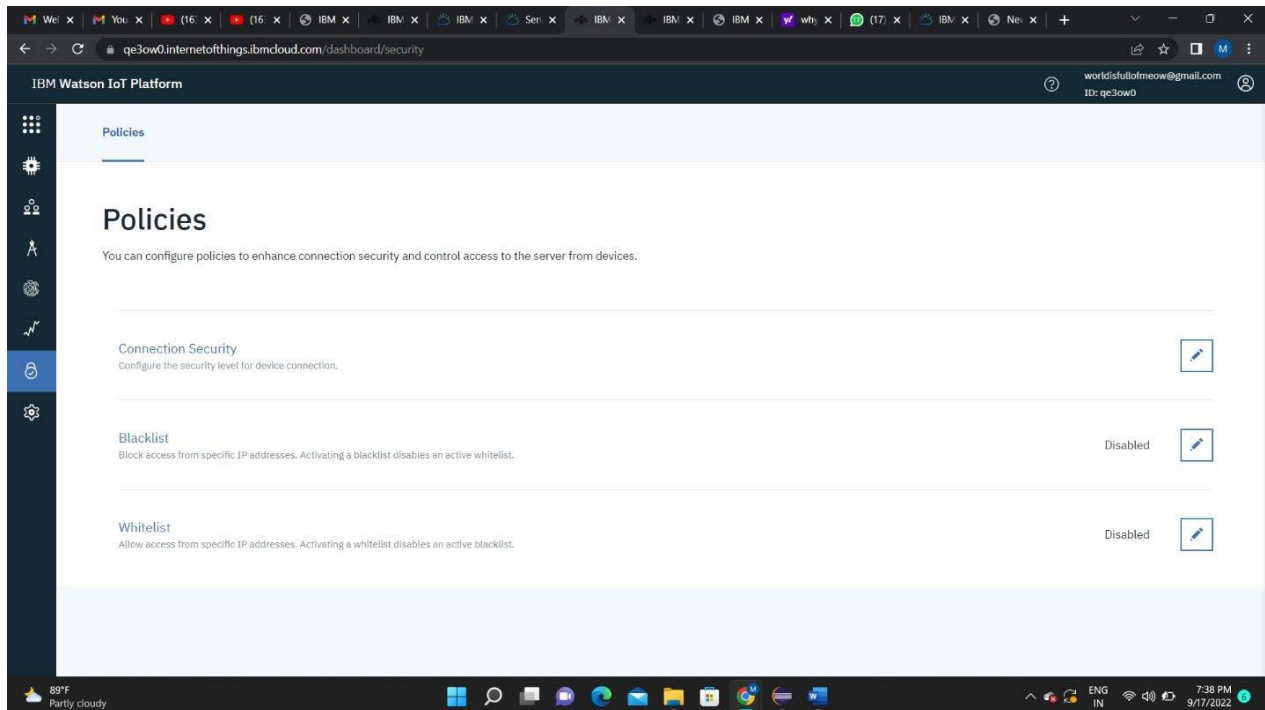


12. The setting tab is used to change the general setting if needed for the project.

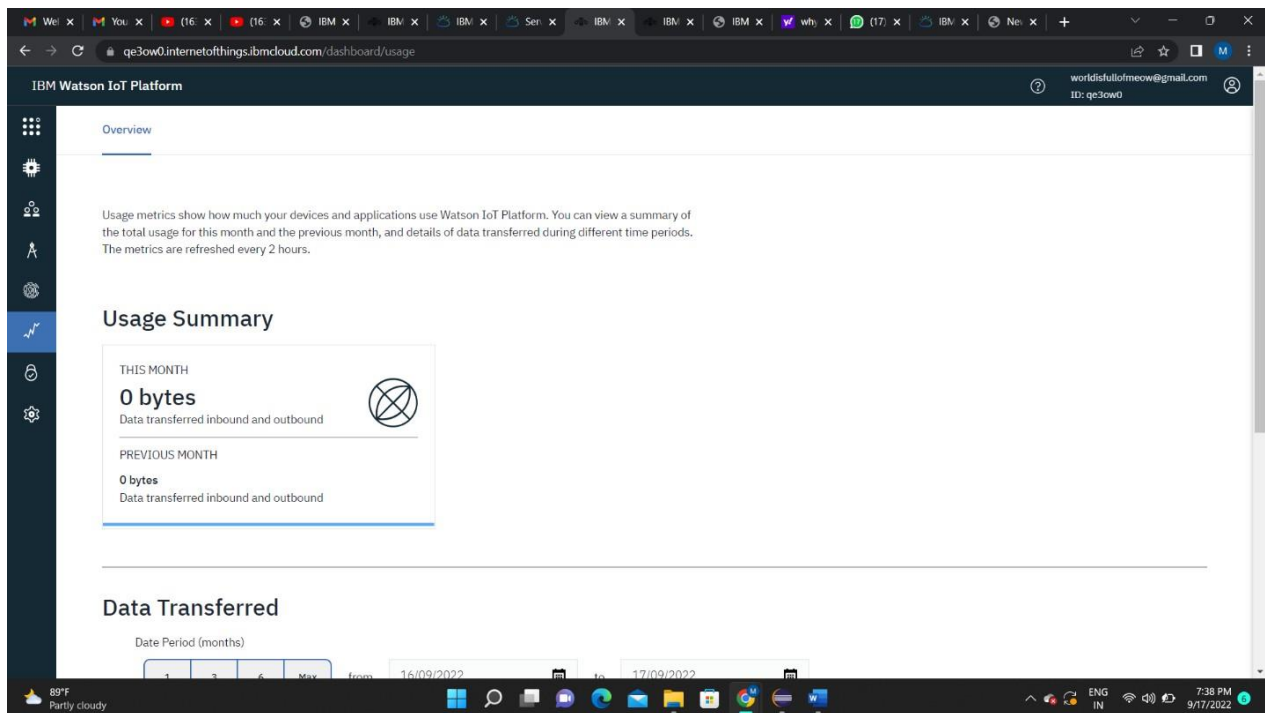




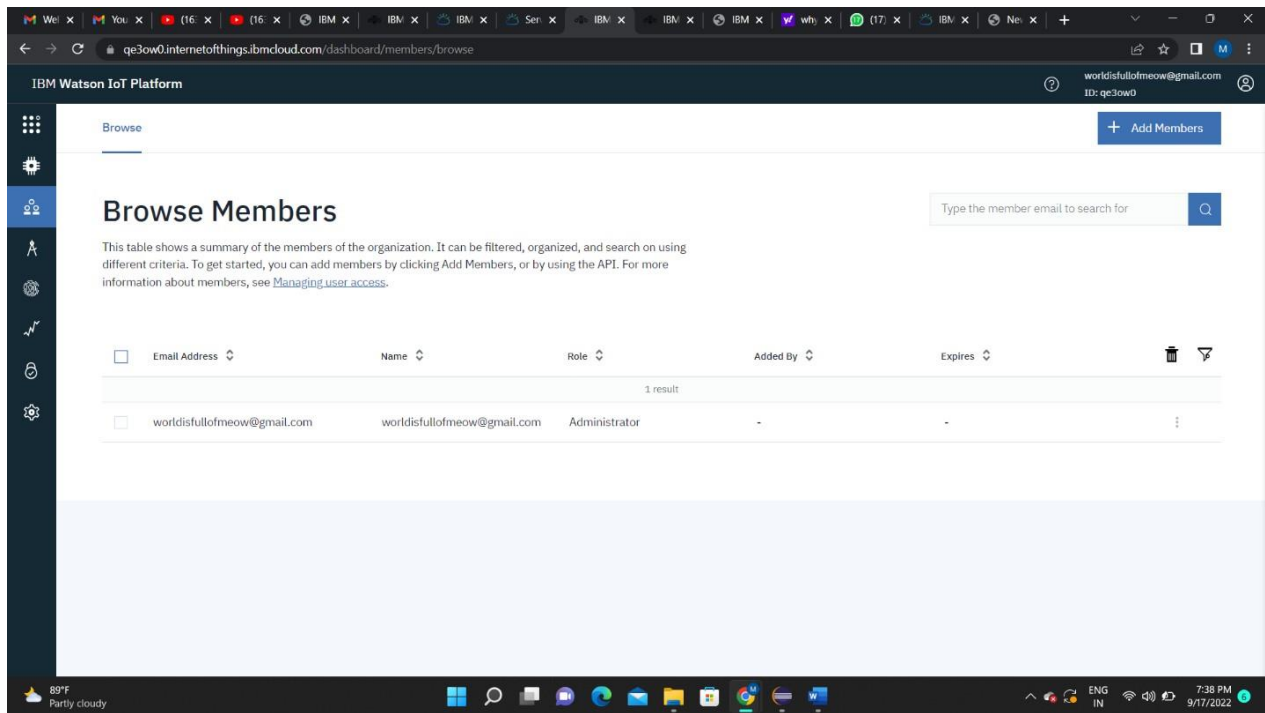
13. In the security tab we can choose the type of security connection and can change according to specification



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



IBM Watson IoT Platform

Browse

+ Add Members

## Browse Members

Type the member email to search for

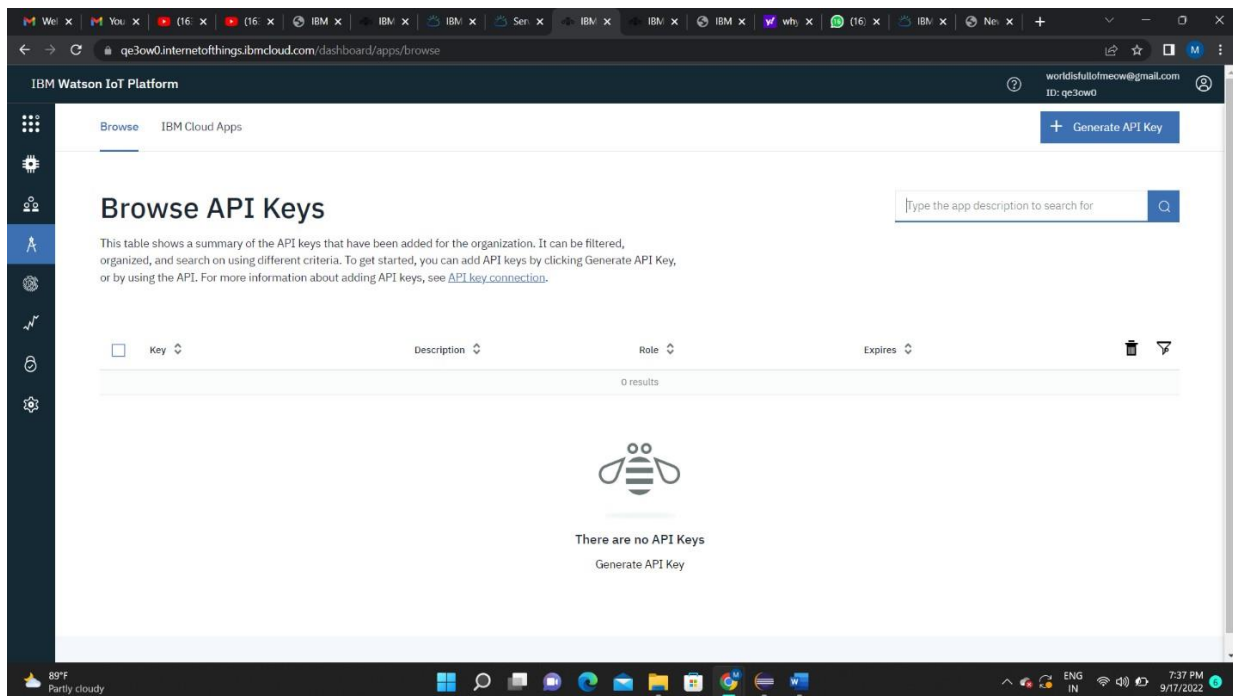
This table shows a summary of the members of the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add members by clicking Add Members, or by using the API. For more information about members, see [Managing user access](#).

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

89°F Partly cloudy

7:38 PM 9/17/2022

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



IBM Watson IoT Platform

Browse IBM Cloud Apps

+ Generate API Key

## Browse API Keys

Type the app description to search for

This table shows a summary of the API keys that have been added for the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add API keys by clicking Generate API Key, or by using the API. For more information about adding API keys, see [API key connection](#).

<input type="checkbox"/>	Key	Description	Role	Expires	
0 results					

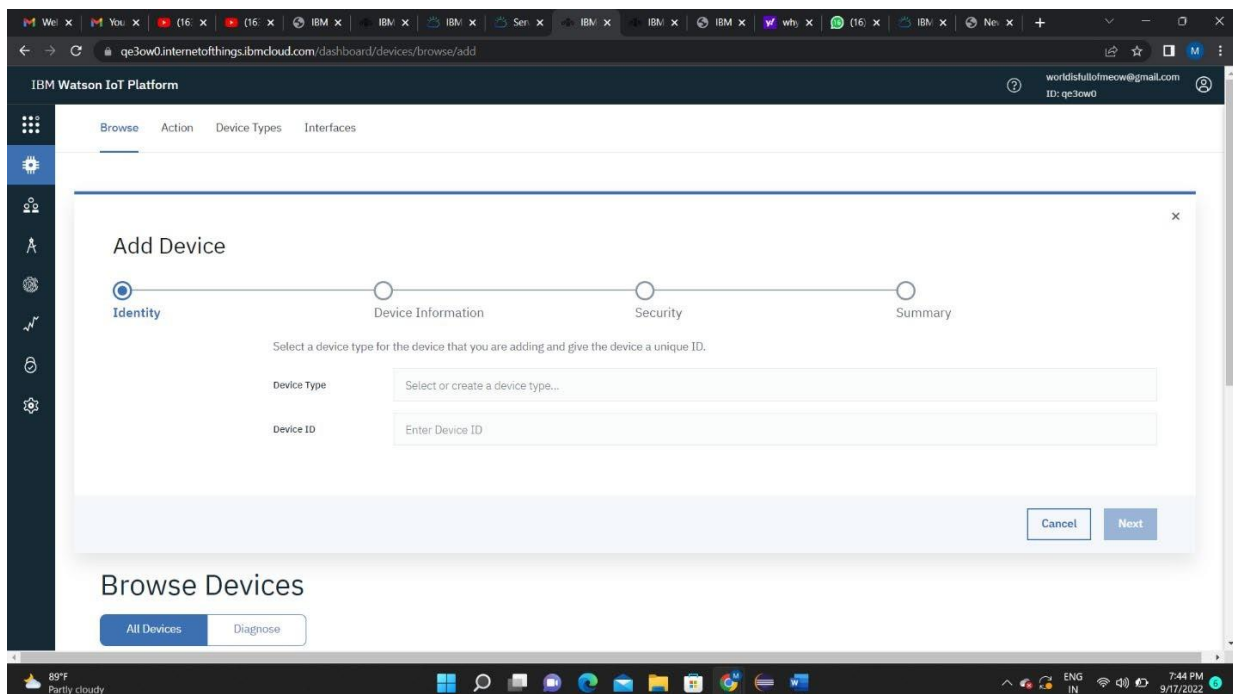
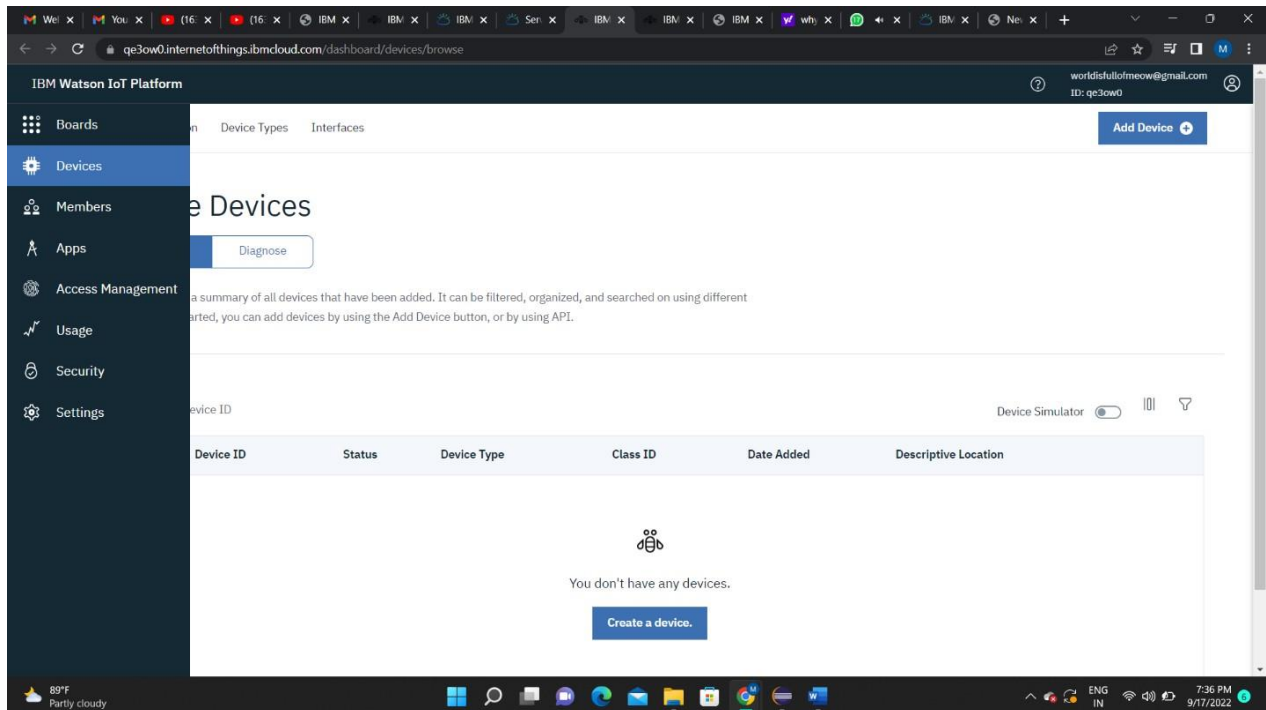
There are no API Keys

Generate API Key

89°F Partly cloudy

7:37 PM 9/17/2022

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



The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform. The first step, 'Identity', is active. The wizard consists of four steps: Identity, Device Information, Security, and Summary. The 'Identity' step requires selecting a device type and providing a unique ID. The 'Device Type' is set to 'Nodemcu' and the 'Device ID' is '199795'. The 'Next' button is visible at the bottom right of the wizard.

IBM Watson IoT Platform

worldisfullofmeow@gmail.com  
ID: qe3ow0

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' wizard in the IBM Watson IoT Platform, now at the 'Device Information' step. The 'Identity' step is completed. The 'Device Information' step allows for modifying default device information and entering more details for identification. Fields include Serial Number, Model, Description, Hardware Version, Manufacturer, Device Class, Firmware Version, and Descriptive Location. An 'Add Metadata' button is also present. The 'Next' button is visible at the bottom right of the wizard.

IBM Watson IoT Platform

worldisfullofmeow@gmail.com  
ID: qe3ow0

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

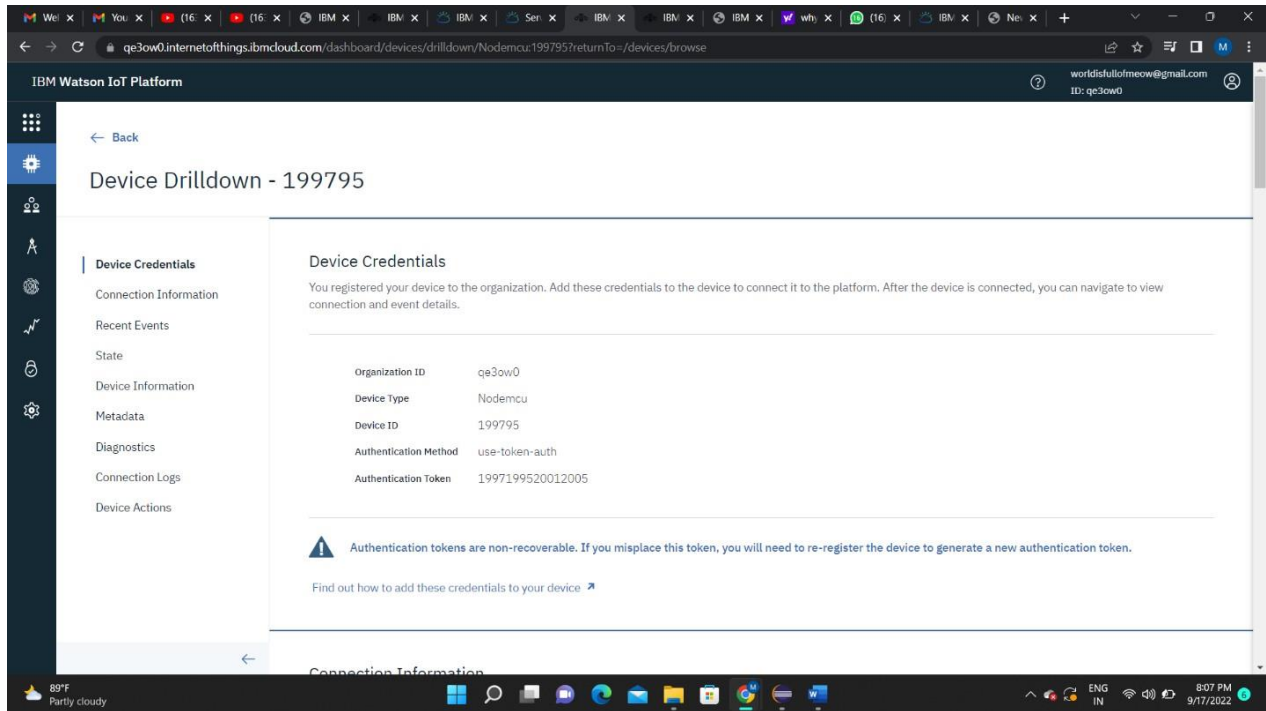
19. Clicking next it goes to the security where we do authentication token id.

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform. The progress bar indicates four steps: Identity (completed), Device Information (completed), Security (current step), and Summary (pending). The 'Security' step offers two options for selecting an authentication token: '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 warning states: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.' A note at the bottom says: 'Authentication tokens are encrypted before we store them.'

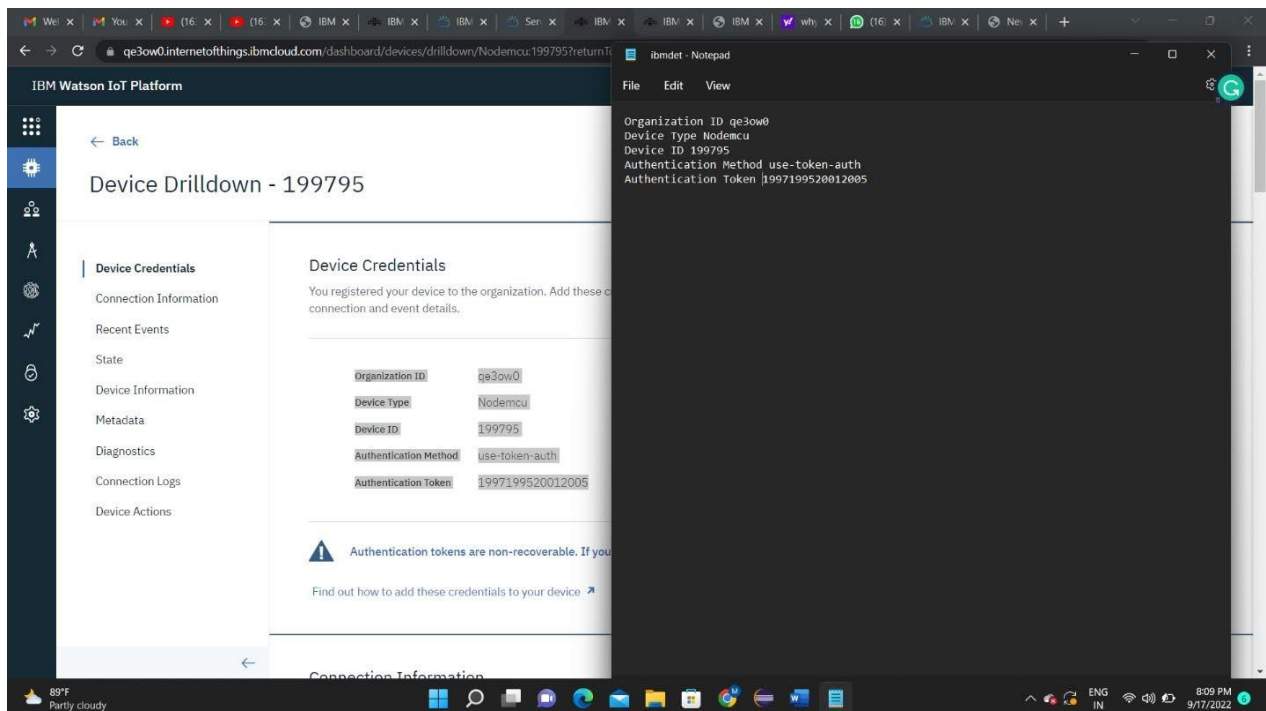
20. Clicking on next it goes to the summary of the device then click finish

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform, now at the 'Summary' step. The progress bar shows all four steps (Identity, Device Information, Security, and Summary) as completed. The 'Summary' section displays the following information: 'Verify that the following information is correct then select Finish', 'Device Type: Nodemcu', 'Device ID: 199795', and 'Security Token: 1997199520012005'. There is a 'View Metadata' button next to the Device ID. At the bottom right, there are 'Back' and 'Finish' buttons.

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



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



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'. Below the navigation bar, there is a table listing devices. The selected device is '199795', which is 'Disconnected' and of type 'Nodemcu'. The 'Recent Events' tab is active, 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 table is currently empty, and a message at the bottom says 'Waiting for device events...'. The bottom status bar shows '89°F Partly cloudy' and the time '8:11 PM 9/17/2022'.

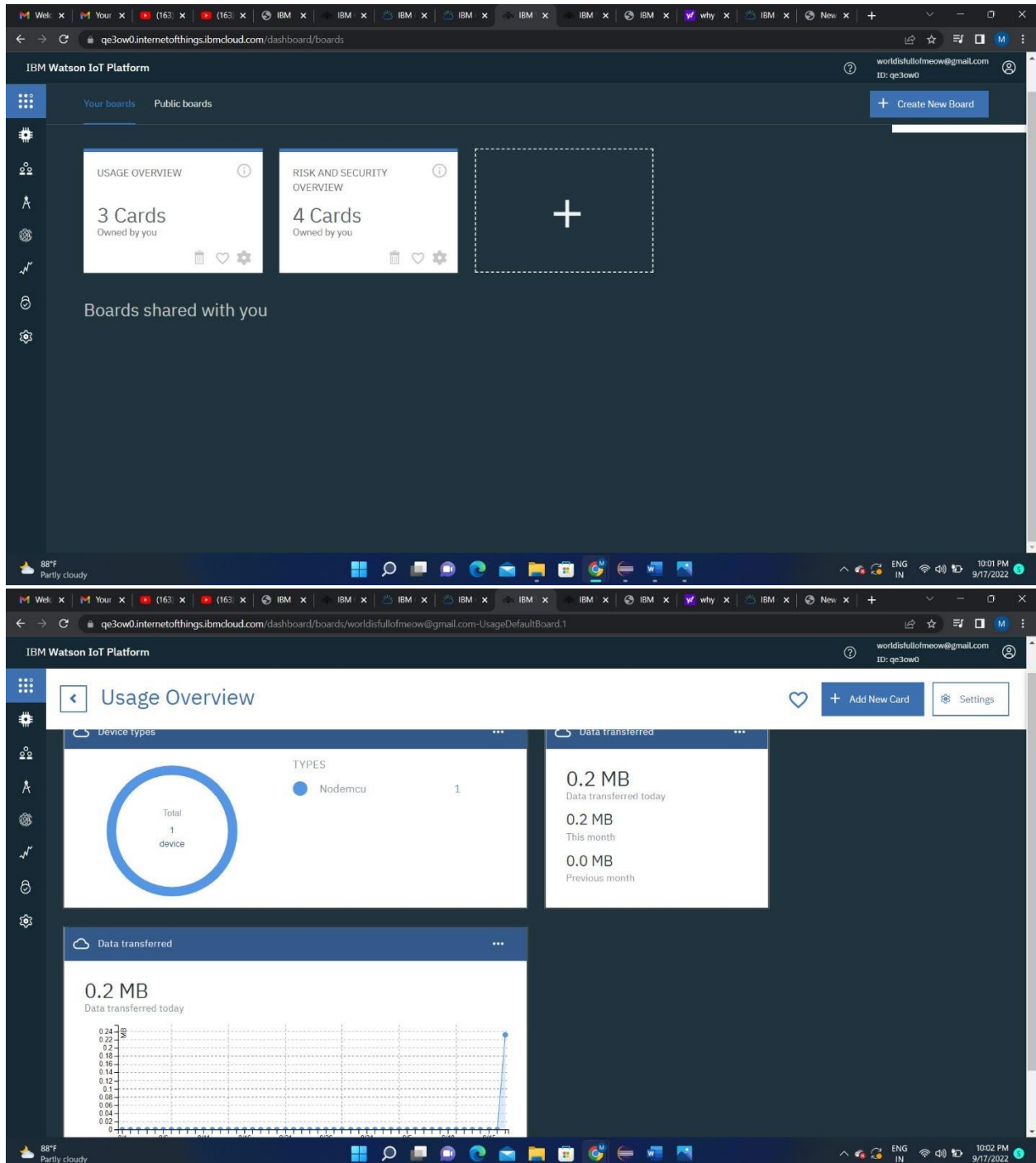
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Device ID	199795
Device Type	Nodemcu
Date Added	17 Sep 2022 20:07
Added By	worldisfulofmeow@gmail.com
Connection Status	Disconnected

At the bottom of the page, there is a pagination bar showing '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.



## RESULT:

An IBM Watson cloud for IoT and a device is created