

CREATE IBM WATSON IOT PLATFORM AND DEVICE

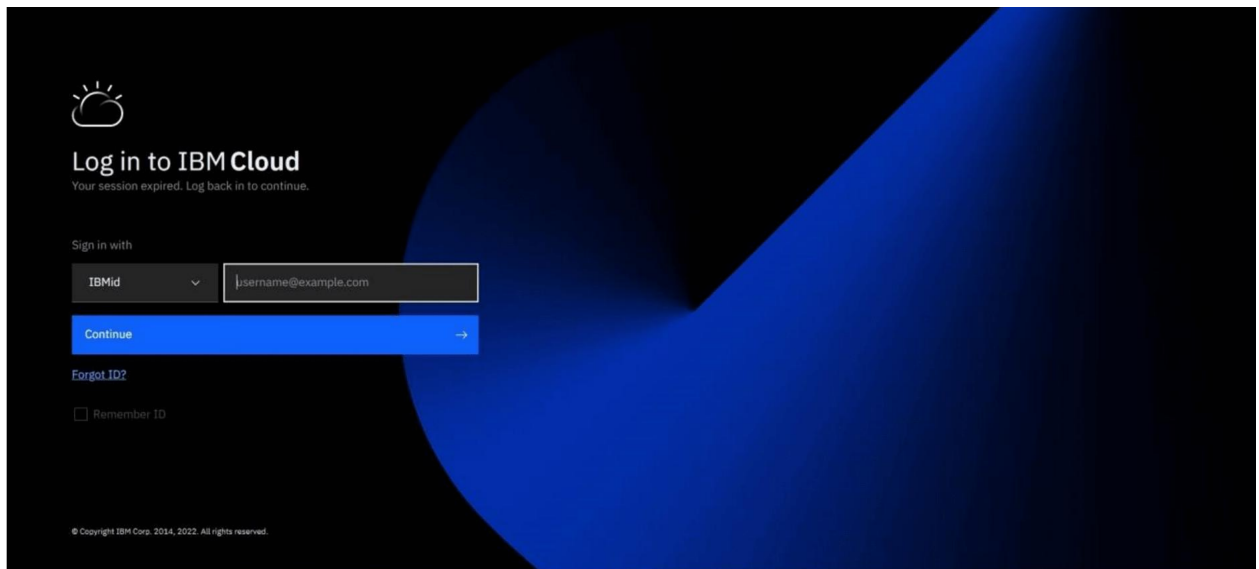
TEAM ID	PNT2022TMID14419
Project Name	IOT based safety gadget for child safety monitoring and notification

AIM:

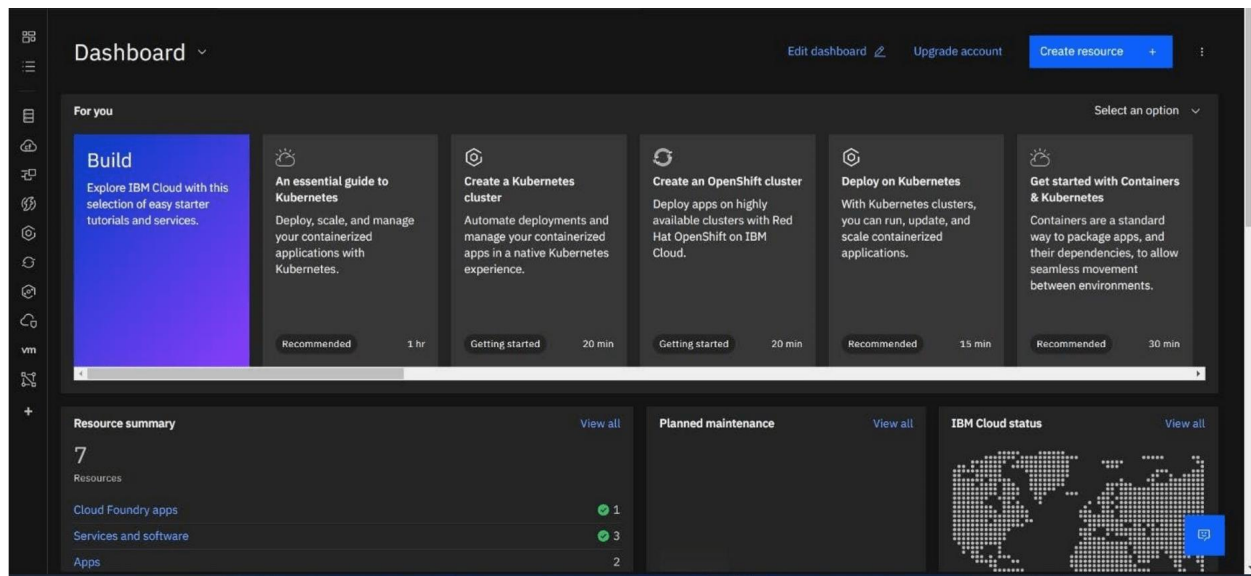
To create the IBM Watson IoT platform and device

STEPS:

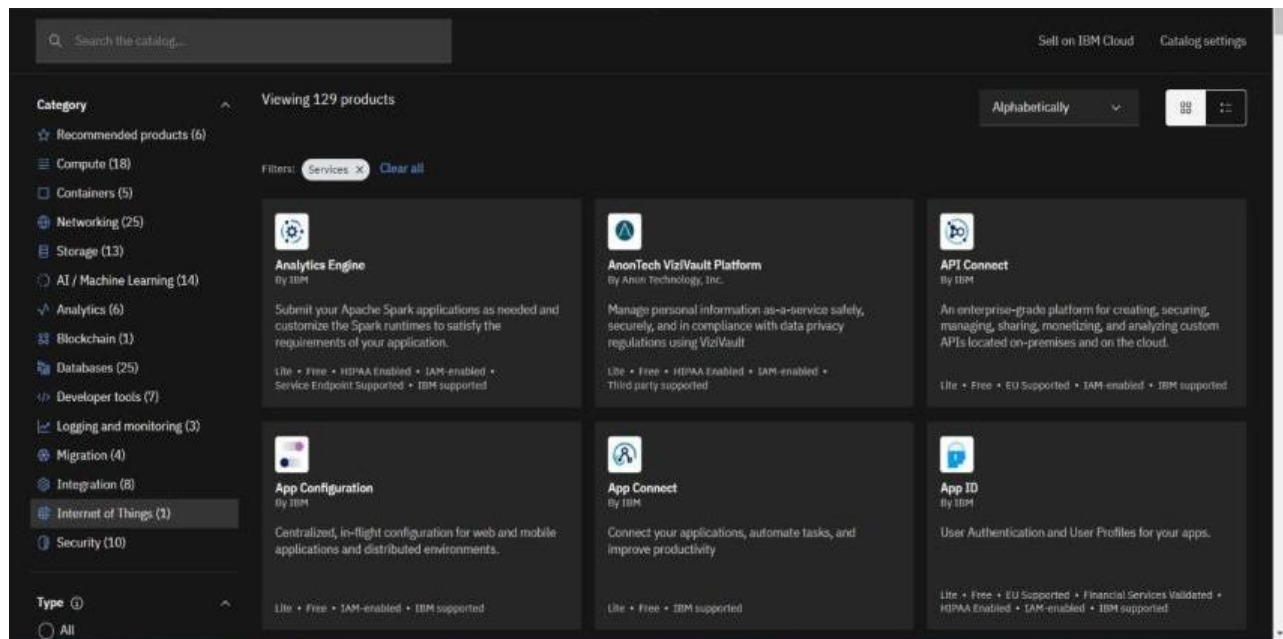
1. Firstly create an IBM cloud account with IBMid and password




2. Home page of IBM cloud



3. Click on the catalog on the top



4. Click on IoT in the category mentioned



Catalog /

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

Internet of Things

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

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.](#)

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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

The screenshot shows the 'Create' step for the 'Internet of Things Platform' service in the AWS IAM console. The left sidebar contains navigation links: Type, Service, Provider (IBM), Updated on (08/15/2022), Category (Internet of Things), Compliance (IAM-enabled), Location (Frankfurt, London, Dallas, Washington DC), and Related links (Docs, Terms). The main content area has a 'Create' tab selected, with an 'About' tab also visible. Below the tabs, there's a 'Select a location' dropdown menu set to 'Dallas (us-south)'. Below that, a 'Select a pricing plan' section displays a table with columns 'Plan', 'Features', and 'Pricing'. 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 'Free'. A note at the bottom states: '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.' On the right, a 'Summary' panel shows the service name 'Internet of Things Platform', location 'Dallas', plan 'Lite', service name 'Internet of Things Platform-2w', and resource group 'Default'. Below the summary, there's a warning box about existing Lite plan instances. At the bottom, there's a checkbox for 'I have read and agree to the following license agreements:' with a 'Terms' link, and buttons for 'Create' and 'Add to estimate'.

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 screenshot shows the 'Configure your resource' step for the 'Internet of Things Platform' service in the AWS IAM console. The left sidebar is the same as the previous screenshot. The main content area has a 'Configure your resource' section with fields for 'Service name' (set to 'Internet of Things Platform-child_safety'), 'Tags' (with examples: env:dev, version=1), 'Select a resource group' (set to 'Default'), and 'Access management tags' (with examples: access:dev, proj:version=1). On the right, the 'Summary' panel shows the service name 'Internet of Things Platform', location 'London', plan 'Lite', service name 'Internet of Things Platform-child_safety', and resource group 'Default'. Below the summary, there's a checkbox for 'I have read and agree to the following license agreements:' which is checked, with a 'Terms' link. At the bottom, there's a 'Create' button and an 'Add to estimate' button.

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

7.

Resource list /

Internet of Things Platform-child_safety

Active

Add tags ↗

DetailsActions... ▾

ManagePlanConnections

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/cn%3Ar1%3Abluemix%3Apublic%3Aiottf-service%3Aeu-gb%3Aa%2Fb77e43c0d7e0aa8abdc5ca562dba69%3A87a72bdb-1bf7-44a2-b735-4cd2b61b2403%3A?panel=plan&new=true

Resource list /

Internet of Things Platform-child_safety

Active

Add tags ↗

DetailsActions... ▾

ManagePlanConnections

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

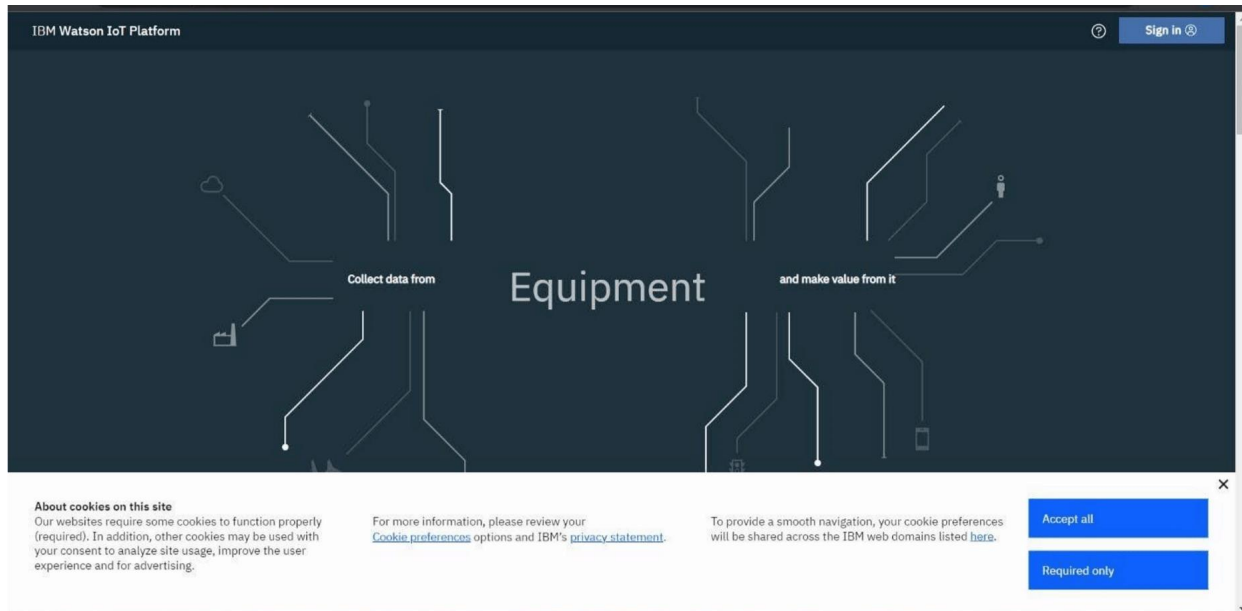
The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

- Includes IBM Service & Support

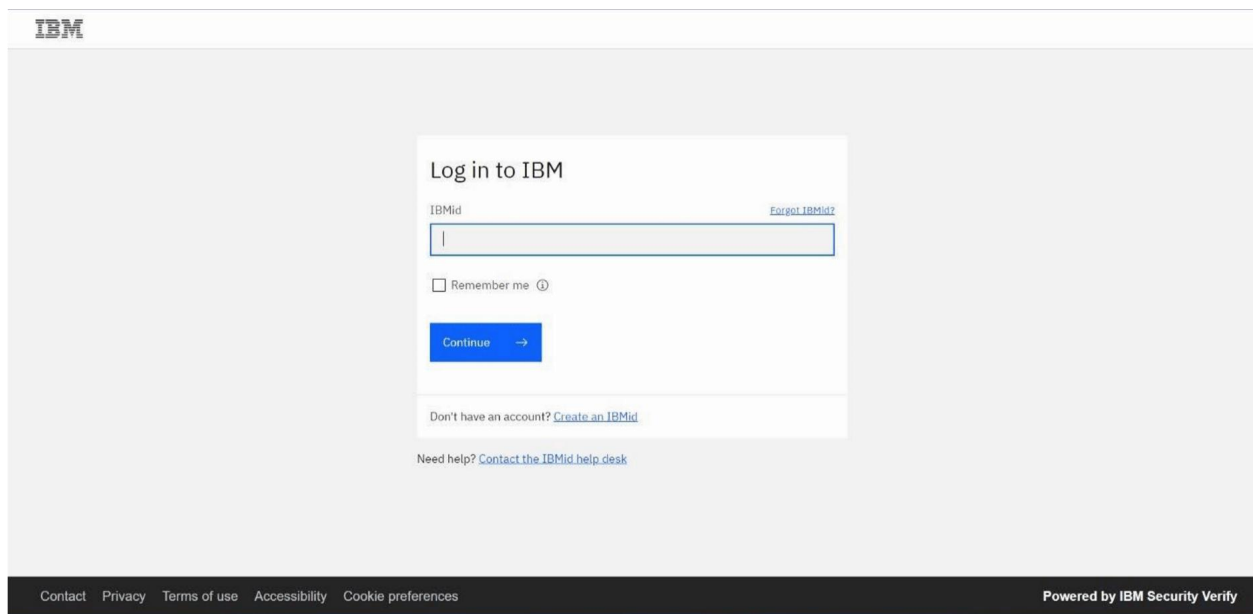
connection is for to connect IoT with other servies)

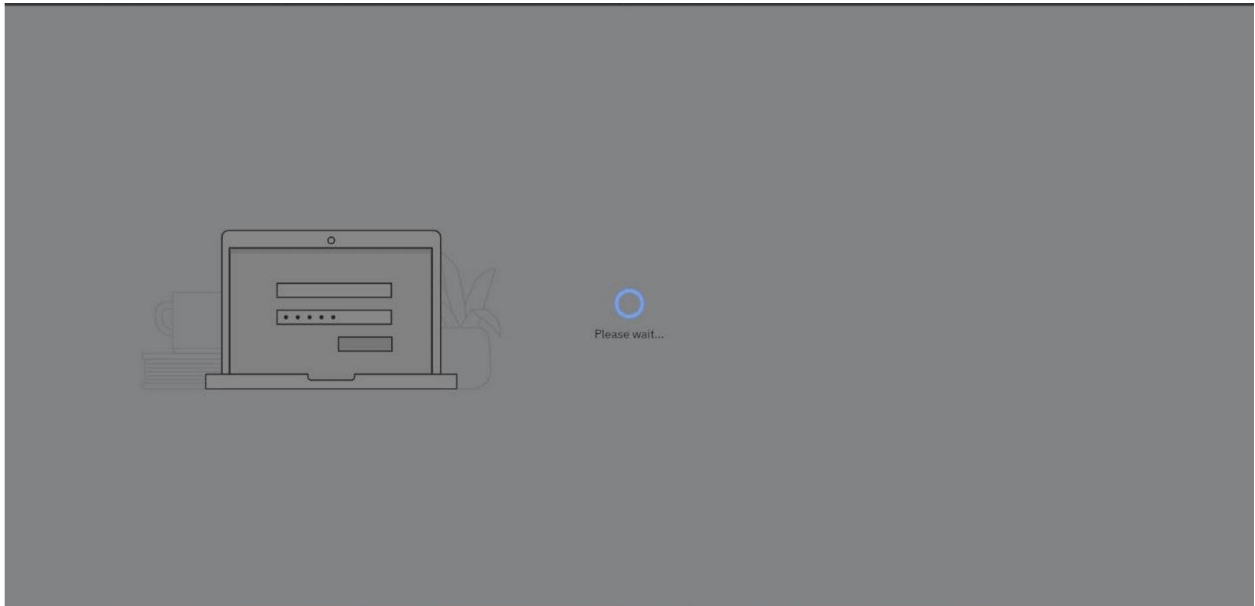
8.

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

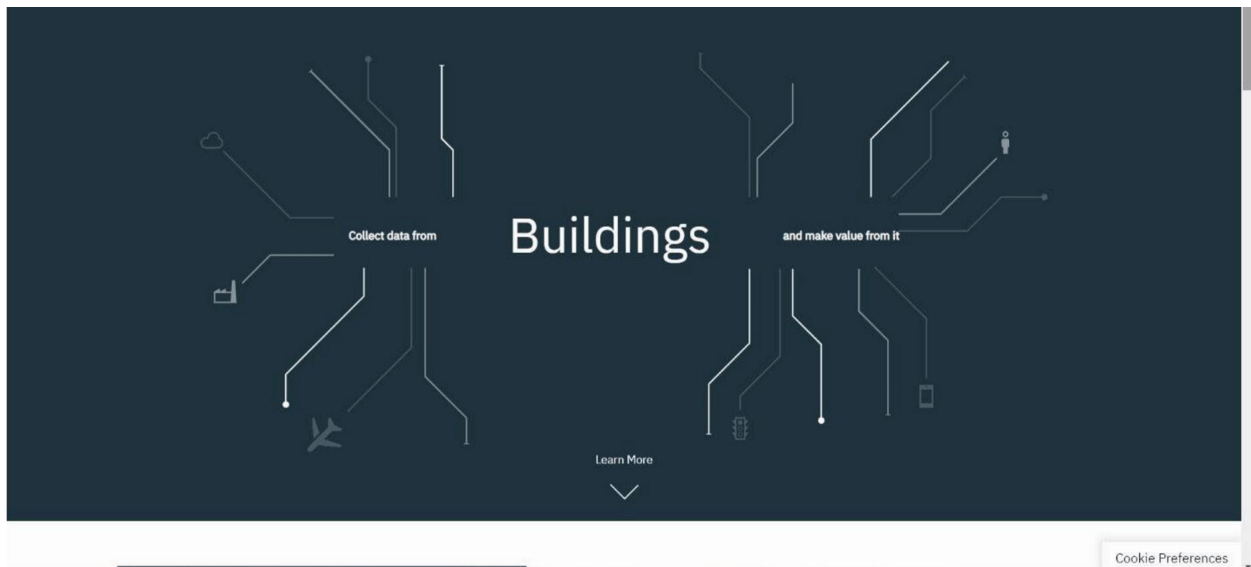


9. Enter the details to sign in to the Watson Cloud to create a device

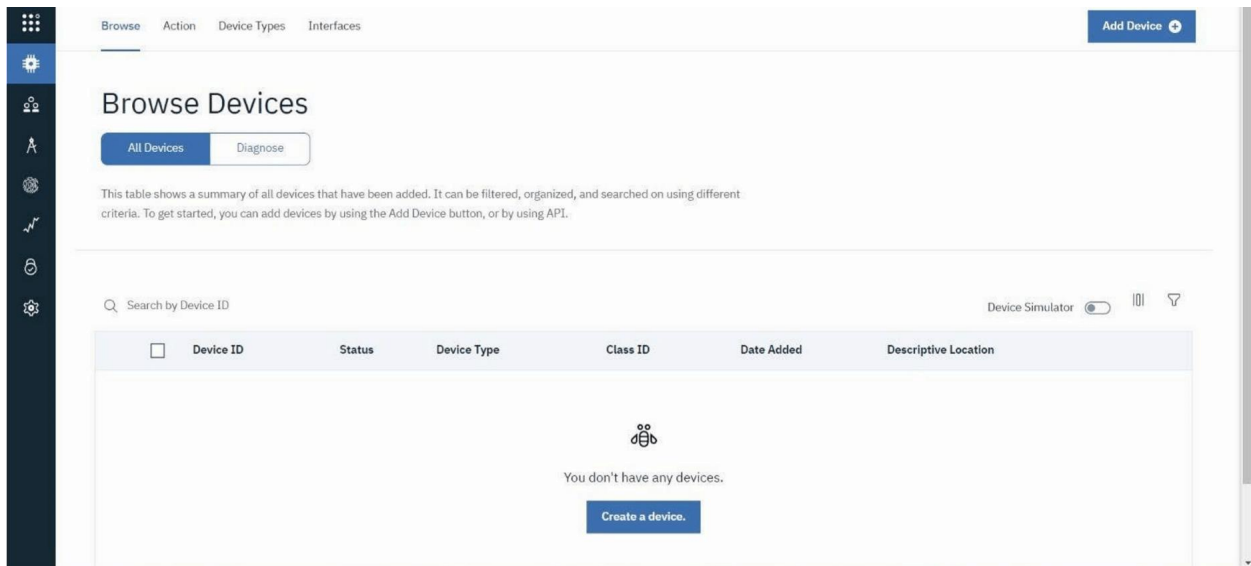




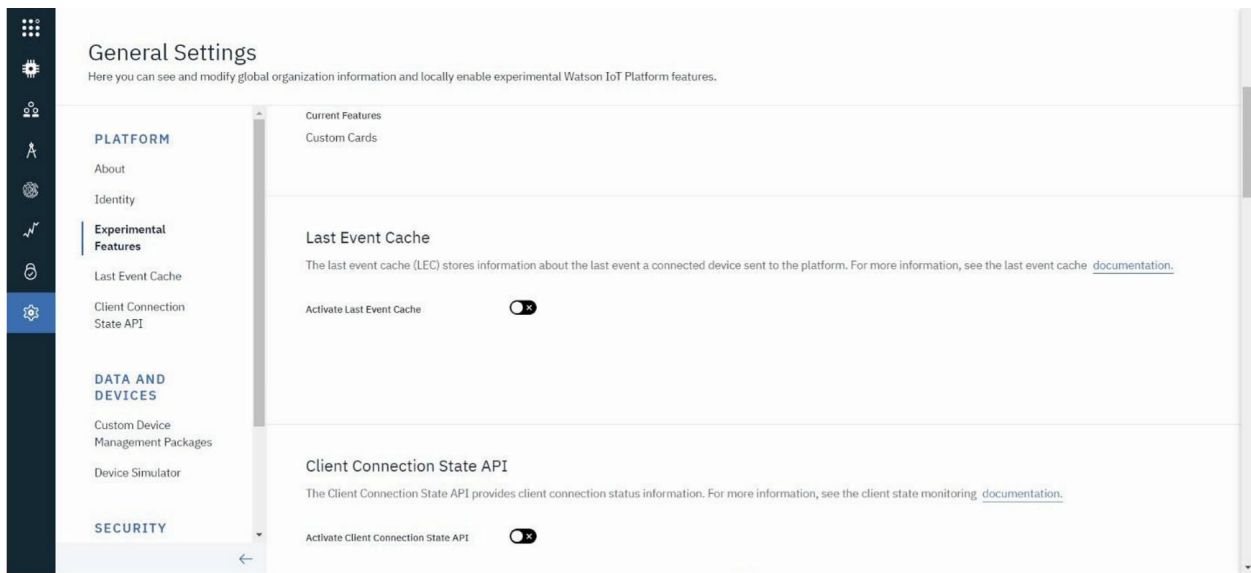
10. Once logged in the name will be displayed and it goes back to the first page



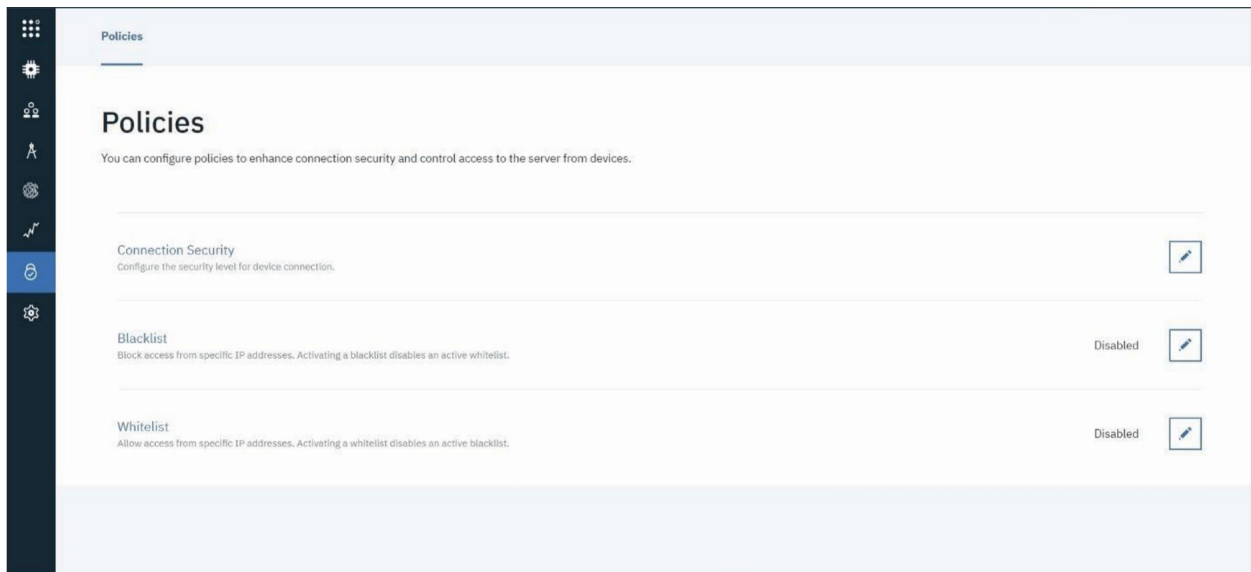
11. And again clicking on the launch button will open this tab, the device will help in the creation of the devices, the addition of devices, and the display of details of the devices.



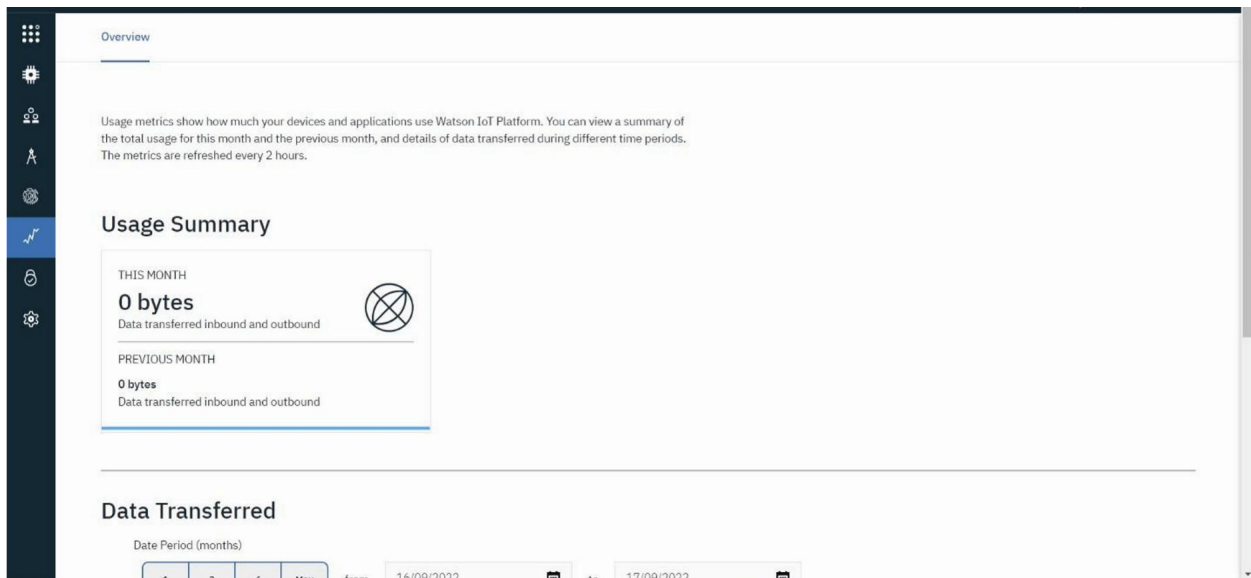
12. The setting tab is used to change the general setting if needed for the project.



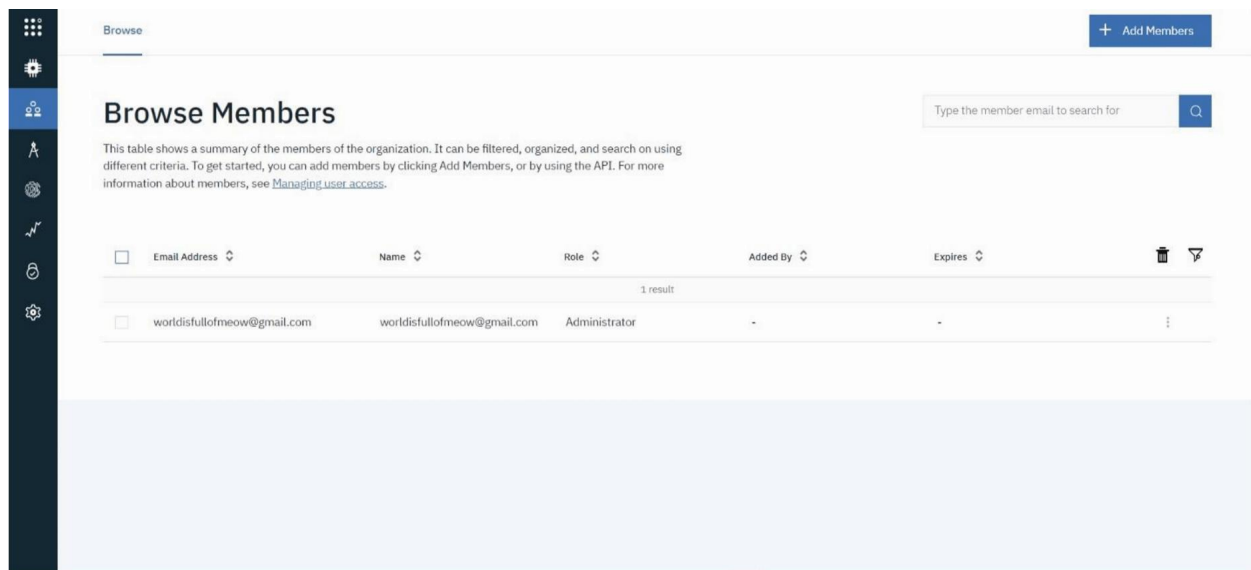
13. In the security tab we can choose the type of security connection and can change according to specification



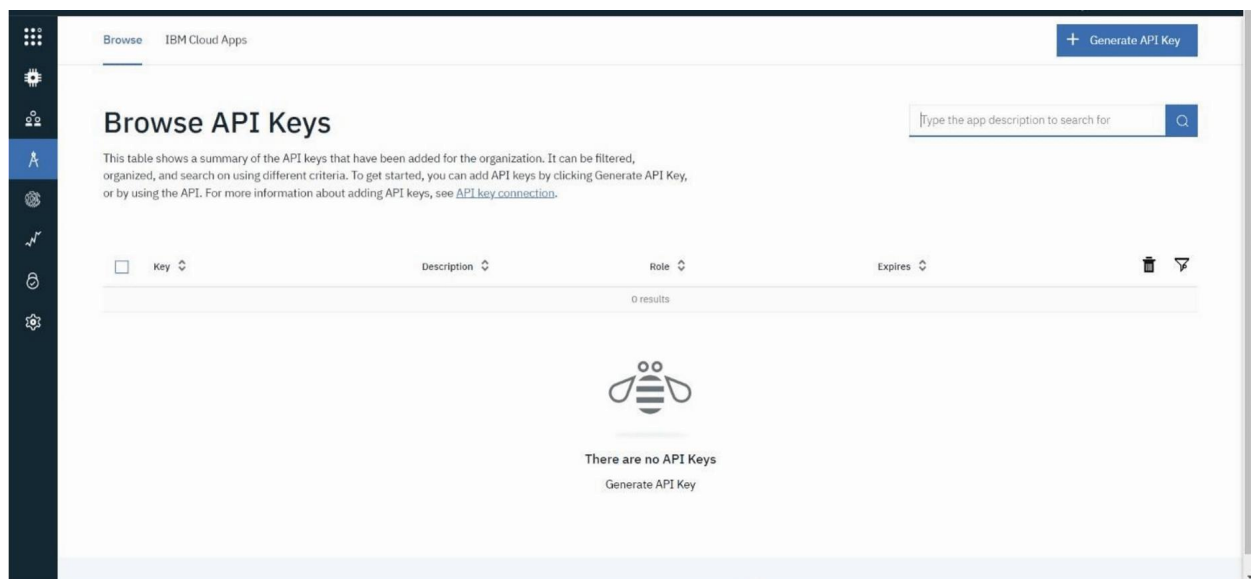
14. Usage gives the summary of how many bytes are used between the devices and the IBM cloud.



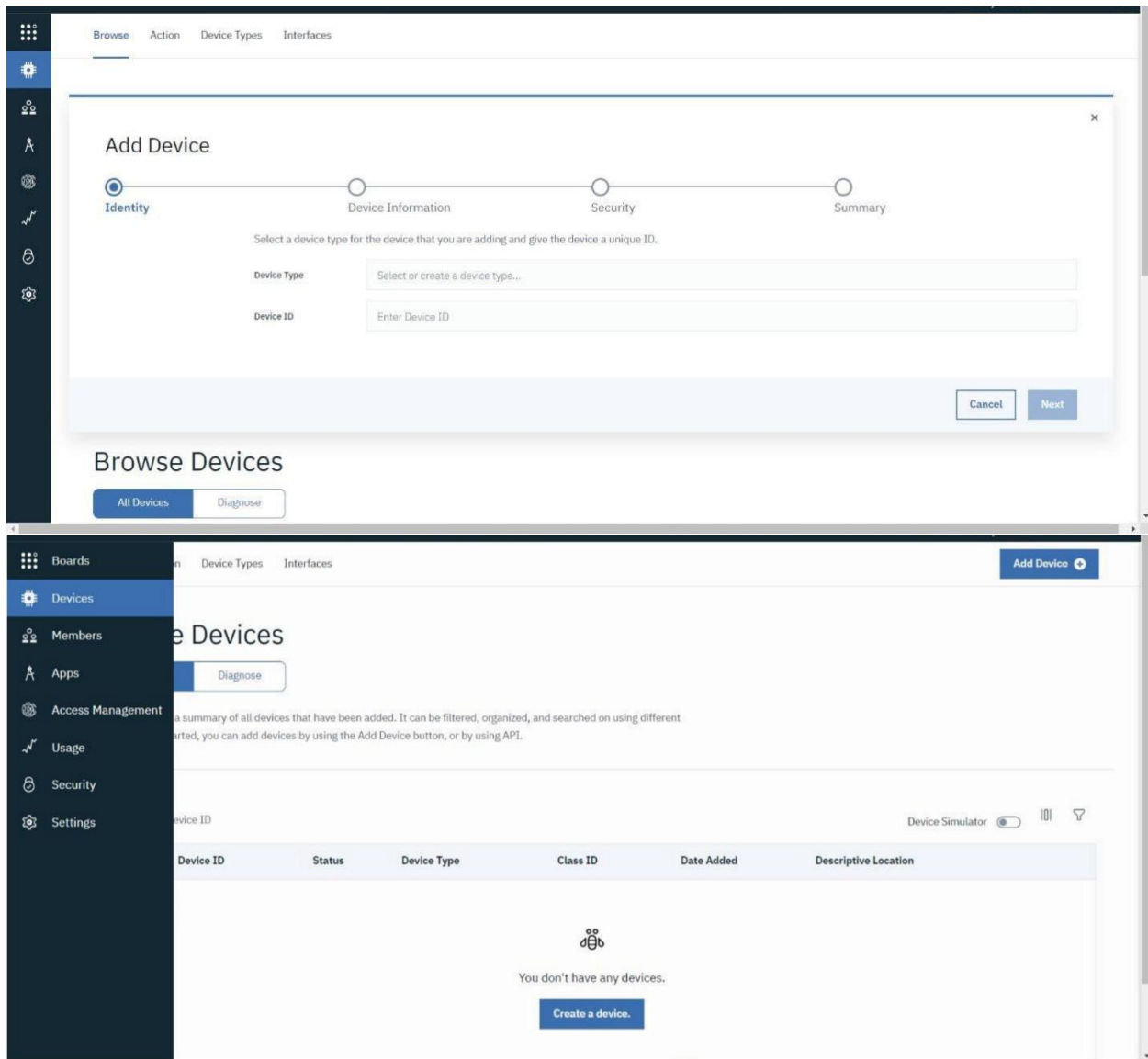
15. The member tab is add the teams members to work in the platform



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

The screenshot shows a web application interface with a dark sidebar on the left containing various icons. The main content area has a top navigation bar with links: 'Browse', 'Action', 'Device Types', and 'Interfaces'. Below this is a modal window titled 'Add Device' with a close button (X) in the top right corner. Inside the modal, there is a progress bar with four steps: 'Identity' (selected with a blue dot), 'Device Information', 'Security', and 'Summary'. Below the progress bar, a text prompt reads: '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 modal are two buttons: 'Cancel' and 'Next'. Below the modal, the text 'Browse Devices' is visible, followed by two buttons: 'All Devices' and 'Diagnose'.

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

The screenshot shows the same web application interface, but the 'Add Device' modal is now in the 'Device Information' step. The progress bar shows 'Identity' with a checkmark and 'Device Information' with a blue dot. The text prompt reads: 'You can modify the default device information and enter more information about the device for identification purposes.' The form is divided into two columns of input fields. The left column contains: 'Serial Number' (placeholder: 'Enter Serial Number'), 'Model' (placeholder: 'Enter Model'), 'Description' (placeholder: 'Enter Description'), and 'Hardware Version' (placeholder: 'Enter Hardware Version'). The right column contains: 'Manufacturer' (placeholder: 'Enter Manufacturer'), 'Device Class' (placeholder: 'Enter Device Class'), 'Firmware Version' (placeholder: 'Enter Firmware Version'), and 'Descriptive Location' (placeholder: 'Enter Descriptive Location'). Below the left column is a button labeled 'Add Metadata' with a plus icon. At the bottom right of the modal are two buttons: 'Back' and 'Next'.

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

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.

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.

Authentication Token: 1997199520012005

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

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

Add Device

Identity Device Information Security **Summary**

Verify that the following information is correct then select Finish

Device Type
NodeMCU

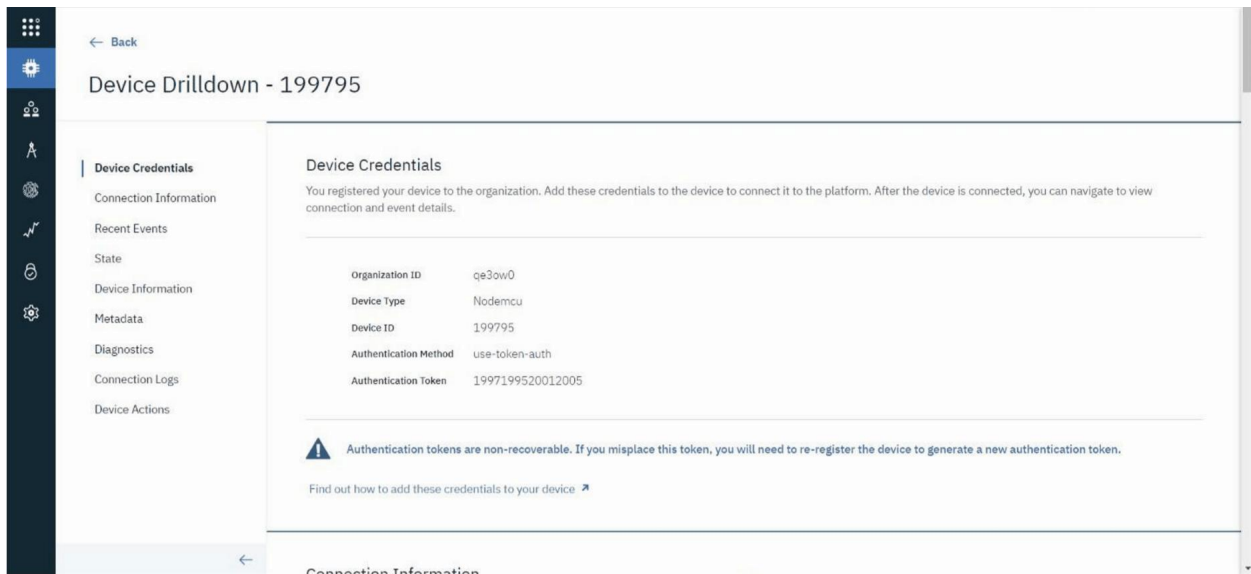
Device ID
199795

[View Metadata](#)

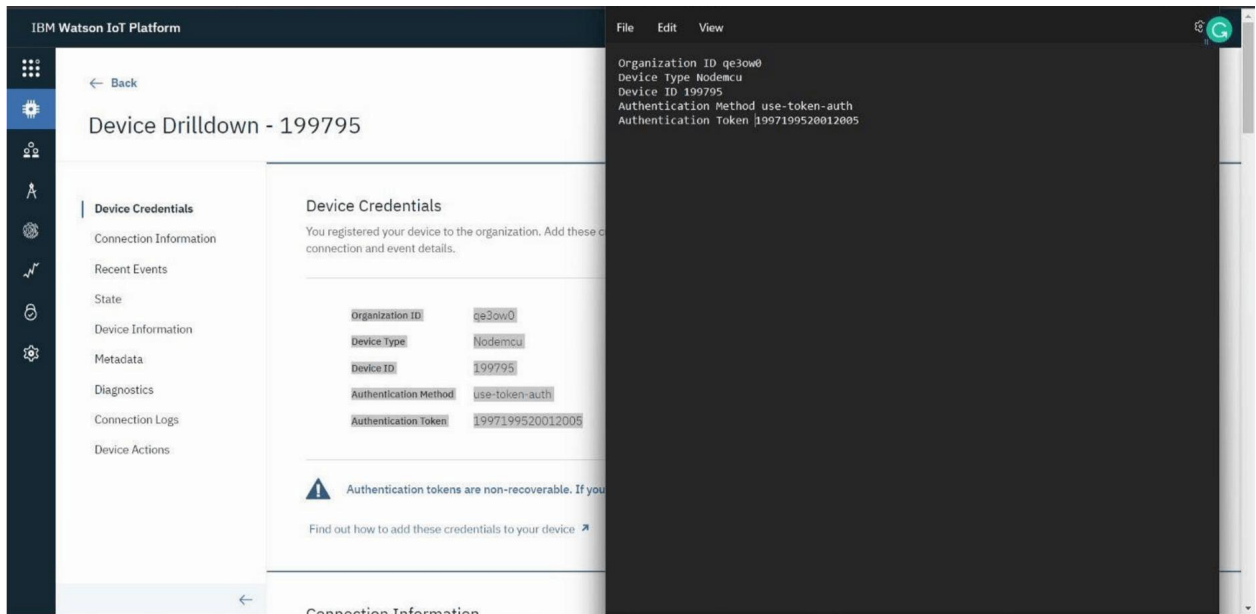
Security Token
1997199520012005

Back Finish

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

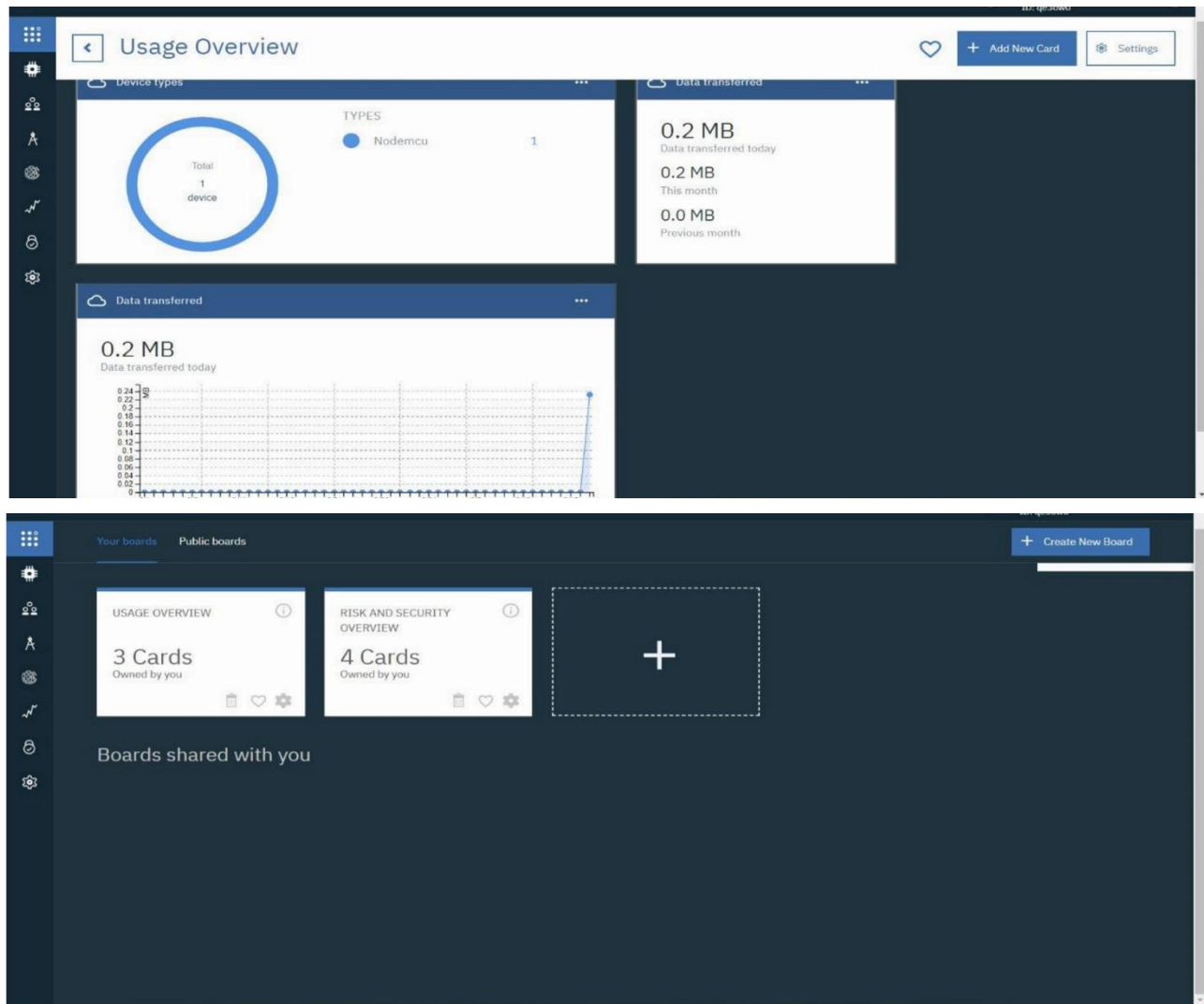


22. Save the details of the device as the authentication tokens are nonrecoverable and if misplaced then we have to create a new one.



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

24. The Boards will display card for the project.



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

RESULT:

An IBM Watson cloud for IoT and a device is created.