

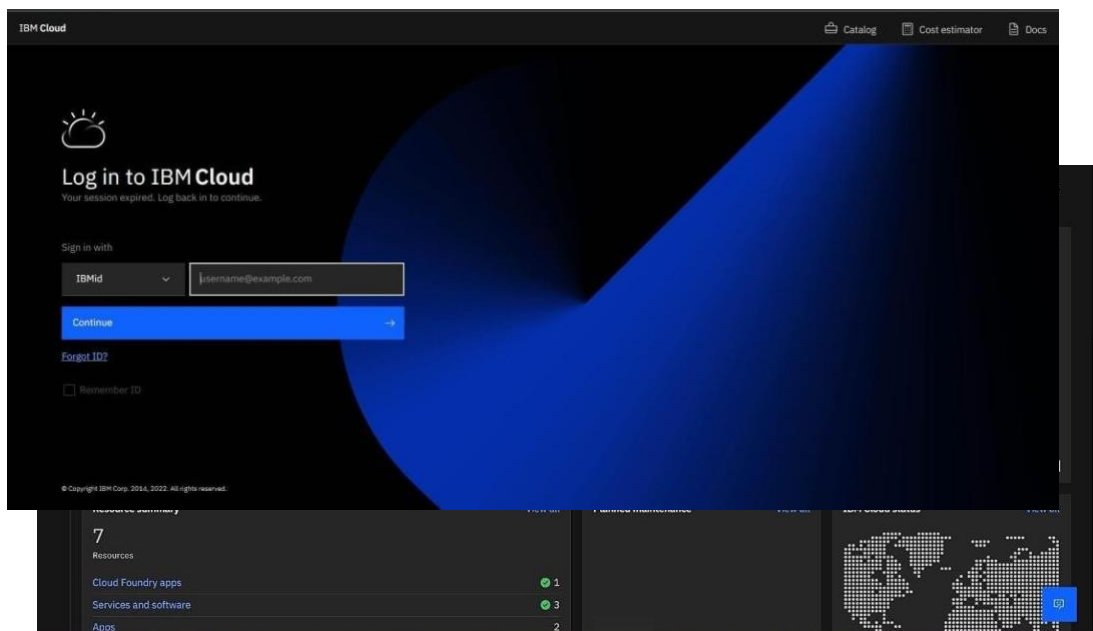
CREATE IBM WATSON IOT PLATFORM AND DEVICE

TEAM ID	PNT2022TMID32468
PROJECT NAME	IOT Based Smart Crop Protection System for Agriculture

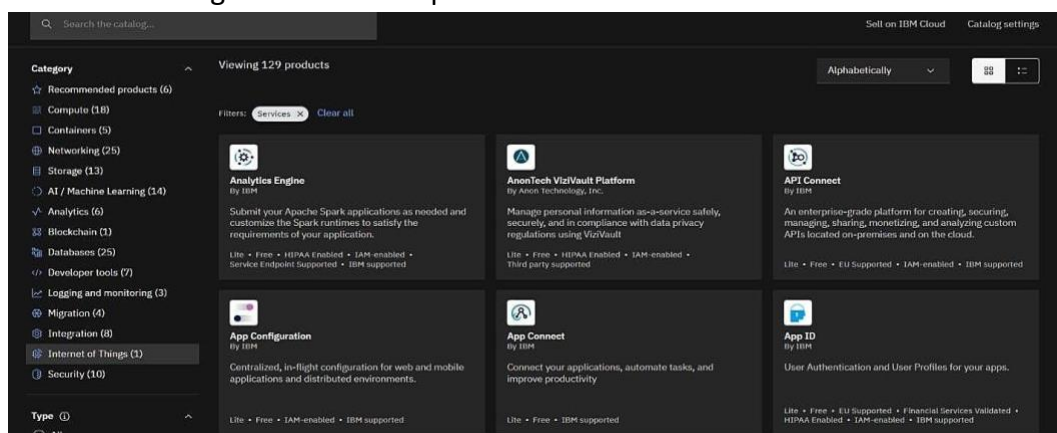
IBM Watson IOT platform and device development

STEPS:

1. The unique IBM id and password are used to create an IBM cloud account. And the ibm.cloud.com dashboard will appear.



2. Select the catalogue link at the top in the dashboard.



3. Select IoT from the list of categories.

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, 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.](#)

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Create

Add to estimate

4. If a lite already exists, remove it; otherwise, you cannot create another.

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Location: Frankfurt, London, Dallas, Washington DC

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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

Summary

Internet of Things Platform Free

Location: London

Plan: Lite

Service name: Internet of Things Platform-bb

Resource group: Default

Existing Lite plan instance

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Add to estimate

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Provider: IBM

Updated on: 08/15/2022

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Compliance: IAM-enabled

Location: Frankfurt

Select a location: Dallas (us-south)

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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.	Free

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.](#)

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Create

Add to estimate

5.Type the service name into the box under "Configure Your Resource," select the plan, check the box next to "Agree with Agreements," and then click "Create."

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

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Terms

Create

Add to estimate

6.Platform for Internet of Things There will be a new page called Child Safety with options like Manage, Plan, and Connection.

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

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

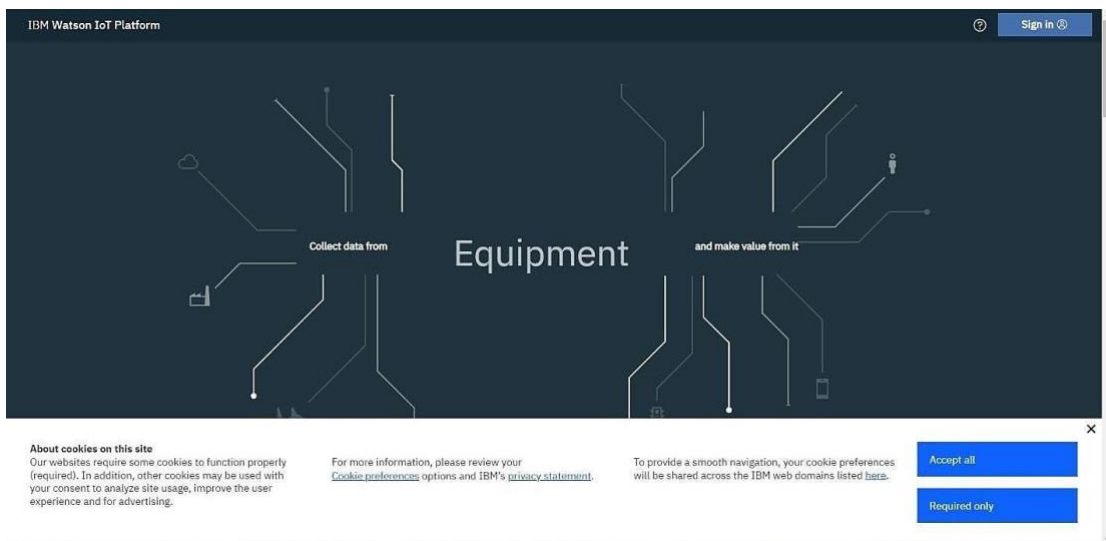
N/A

Lite plan services are deleted after 30 days of inactivity.

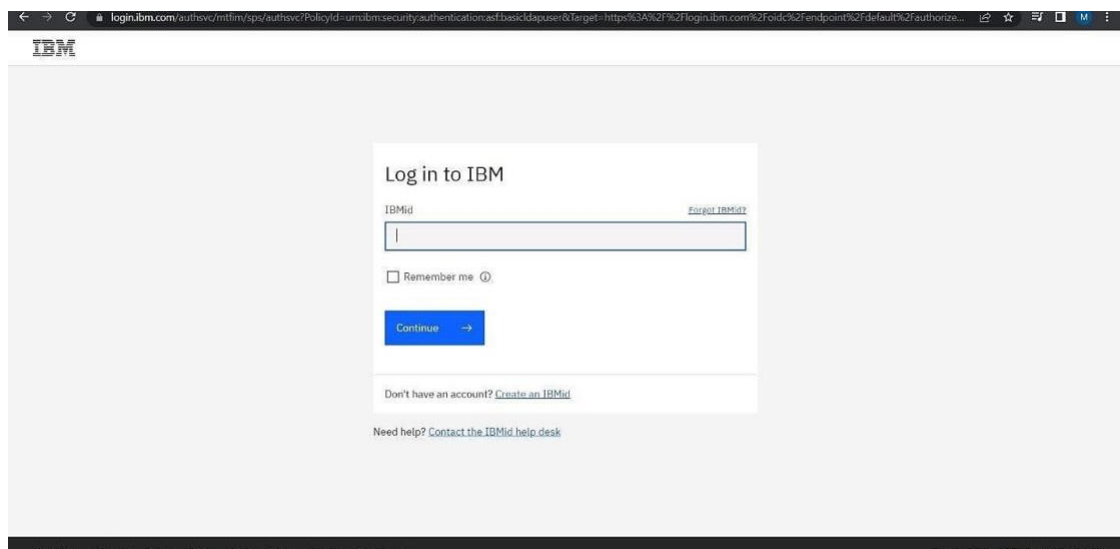
Change pricing plan

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

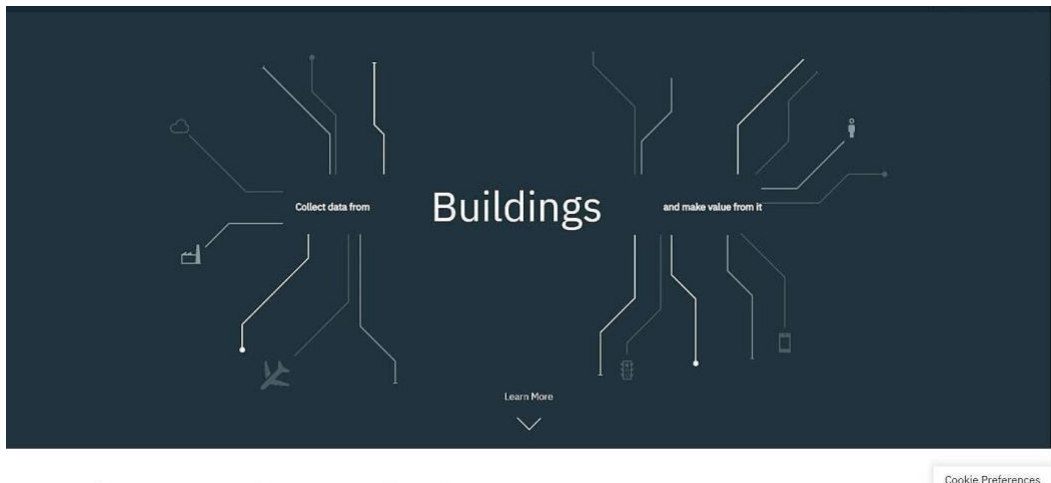
8. The connection is used to link IOT with other services, while manage is for launch and plan informs us about the payment package and its upgrades. When you click the launch button on the Manage tab, this page will appear.



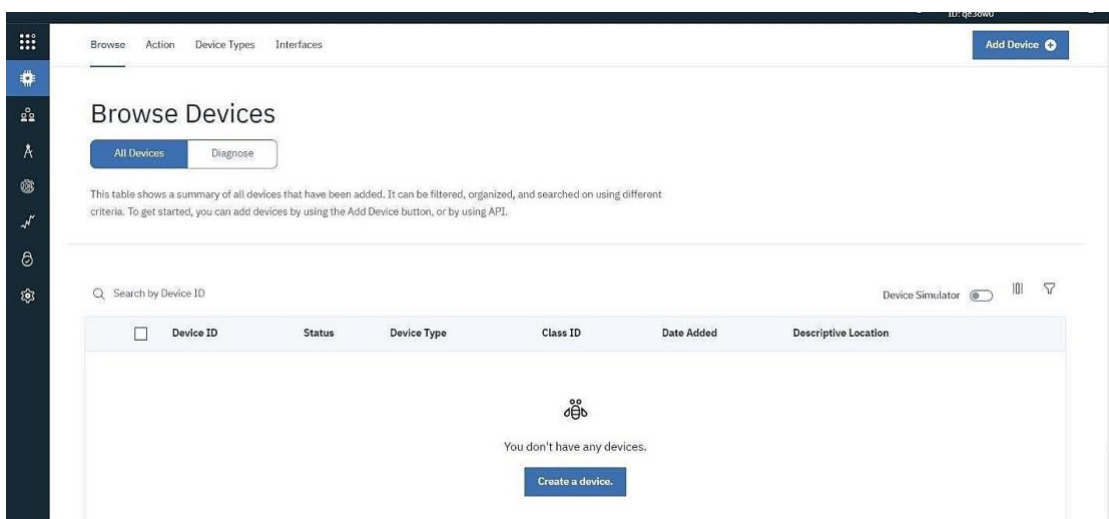
11. Fill in the information to create a device by logging into the Watson Cloud.



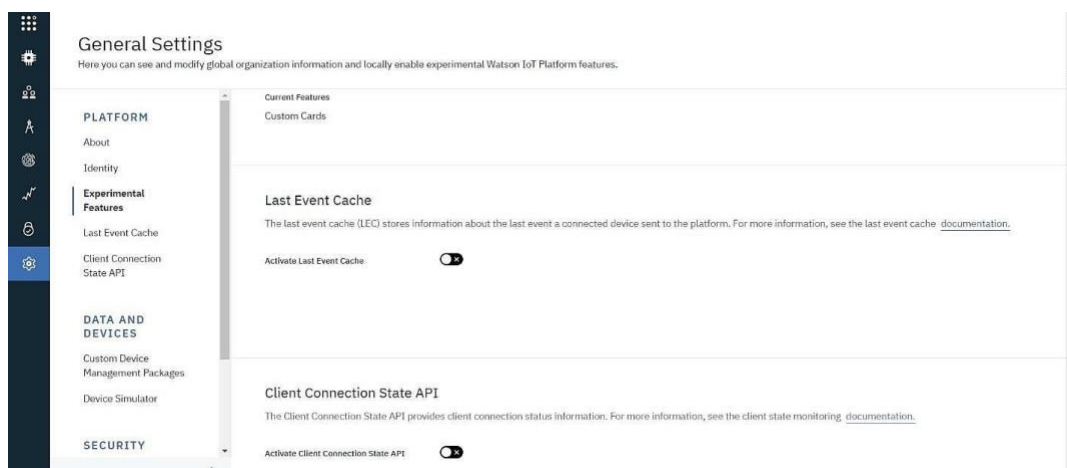
After logging in, the name is displayed and the page returns to the home page.



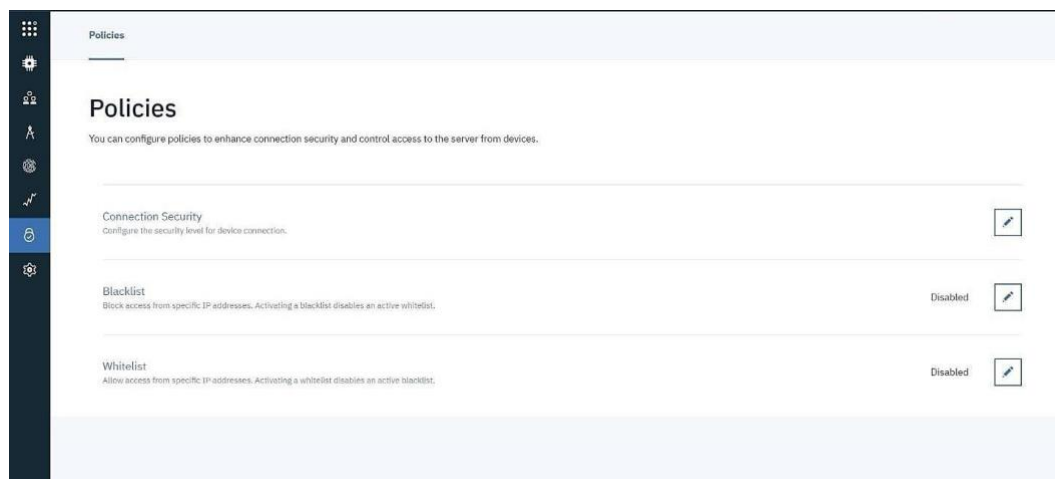
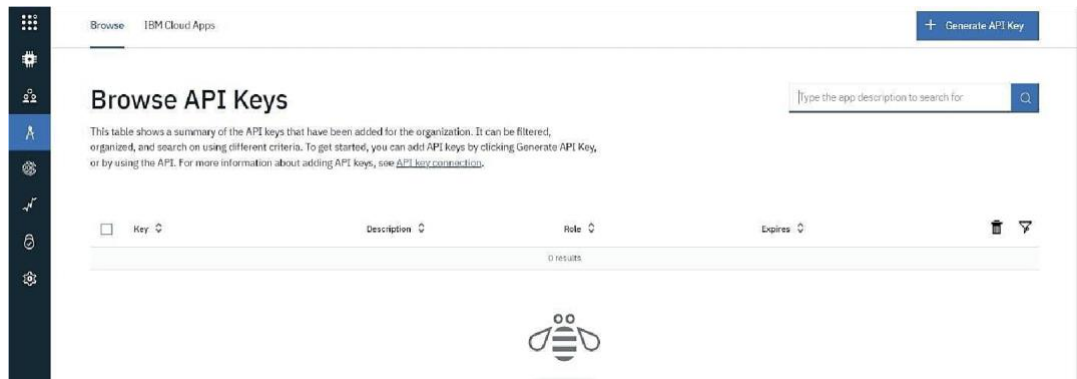
13. Clicking the launch button once more will open this tab, which contains a tool for creating and adding devices as well as for displaying information about them.



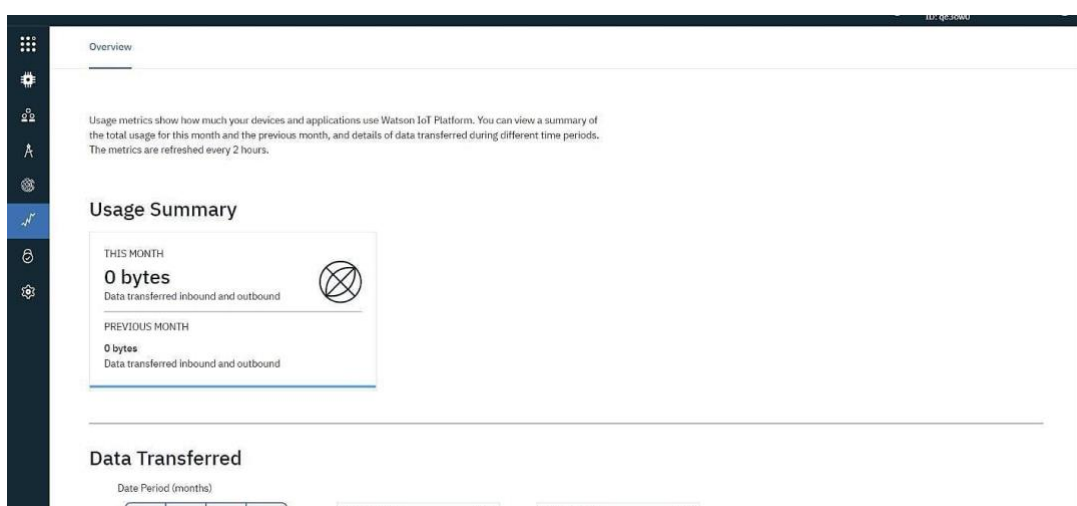
If necessary for the project, the general setting can be changed using the setting tab.

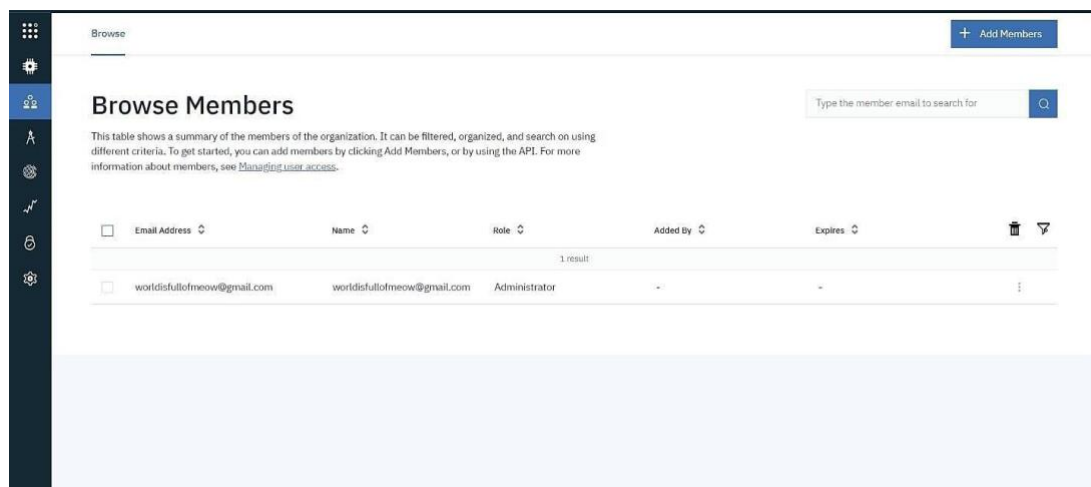


We can change the type of security connection and the specification in the security tab.



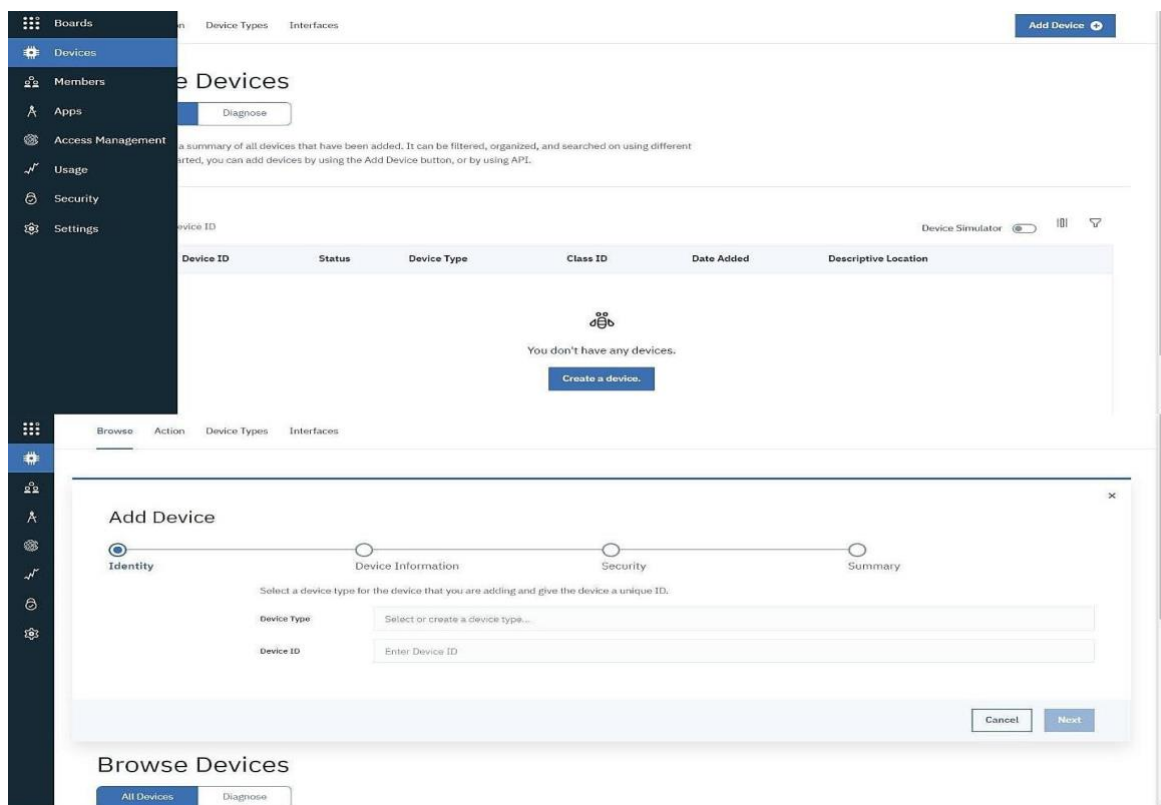
16. Usage summarises the amount of data transferred between the devices and the IBM cloud. The team members are added to the platform through the member tab.





18. When you want to connect to another platform and integrate with other services, you use this tab.

Select the device tab, select Add Device, enter the device type and device id, and select Next.



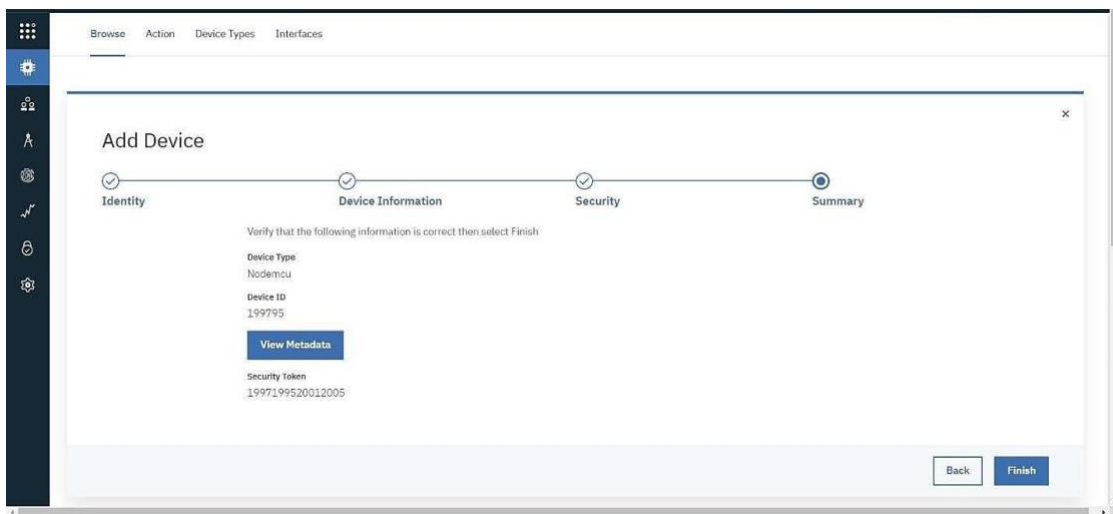
20. This page to add additional information and of the hardware

The screenshot shows the 'Add Device' form in a web application. The form is titled 'Add Device' and has a progress bar at the top with four steps: Identity, Device Information, Security, and Summary. The 'Device Information' step is currently active. Below the progress bar, there is a text box that says 'You can modify the default device information and enter more information about the device for identification purposes.' The form contains several input fields: 'Serial Number' (with a placeholder 'Enter Serial Number'), 'Model' (with a placeholder 'Enter Model'), 'Description' (with a placeholder 'Enter Description'), 'Hardware Version' (with a placeholder 'Enter Hardware Version'), 'Manufacturer' (with a placeholder 'Enter Manufacturer'), 'Device Class' (with a placeholder 'Enter Device Class'), 'Firmware Version' (with a placeholder 'Enter Firmware Version'), and 'Descriptive Location' (with a placeholder 'Enter Descriptive Location'). There is also an 'Add Metadata' button with a plus icon. At the bottom right, there are 'Back' and 'Next' buttons.

After clicking next, the security screen appears, where we perform authentication token id.

The screenshot shows the 'Add Device' form in a web application, now at the 'Security' step. The progress bar at the top shows that 'Identity' and 'Device Information' are completed, and 'Security' is the current step. The form is titled 'Add Device'. Below the progress bar, there is a text box that says 'There are two options for selecting a device authentication token.' The form is divided into two columns. The left column is titled 'Auto-generated authentication token (default)' and contains the text: '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.' The right column is titled 'Self-provided authentication token' and contains the text: '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.' Below these columns, there is an 'Authentication Token' input field with the value '1997199520012005' and a copy icon. At the bottom, there is a text box that says 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.' and another text box that says 'Authentication token are encrypted before we store them.'

22. After selecting Next, the device's summary is displayed. Finally, select Finish.

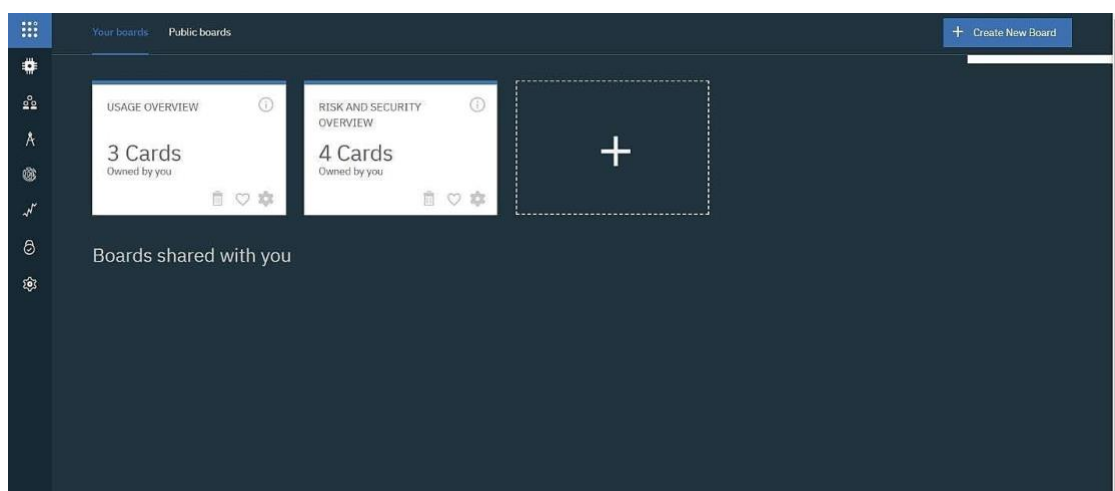


A detailed display of the device credentials will appear.

24. Protect the device information because authentication tokens are non-recoverable and must be created anew if lost..

25. We can now see the newly inserted device by clicking the device tab. The further information will be shown when you click on it. There are several tabs on it, including Identity, Device Information, State, and Login. According to the specifications of our project, we can similarly create n number of devices with a 50 per page limit.

26.The project cards will be displayed on the boards.



CONCLUSION:

A device and an IBM Watson cloud are developed.