

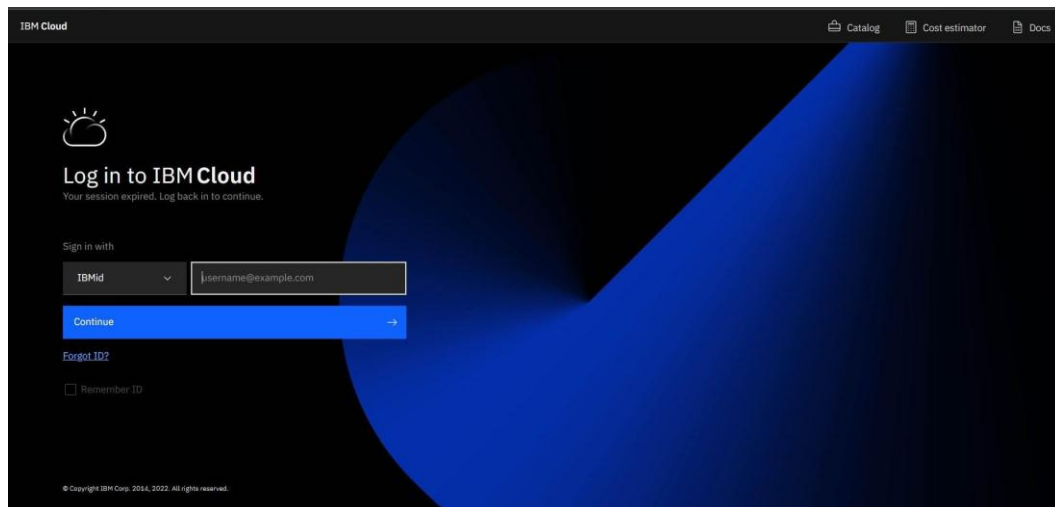
CREATE IBM WATSON IOT PLATFORM AND DEVICE

| | |
|--------------|--------------------------------------------------------|
| TEAM ID | PNT2022TMID43101 |
| PROJECT NAME | IOT Based Smart Crop Protection System for Agriculture |

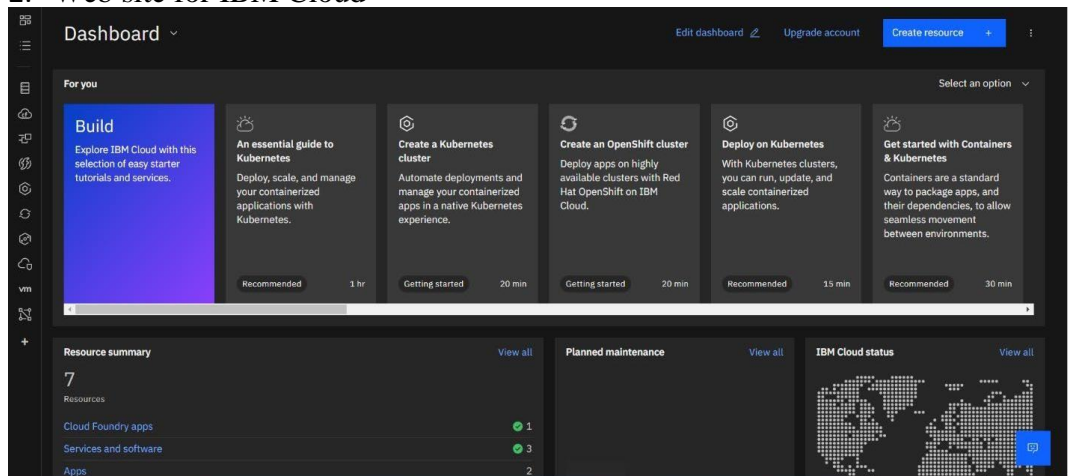
IBM Watson IOT platform and device development

STEPS:

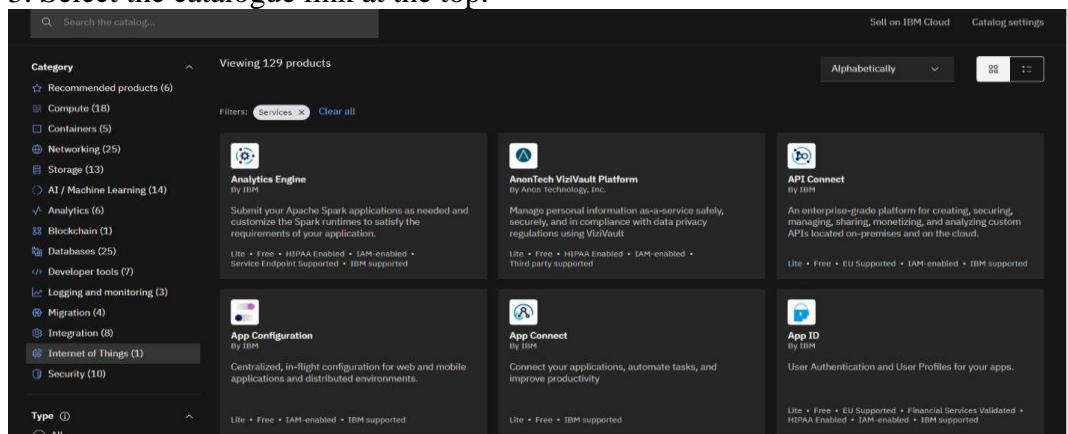
1. The unique IBM id and password are used to create an IBM cloud account.



2. Web site for IBM Cloud



3. Select the catalogue link at the top.



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

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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: London

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.

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. 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 Platform

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Create **About**

Type: Service

Provider: IBM

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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 |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
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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

7. click create

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> <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> <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-child_safety

Tags
Examples: env:dev, version-1

Select a resource group
Default

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

8. 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

9. 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.

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

Change pricing plan

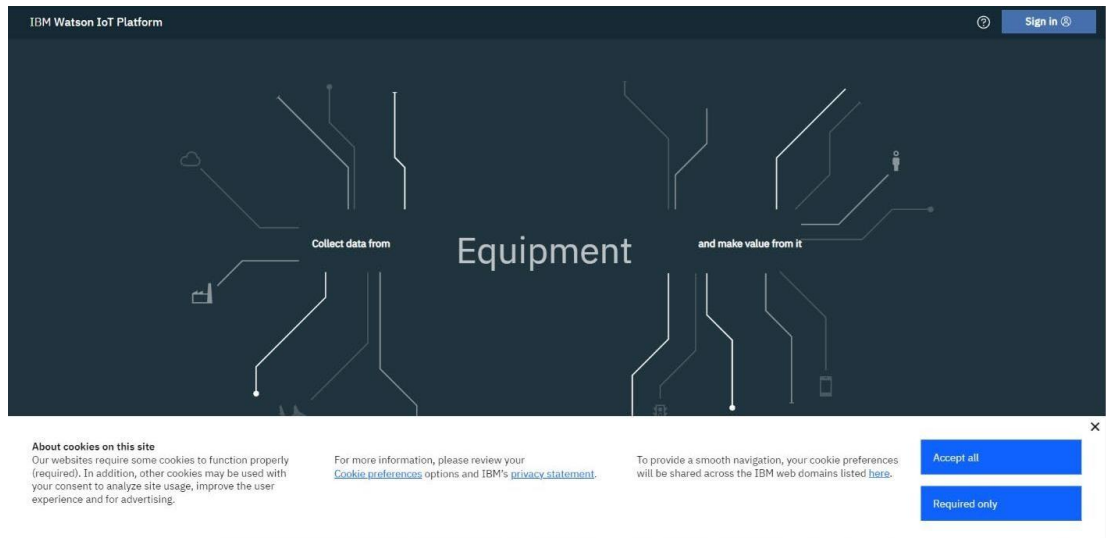
| Plan | Features | Pricing |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 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 |

Current usage

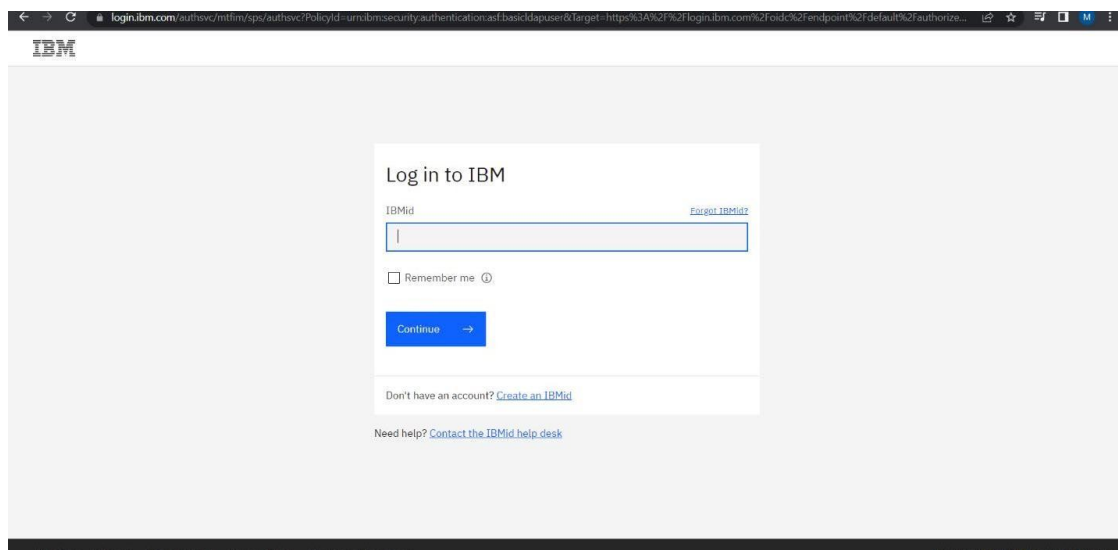
N/A

Lite plan services are deleted after 30 days of inactivity.

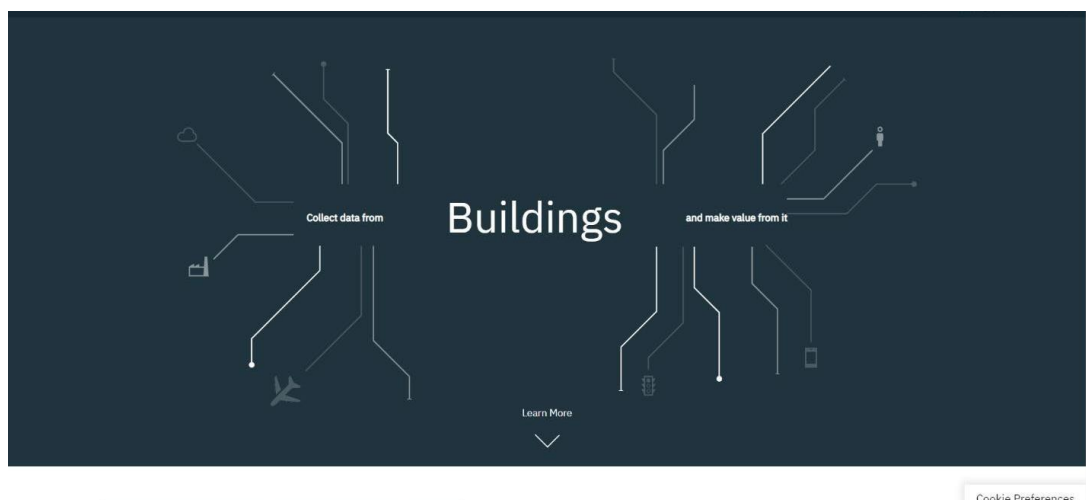
10. When you click the launch button on the Manage tab, this page will appear.



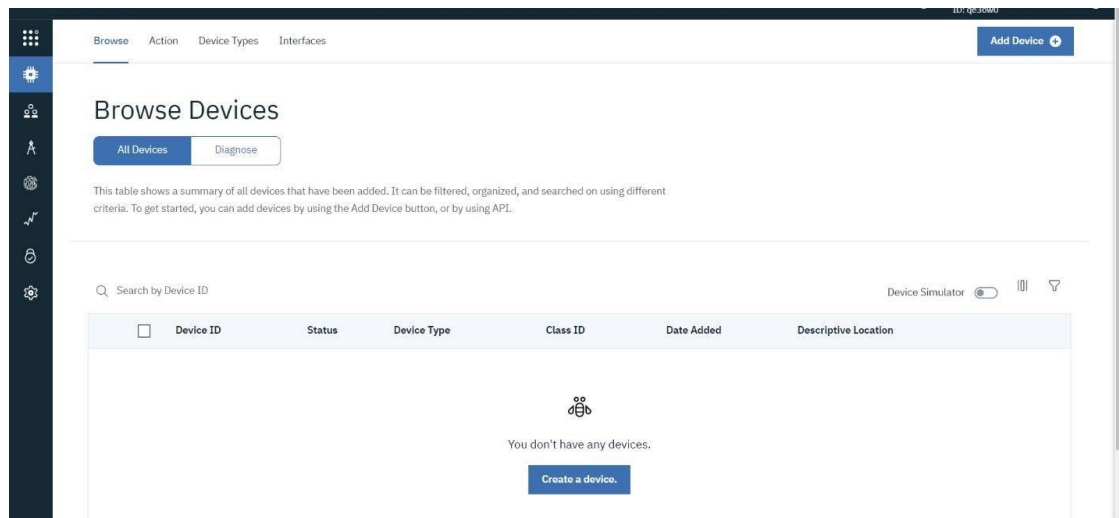
11. Fill in the information to create a device by logging into the Watson Cloud.



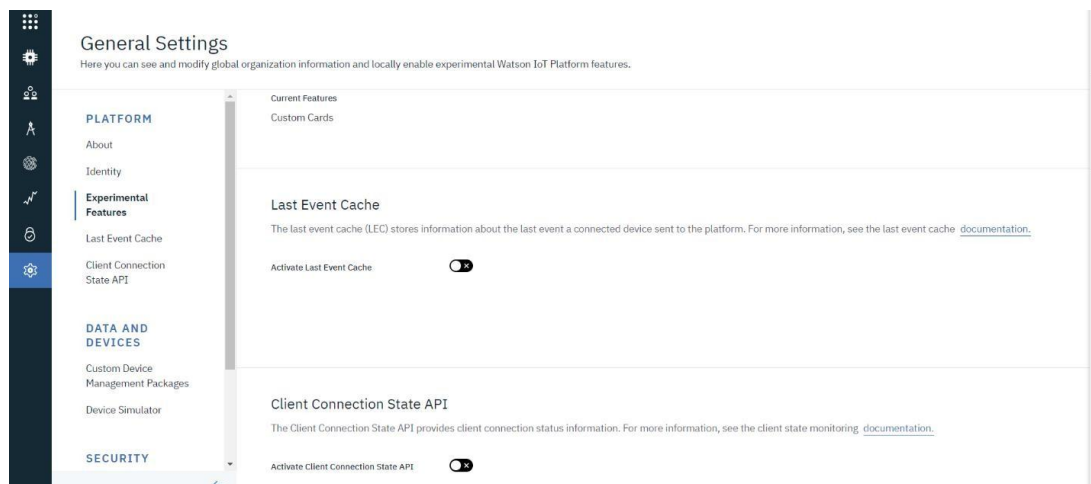
12. After logging in, the name is displayed and the page returns to the home page.



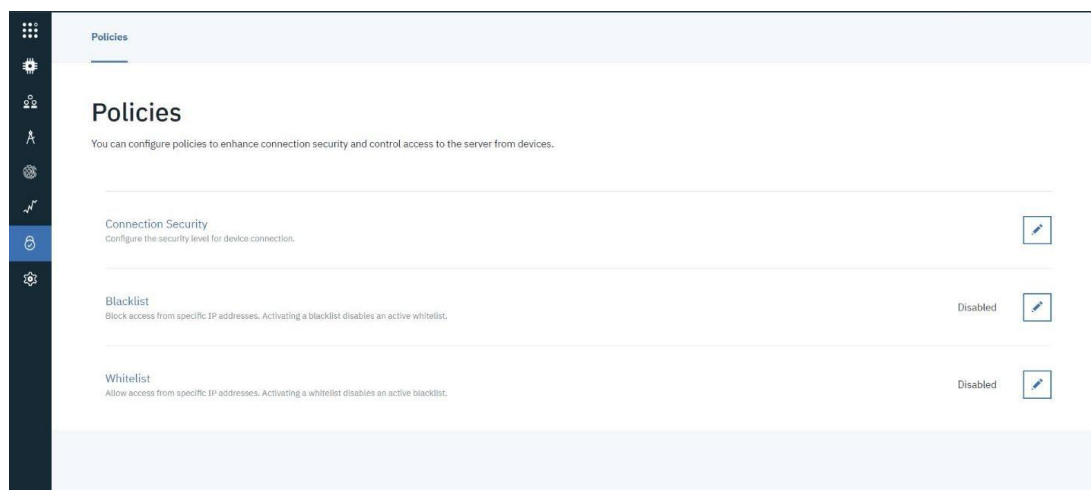
13. Clicking the launch button once more will open this tab, which contains a tool for creating and adding devices as well as for displaying information about them.



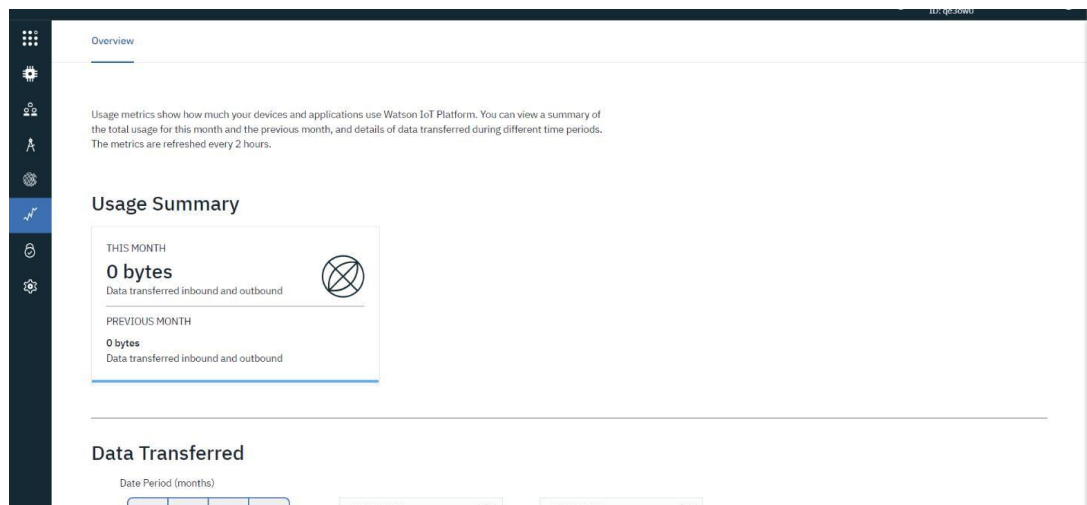
14. If necessary for the project, the general setting can be changed using the setting tab.



15. 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.



17. The team members are added to the platform through the member tab.

The screenshot shows the 'Browse Members' page. It includes a search bar with the placeholder 'Type the member email to search for'. Below the search bar, a table lists members with columns: 'Email Address', 'Name', 'Role', 'Added By', and 'Expires'. The table shows one result for the email 'worldisfullofmeow@gmail.com' with the role 'Administrator'.

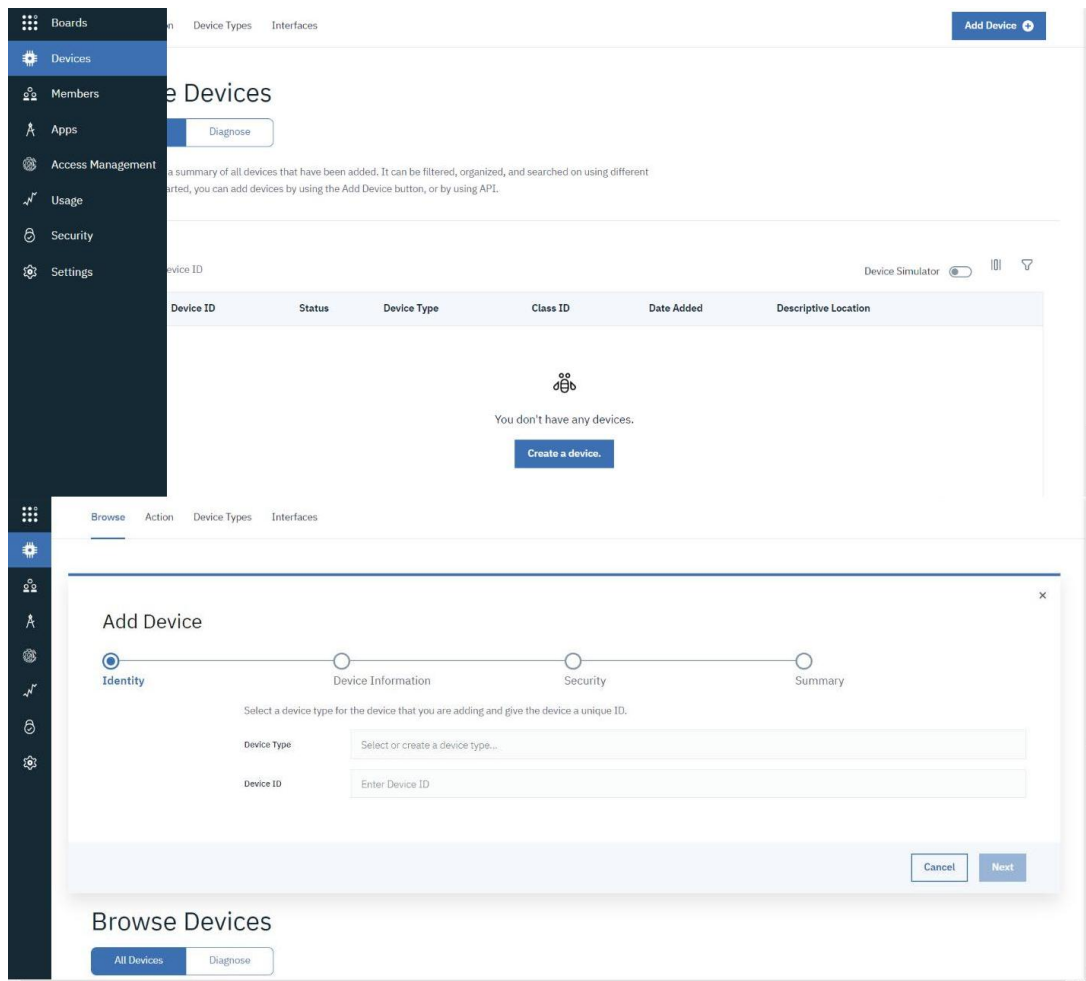
| Email Address | Name | Role | Added By | Expires |
|-----------------------------|-----------------------------|---------------|----------|---------|
| worldisfullofmeow@gmail.com | worldisfullofmeow@gmail.com | Administrator | - | - |

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

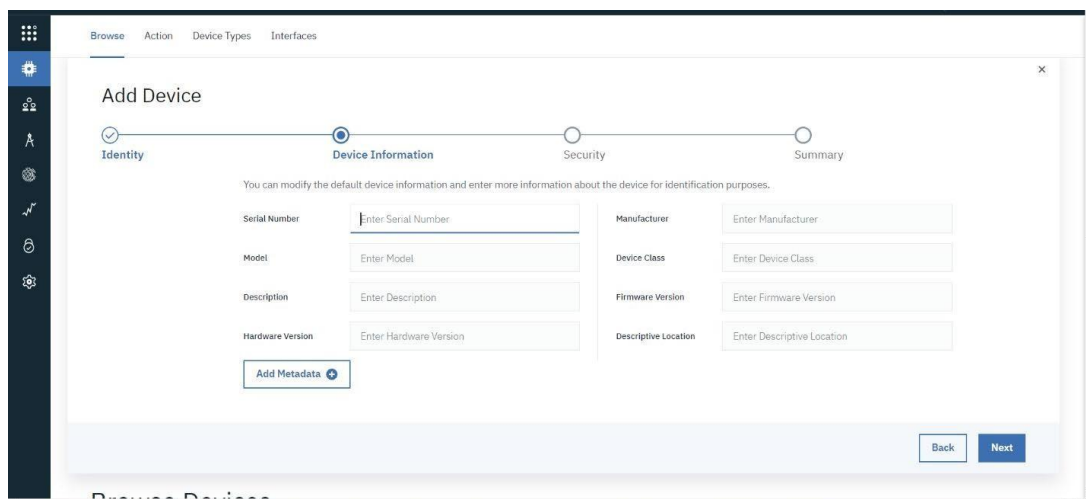
The screenshot shows the 'Browse API Keys' page. It includes a search bar with the placeholder 'Type the app description to search for'. Below the search bar, a table lists API keys with columns: 'Key', 'Description', 'Role', and 'Expires'. The table shows 0 results. Below the table, there is a message 'There are no API Keys' and a button 'Generate API Key'.

| Key | Description | Role | Expires |
|-----------|-------------|------|---------|
| 0 results | | | |

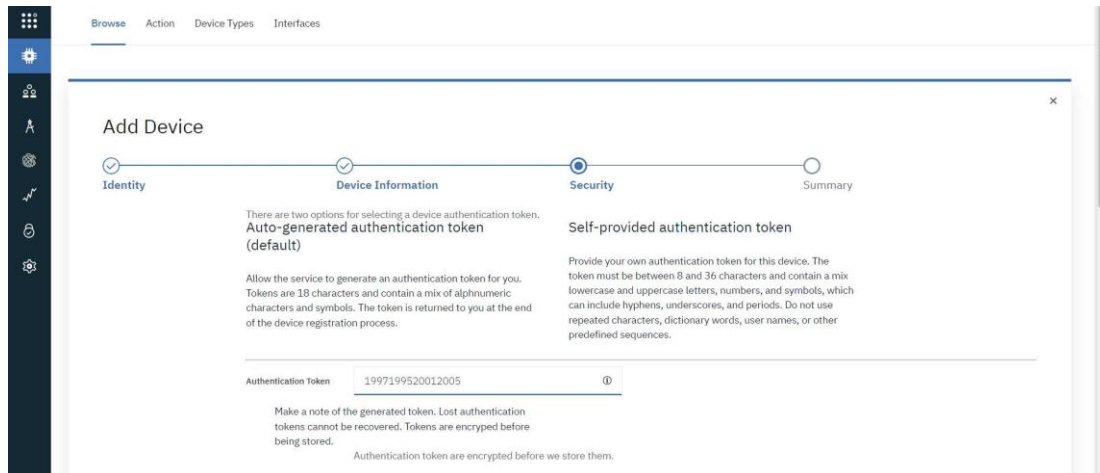
19. Select the device tab, select Add Device, enter the device type and device id, and select Next.



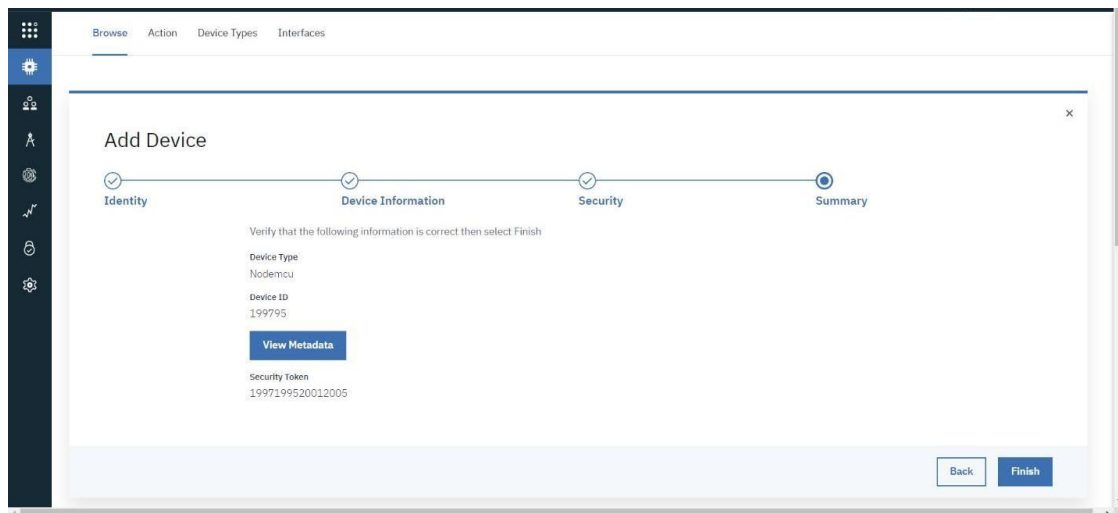
20. This page to add additional information and of the hardware



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



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

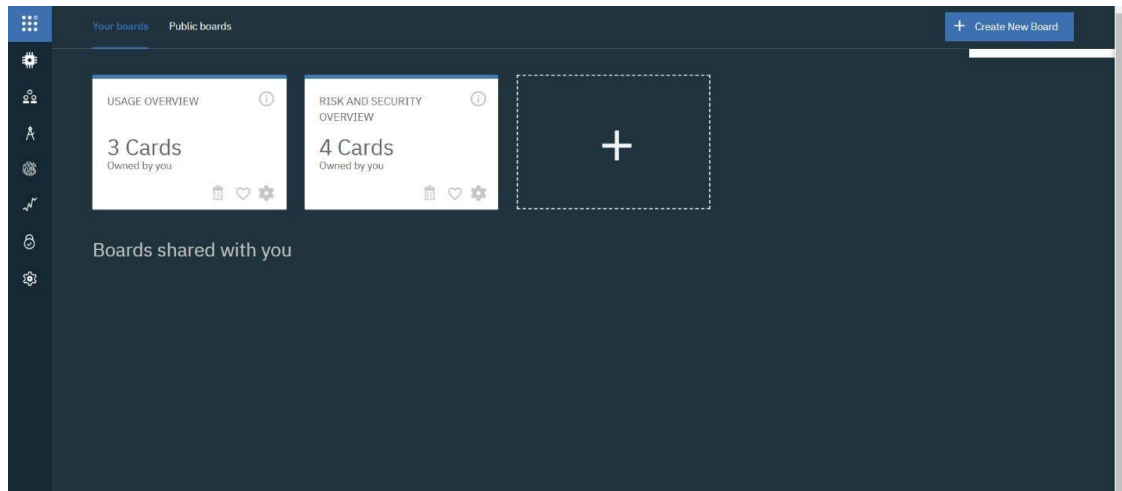


23. A detailed display of the device credentials will appear.

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.