

TEAM ID: PNT2022TMID17351

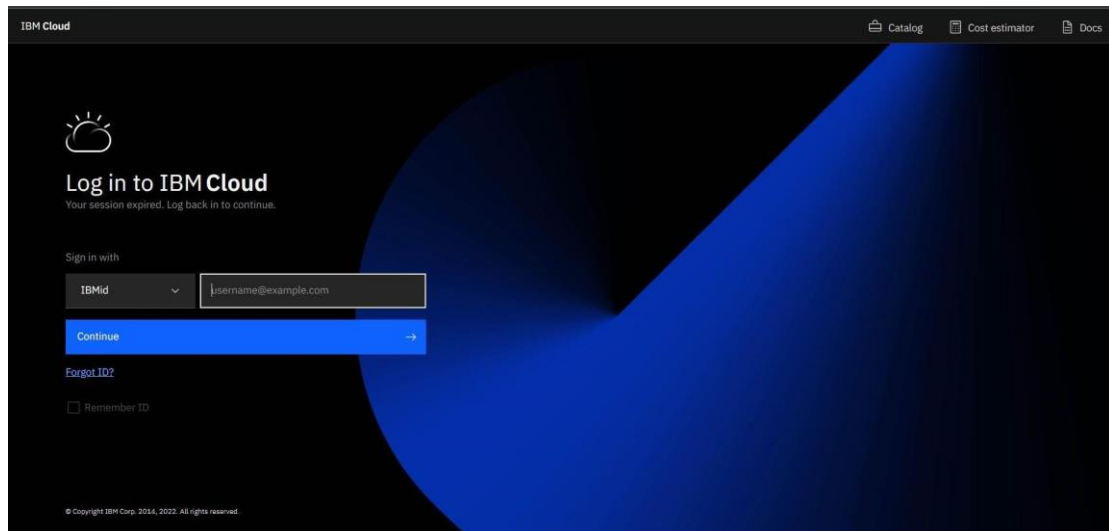
PROJECT TITLE: IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

CREATE IBM WATSON IOT PLATFORM AND DEVICE

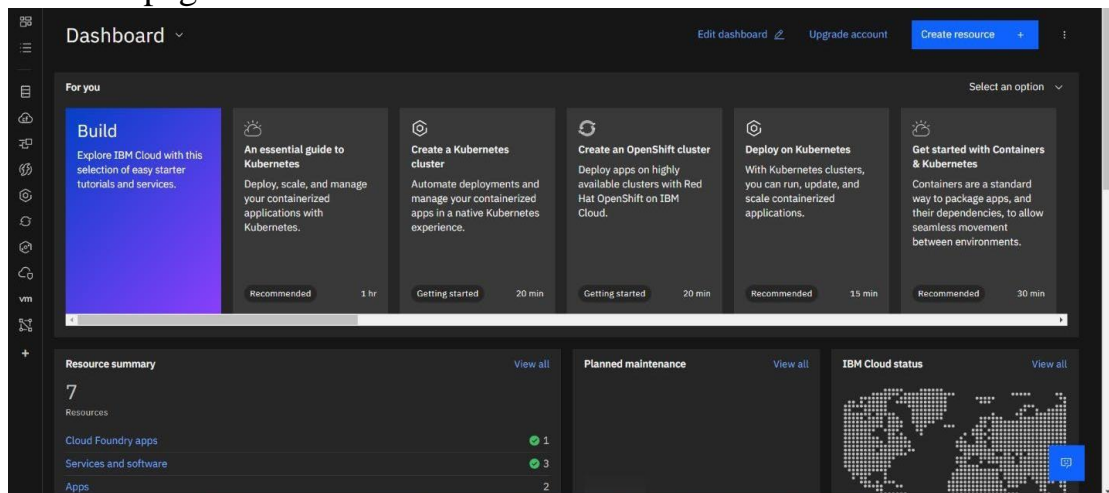
1. To create the IBM Watson IOT platform and device

STEPS:

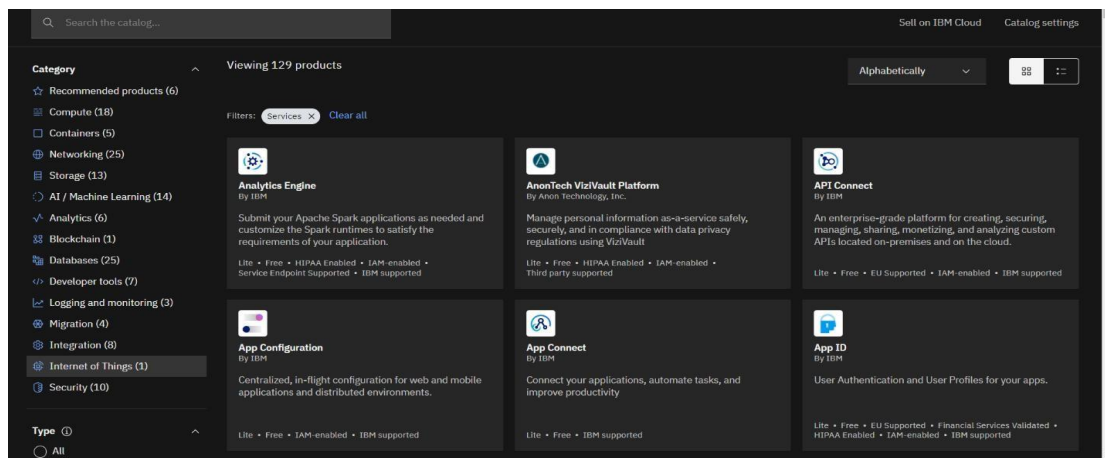
1. create an IBM cloud account with the individual IBM id and password



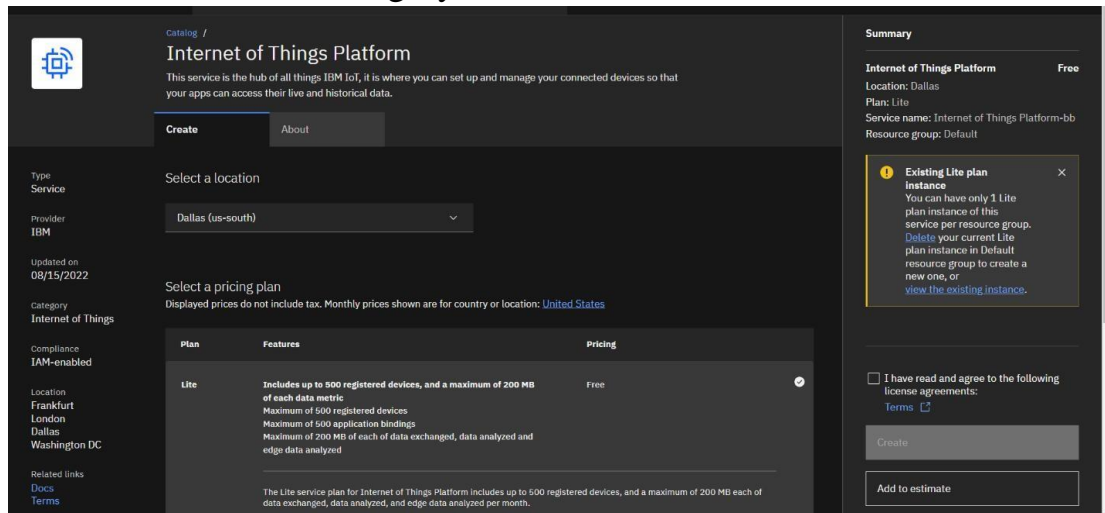
2. Home page of IBM cloud



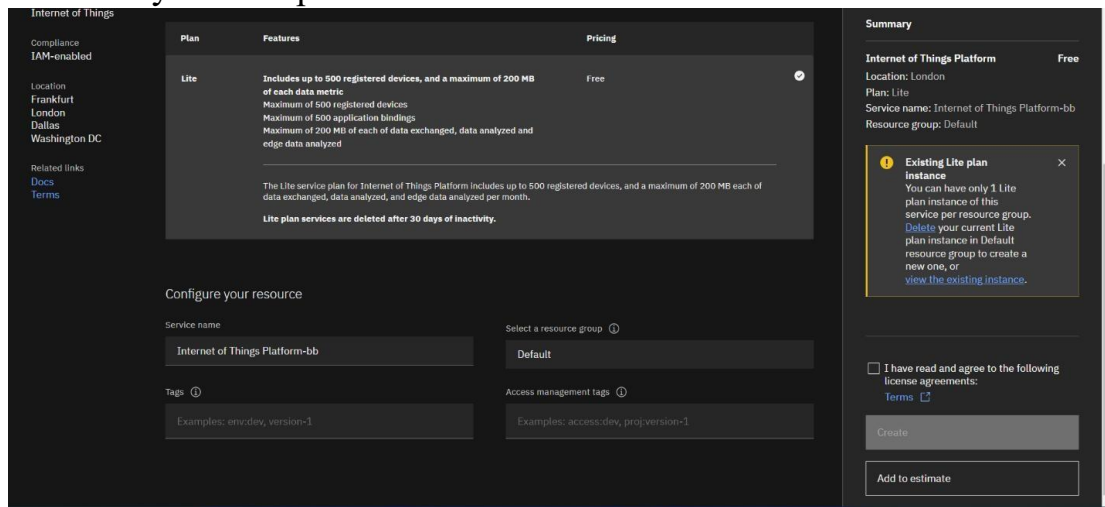
3. Click on the catalog on the top



4. Click on IoT in the category mentioned



5. If already a lite is present delete it else u can't create another



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

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: Dallas (us-south)

Related links: Docs, Terms

Select a location

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 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 Platform

Compliance: IAM-enabled

Location: London

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

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Create

Add to estimate

8. Internet of Things Platform Child_safety will be created, where there are different options like manage, plan, and connection

Internet of Things Platform-child_safety Active Add tags

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.

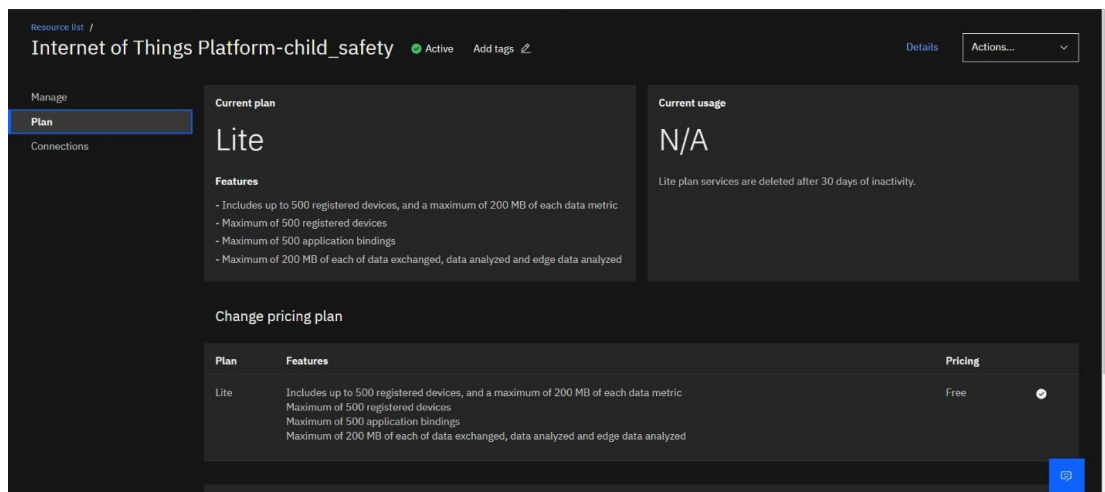
- Starts at \$500 per month

Production

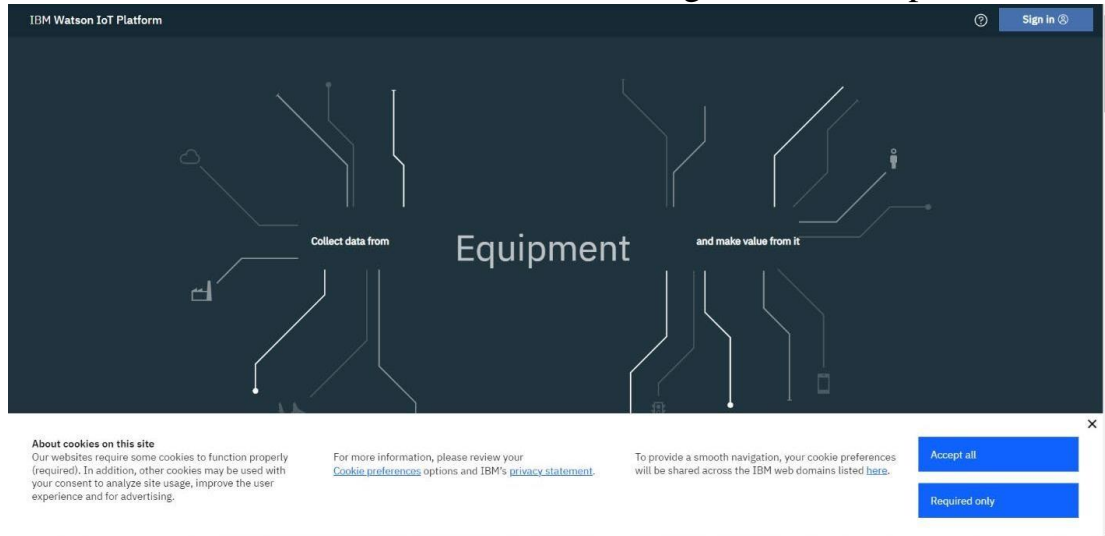
The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

- Includes IBM Service & Support

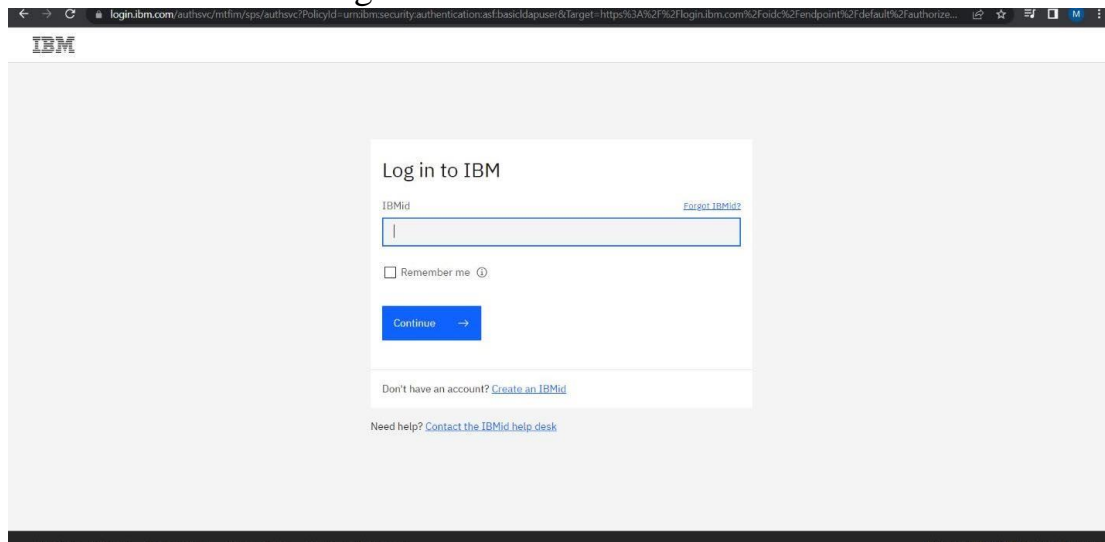
9. manage is for launch, plan gives us the idea about the payment package and its upgrades, and lastly the connection is for to connect IOT with other services



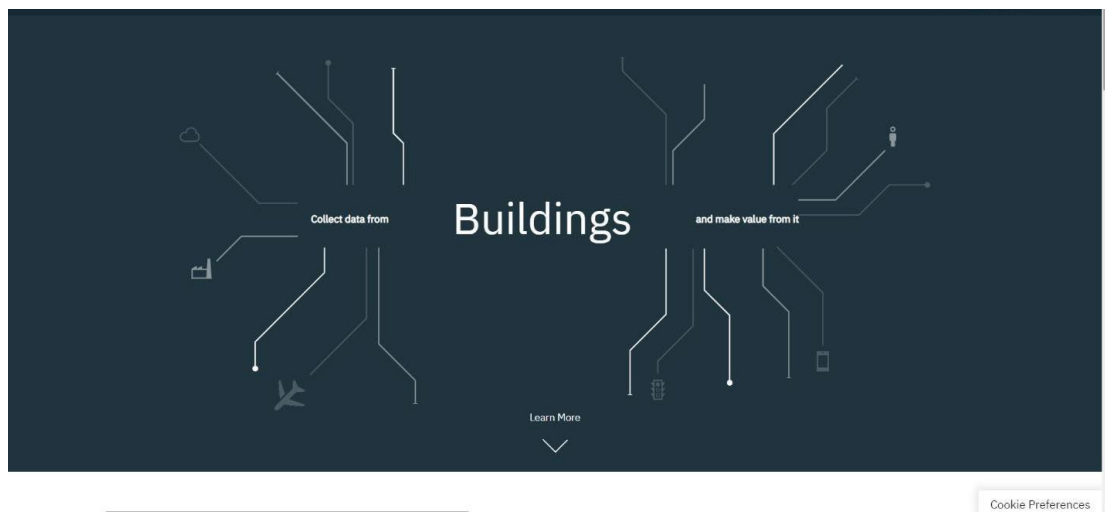
10. Click on the launch button in the manage tab, it will open to this



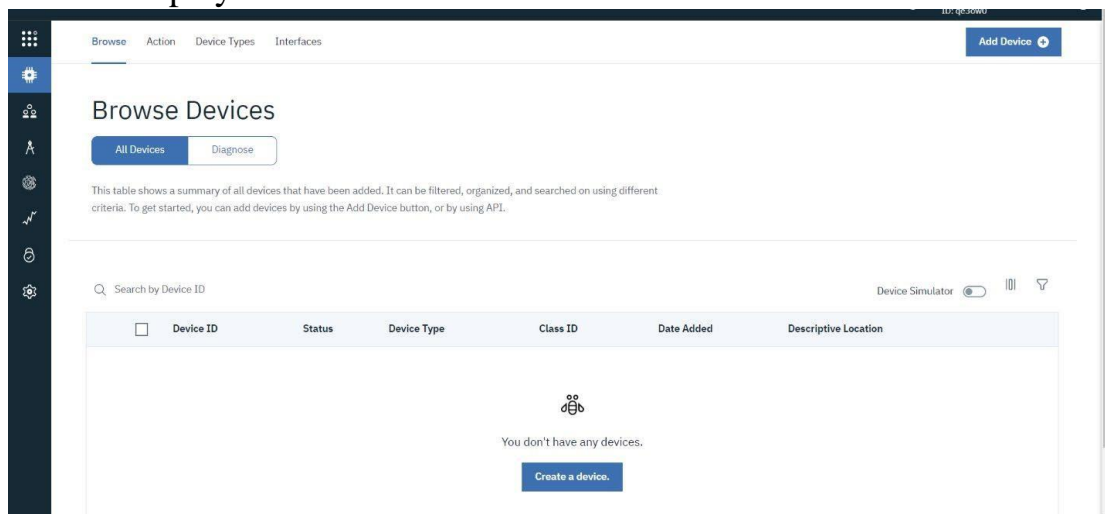
11. Enter the details to sign in to the Watson Cloud to create a device



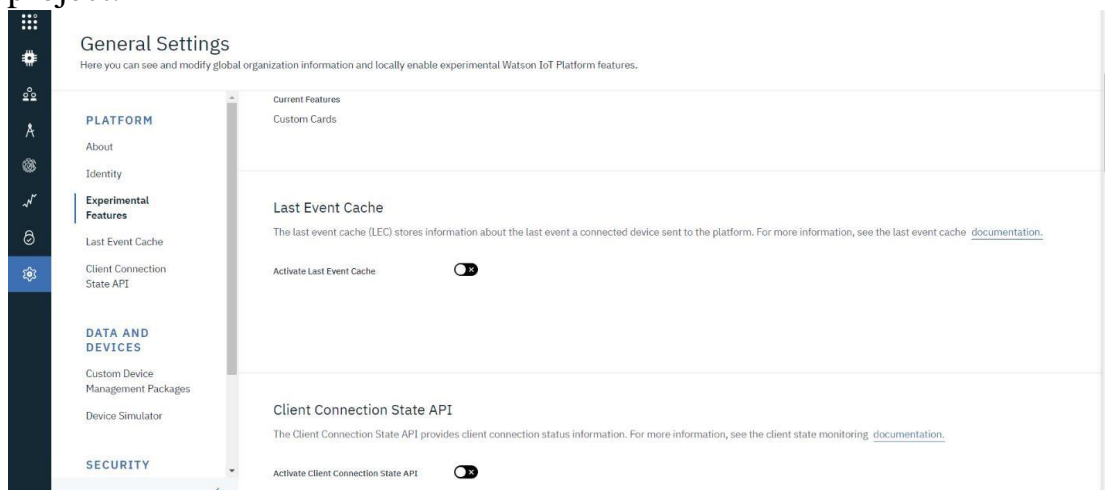
12. Once logged in the name will be displayed and it goes back to the first page



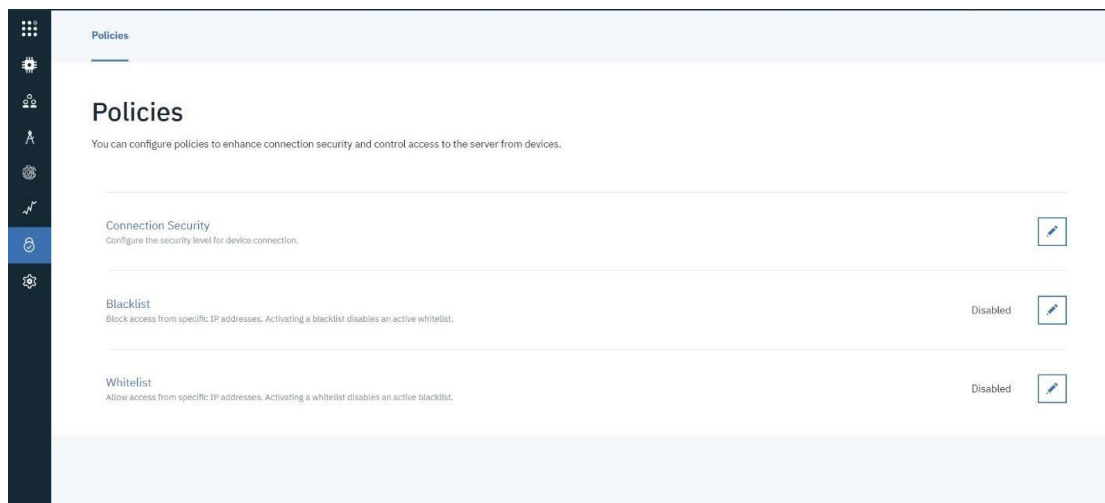
13. And again clicking on the launch button will open this tab, the device will help in the creation of the devices, the addition of devices, and the display of details of the devices.



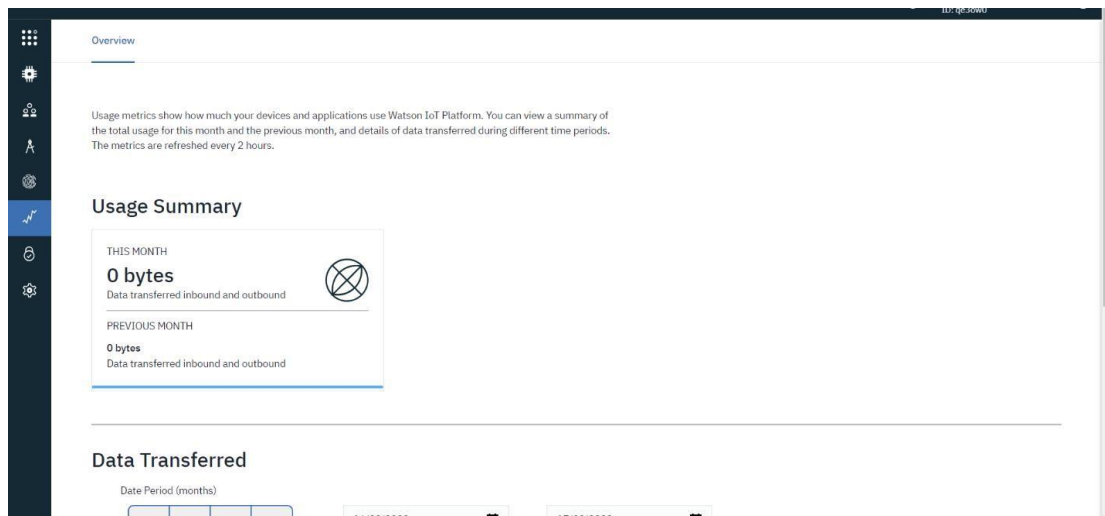
14. The setting tab is used to change the general setting if needed for the project.



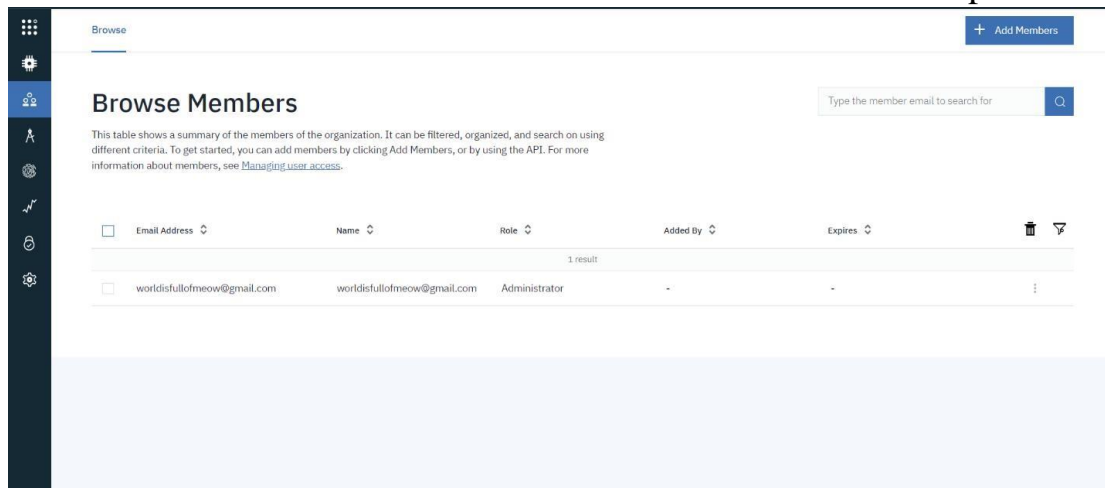
15. In the security tab we can choose the type of security connection and can change according to specification



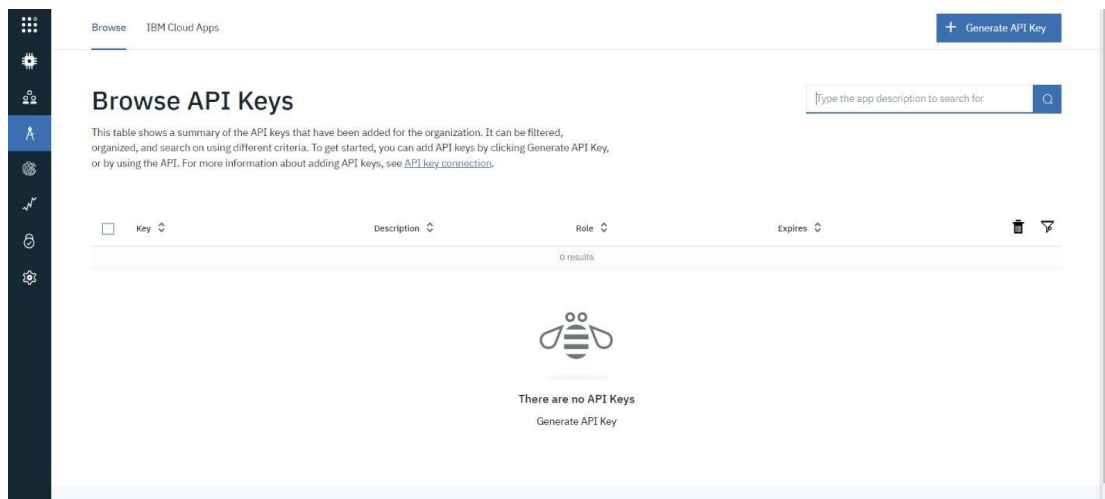
16. Usage gives the summary of how many bytes are used between the devices and the IBM cloud



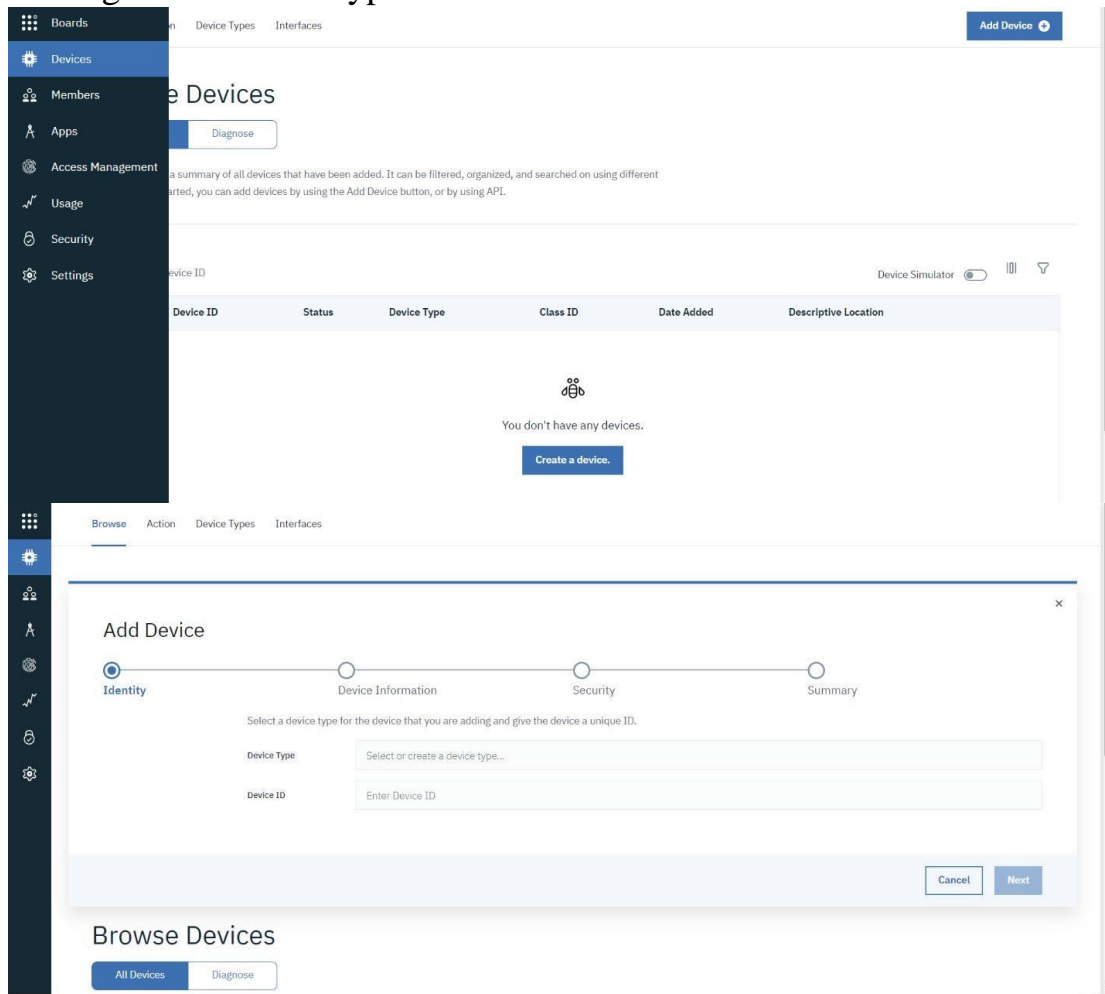
17. The member tab is add the teams members to work in the platform



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



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



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

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	<input type="text" value="Enter Serial Number"/>	Manufacturer	<input type="text" value="Enter Manufacturer"/>
Model	<input type="text" value="Enter Model"/>	Device Class	<input type="text" value="Enter Device Class"/>
Description	<input type="text" value="Enter Description"/>	Firmware Version	<input type="text" value="Enter Firmware Version"/>
Hardware Version	<input type="text" value="Enter Hardware Version"/>	Descriptive Location	<input type="text" value="Enter Descriptive Location"/>

21. 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:

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.

22. 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: 19971995

Security Token: 1997199520012005

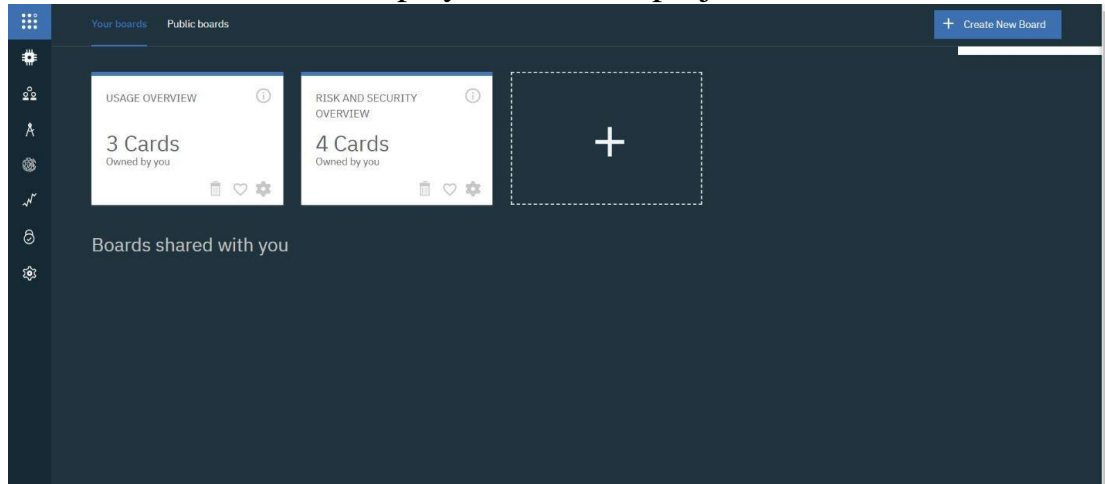
23. The device credentials will be displayed with all the details

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

25..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.

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

26. The Boards will display card for the project.



CONCLUSION:

An IBM Watson cloud for IoT and a device is created