

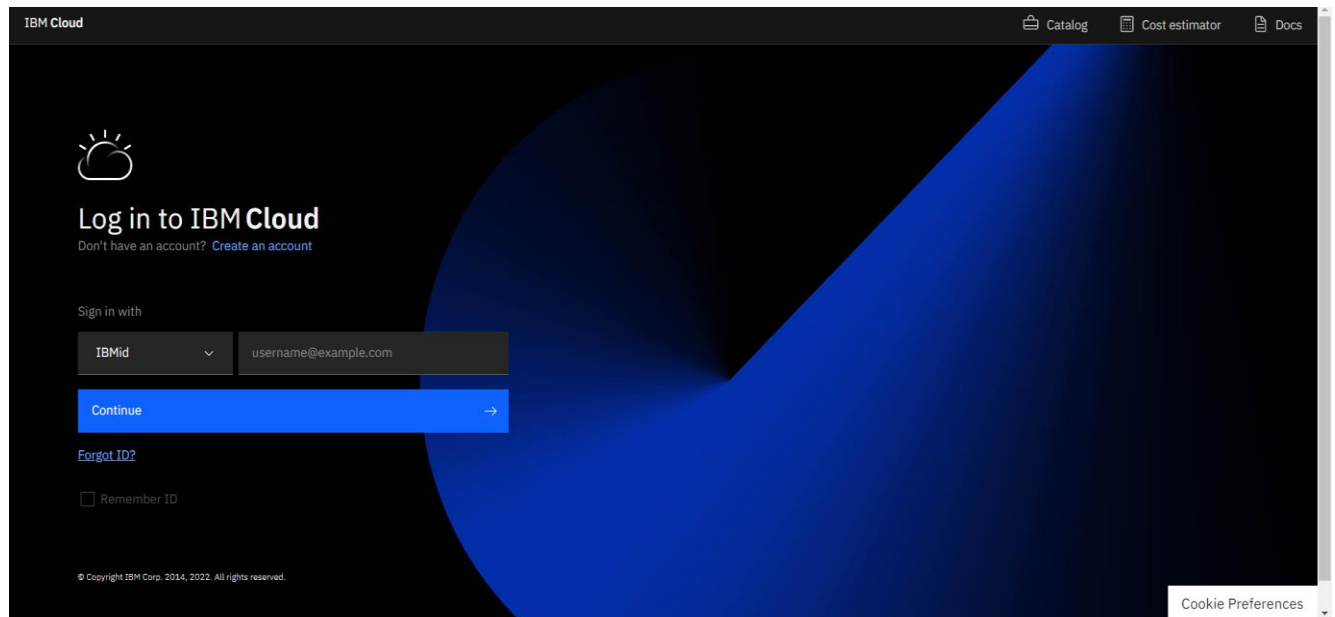
# CREATE IBM WATSON IOT PLATFORM AND DEVICE

## AIM:

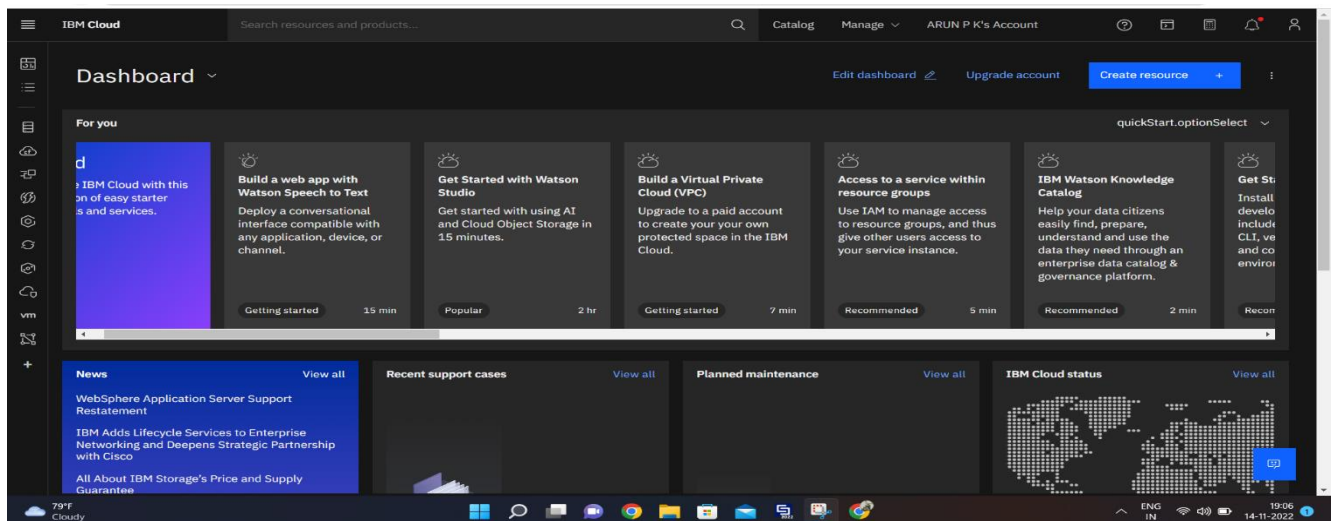
To create the IBM Watson IoT platform and device

## STEPS:

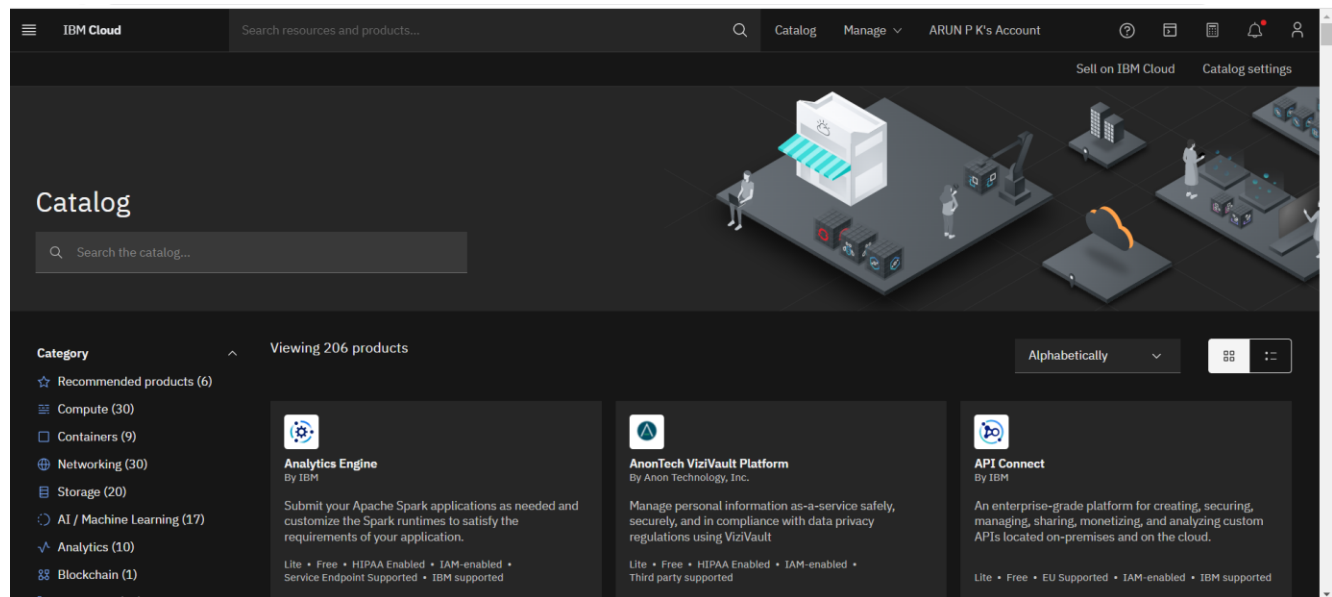
1. Firstly create an IBM cloud account with IBMid and password



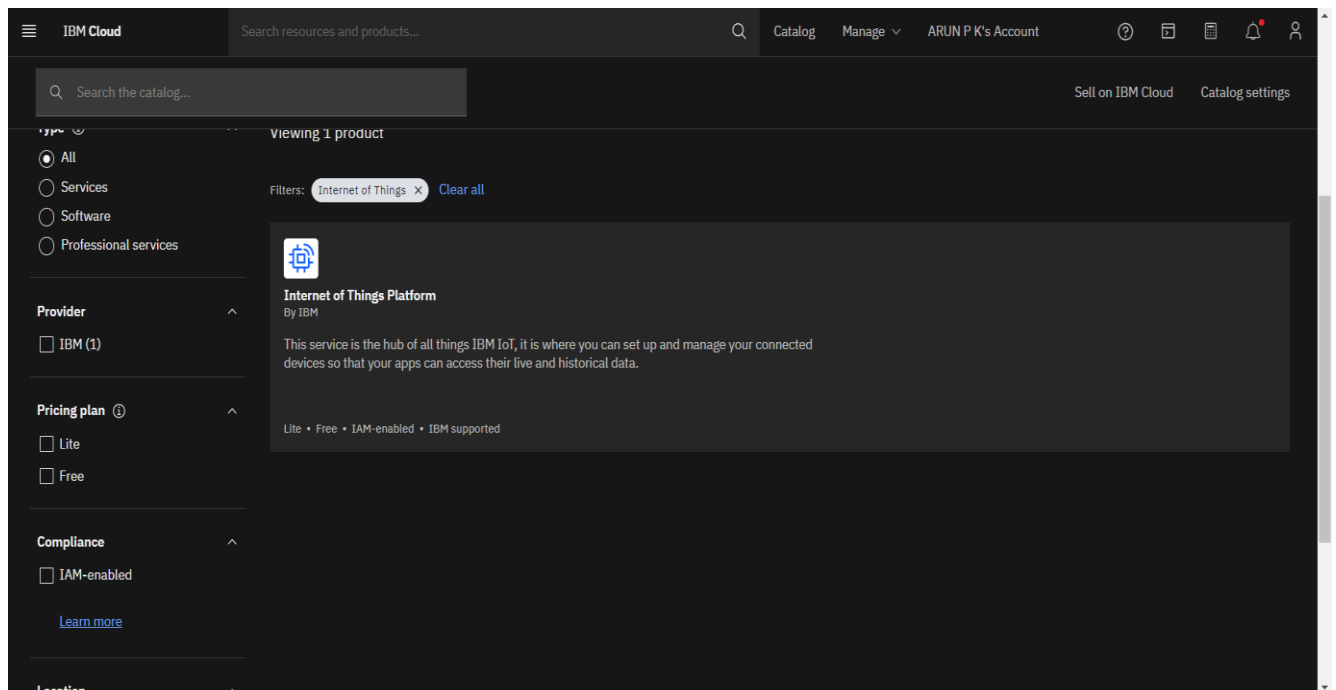
2. Home page of IBM cloud



### 3. Click on the catalog on the top



### 4. Click on IoT in the category mentioned




IBM Cloud

Search resources and products...

Catalog

Manage

ARUN P K's Account



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

Last updated  
08/15/2022

Category  
Internet of Things

Compliance  
IAM-enabled

Location  
Frankfurt  
London  
Dallas  
Washington DC

Select a location

Frankfurt (eu-de)

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

Plan	Features	Pricing
Lite	<b>Includes up to 500 registered devices, and a maximum of 200 MB of each data metric</b> 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

Summary

Internet of Things Platform

Free

Location: Frankfurt

Plan: Lite

Service name: Internet of Things Platform-7v

Resource group: Default

☒ 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...

Catalog

Manage

ARUN P K's Account



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.

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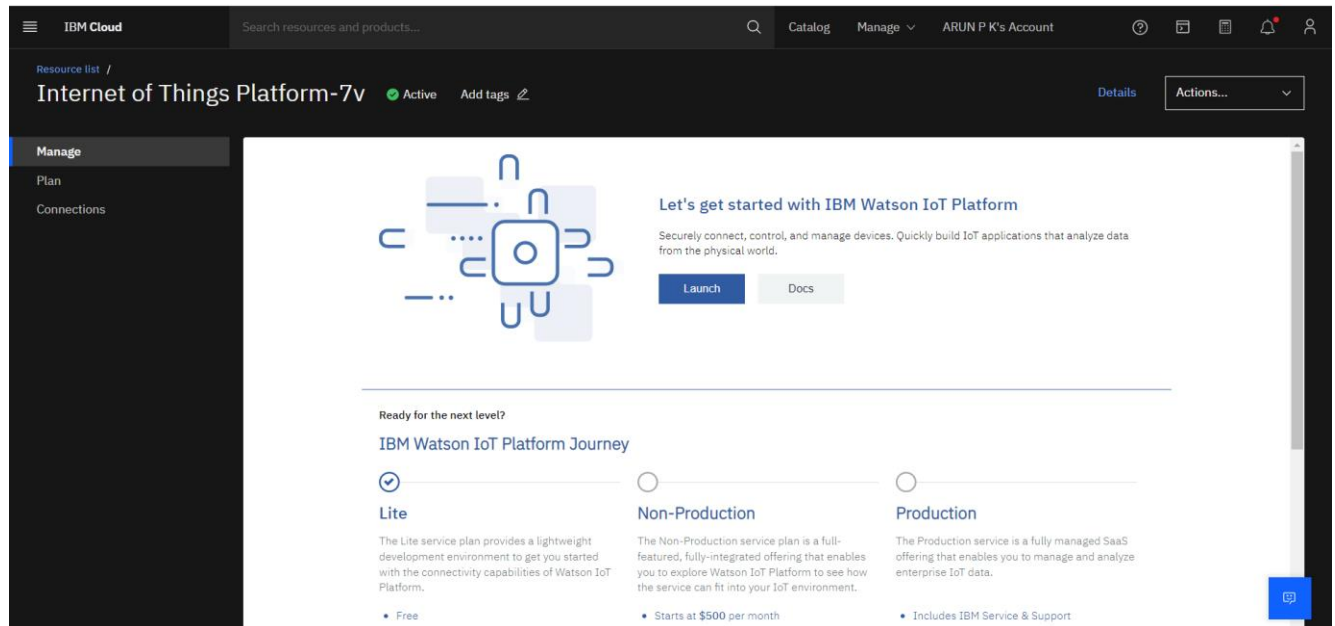
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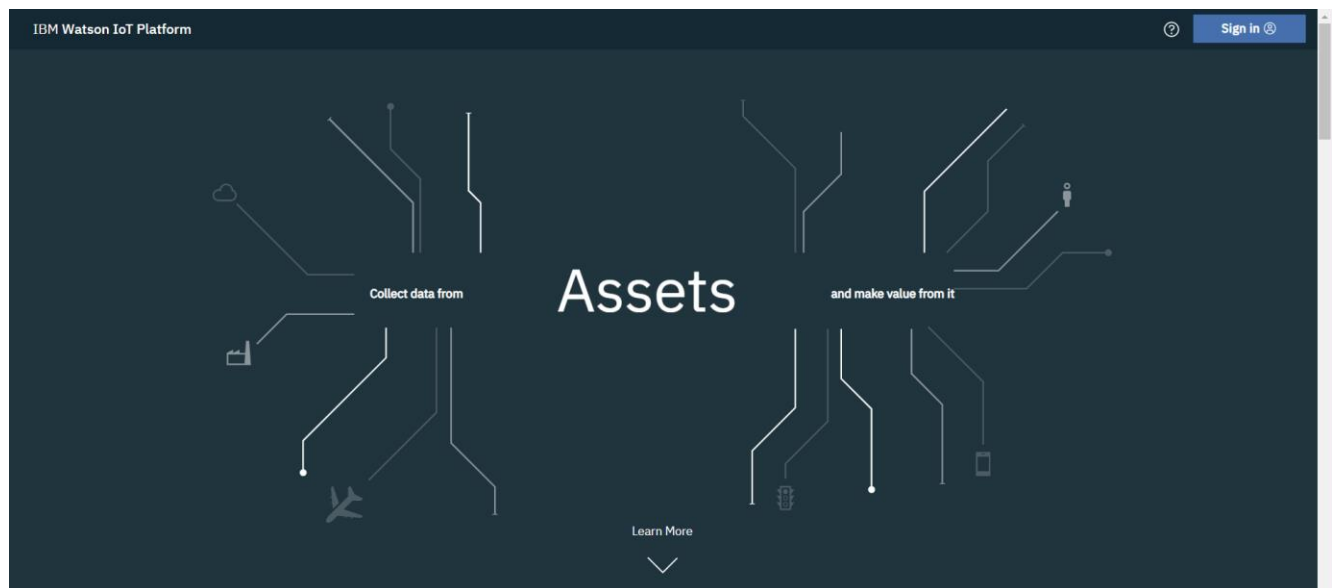
Create

Add to estimate

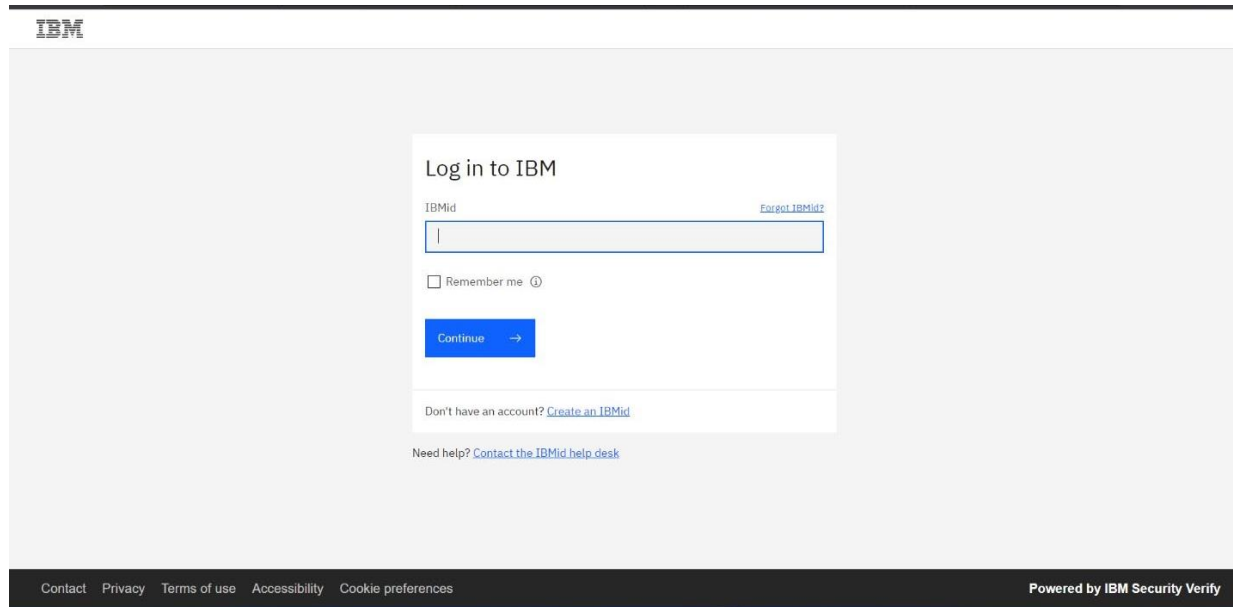
6. Internet of Things Platform Child\_safety will be created, where there are different options like manage, plan, and connection ( manage is for launch, Plan gives us the idea about the payment package and its upgrades, and lastly the connection is for to connect IoT with other servies)



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

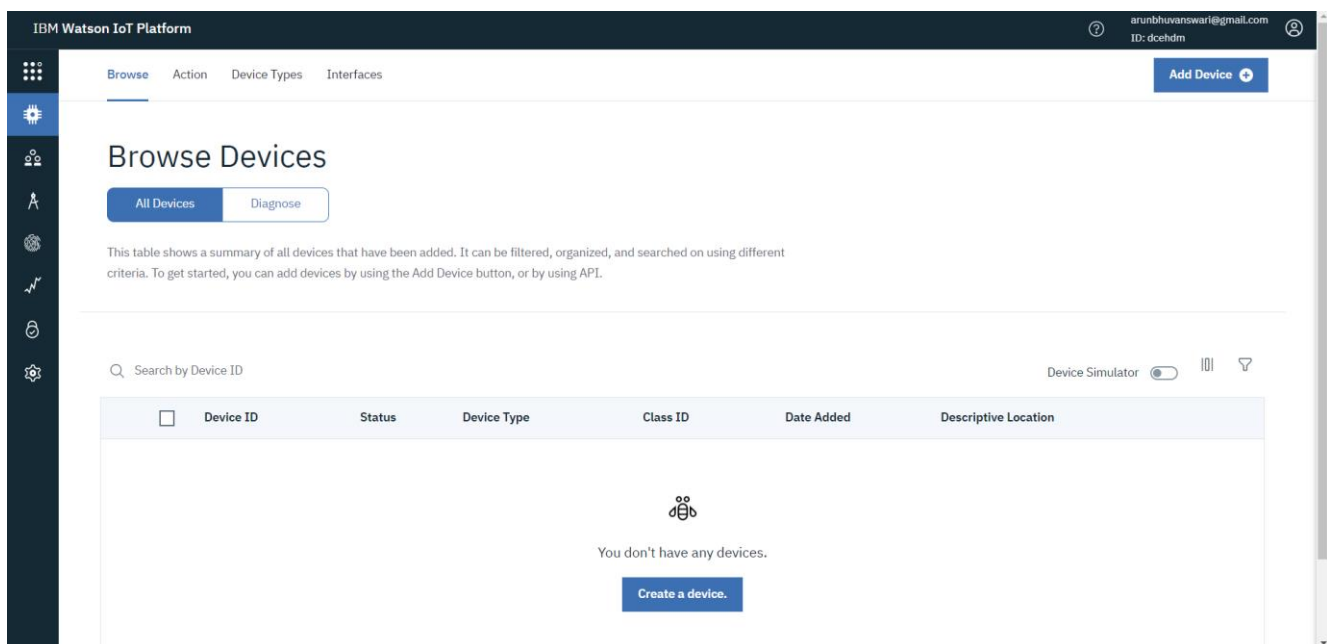


8. Enter the details to sign in to the Watson Cloud to create a device



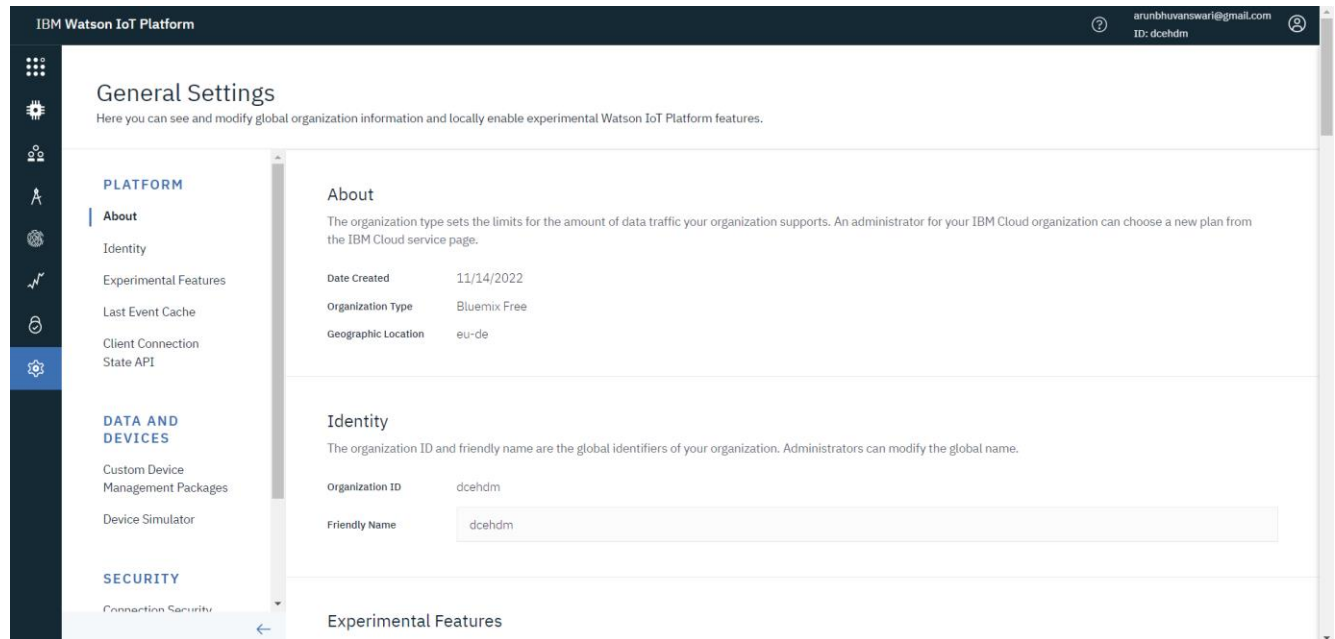
The image shows the IBM login page. At the top left is the IBM logo. The main content area is a light gray rectangle containing a white login form. The form is titled "Log in to IBM". Below the title is a label "IBMId" and a text input field. To the right of the input field is a link "Forgot IBMId?". Below the input field is a checkbox labeled "Remember me" with a question mark icon. Below the checkbox is a blue "Continue" button with a right arrow. At the bottom of the form is a link "Don't have an account? Create an IBMId". Below the form is a link "Need help? Contact the IBMId help desk". At the bottom of the page is a dark gray footer bar. On the left side of the footer bar are links: "Contact", "Privacy", "Terms of use", "Accessibility", and "Cookie preferences". On the right side of the footer bar is the text "Powered by IBM Security Verify".

9. 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.

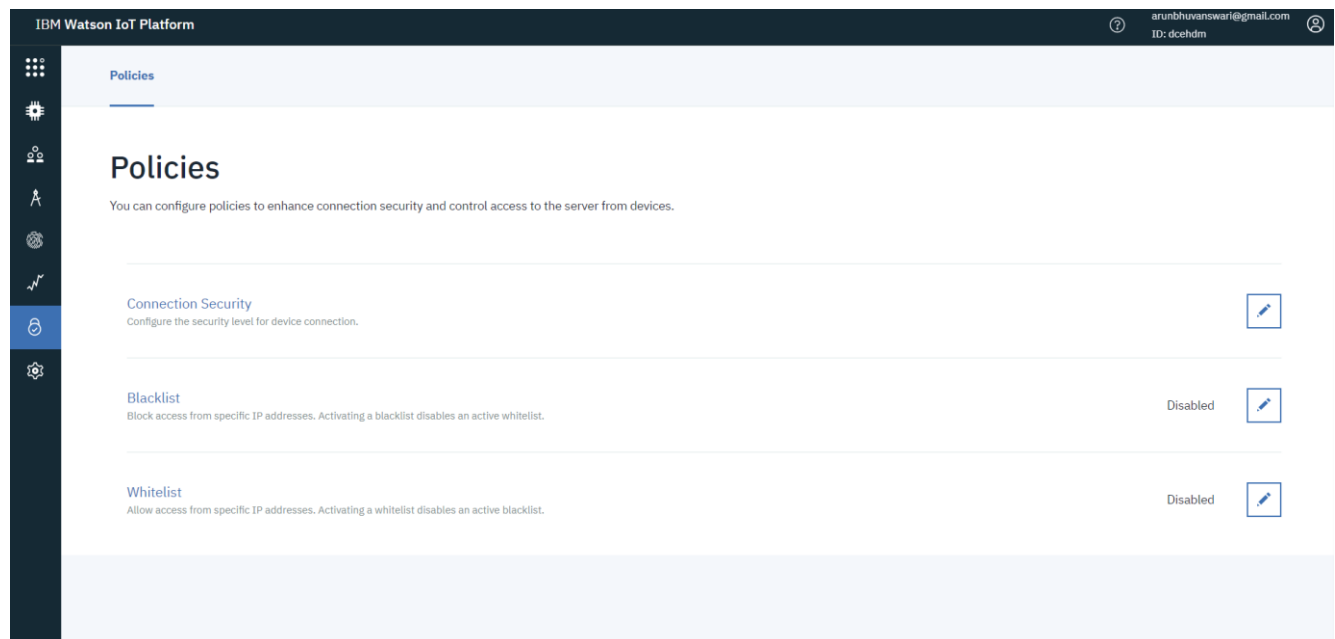


The image shows the IBM Watson IoT Platform "Browse Devices" page. The page has a dark blue header bar with the text "IBM Watson IoT Platform" on the left and a user profile on the right showing the email "arunbhuvanswari@gmail.com" and ID "dcehdm". Below the header bar is a navigation bar with tabs: "Browse", "Action", "Device Types", and "Interfaces". The "Browse" tab is selected. On the right side of the navigation bar is a blue "Add Device" button with a plus icon. Below the navigation bar is a sidebar with icons for various IoT functions. The main content area is titled "Browse Devices". Below the title are two buttons: "All Devices" (selected) and "Diagnose". Below the buttons is a paragraph: "This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API." Below the paragraph is a search bar with the text "Search by Device ID". To the right of the search bar is a "Device Simulator" toggle switch and two icons. Below the search bar is a table with the following columns: "Device ID", "Status", "Device Type", "Class ID", "Date Added", and "Descriptive Location". The table is empty. Below the table is a message: "You don't have any devices." with a "Create a device." button.

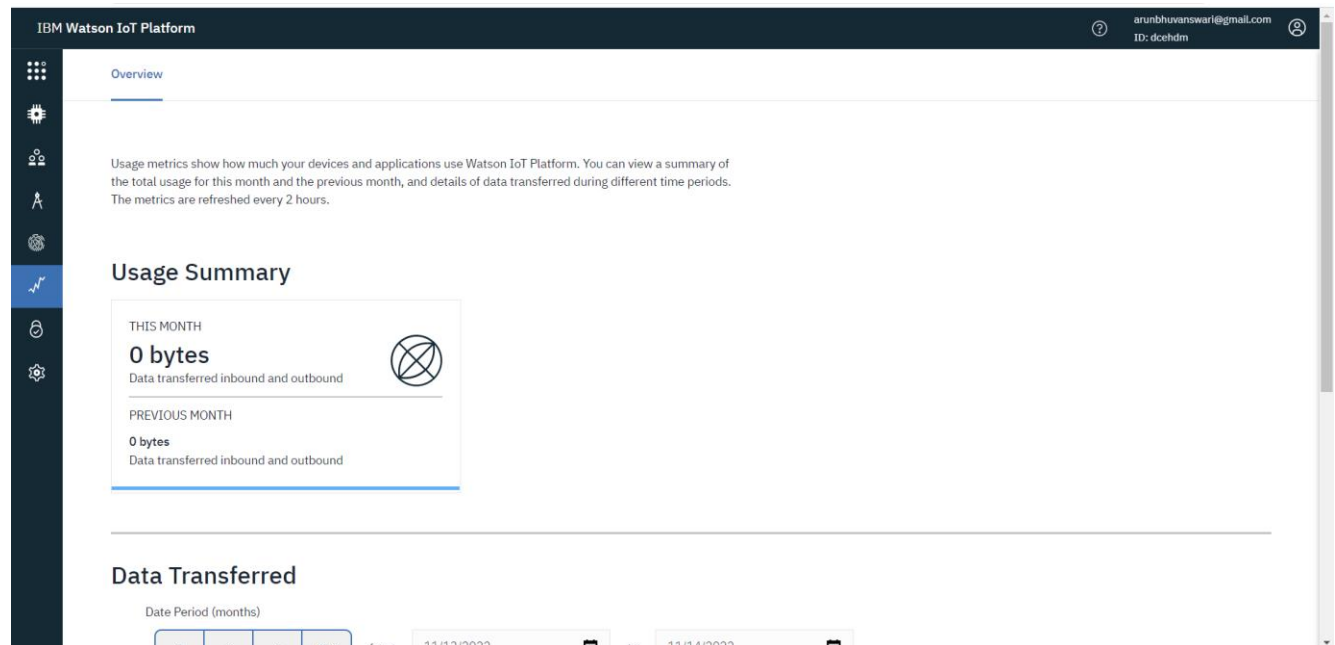
10. The setting tab is used to change the general setting if needed for the project.



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



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



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

The screenshot shows the 'Roles' page in the IBM Watson IoT Platform. The page header includes the platform name and user information. A sidebar on the left contains navigation icons. The main content area has a title 'Browse All Roles' and a search bar. Below this, a paragraph explains that the table shows a summary of all the predefined and custom API and member roles that are available in this organization. It can be filtered, organized, and search on using different criteria. You can add a custom role by clicking Add Role or by using the API. For more information about roles, see [User, application, and gateway roles](#). The table has columns for Role name, Role type, and Description. It lists 11 results, including Administrator, Analyst, Backend Trusted Application, Data Processor Application, and Developer.

IBM Watson IoT Platform

Roles Groups

+ Add Role

### Browse All Roles

Type the role name to search for

All Roles API Roles Member Roles

This table shows a summary of all the predefined and custom API and member roles that are available in this organization. It can be filtered, organized, and search on using different criteria. You can add a custom role by clicking Add Role or by using the API. For more information about roles, see [User, application, and gateway roles](#).

<input type="checkbox"/> Role name	Role type	Description	
11 results			
<input type="checkbox"/> Administrator	Member	Admin user	Predefined
<input type="checkbox"/> Analyst	Member	Analyst user	Predefined
<input type="checkbox"/> Backend Trusted Application	API	Backend trusted application	Predefined
<input type="checkbox"/> Data Processor Application	API	Data processor application	Predefined
<input type="checkbox"/> Developer	Member	Developer user	Predefined

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

The screenshot shows the 'Browse Members' page in the IBM Watson IoT Platform. The page has a dark blue header with the platform name and user information. A sidebar on the left contains navigation icons. The main content area has a 'Browse' tab selected, a search bar, and a table of members. The table has columns for Email Address, Name, Role, Added By, and Expires. There are two members listed: 'arunbhuvanswari@gmail.com' with the role of 'Administrator' and 'akarun4268@gmail.com' with the role of 'Reader'.

<input type="checkbox"/>	Email Address	Name	Role	Added By	Expires	
2 results						
<input type="checkbox"/>	arunbhuvanswari@gmail.com	arunbhuvanswari@gmail.com	Administrator	-	-	⋮
<input type="checkbox"/>	akarun4268@gmail.com	Arunkumar s	Reader	arunbhuvanswari@gmail.com	-	⋮

15. 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 'Browse Devices' page in the IBM Watson IoT Platform. The page has a dark blue header with the platform name and user information. A sidebar on the left contains navigation icons. The main content area has tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Browse' tab is selected, and there is an 'Add Device' button. Below the tabs, there is a search bar and a table of devices. The table has columns for Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The table is currently empty, and a message says 'You don't have any devices.' with a 'Create a device.' button.

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
You don't have any devices.						



IBM Watson IoT Platform

arunbhuvanswari@gmail.com  
ID: dcehdm

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

200204

Cancel

Next

Browse Devices

All Devices

Diagnose

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

IBM Watson IoT Platform

arunbhuvanswari@gmail.com  
ID: dcehdm

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

Manufacturer

Enter Manufacturer

Model

Enter Model

Device Class

Enter Device Class

Description

Enter Description

Firmware Version

Enter Firmware Version

Hardware Version

Enter Hardware Version

Descriptive Location

Enter Descriptive Location

Add Metadata

Back

Next

17. 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 'Security' step is active, showing two options for authentication: 'Auto-generated authentication token (default)' and 'Self-provided authentication token'. The 'Auto-generated' option is selected. Below the options, there is a text input field for an optional token and a warning message about token recovery.

IBM Watson IoT Platform

arunbhuvanswari@gmail.com  
ID: dcehdm

Browse Action Device Types Interfaces

### 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.

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

The screenshot shows the 'Device Drilldown' page for device 200204. The 'Device Credentials' tab is selected, displaying a table of device details. A warning message at the bottom states that authentication tokens are non-recoverable.

IBM Watson IoT Platform

arunbhuvanswari@gmail.com  
ID: dcehdm

← Back

### Device Drilldown - 200204

**Device Credentials**

You registered your device to the organization. Add these credentials to the device to connect it to the platform. After the device is connected, you can navigate to view connection and event details.

Organization ID	dcehdm
Device Type	nodemcu
Device ID	200204
Authentication Method	use-token-auth
Authentication Token	EDzsgJih?u&FRm)G)8

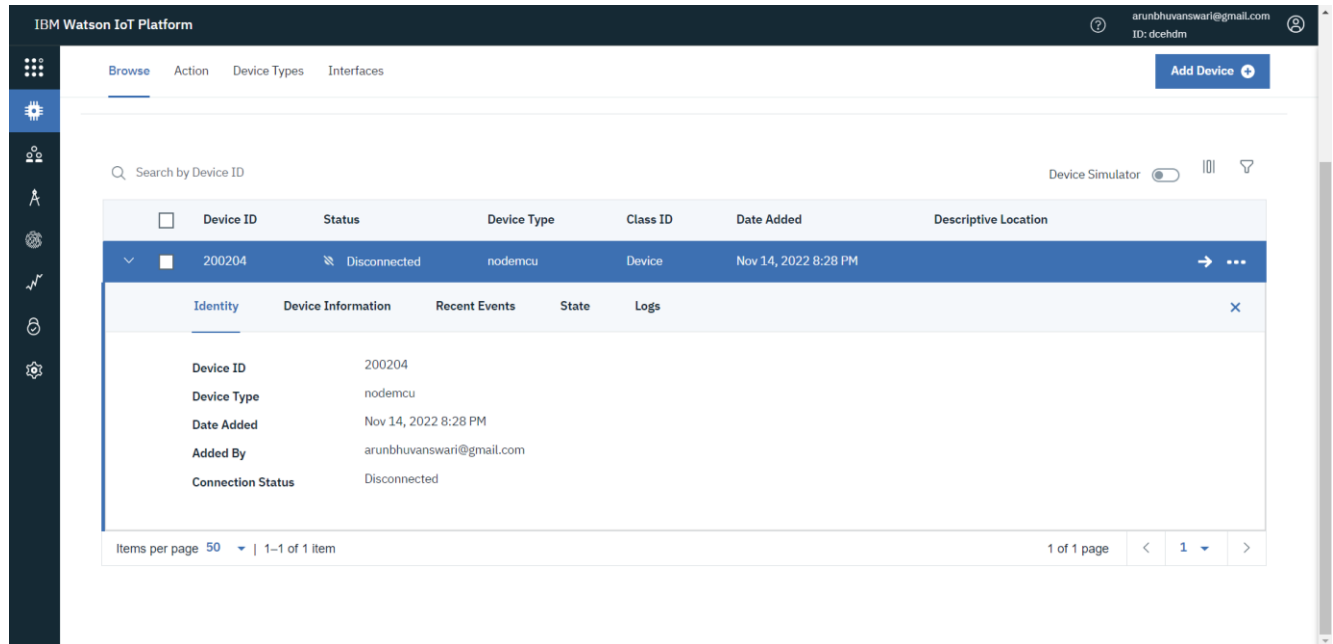
**⚠ Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to generate a new authentication token.**

[Find out how to add these credentials to your device](#)

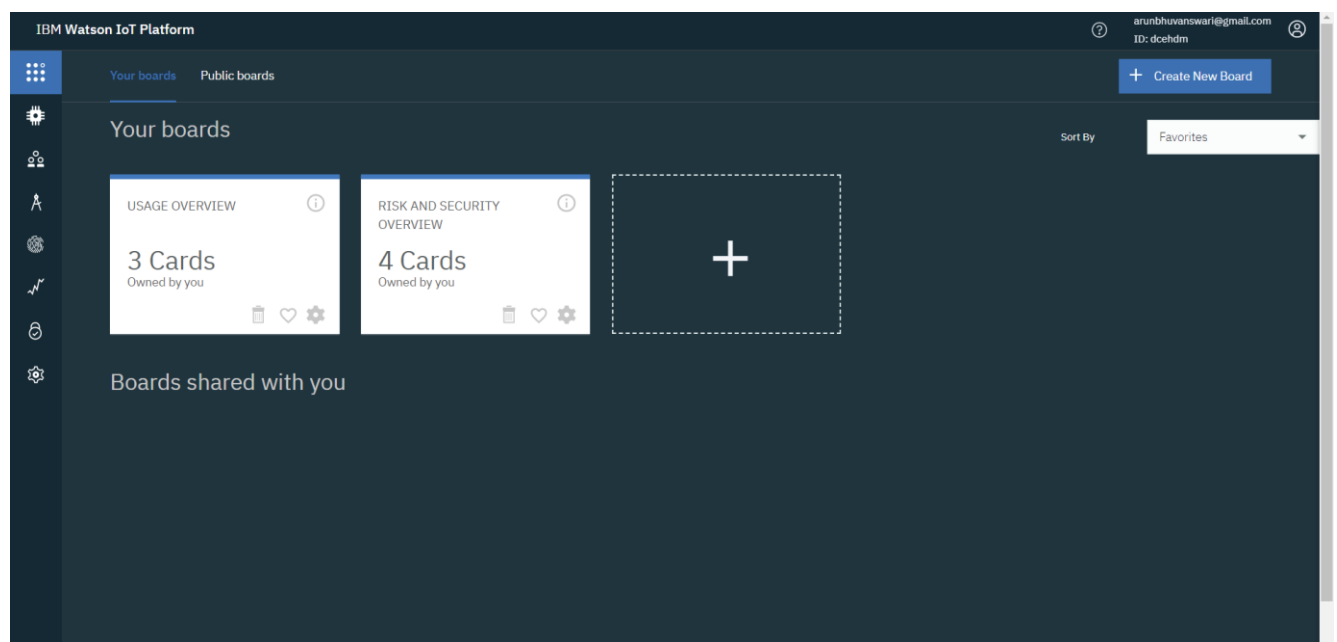
←

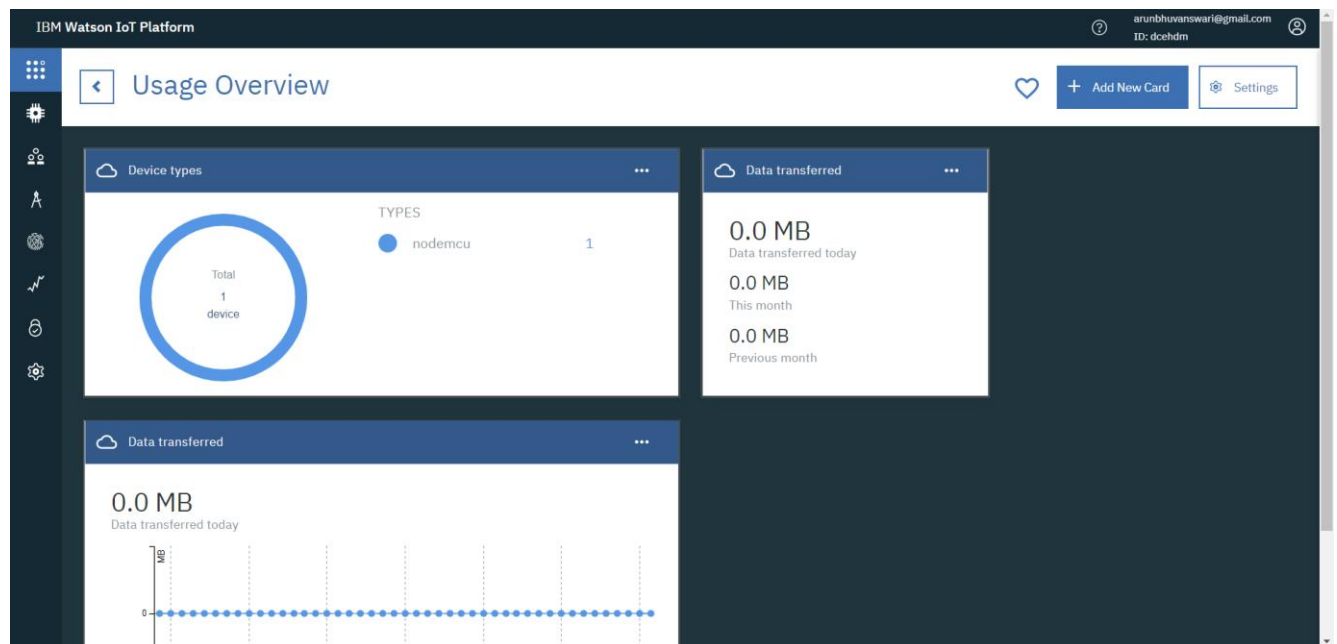
Connection Information

19. It has different tabs like Identity, Device Information, State and login.



20. The Boards will display card for the project.





## RESULT:

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