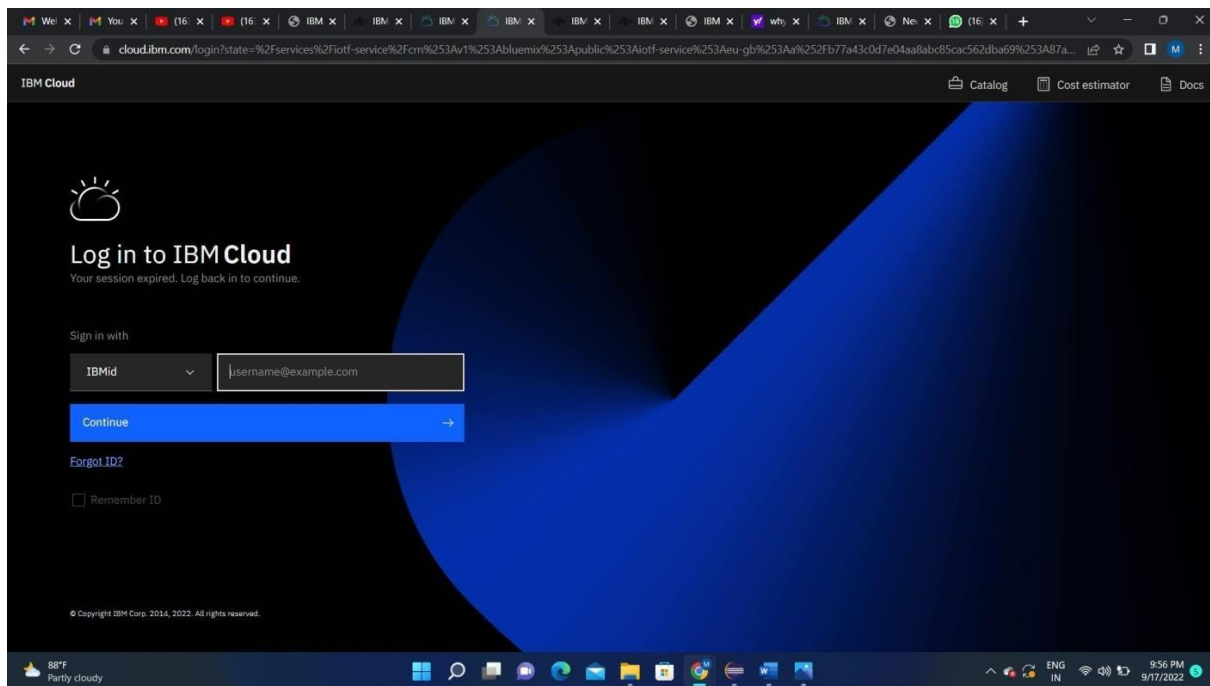


## CREATE IBM WATSON IOT PLATFORM AND DEVICE

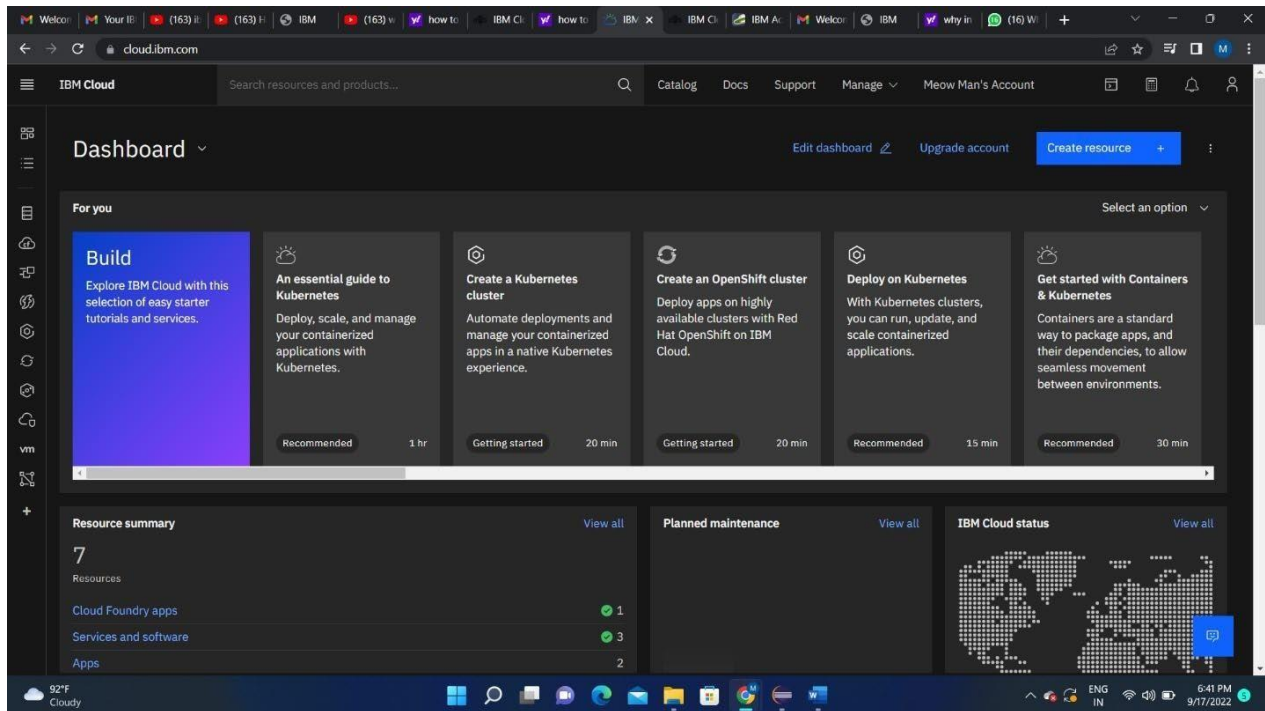
Date	26-10-2022
Team ID	PNT2022TMID37747
Project Name	Project - IOT based safety gadgetfor childsafety monitoring and notification
Maximum Marks	4 Marks
Submitted By	N.Priyadharshini P.Janani

### STEPS:

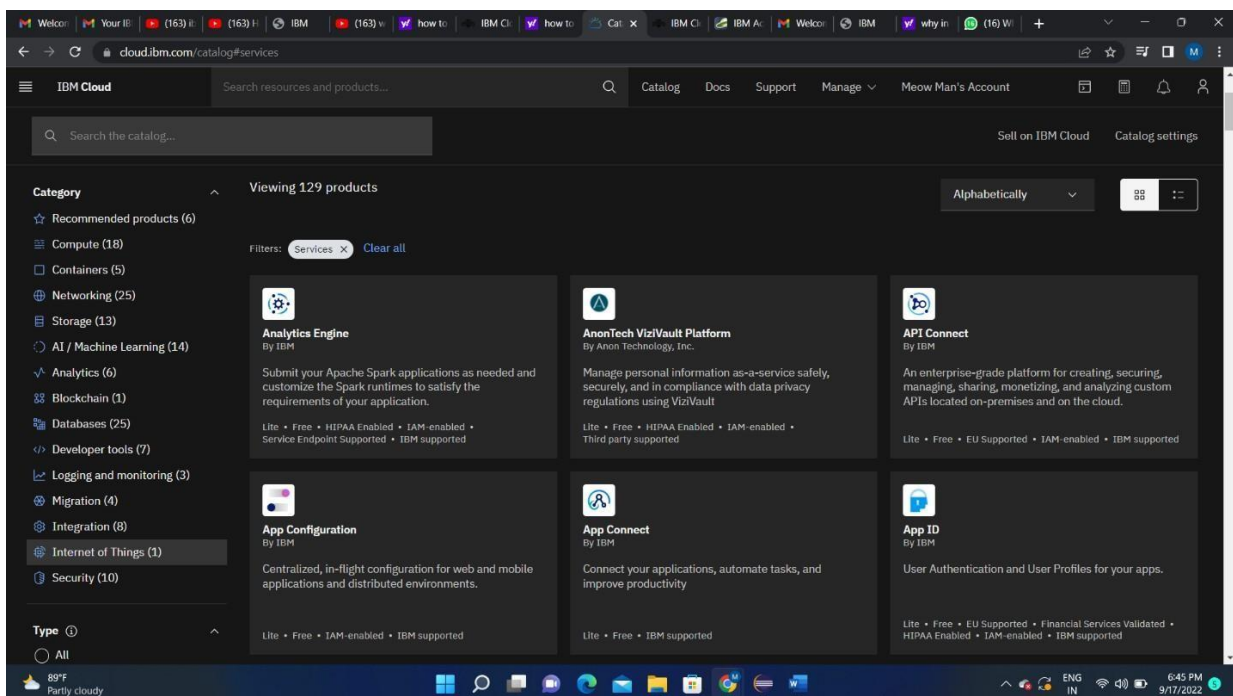
1. Firstly create an IBM cloud account with IBMid and password



## 2. Home page of IBM cloud



## 3. Click on the catalog on the top



## Click on IoT in the category mentioned

The screenshot shows the IBM Cloud IoT Platform service page. The main heading is "Internet of Things Platform". Below it, there's a description: "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." The page has two tabs: "Create" (active) and "About". On the left, there's a sidebar with "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 "Select a location" dropdown set to "Dallas (us-south)" and a "Select a pricing plan" section. The pricing plan table shows the "Lite" plan, which is free and includes up to 500 registered devices and 200 MB of data. A warning message on the right states: "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." At the bottom, there are "Create" and "Add to estimate" buttons.

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

This screenshot shows the same IBM Cloud IoT Platform service page, but with the "Configure your resource" section expanded. The "Service name" field is set to "Internet of Things Platform-bb", and the "Select a resource group" dropdown is set to "Default". The "Tags" field has the example "env:dev, version-1", and the "Access management tags" field has the example "access:dev, proj:version-1". The "Create" button is now visible. The warning message on the right remains the same, indicating that a Lite plan instance already exists in the Default resource group.

5. 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 IBM Cloud 'Create' page for the Internet of Things Platform. The location is set to 'Dallas (us-south)'. The 'Lite' plan is selected, which includes up to 500 registered devices and a maximum of 200 MB of each data metric. The pricing is 'Free'. A warning message states: '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.' The 'Create' button is disabled, and the 'Add to estimate' button is visible.

**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-2w

Resource group: Default

☐ I have read and agree to the following license agreements. [Terms](#)

Create

Add to estimate

The screenshot shows the IBM Cloud 'Create' page for the Internet of Things Platform. The location is set to 'London'. The 'Lite' plan is selected. The service name is configured as 'Internet of Things Platform-child\_safety'. The resource group is set to 'Default'. The 'Create' button is now enabled. The 'Add to estimate' button is also visible.

**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: 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.

**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

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 services)

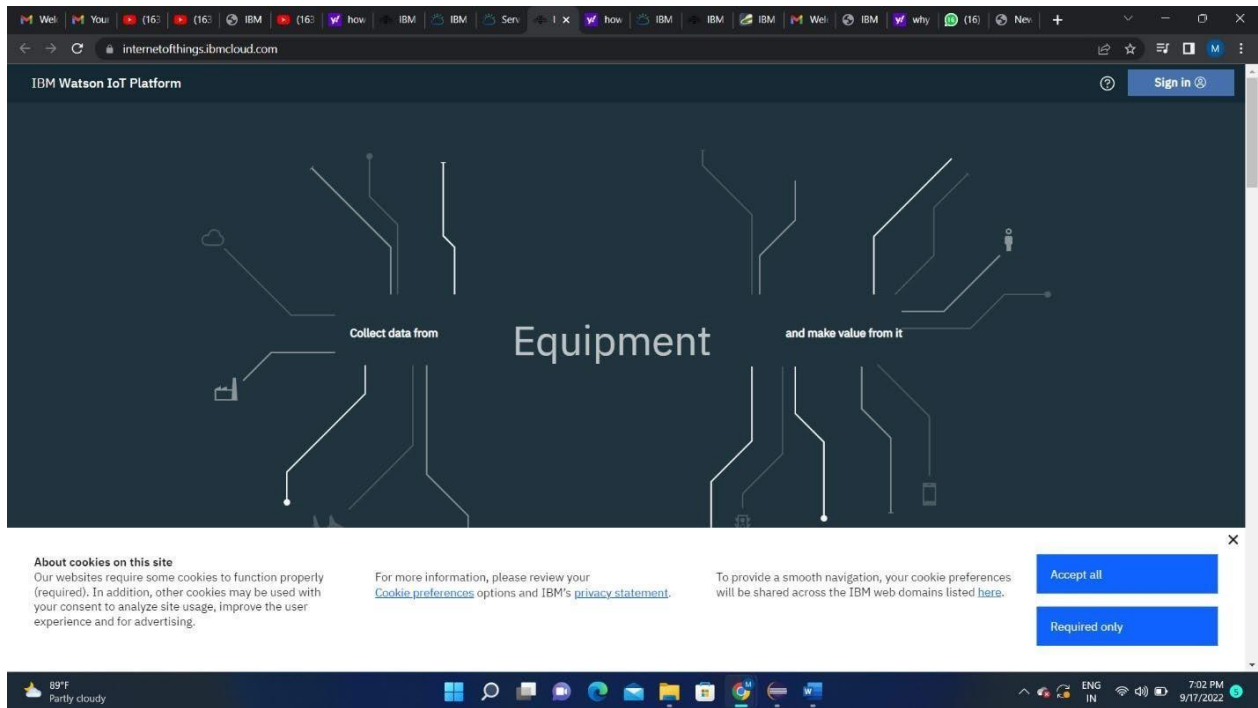
The screenshot shows the IBM Cloud IoT Platform console. The top navigation bar includes 'Catalog', 'Docs', 'Support', 'Manage', and 'Meow Man's Account'. The left sidebar has 'Manage', 'Plan', and 'Connections'. The main content area is titled 'Internet of Things Platform-child\_safety' and is in the 'Manage' tab. It features a 'Launch' button and a 'Docs' button. Below this, there is a section titled 'Ready for the next level?' with the heading 'IBM Watson IoT Platform Journey'. It lists three plans: 'Lite' (Free), 'Non-Production' (Starts at \$500 per month), and 'Production' (Includes IBM Service & Support).

The screenshot shows the IBM Cloud IoT Platform console, specifically the 'Plan' tab for 'Internet of Things Platform-child\_safety'. The left sidebar has 'Manage', 'Plan', and 'Connections'. The main content area is titled 'Internet of Things Platform-child\_safety' and is in the 'Plan' tab. It features a 'Current plan' section showing 'Lite' with 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', and 'Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed'. There is also a 'Current usage' section showing 'N/A' and a note: 'Lite plan services are deleted after 30 days of inactivity.' Below this is a 'Change pricing plan' section with a table showing the 'Lite' plan and its features and pricing.

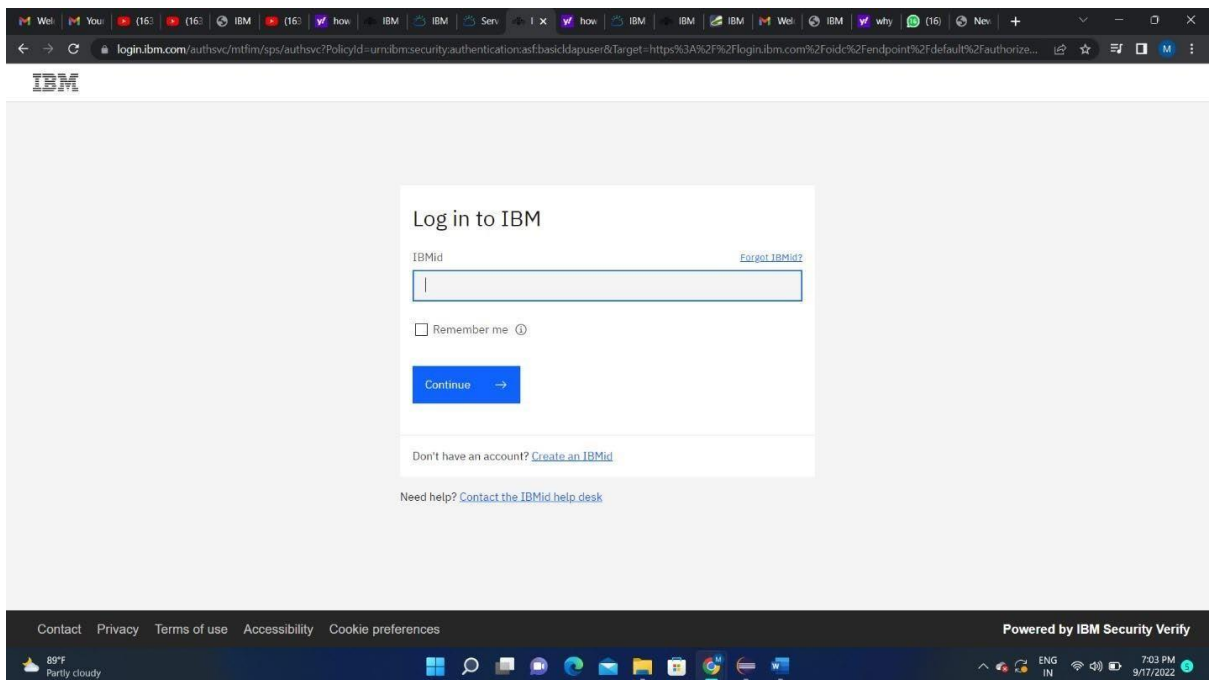
Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric Maximum of 500 registered devices Maximum of 500 application bindings Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed	Free



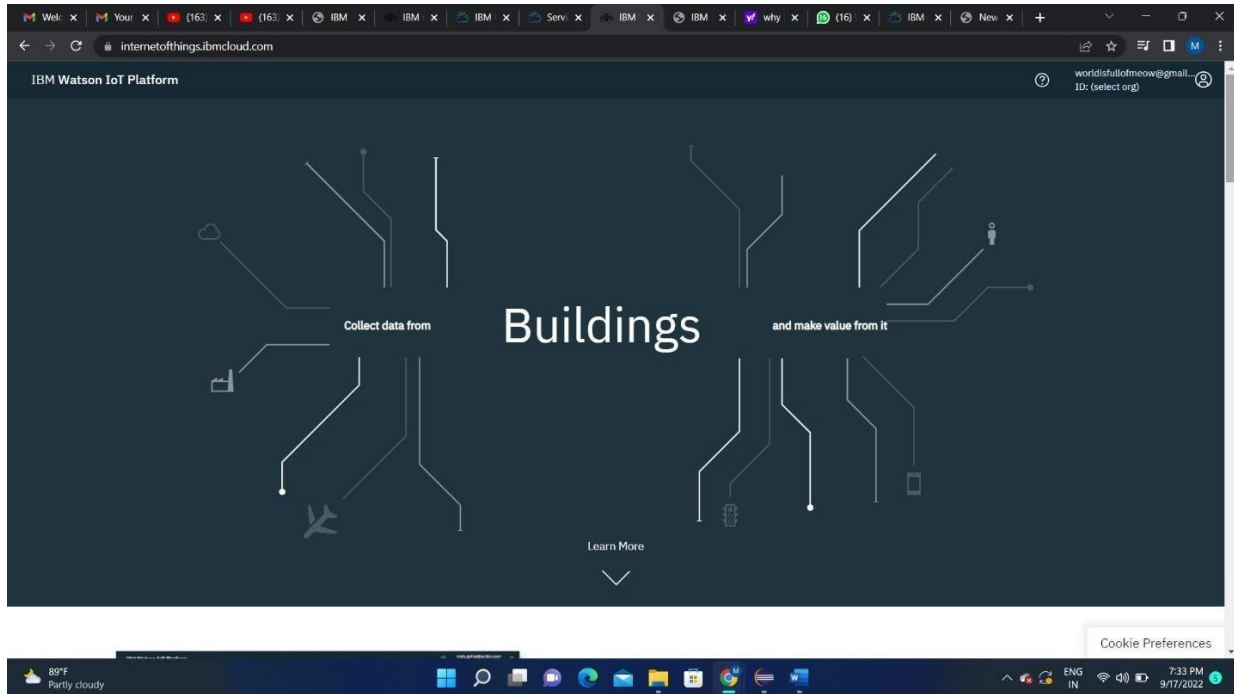
7. Clicking on the launch button in the manage tab, it will open to this



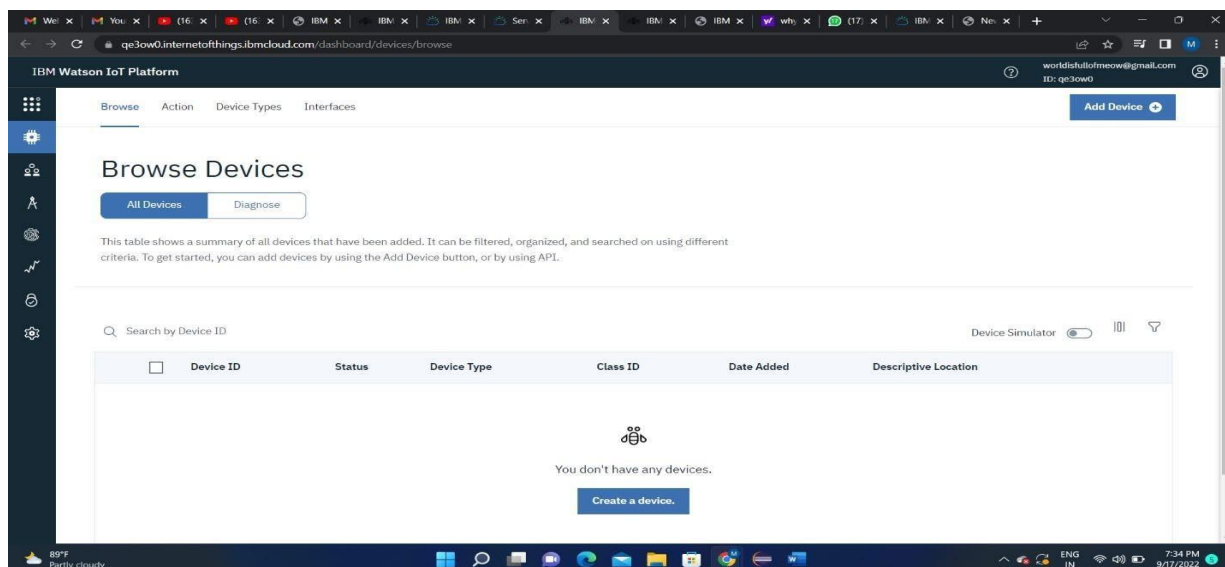
8. Enter the details to sign in to the Watson Cloud to create a device



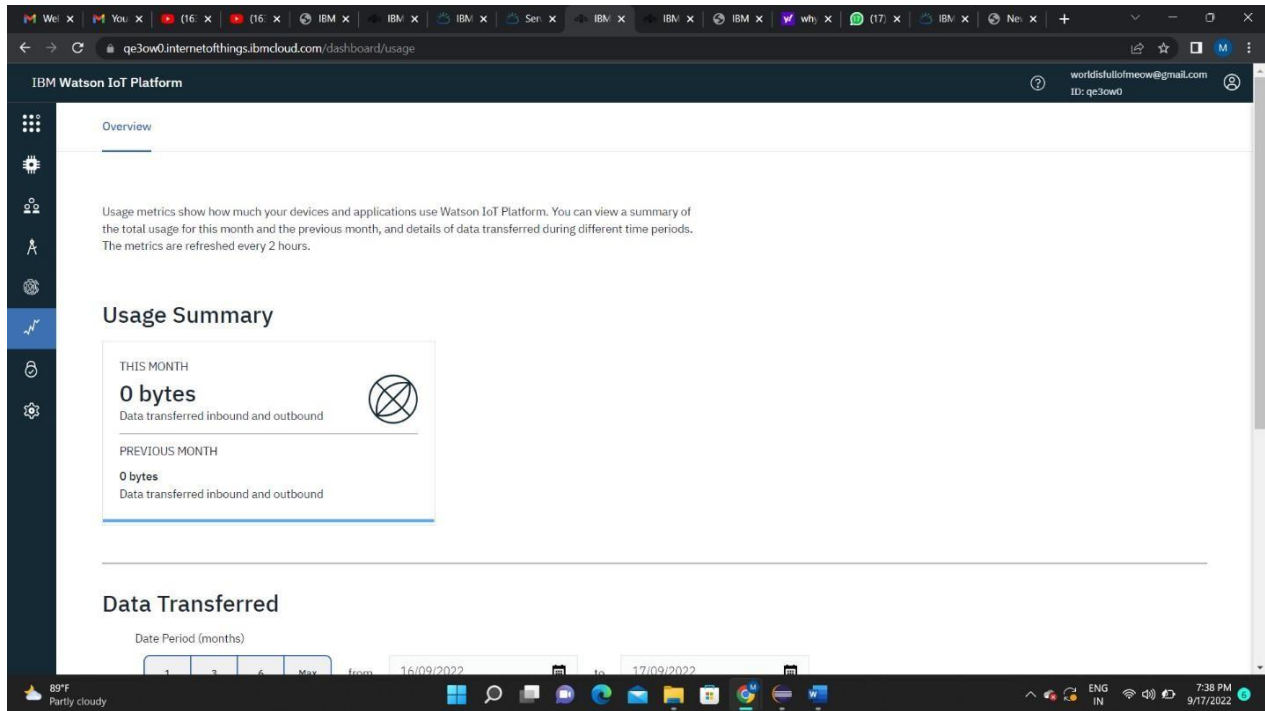
9. Once logged in the name will be displayed and it goes back to the first page



10. 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



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



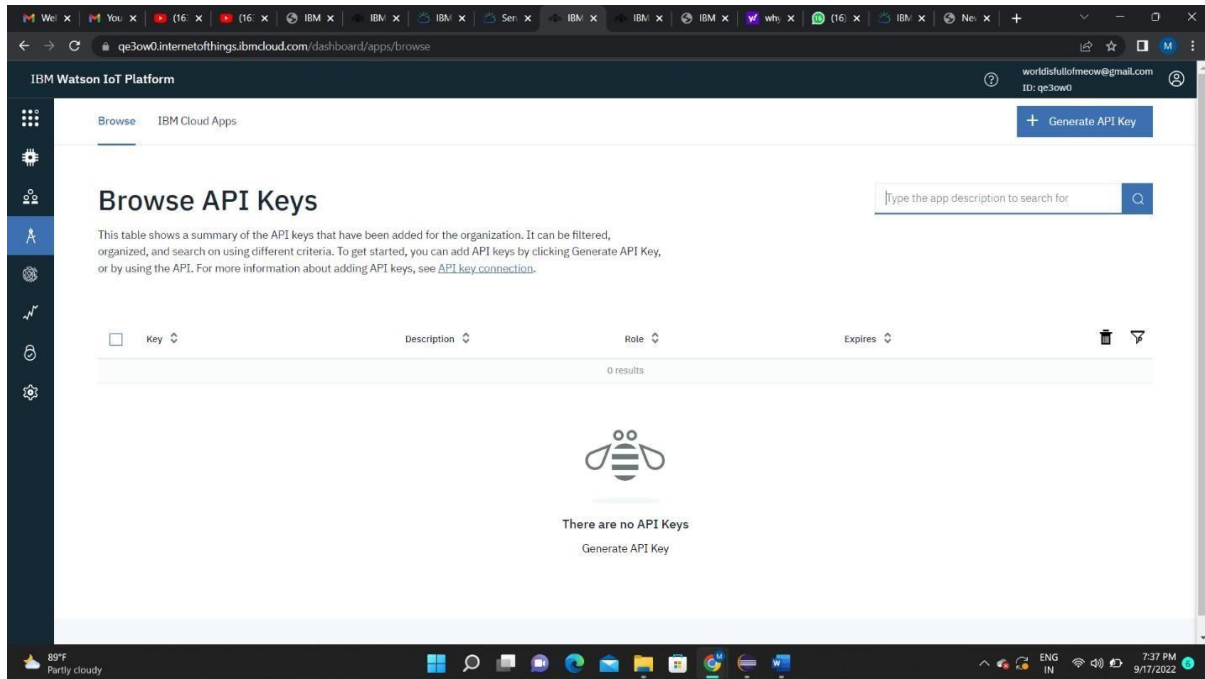
12. The member tab is add the teams members to work in the platform

The screenshot shows the 'Browse Members' page in the IBM Watson IoT Platform. The page title is 'Browse Members'. Below the title, there is a search bar with the placeholder text 'Type the member email to search for'. Below the search bar, there is a table showing the members of the organization. The table has columns for 'Email Address', 'Name', 'Role', 'Added By', and 'Expires'. There is one member listed: 'worldisfullofmeow@gmail.com' with the role of 'Administrator'. The page includes a sidebar with navigation icons and a top bar with the user's email and ID. The bottom of the screen shows a Windows taskbar with various application icons and system status information.

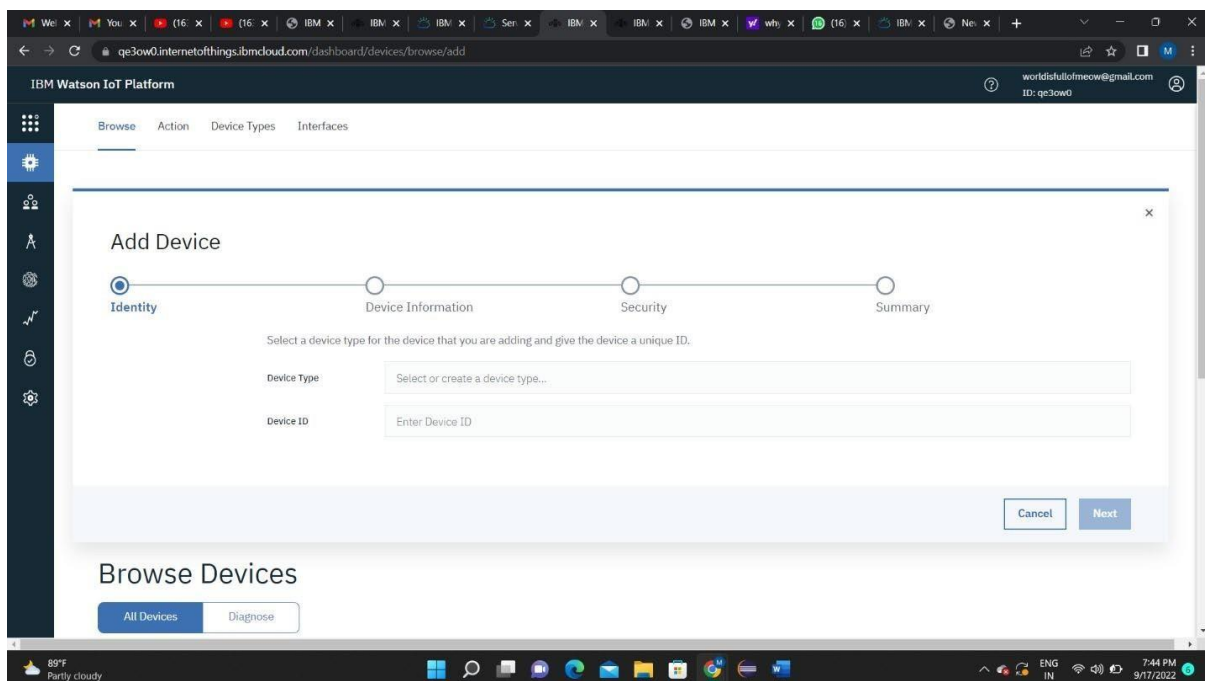
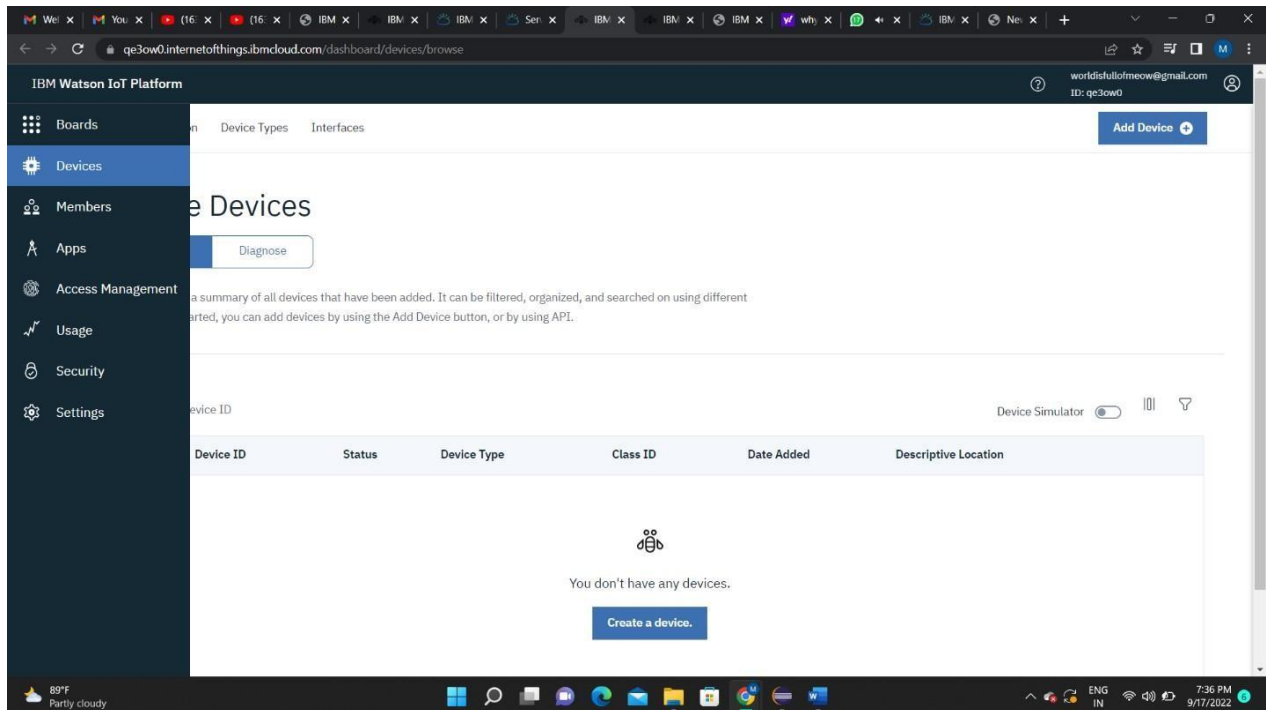
Email Address	Name	Role	Added By	Expires
worldisfullofmeow@gmail.com	worldisfullofmeow@gmail.com	Administrator	-	-

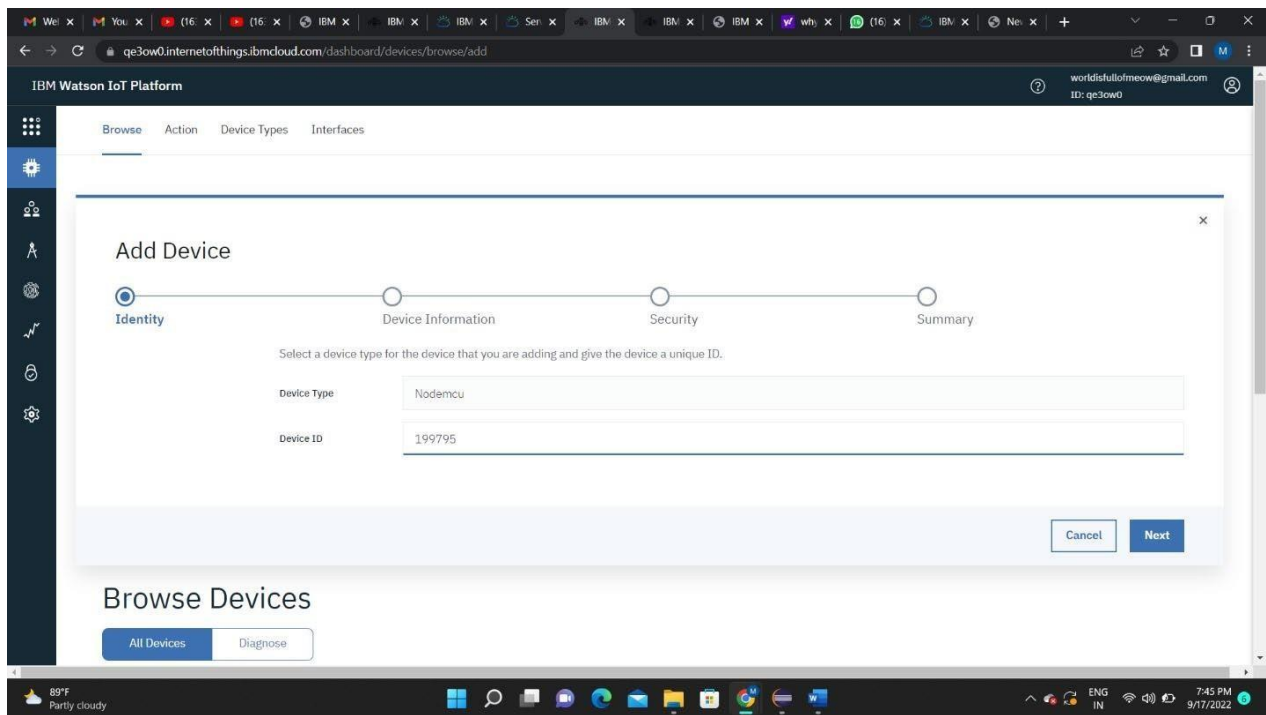


13. This tab is used when you want to connect to some other platform and to integrate with other services.

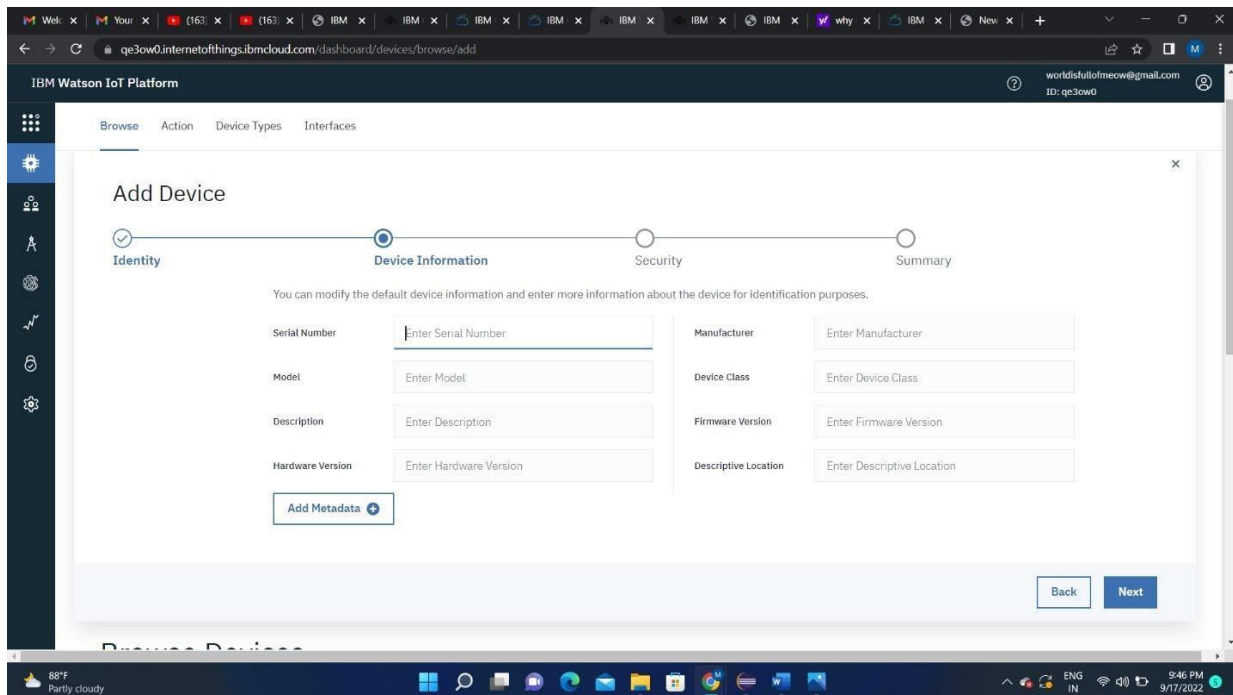


14. Click on the device tab and click on the add device button, then give the device type and device id and click next





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



16. 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, and a text box displays the generated token: '1997199520012005'. Below the token, a note states: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored. Authentication token are encrypted before we store them.'

IBM Watson IoT Platform

worldishulofmeow@gmail.com  
ID: qe3ow0

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.

Authentication Token: 1997199520012005

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.

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

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

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform, now at the 'Summary' step. It displays the information entered in the previous steps: 'Device Type: NodeMCU', 'Device ID: 199795', and 'Security Token: 1997199520012005'. A 'View Metadata' button is visible next to the device ID. At the bottom right, there are 'Back' and 'Finish' buttons.

IBM Watson IoT Platform

worldishulofmeow@gmail.com  
ID: qe3ow0

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

Verify that the following information is correct then select Finish

Device Type  
NodeMCU

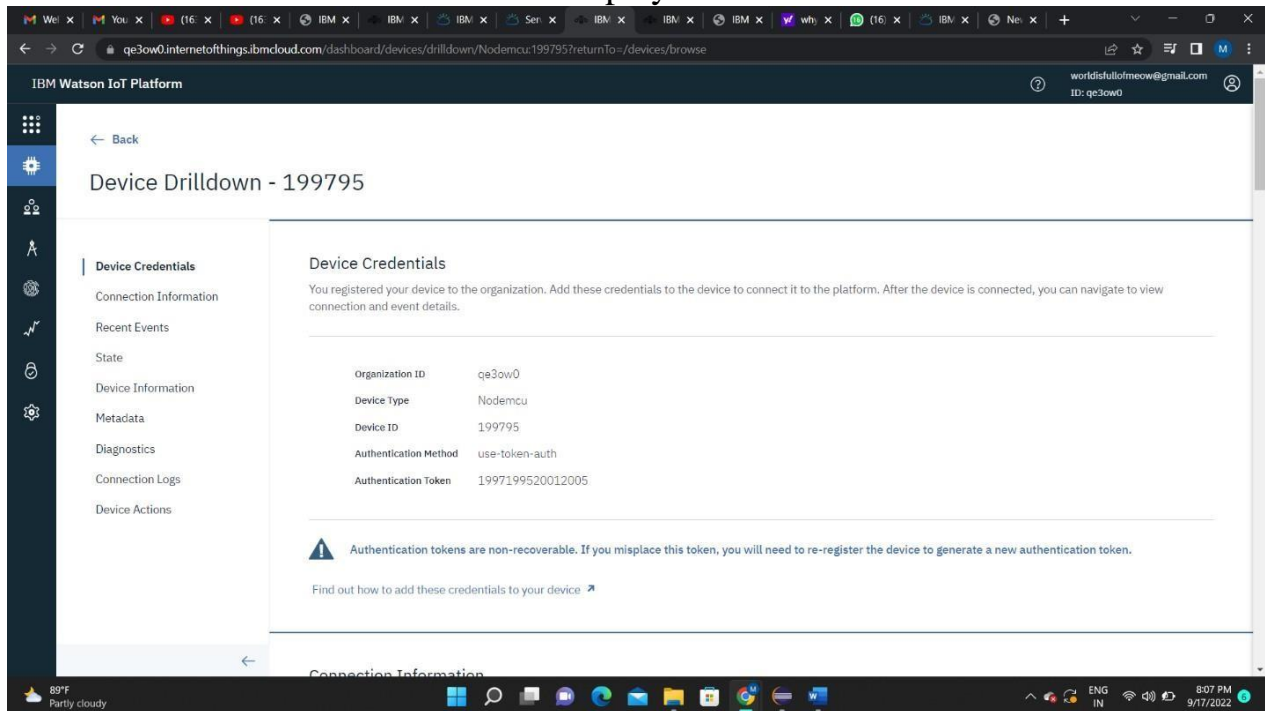
Device ID  
199795

View Metadata

Security Token  
1997199520012005

Back Finish

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

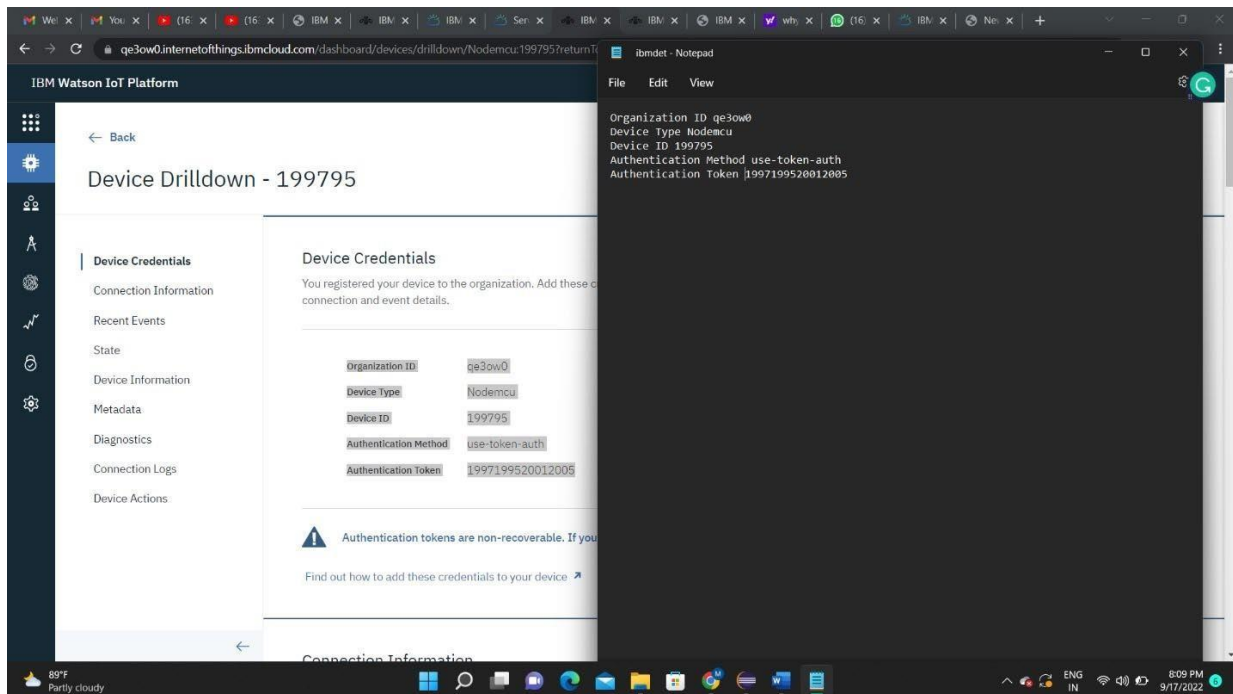


The screenshot shows the IBM Watson IoT Platform dashboard. The left sidebar contains navigation icons for Home, Devices, Recent Events, State, Device Information, Metadata, Diagnostics, Connection Logs, and Device Actions. The main content area is titled "Device Drilldown - 199795". Under the "Device Credentials" section, there is a table displaying the following information:

Organization ID	Device Type	Device ID	Authentication Method	Authentication Token
qe3ow0	Nodemcu	199795	use-token-auth	1997199520012005

Below the table, a warning message states: "Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to generate a new authentication token." A link "Find out how to add these credentials to your device" is provided.

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



The screenshot shows the same IBM Watson IoT Platform dashboard as in the previous image. A Notepad window titled "ibmdet - Notepad" is open, displaying the device credentials extracted from the dashboard:

```
Organization ID qe3ow0
Device Type Nodemcu
Device ID 199795
Authentication Method use-token-auth
Authentication Token 1997199520012005
```

20. 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.

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. A table lists devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. One device is listed with ID 199795, Status 'Disconnected', and Device Type 'Nodemcu'. Below the table, there are tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is active, showing a message: 'The recent events listed show the live stream of data that is coming and going from this device.' Below this message is a table with columns: Event, Value, Format, and Last Received. The bottom of the screen shows a Windows taskbar with the date and time 8:11 PM 9/17/2022.

This screenshot shows the same IBM Watson IoT Platform dashboard, but with the 'Device Information' tab selected. The 'Device ID' 199795 is highlighted in the table. The 'Device Information' tab displays the following details:

Property	Value
Device ID	199795
Device Type	Nodemcu
Date Added	17 Sep 2022 20:07
Added By	worldisfullofmeow@gmail.com
Connection Status	Disconnected

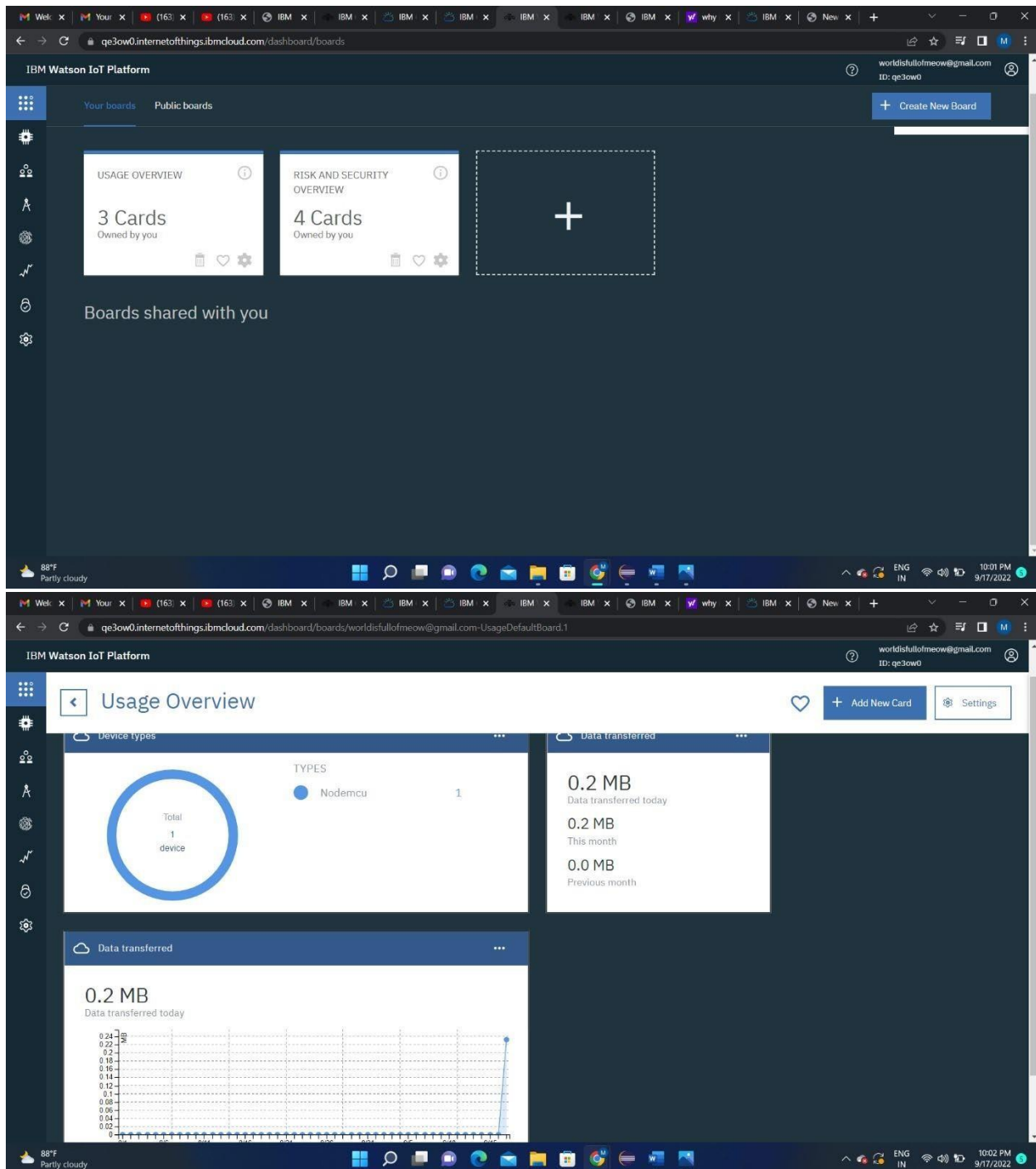
At the bottom of the details panel, it says 'Items per page: 50' and '1-1 of 1 item'. The Windows taskbar at the bottom shows the date and time 8:10 PM 9/17/2022.

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



per the requirement of our project.

21. The Boards will display card for the project.



## RESULT:

An IBM Watson cloud for IoT and a device is created