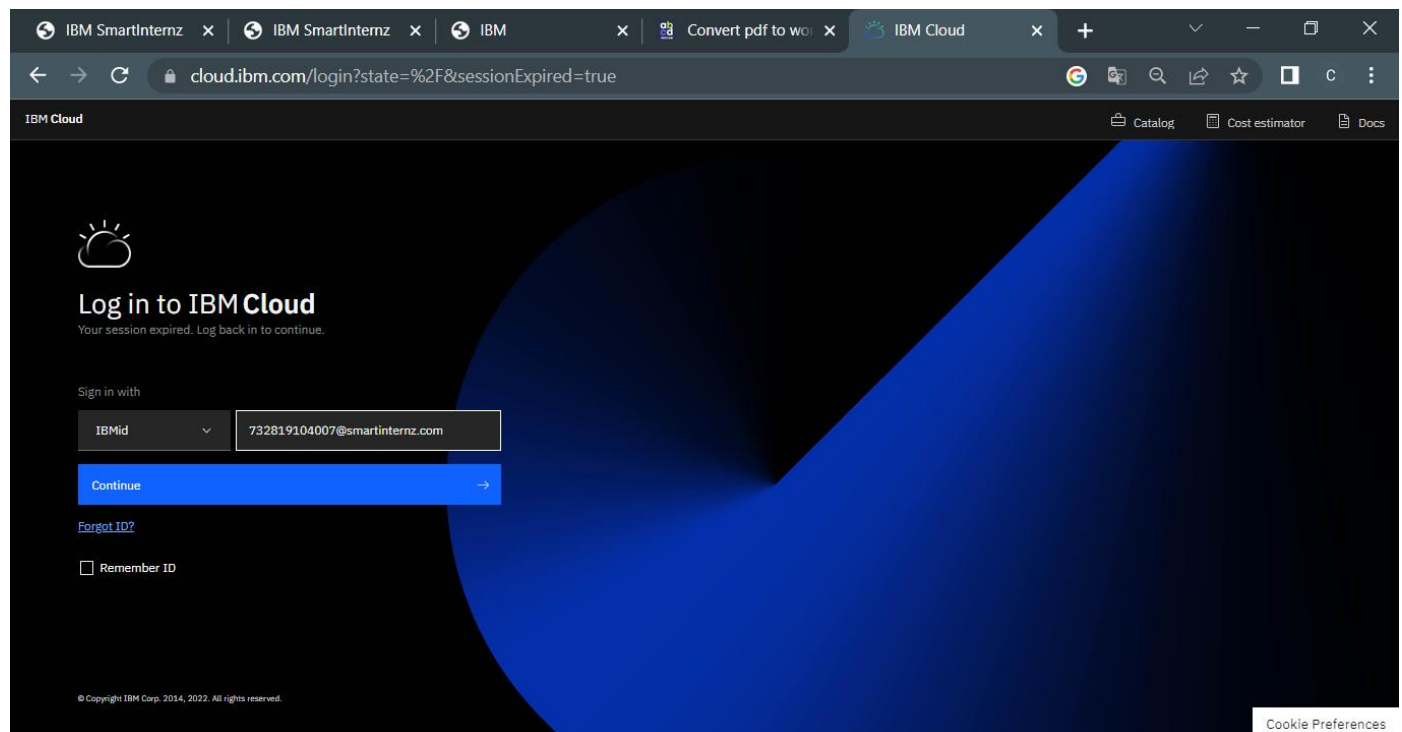


Create And Configure IBM Cloud Service Create IBM Watson IoT Platform And Device

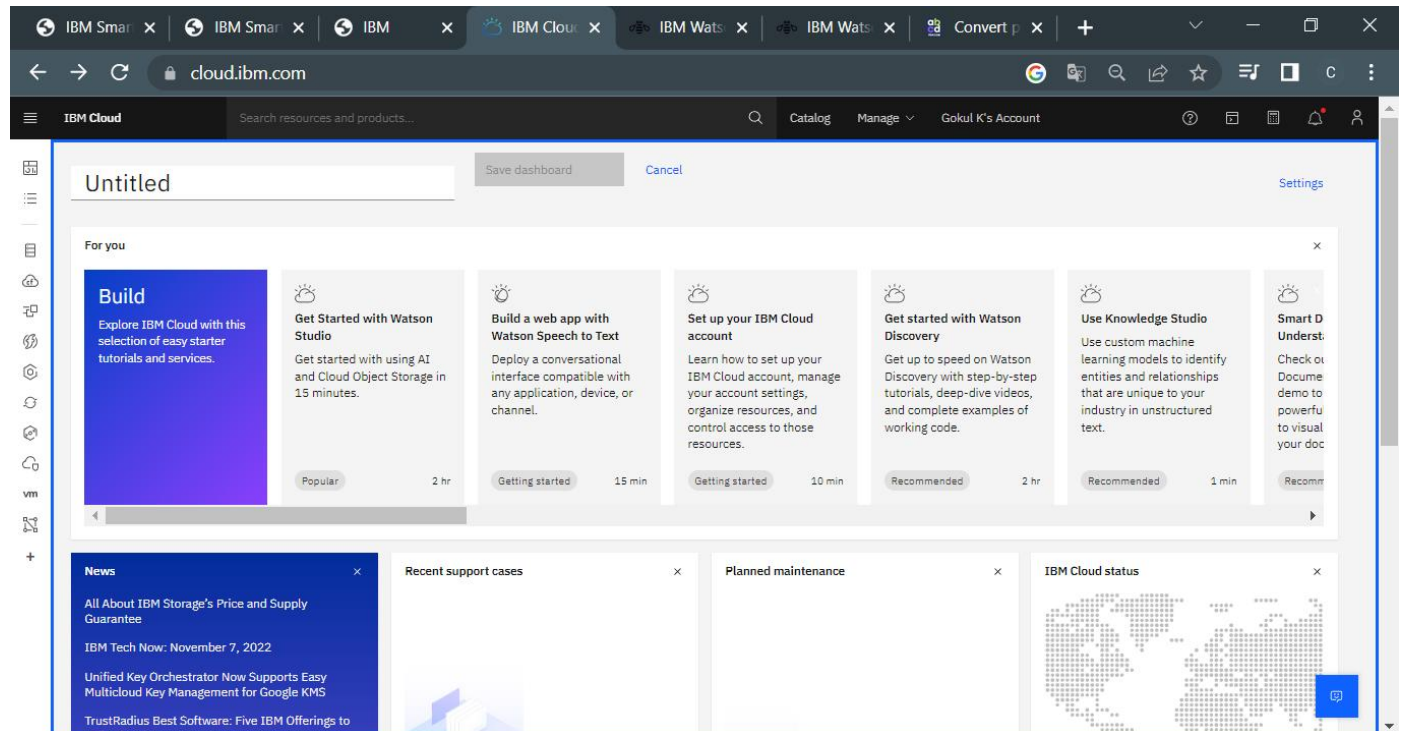
Date	24 October 2022
Team ID	PNT2022TMID44808
Project Name	IoT Based Safety Gadget For Child Safety Monitoring & Notification
Maximum Marks	4 Marks

STEPS

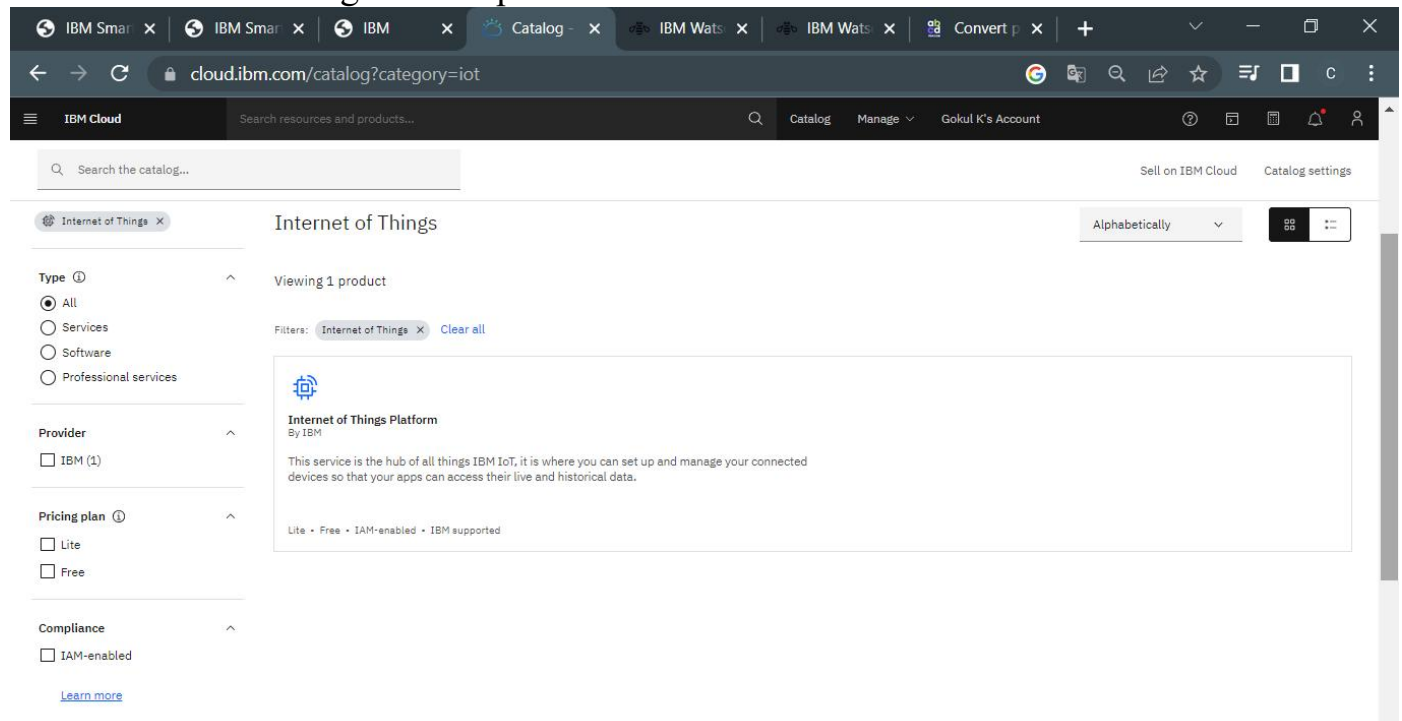
1. Firstly create an IBM cloud account with IBMid and password



2. Home page of IBM cloud



3. Click on the catalog on the top



4. Click on IoT in the category mentioned

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

Related links: Docs, Terms

Select a location: London (eu-gb)

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-zy

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

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

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Create

Add to estimate

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Create About

Type: Service

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Last updated: 08/15/2022

Category: Internet of Things

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Location: Frankfurt, London, Dallas, Washington DC

Related links: Docs, Terms

Select a location: London (eu-gb)

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Internet of Things Platform Free

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Resource group: Default

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

Create

Add to estimate

6.

Enter the location and in the configure your resource type the service name and choose the plan, tick the agree with it 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

Last updated: 08/15/2022

Category: Internet of Things

Compliance: IAM-enabled

Location: Frankfurt, London, Dallas, Washington DC

Related links: Docs, Terms

Select a location: London (eu-gb)

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-zy

Tag: Examples: env:dev, version-1

Select a resource group: Default

Access management tag: Examples: access:dev, proj:version-1

Summary

Internet of Things Platform Free

Location: London

Plan: Lite

Service name: Internet of Things Platform-zy

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

Internet of Things Platform-gc 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
 - 200 MB data-transfer limit
- 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
 - Capacity limit based on device type
- Production**

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

 - Includes IBM Service & Support
 - Pricing based on number of devices per

7.

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)

Internet of Things Platform-gc 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

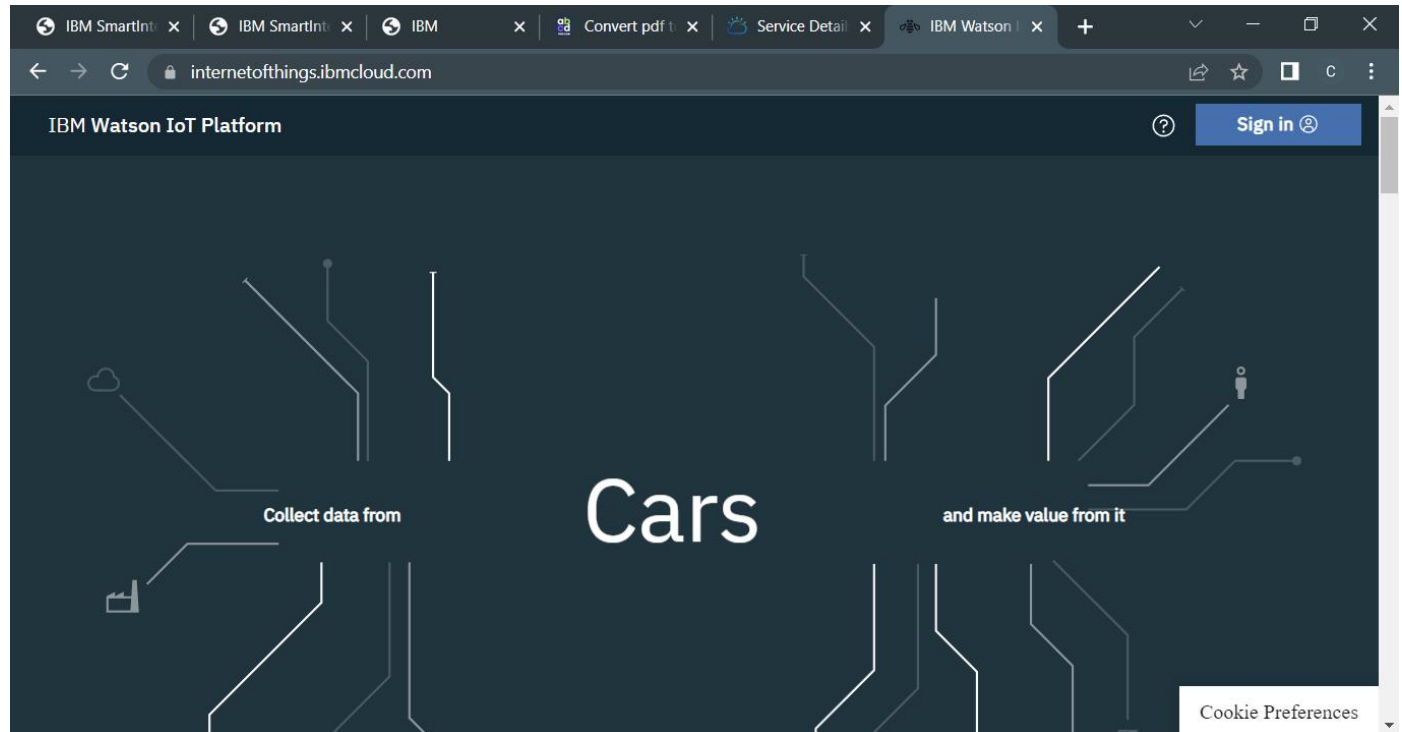
Lite plan services are deleted after 30 days of inactivity.

Change pricing plan

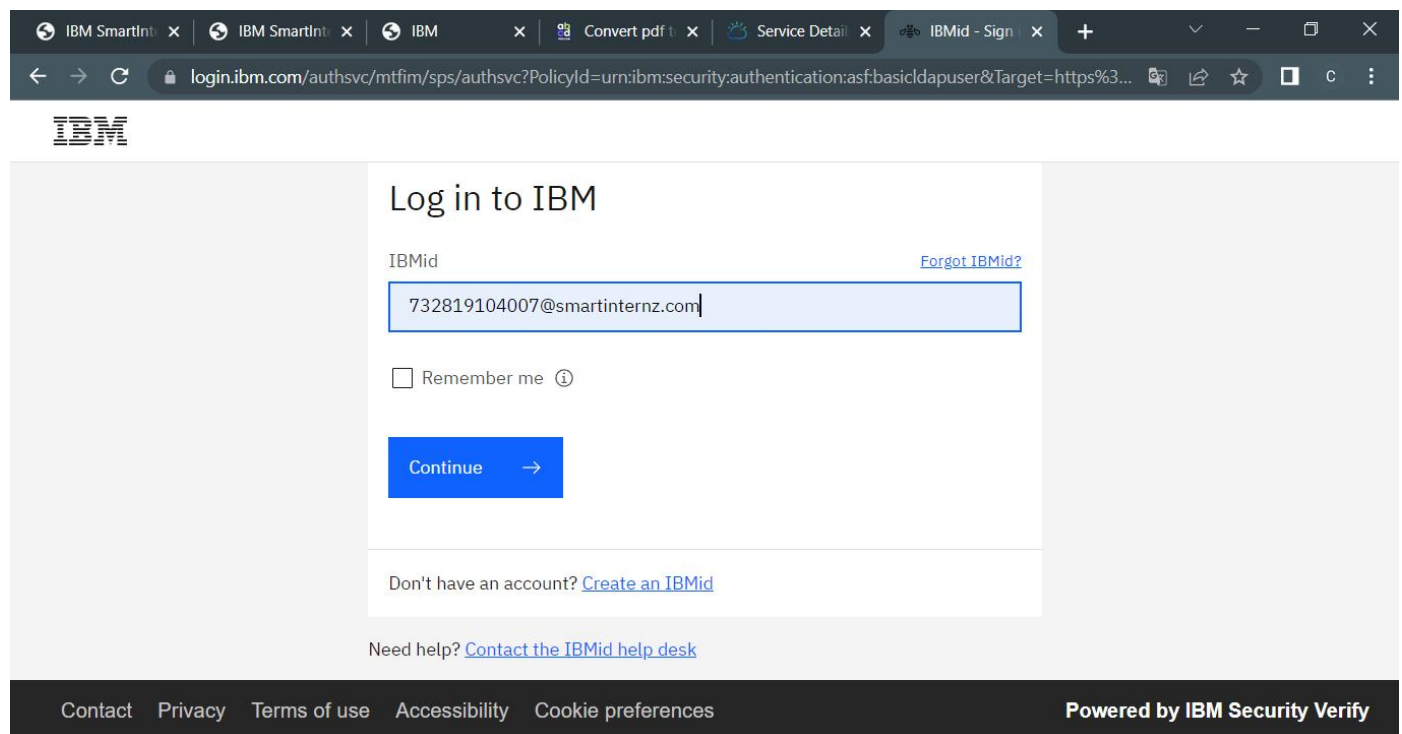
Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric Maximum of 500 registered devices Maximum of 500 application bindings Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed	Free <input checked="" type="checkbox"/>

Next Steps:

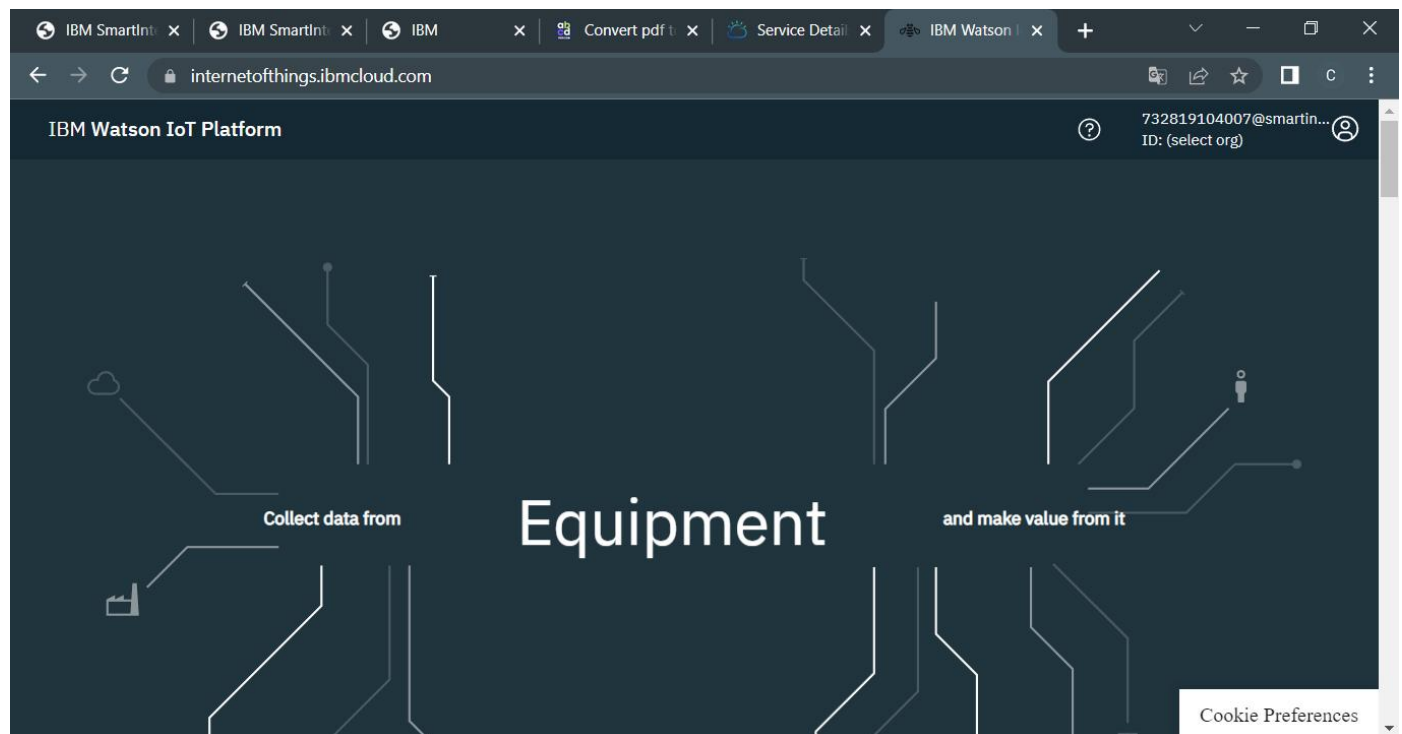
8. Clicking on the launch button in the manage tab, it will open to this



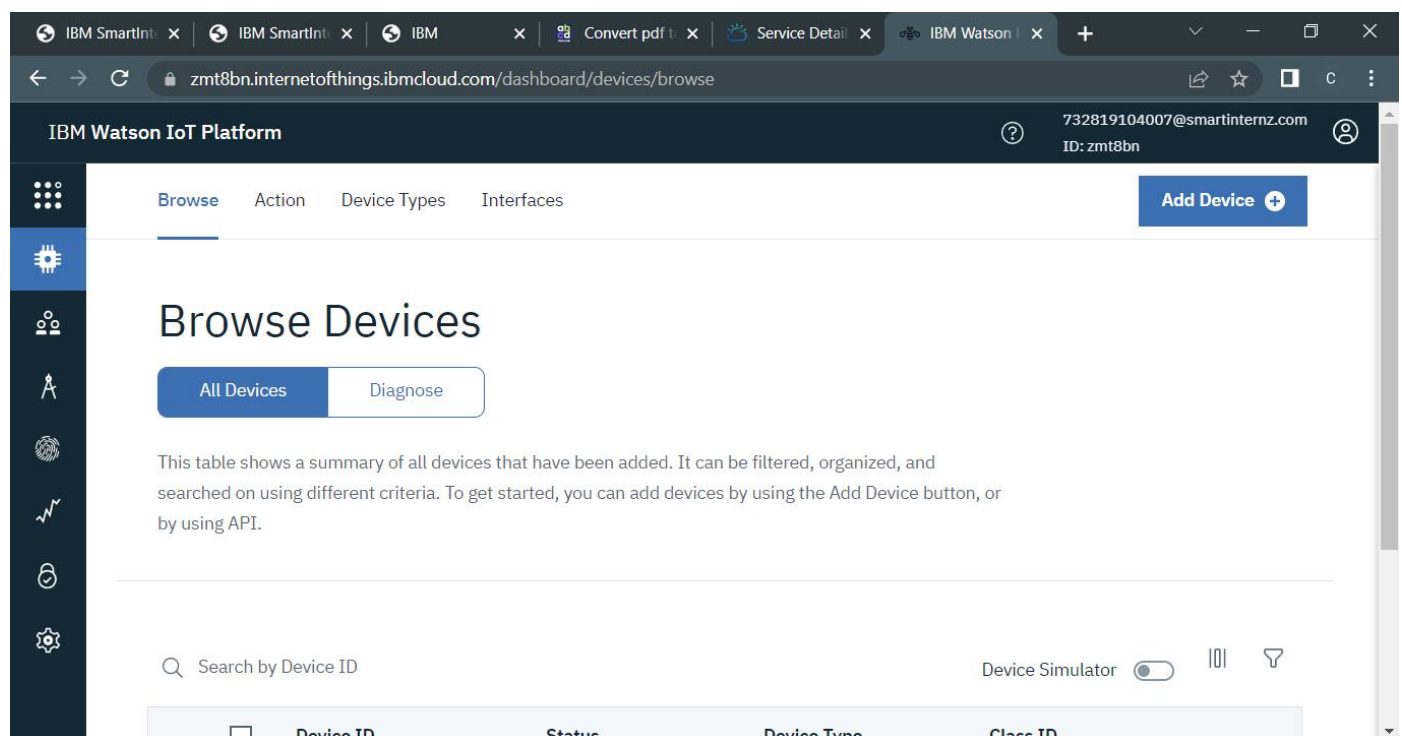
9. Enter the details to sign in to the Watson Cloud to create a device



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



11. 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



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

IBM Watson IoT Platform

Browse Members

Type the member email to search for

This table shows a summary of the members of the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add members by clicking Add Members, or by using the API. For more information about members, see [Managing user access](#).

<input type="checkbox"/>	Email Address	Name	Role	Added By	Expires	
5 results						
<input type="checkbox"/>	732819104007@smartinternz...	732819104007@smar...	Administrator	-	-	⋮
<input type="checkbox"/>	ragu6373@gmail.com	ragu p	Reader	732819104007@smar...	Dec 9, 2022	⋮ <input checked="" type="checkbox"/>
<input type="checkbox"/>	chithraneha95@gmail.com	chithra E	Operator	732819104007@smar...	Dec 9, 2022	⋮ <input checked="" type="checkbox"/>
<input type="checkbox"/>	sugumarjagadeesh@gmail.com	Sugumar jagadeesh	Developer	732819104007@smar...	Dec 9, 2022	⋮ <input checked="" type="checkbox"/>
<input type="checkbox"/>	ramyabharathi920@gmail.com	ramya	Reader	732819104007@smar...	Dec 9, 2022	⋮ <input checked="" type="checkbox"/>

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

IBM Watson IoT Platform

Browse API Keys

Type the app description to search for

This table shows a summary of the API keys that have been added for the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add API keys by clicking Generate API Key, or by using the API. For more information about adding API keys, see [API key connection](#).

<input type="checkbox"/>	Key	Description	Role	Expires	
3 results					
<input type="checkbox"/>	a-zmt8bn-jyjeglyxb	API Key for the device si...	Standard Application	-	⋮ <input checked="" type="checkbox"/>
<input type="checkbox"/>	a-zmt8bn-rdn3puf8bq	-	Standard Application	-	⋮ <input checked="" type="checkbox"/>
<input type="checkbox"/>	a-zmt8bn-wzymvmdjjh	API Key for the device si...	Standard Application	-	⋮ <input checked="" type="checkbox"/>

14. 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 'Add Device' 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 breadcrumb trail: 'Browse' > 'Action' > 'Device Types' > 'Interfaces'. Below this is a progress bar with four steps: 'Identity' (checked), 'Device Information' (active), 'Security', and 'Summary'. The 'Device Information' step is highlighted. Below the progress bar, there is a text prompt: 'You can modify the default device information and enter more information about the device for identification purposes.' This is followed by a form with two columns of input fields. The left column contains 'Serial Number', 'Model', 'Description', and 'Hardware Version'. The right column contains 'Manufacturer', 'Device Class', 'Firmware Version', and 'Descriptive Location'. Each field has a placeholder text 'Enter [field name]'. At the bottom of the form is a button labeled 'Add Metadata' with a plus icon.

15.

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

The screenshot shows the 'Add Device' page in the IBM Watson IoT Platform, now at the 'Device Information' step. The progress bar shows 'Identity' and 'Device Information' as completed steps, with 'Security' and 'Summary' as upcoming steps. The 'Device Information' step is highlighted. Below the progress bar, there is a text prompt: 'Verify that the following information is correct then select Finish'. This is followed by a form with two columns of input fields. The left column contains 'Device Type' (with value 'b13-type-1') and 'Device ID' (with value 'b13-device_type-id'). The right column contains 'Security Token' (with value 'To be generated'). At the bottom of the form is a button labeled 'View Metadata'.

17. Clicking next it goes to the security where we do authentication token id.

IBM Watson IoT Platform

732819104007@smartinternz.com
ID: zmt8bn

← Back

Device Drilldown - b13-device_type-id

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	zmt8bn
Device Type	b13-type-1
Device ID	b13-device_type-id
Authentication Method	use-token-auth
Authentication Token	y0XY6-f(*h1UABG5E(

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

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

IBM Watson IoT Platform

732819104007@smartinternz.com
ID: zmt8bn

Browse Action Device Types Interfaces

Browse Devices

All Devices Diagnose

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.

Search by Device ID

Device Simulator

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID
> <input type="checkbox"/>	b13-device_type-id	Disconnected	b13-type-1	Device
> <input type="checkbox"/>	b1m3-device_type_1	Disconnected	b1m3-device_type	Device

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

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

IBM Smt x IBM Smt x IBM Smt x IBM x Conver x Service x IBM Cl x IBM W x

zmt8bn.internetofthings.ibmcloud.com/dashboard/devices/browse

732819104007@smartinternz.com ID: zmt8bn

IBM Watson IoT Platform

Search

Browse

Action

Device Types

Interfaces

Add Device +

Device ID	Status	Device Type	Class ID
<div><div></div><div>b13-device_type-id</div></div>	<div><div></div><div>Disconnected</div></div>	b13-type-1	Device
<div><div>Identity</div><div>Device Information</div><div>Recent Events</div><div>State</div><div>Logs</div><div></div></div>			
<div><div>Device ID</div><div>b13-device_type-id</div></div> <div><div>Device Type</div><div>b13-type-1</div></div> <div><div>Date Added</div><div>Nov 9, 2022 8:48 PM</div></div> <div><div>Added By</div><div>732819104007@smartinternz.com</div></div> <div><div>Connection Status</div><div>Disconnected</div></div>			
<div><div></div><div>b1m3-device_type_1</div></div>	<div><div></div><div>Disconnected</div></div>	b1m3-device_type	Device

Items per page 50 | 1-2 of 2 items

1 of 1 page

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 'Add Device' wizard in the IBM Watson IoT Platform. The browser address bar indicates the URL: `zmt8bn.internetofthings.ibmcloud.com/dashboard/devices/browse/add`. The page header shows the user is logged in as `732819104007@smartinternz.com` with ID `zmt8bn`. The left sidebar contains navigation icons for various platform features. The main content area is titled 'Add Device' and features a progress bar with four steps: Identity (selected), Device Information, Security, and Summary. Below the progress bar, a message states: 'Select a device type for the device that you are adding and give the device a unique ID.' There are two input fields: 'Device Type' with the value 'b13-type-1' and 'Device ID' with the value 'b13-device_type-id'. At the bottom right, there are 'Cancel' and 'Next' buttons.

IBM Watson IoT Platform

732819104007@smartinternz.com
ID: zmt8bn

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.

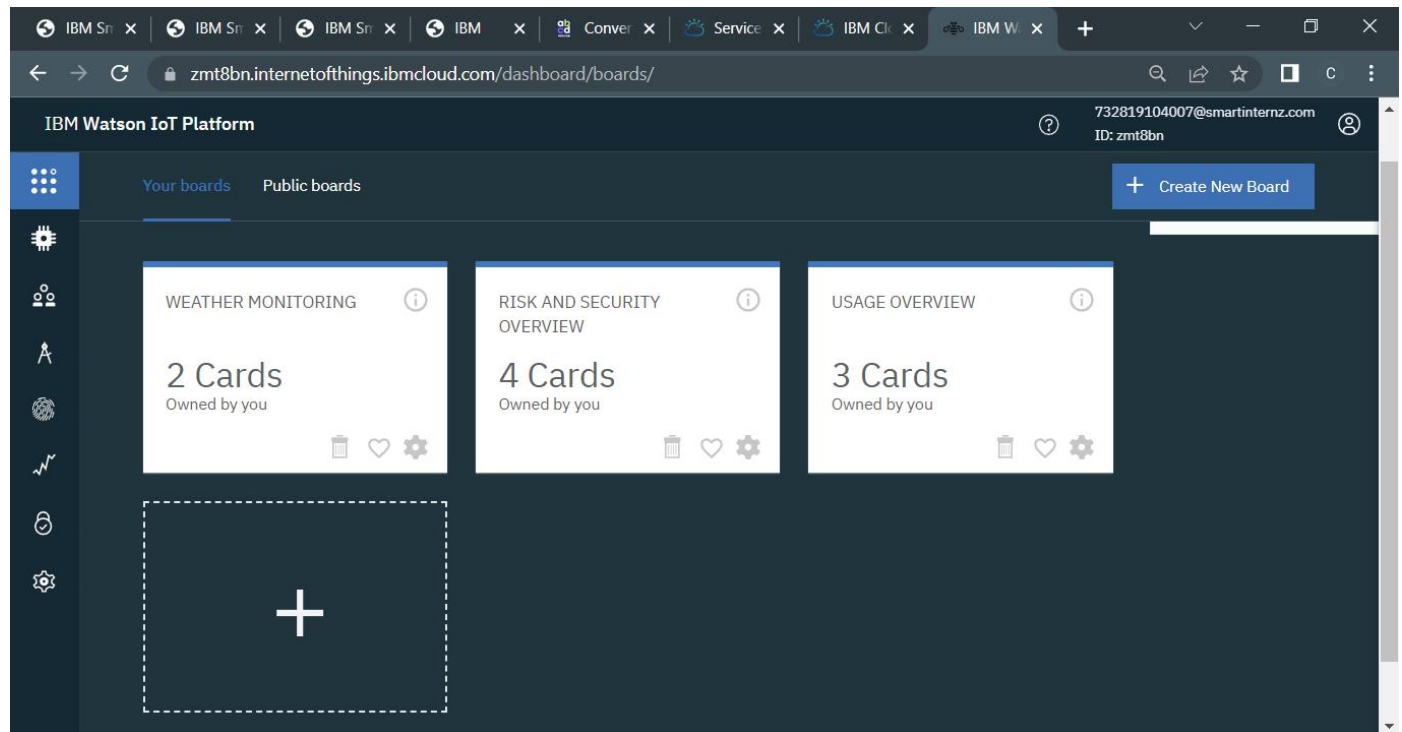
Device Type b13-type-1

Device ID b13-device_type-id

Cancel Next

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

20..The Boards will display card for the project.



RESULT:

An IBM Watson cloud for IoT and a device is created

TEAM ID : PNT2022TMID44808
TEAM LEADER : GOKUL.K
TEAM MEMBER 1 : SUGUMAR
JAGADEESH.M
TEAM MEMBER 2 : CHITHRA.E
TEAM MEMBER 3 : RAMYA.S
TEAM MEMBER 4 : RAGU.P
TEAM SIZE : 5

FACULTY
MENTOR : RAMACHANDRAN.C

INDUSTRY
MENTOR :BARADWAJ IL