

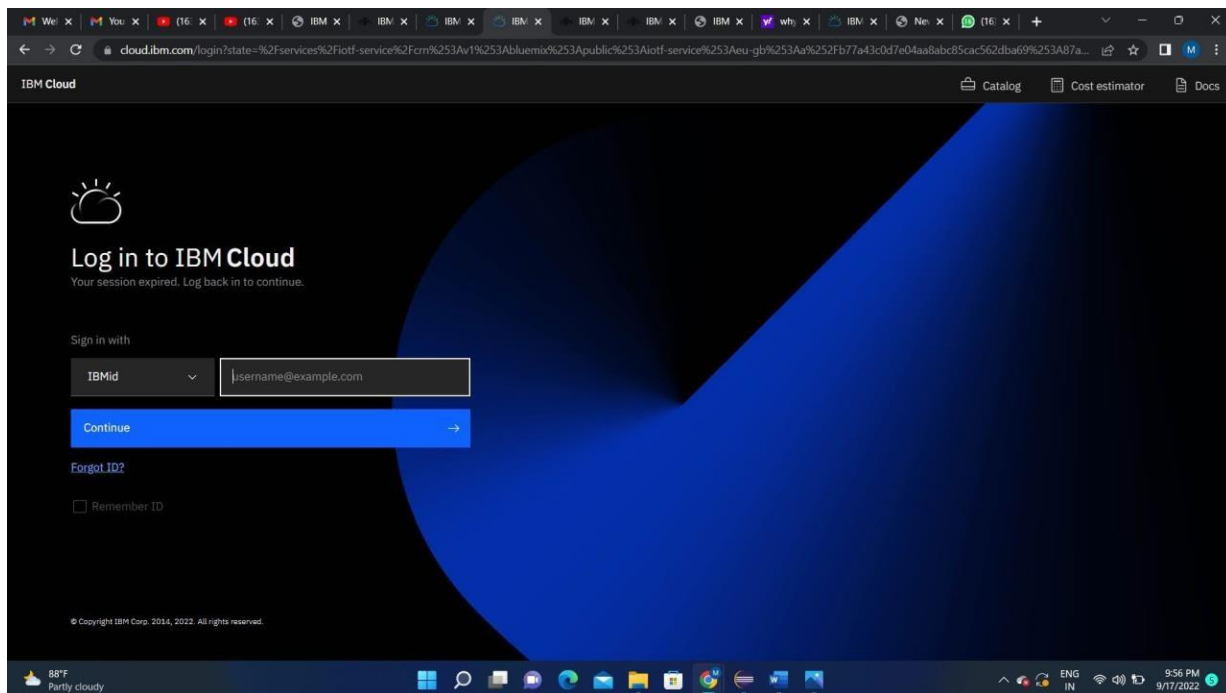
## CREATE IBM WATSON IOT PLATFORM AND DEVICE

### AIM:

To create the IBM Watson IoT platform and device

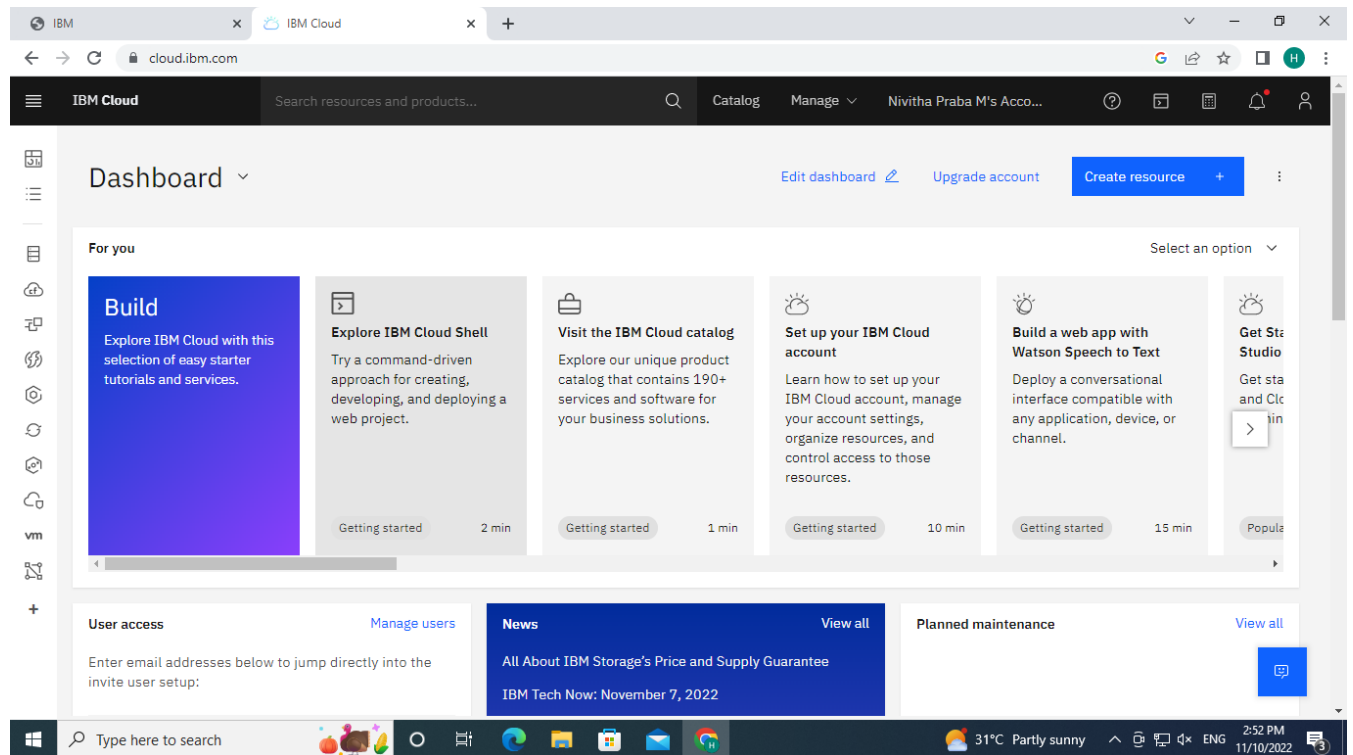
### STEPS:

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

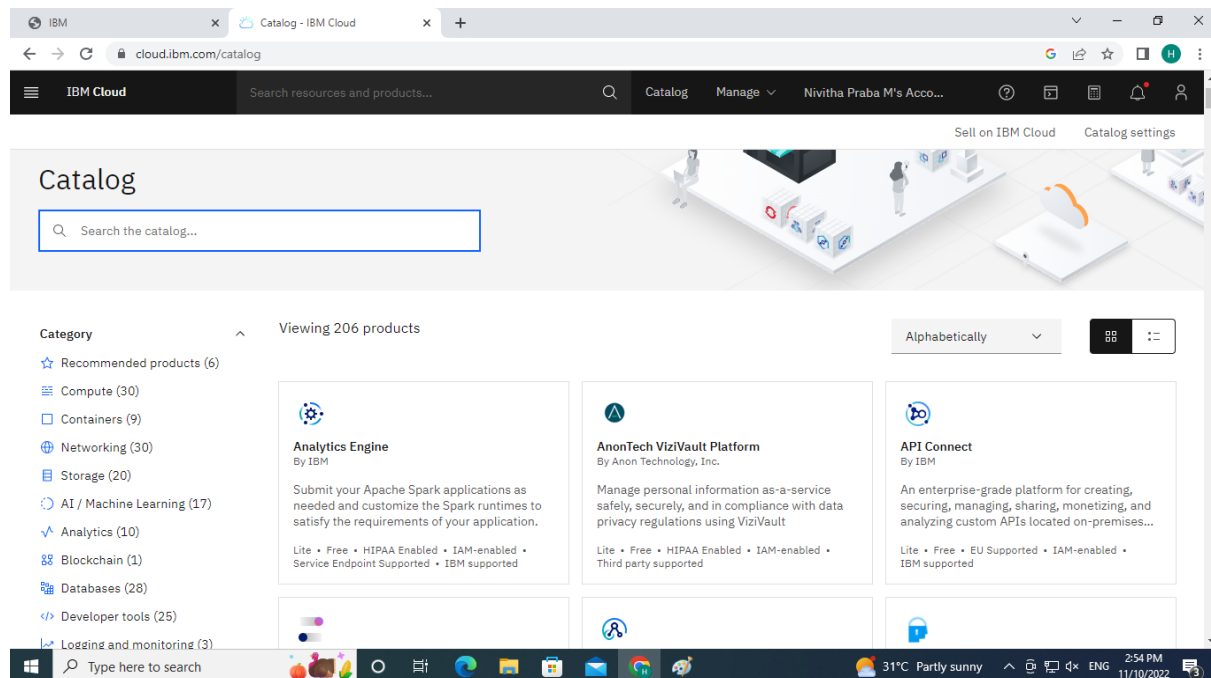


2. Home page of IBM cloud

Team ID PNT2022TMID10282



### 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

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	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

**Summary**

**Internet of Things Platform** Free

Location: Frankfurt

Plan: Lite

Service name: Internet of Things Platform-nh

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

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

Internet of Things Platform

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**Summary**

**Internet of Things Platform** Free

Location: Frankfurt

Plan: Lite

Service name: IoT Based Safety Gadget for Child Safety Monitoring and Notification

Resource group: Default

☒ 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 agreements and then click on create

The screenshot shows the IBM Cloud catalog page for the 'Internet of Things Platform' service. The page is in the 'Create' tab, where a user is configuring a new instance. The location is set to 'Frankfurt (eu-de)'. The pricing plan is 'Lite', which is free. A warning message indicates that only one 'Lite plan instance' can be created per resource group. The user has checked the 'I have read and agree to the following license agreements' checkbox. The 'Create' button is visible at the bottom right of the configuration area.

**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: Lite

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

**Summary**

**Internet of Things Platform** Free

Location: Frankfurt

Plan: Lite

Service name: IoT Based Safety Gadget for Child Safety Monitoring and Notification

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

Create

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)

The screenshot displays the IBM Cloud IoT service console for a resource titled "IoT Based Safety Gadget for Child Safety Monitoring and Notification". The interface is divided into three main sections: Manage, Plan, and Connections. The "Manage" section is currently active, showing a "Let's get started with IBM Watson IoT Platform" message and a "Launch" button. Below this, there is a "Ready for the next level?" section with a progress bar indicating the "IBM Watson IoT Platform Journey" with three stages: Lite, Non-Production, and Production. The "Plan" section is also visible, showing the "Current plan" as "Lite" and "Current usage" as "N/A". The "Features" section lists the capabilities of the Lite plan, including up to 500 registered devices and a maximum of 200 MB of data metric. The "Change pricing plan" section is at the bottom, showing a table with the "Lite" plan and its features.

Resource list / IoT Based Safety Gadget for Child Safety Monitoring and Notification

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 Non-Production Production

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

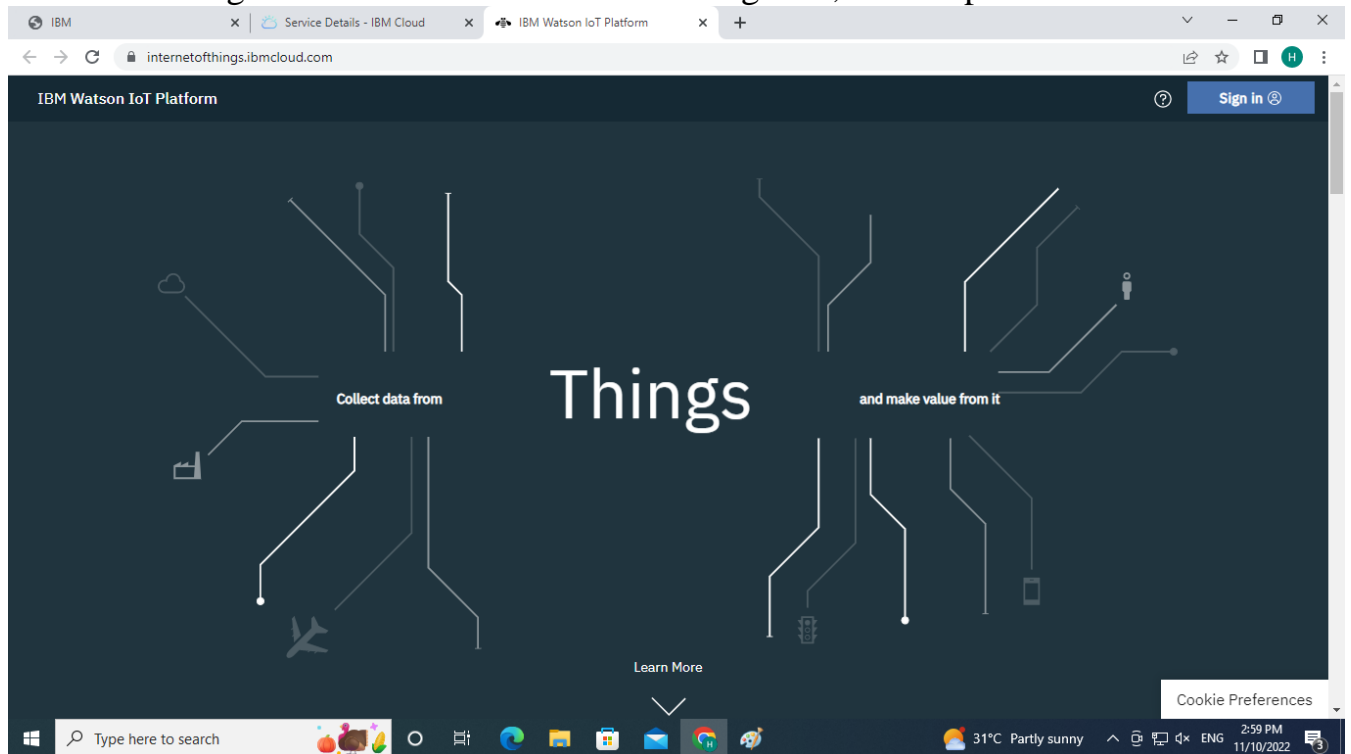
N/A

Lite plan services are deleted after 30 days of inactivity.

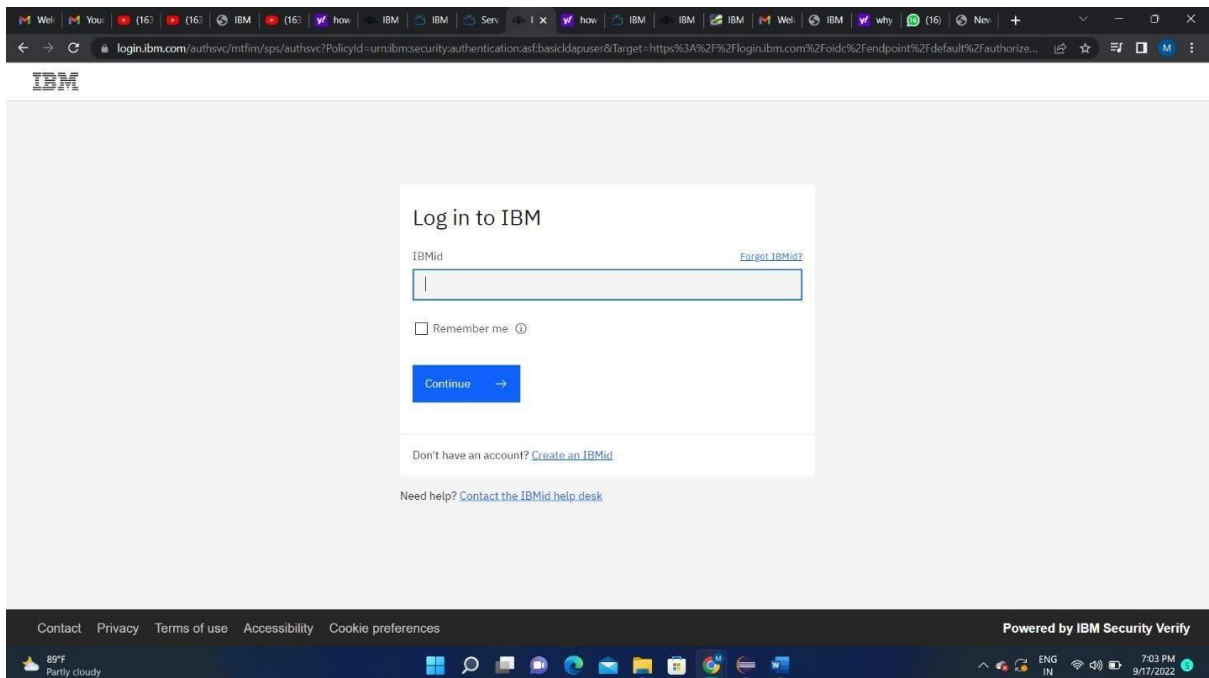
Change pricing plan

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	Free

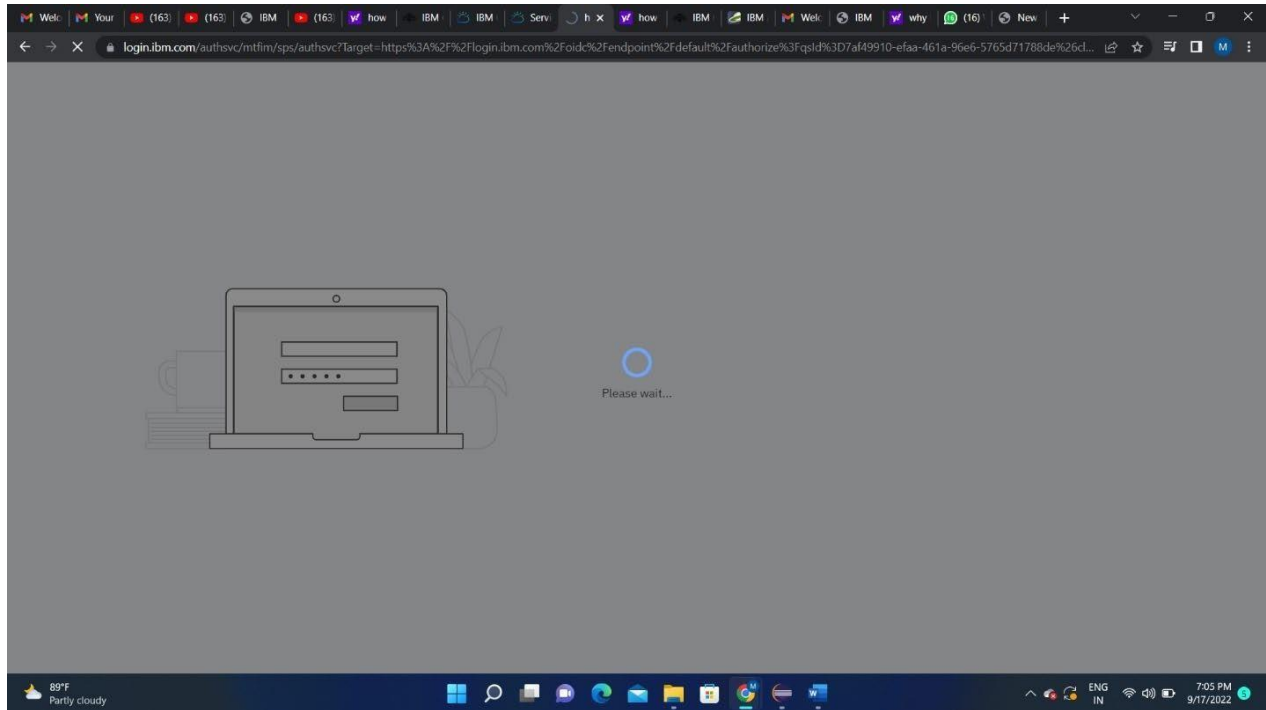
8. Clicking on the launch button in the manage tab, it will open to this



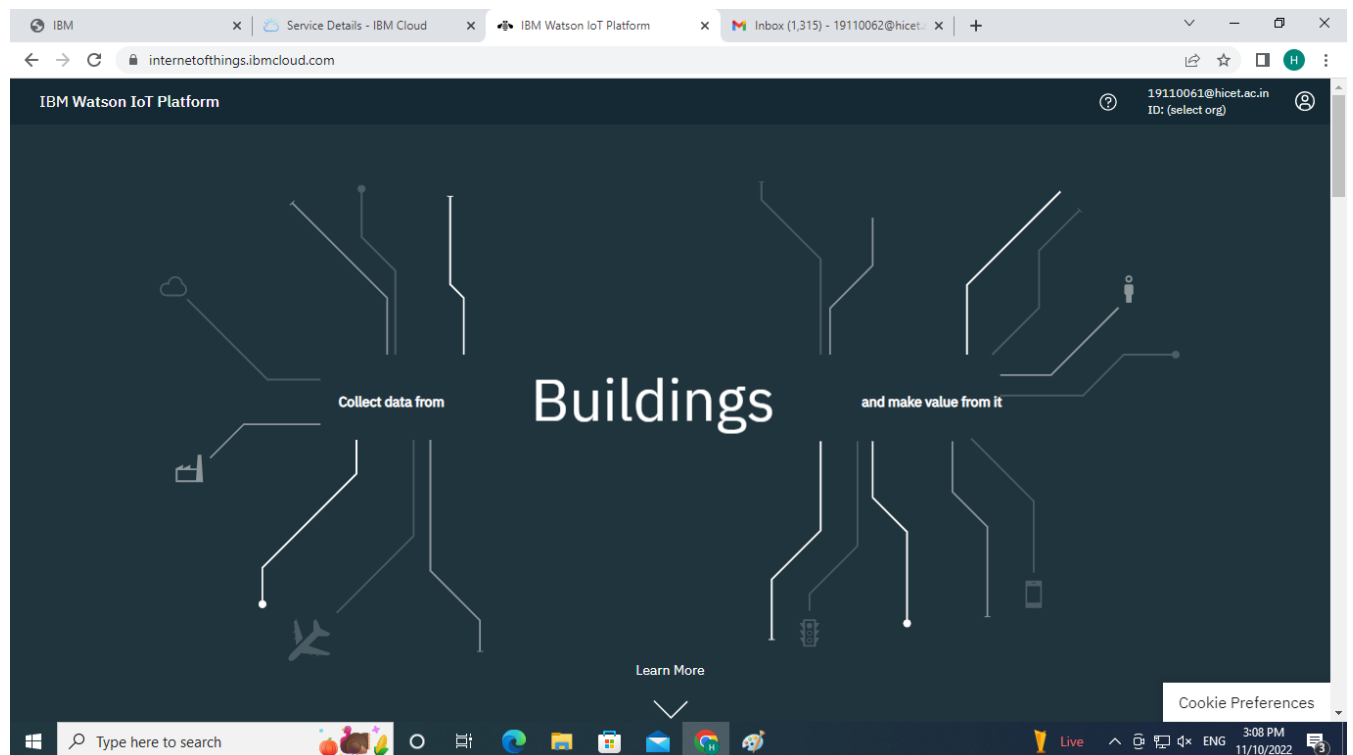
9. Enter the details to sign in to the Watson Cloud to create a device



Team ID PNT2022TMID10282



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.

IBM Watson IoT Platform

Browse Action Device Types Interfaces

Add Device +

## 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

Device ID	Status	Device Type	Class ID	Date Added
-----------	--------	-------------	----------	------------

You don't have any devices.

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

IBM Watson IoT Platform

## General Settings

Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features.

**PLATFORM**

- About
- Identity
- Experimental Features
- Last Event Cache
- Client Connection
- State API

**DATA AND DEVICES**

- Custom Device
- Management Packages
- Device Simulator

### About

The organization type sets the limits for the amount of data traffic your organization supports. An administrator for your IBM Cloud organization can choose a new plan from the IBM Cloud service page.

Date Created: 11/10/2022

Organization Type: Bluemix Free

Geographic Location: eu-gb

### Identity

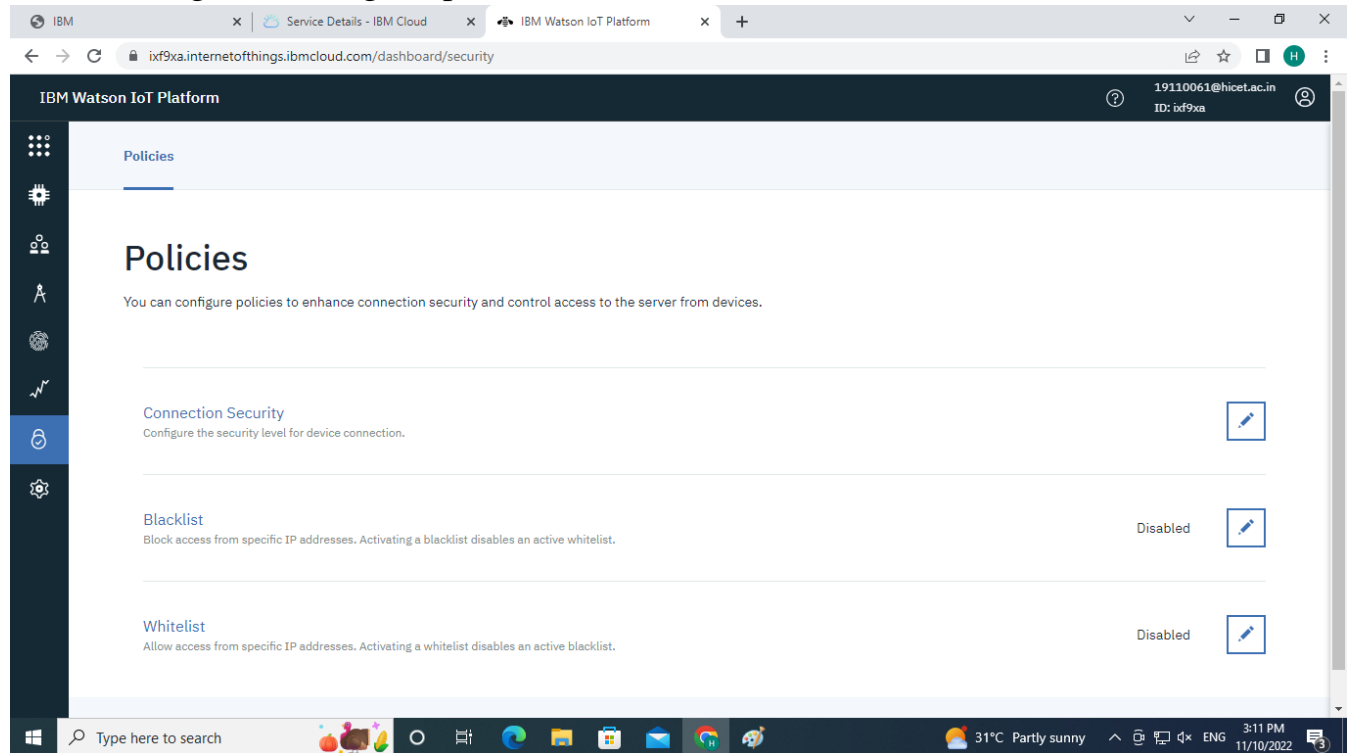
The organization ID and friendly name are the global identifiers of your organization. Administrators can modify the global name.

Organization ID: ixf9xa

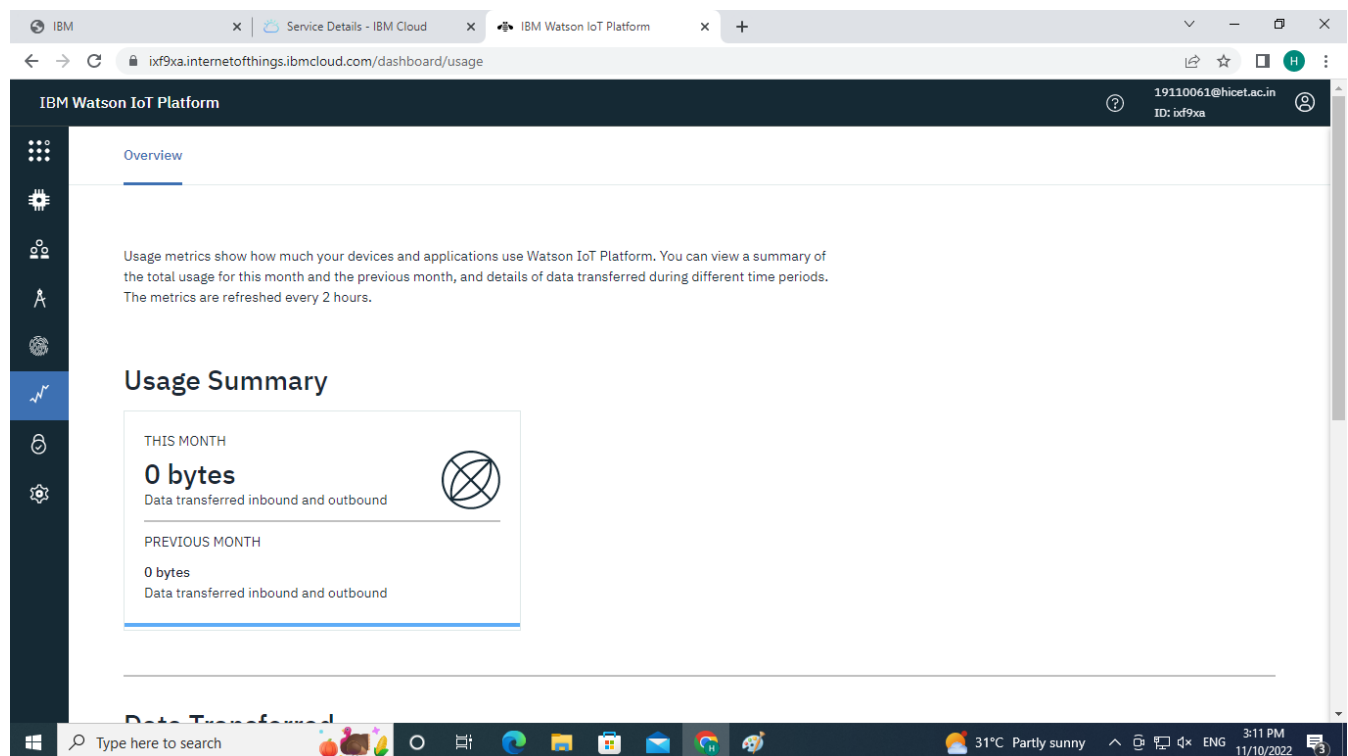
Friendly Name: ixf9xa



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



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



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

IBM Watson IoT Platform

Browse

+ Add Members

## 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	
1 result						
<input type="checkbox"/>	19110061@hiet.ac.in	19110061@hiet.ac.in	Administrator	-	-	

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

IBM Watson IoT Platform

Browse IBM Cloud Apps

+ Generate API Key

## 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	
0 results					

There are no API Keys

Generate API Key

17. 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 IBM Watson IoT Platform dashboard. The left sidebar contains navigation links: Boards, Devices (selected), Members, Apps, Access Management, Usage, Security, and Settings. The main content area is titled 'Add Device' and includes a 'Diagnose' button. Below this, there is a summary of the device list and a table with columns: Device ID, Status, Device Type, Class ID, and Date Added. The table is currently empty, and a message at the bottom states 'You don't have any devices.' The top right corner shows the user's email (19110061@hiet.ac.in) and ID (id9xa). The bottom of the image shows a Windows taskbar with various application icons and a system tray displaying the date and time (3:14 PM, 11/10/2022).

IBM Watson IoT Platform

19110061@hiet.ac.in  
ID: id9xa

Boards Device Types Interfaces

Add Device +

Devices

Members

Apps

Access Management

Usage

Security

Settings

Diagnose

a summary of all devices that have been added. It can be filtered, organized, and searched on using different  
started, you can add devices by using the Add Device button, or by using API.

Device ID Status Device Type Class ID Date Added

Device Simulator ☐ IDI

You don't have any devices.

Type here to search

31°C Partly sunny 3:14 PM 11/10/2022

The screenshot shows the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Add Device' wizard is displayed with a progress bar showing four steps: Identity (selected), Device Information, Security, and Summary. The 'Identity' step contains the following fields:

- Device Type:** A dropdown menu with the text 'Select or create a device type...'.
- Device ID:** A text input field with the placeholder 'Enter Device ID'.

At the bottom right of the wizard, there are 'Cancel' and 'Next' buttons. The Windows taskbar at the bottom shows the date and time as 3:15 PM on 11/10/2022.

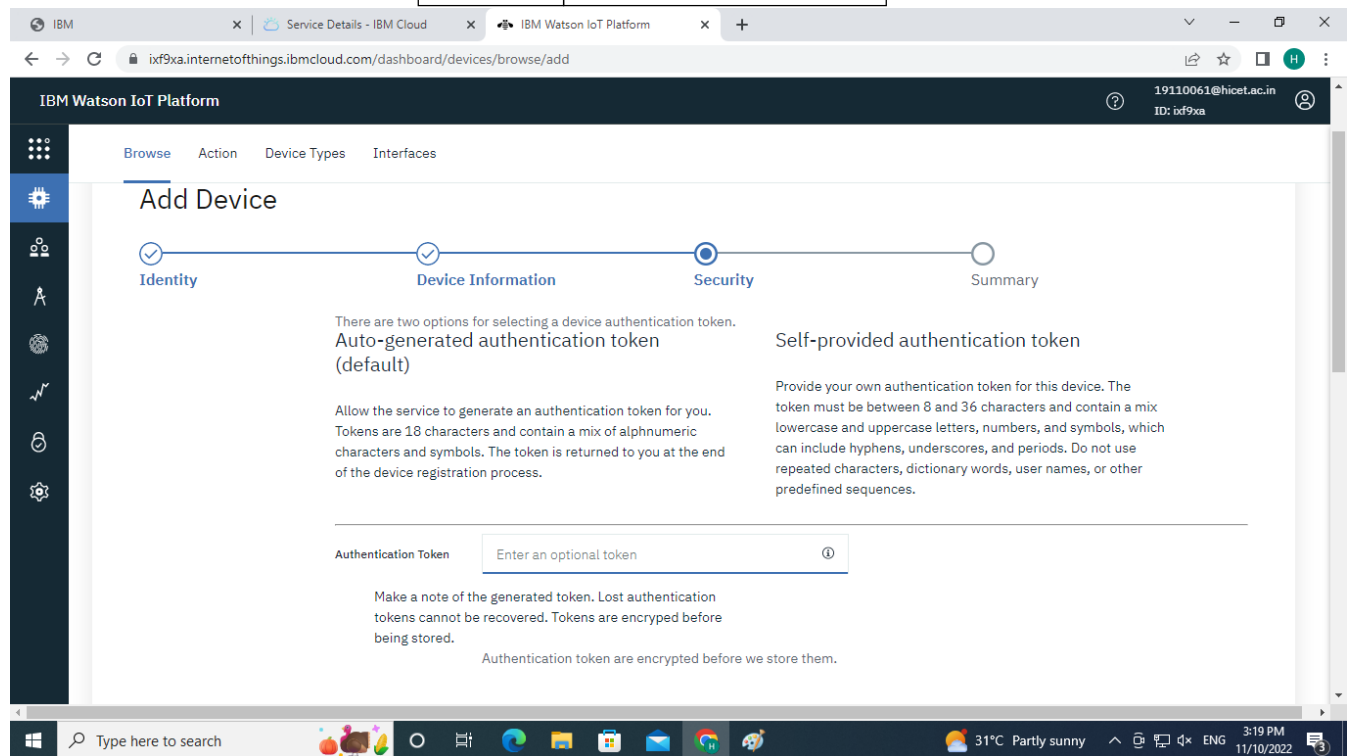
## 18. This page to enter extra details and of the hardware

The screenshot shows the 'Add Device' wizard at the 'Device Information' step. The progress bar now shows 'Identity' as completed and 'Device Information' as the current step. The instructions state: 'You can modify the default device information and enter more information about the device for identification purposes.' The form includes the following fields:

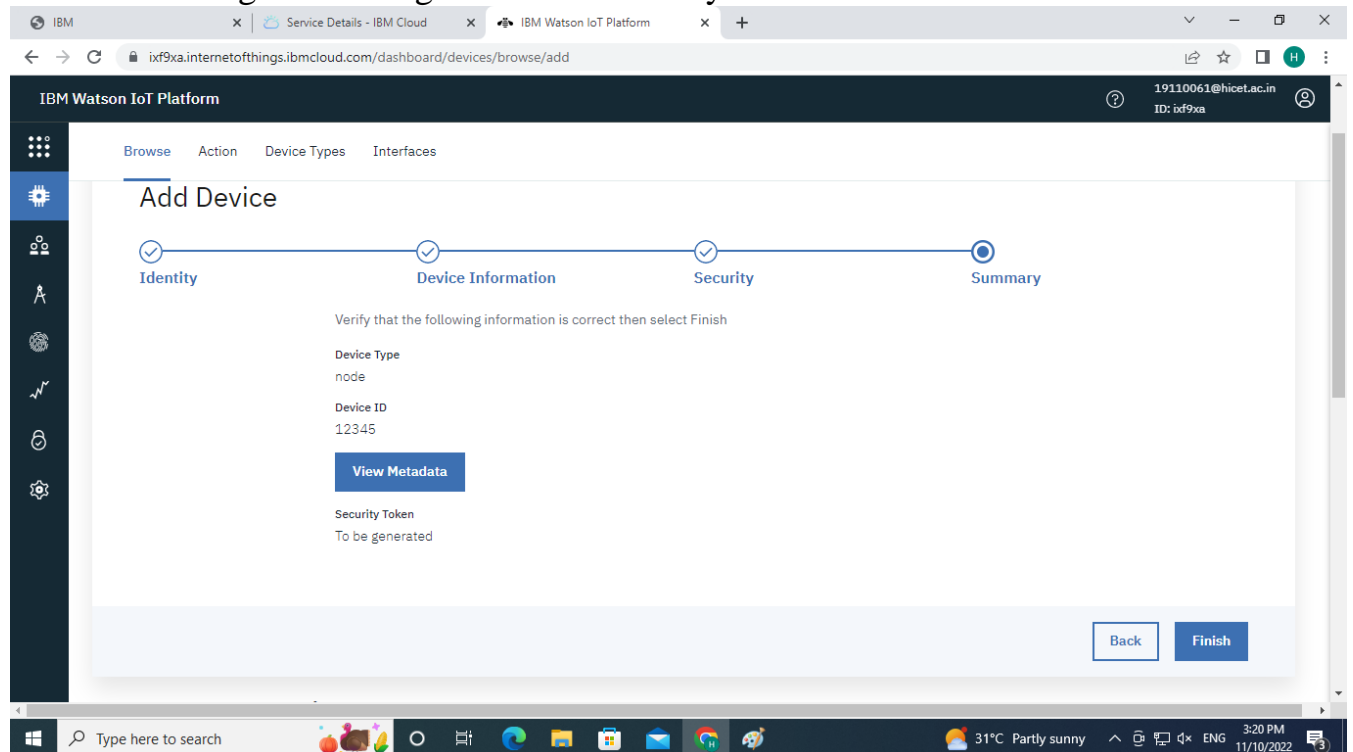
- Serial Number:** Text input field with placeholder 'Enter Serial Number'.
- Model:** Text input field with placeholder 'Enter Model'.
- Description:** Text input field with placeholder 'Enter Description'.
- Hardware Version:** Text input field with placeholder 'Enter Hardware Version'.
- Manufacturer:** Text input field with placeholder 'Enter Manufacturer'.
- Device Class:** Text input field with placeholder 'Enter Device Class'.
- Firmware Version:** Text input field with placeholder 'Enter Firmware Version'.
- Descriptive Location:** Text input field with placeholder 'Enter Descriptive Location'.

Below the input fields is a button labeled 'Add Metadata' with a plus icon. At the bottom right of the wizard, there are 'Back' and 'Next' buttons. The Windows taskbar at the bottom shows the date and time as 3:18 PM on 11/10/2022.

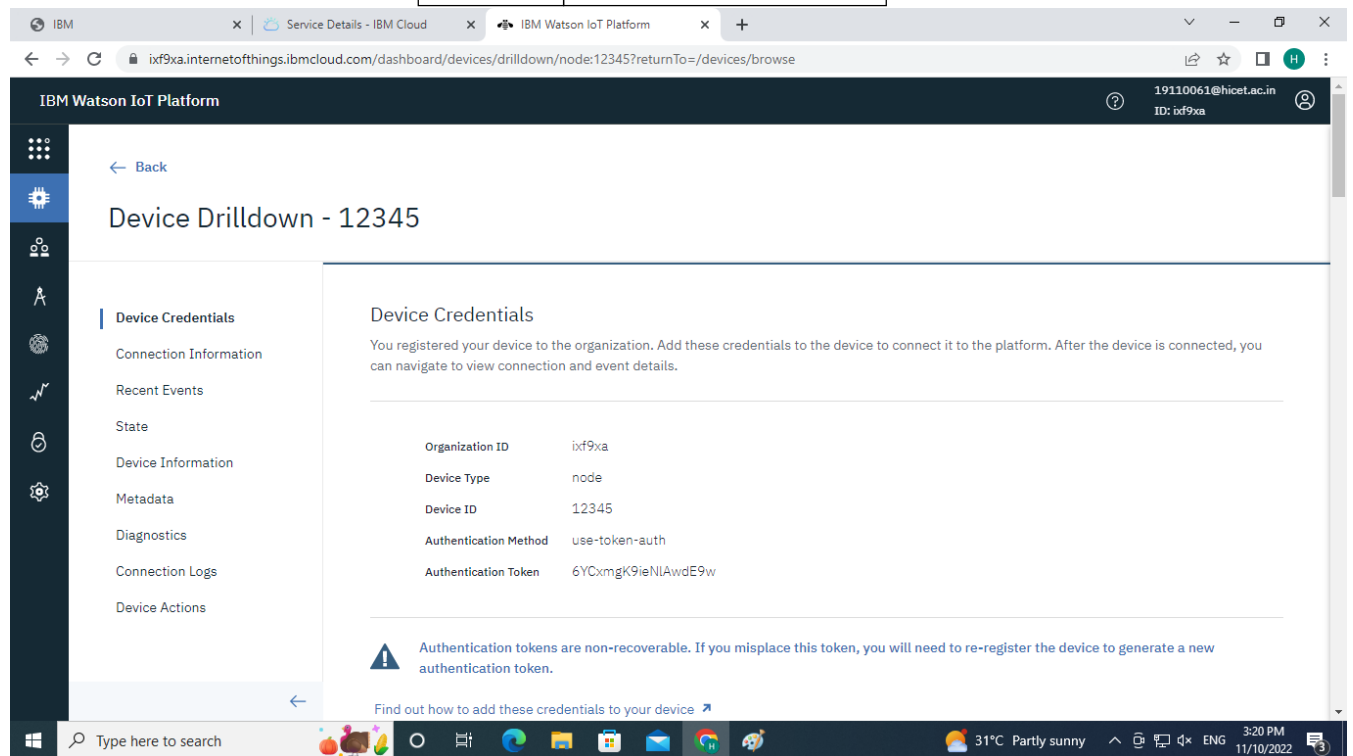
## 19. Clicking next it goes to the security where we do authentication token id.



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



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



IBM Watson IoT Platform

Device Drilldown - 12345

Device Credentials

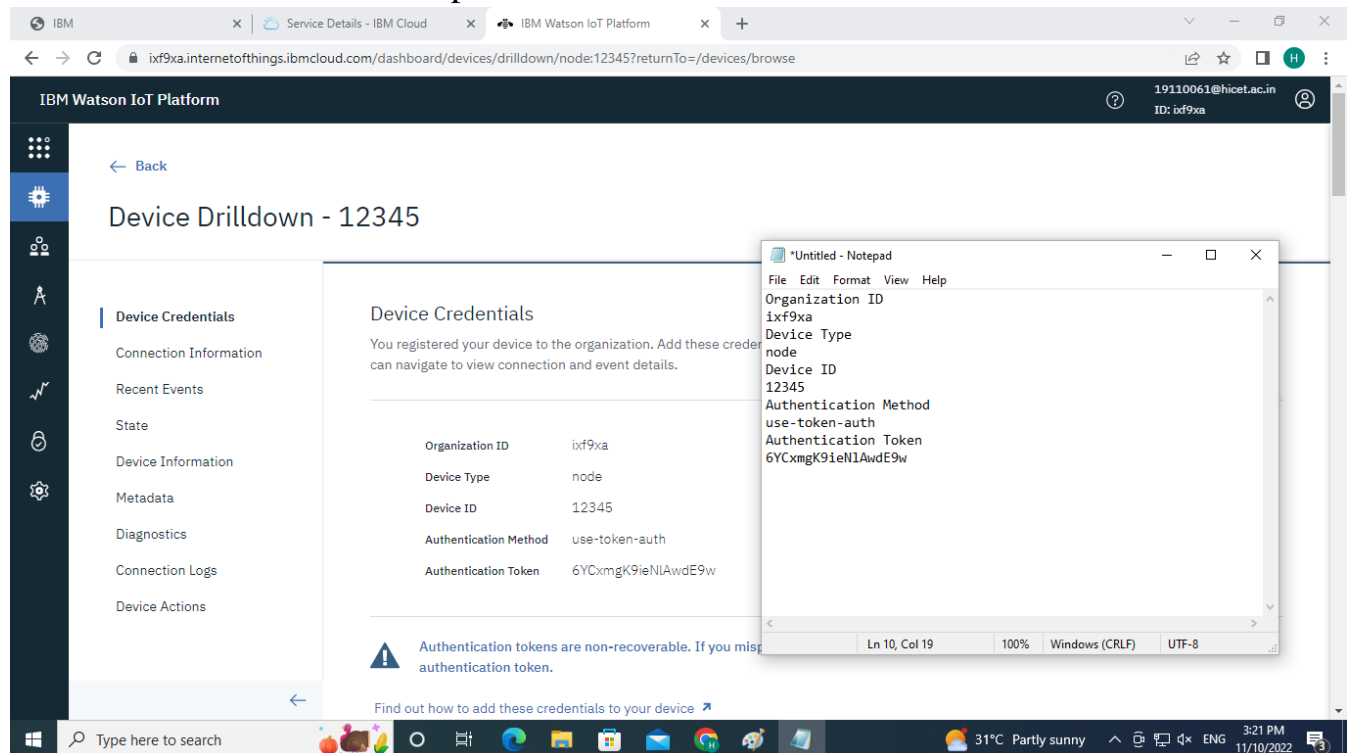
You registered your device to the organization. Add these credentials to the device to connect it to the platform. After the device is connected, you can navigate to view connection and event details.

Organization ID	ixf9xa
Device Type	node
Device ID	12345
Authentication Method	use-token-auth
Authentication Token	6YCxmgK9ieNlAwde9w

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

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



IBM Watson IoT Platform

Device Drilldown - 12345

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.

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Find out how to add these credentials to your device

Untitled - Notepad

File Edit Format View Help

Organization ID  
ixf9xa  
Device Type  
node  
Device ID  
12345  
Authentication Method  
use-token-auth  
Authentication Token  
6YCxmgK9ieNlAwde9w

23. 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 displays the IBM Watson IoT Platform dashboard. The top navigation bar includes tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar labeled 'Search by Device ID' is present. A table lists devices, with one device (ID: 12345) highlighted. Below the table, a modal window shows the 'Identity' tab for the selected device, displaying details such as Device ID, Device Type, Date Added, Added By, and Connection Status. The bottom of the screen shows a Windows taskbar with various application icons and system information.

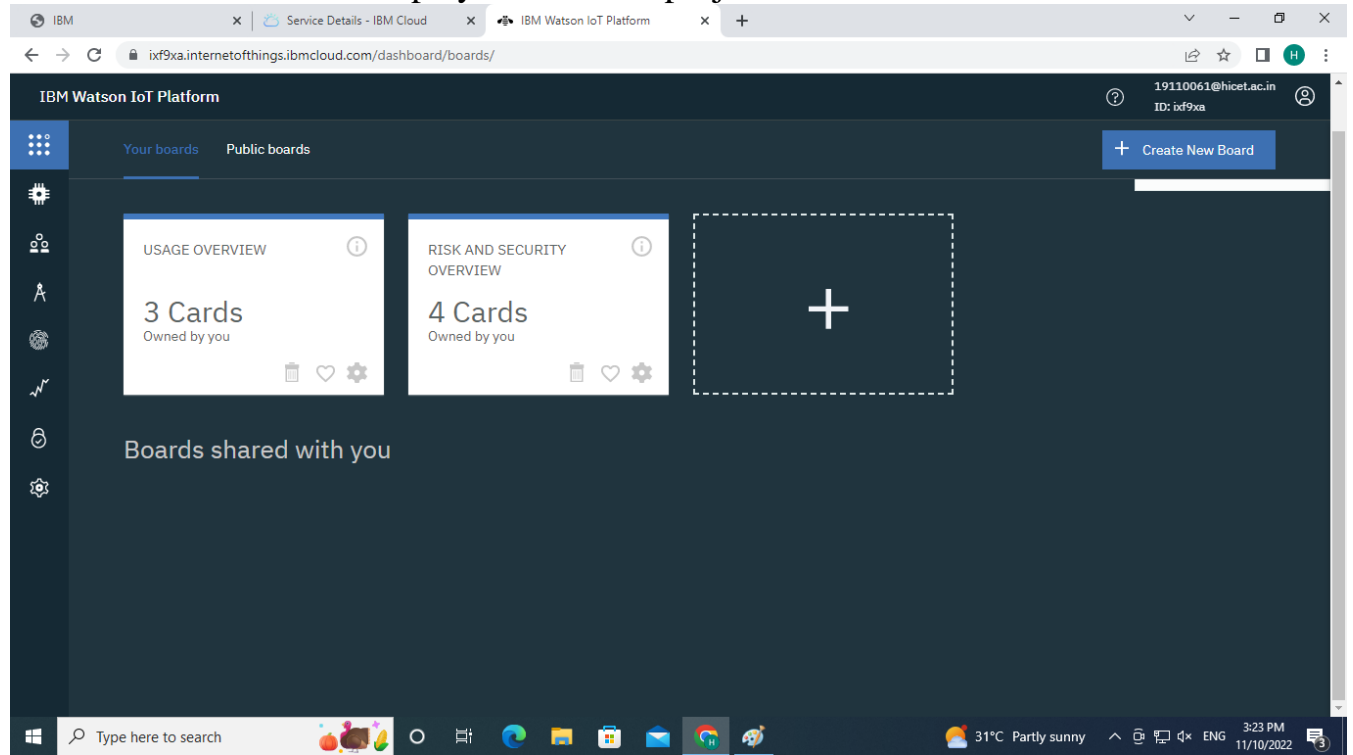
Device ID	Status	Device Type	Class ID	Date Added
12345	Disconnected	node	Device	Nov 10, 2022 3:20 PM

Identity	Device Information	Recent Events	State	Logs
Device ID	12345			
Device Type	node			
Date Added	Nov 10, 2022 3:20 PM			
Added By	19110061@hicet.ac.in			
Connection Status	Disconnected			

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

## 24. The Boards will display card for the project.



### RESULT:

An IBM Watson cloud for IoT and a device is created