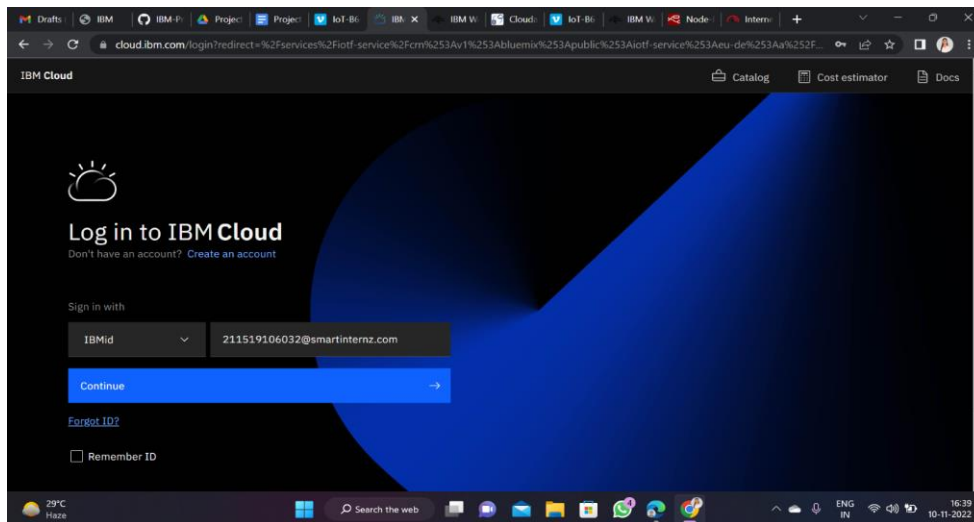


CREATE IBM WATSON IOT PLATFORM AND DEVICE

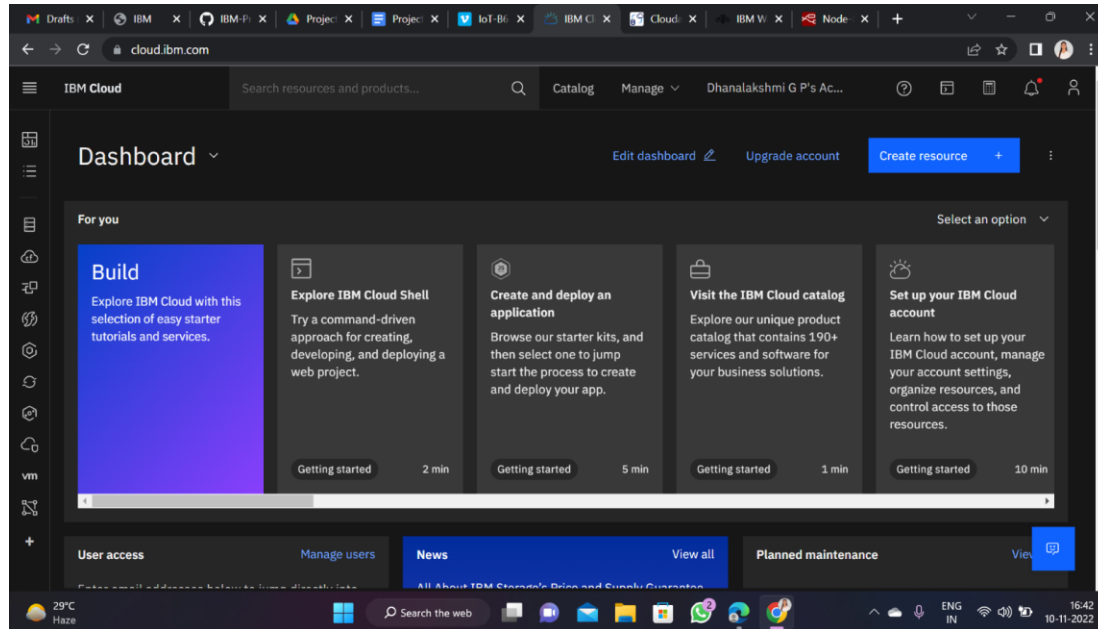
Date	22-10-2022
Team ID	PNT2022TMID25977
Project Name	Project - IoT based safety gadget for child safety monitoring and notification

STEPS:

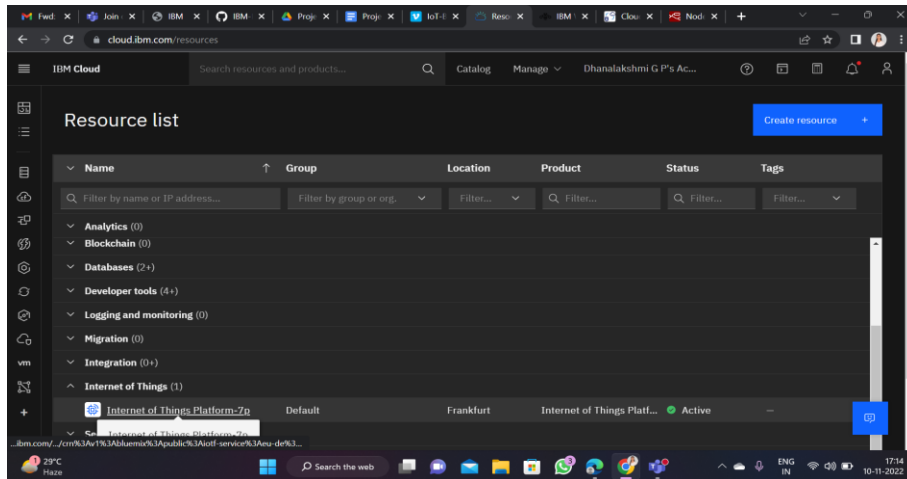
Firstly, create an IBM cloud account with IBMid and password



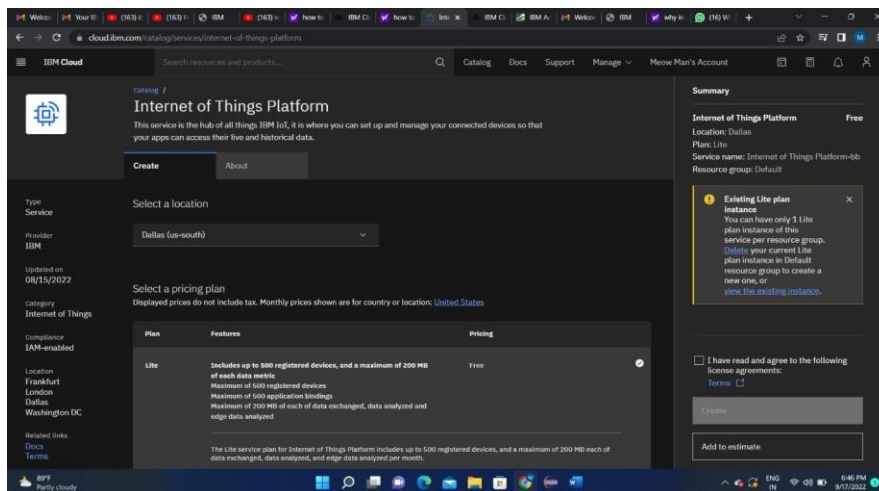
Home page of IBM cloud



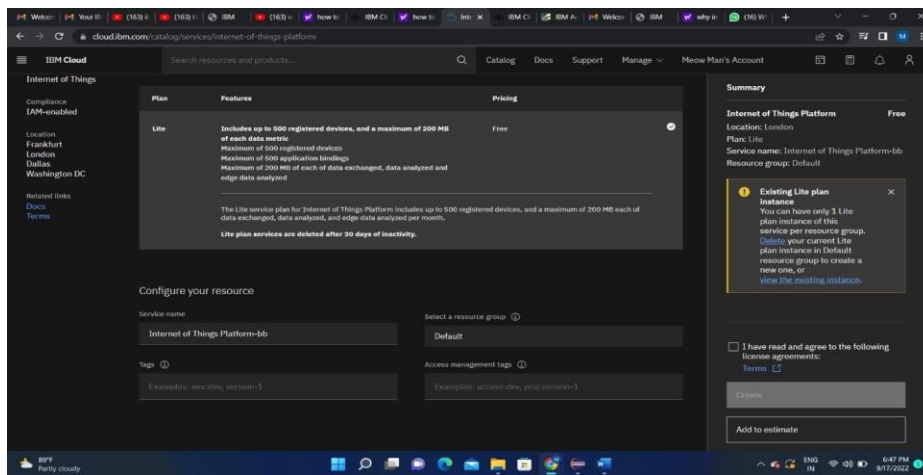
Click on the catalog on the top



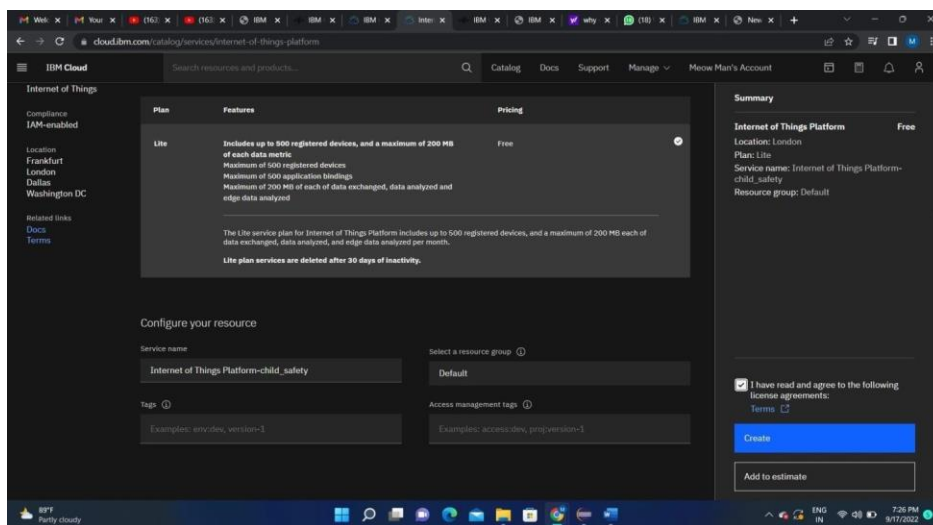
Click on IoT in the category mentioned



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



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 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 image displays two screenshots of the IBM Cloud IoT Platform interface, illustrating the 'Manage', 'Plan', and 'Connections' options.

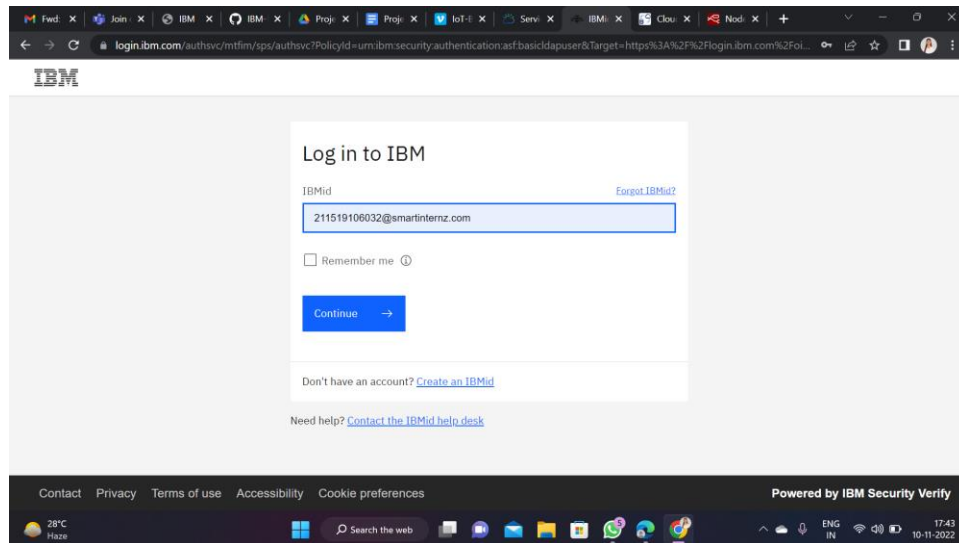
Top Screenshot (Manage Tab):

- Resource list / Internet of Things Platform-7p** (Active)
- Manage** (Selected), 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
 - Progress bar showing 'Lite' and 'None/Production' stages.

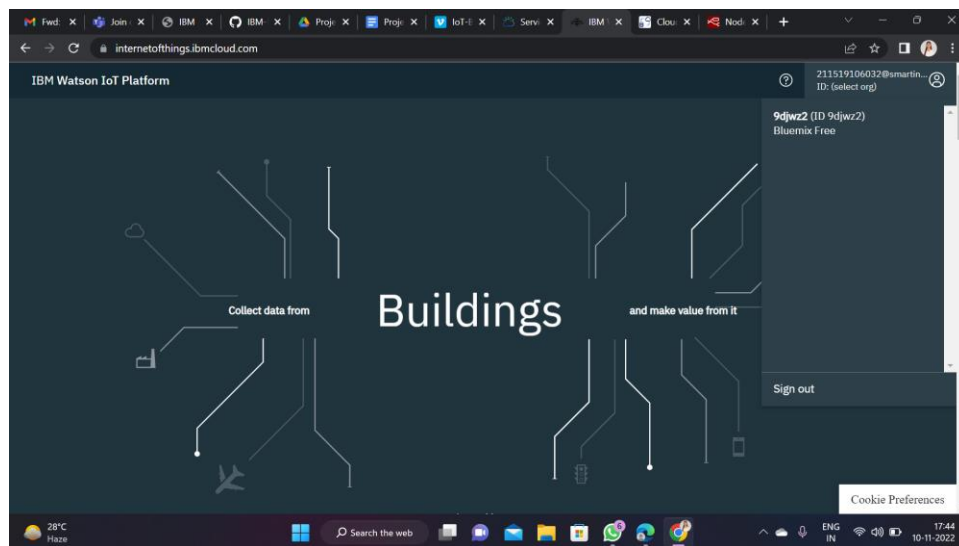
Bottom Screenshot (Plan Tab):

- Resource list / Internet of Things Platform-7p** (Active)
- Manage**, **Plan** (Selected), 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](#)

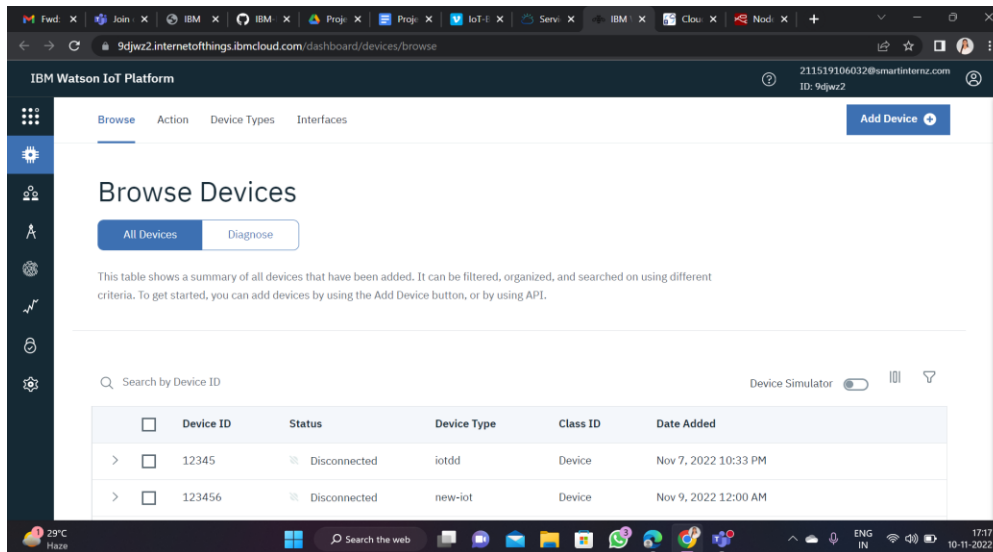
Clicking on the launch button in the manage tab, it will open to this
Enter the details to sign into the Watson Cloud to create a device



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



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

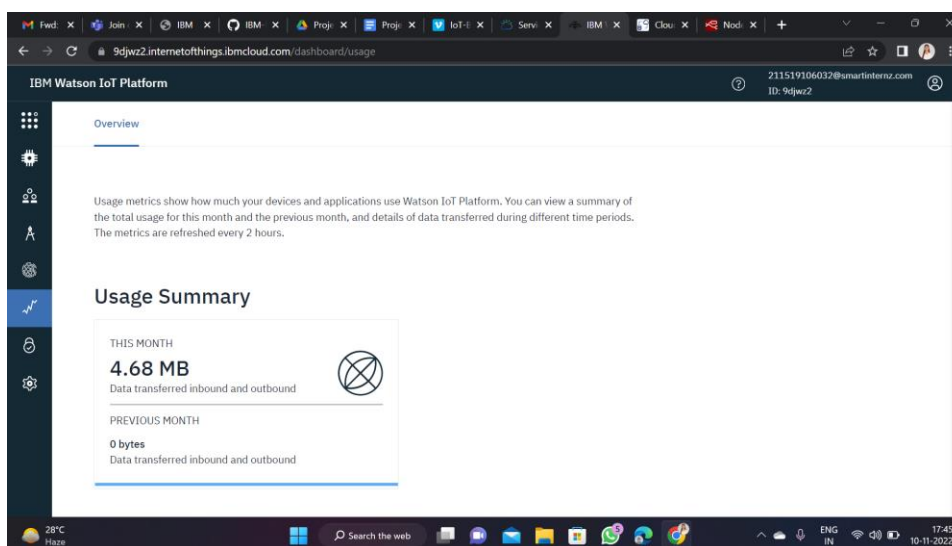
This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added
12345	Disconnected	iotdd	Device	Nov 7, 2022 10:33 PM
123456	Disconnected	new-iot	Device	Nov 9, 2022 12:00 AM

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



IBM Watson IoT Platform

Overview

Usage metrics show how much your devices and applications use Watson IoT Platform. You can view a summary of the total usage for this month and the previous month, and details of data transferred during different time periods. The metrics are refreshed every 2 hours.

Usage Summary

THIS MONTH

4.68 MB

Data transferred inbound and outbound

PREVIOUS MONTH

0 bytes

Data transferred inbound and outbound

The member tab adds the teams' members to work in the platform

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 a user profile. A sidebar on the left contains navigation icons. The main content area has a 'Browse' tab and an 'Add Members' button. Below the header, there is a search bar and a table with one member listed. The table has columns for Email Address, Name, Role, Added By, and Expires. The member listed is an Administrator with the email 211519106032@smartinter... and was added by the same ID.

Email Address	Name	Role	Added By	Expires
211519106032@smartinter...	211519106032@sm...	Administrator	-	-

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

The screenshot shows the 'Browse API Keys' page in the IBM Watson IoT Platform. The page has a dark blue header with the platform name and a user profile. A sidebar on the left contains navigation icons. The main content area has a 'Browse' tab and a 'Generate API Key' button. Below the header, there is a search bar and a table with three API keys listed. The table has columns for Key, Description, Role, and Expires. The keys are for a Standard Application, a device simulation, and another Standard Application.

Key	Description	Role	Expires
a-9djwz2-eoqjtg0u	-	Standard Application	-
a-9djwz2-7has6rvzf3	ibmapi	Standard Application	-
a-9djwz2-j7mjev9uu	API Key for the device simu...	Standard Application	-

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

The first 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 'Devices' and includes a 'Diagnose' button. Below this is a table of devices:

Device ID	Status	Device Type	Class ID	Date Added
2345	Disconnected	iotdd	Device	Nov 7, 2022 10:33 PM
23456	Disconnected	new-iot	Device	Nov 9, 2022 12:00 AM

The second screenshot shows the 'Add Type' dialog box. It has two tabs: 'Identity' (selected) and 'Device Information'. The 'Identity' tab contains fields for 'Type' (with buttons for 'Device' and 'Gateway'), 'Name' (with a placeholder 'Enter Name'), and 'Description'. A note states: 'The device type name is used to identify the device type uniquely and uses a restricted set of characters to make it suitable for API use.'

The third screenshot shows the 'Add Device' dialog box. It has four tabs: 'Identity' (selected), 'Device Information', 'Security', and 'Summary'. The 'Identity' tab contains fields for 'Device Type' (with a dropdown 'Select or create a device type...') and 'Device ID' (with a placeholder 'Enter Device ID'). At the bottom are 'Cancel' and 'Next' buttons.

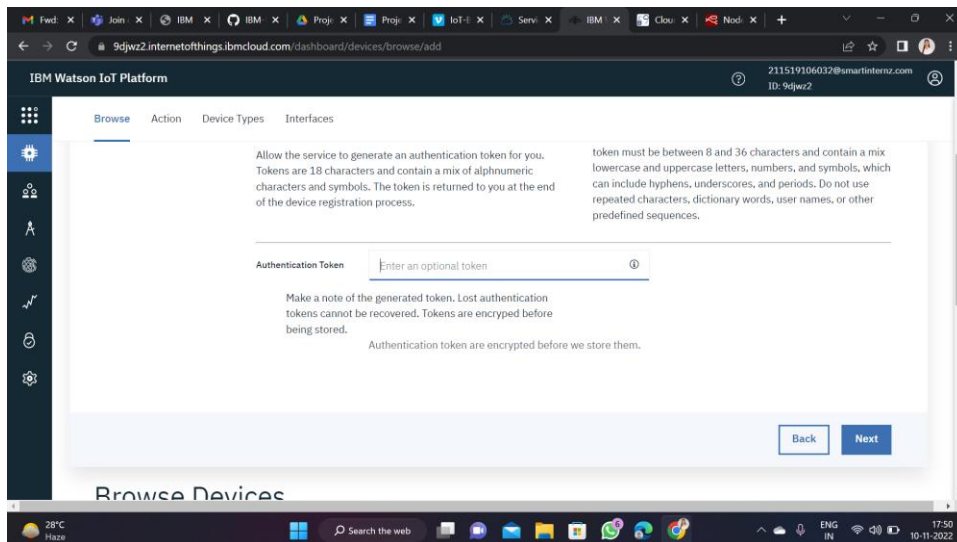
This page to enter extra details and of the hardware

The screenshot shows the 'Add Device' page in the IBM Watson IoT Platform. The 'Device Information' tab is selected, showing a progress bar with four steps: Identity (checked), Device Information (active), Security, and Summary. Below the progress bar, a message states: 'You can modify the default device information and enter more information about the device for identification purposes.' The form contains several input fields: 'Serial Number' (with a placeholder 'Enter Serial Number'), 'Model' (placeholder 'Enter Model'), 'Description' (placeholder 'Enter Description'), 'Hardware Version' (placeholder 'Enter Hardware Version'), 'Manufacturer' (placeholder 'Enter Manufacturer'), 'Device Class' (placeholder 'Enter Device Class'), 'Firmware Version' (placeholder 'Enter Firmware Version'), and 'Descriptive Location' (placeholder 'Enter Descriptive Location'). An 'Add Metadata' button is located at the bottom left of the form area.

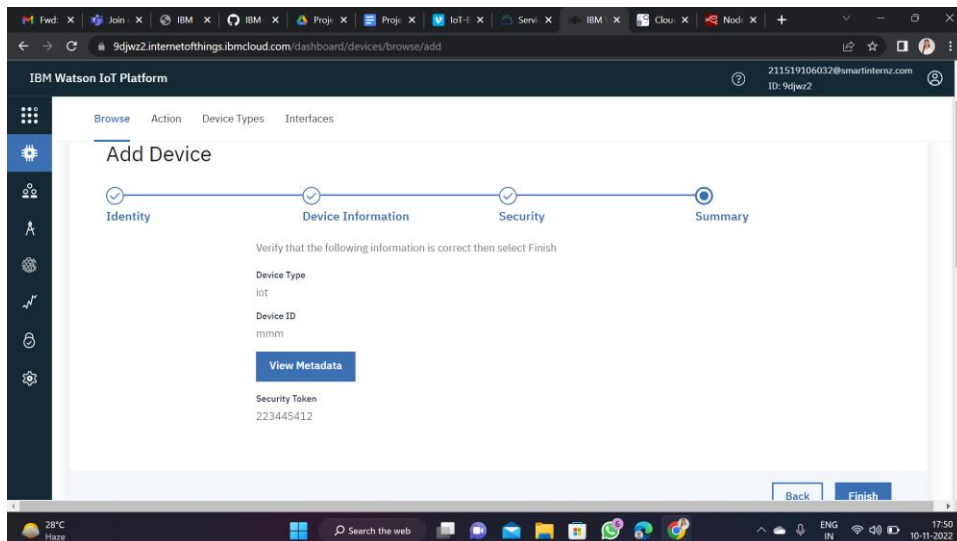
Clicking next it goes to the security where we do authentication token id.

The screenshot shows the 'Add Device' page in the IBM Watson IoT Platform, now on the 'Security' tab. The progress bar shows 'Identity' and 'Device Information' as completed, 'Security' as the current step, and 'Summary' as the next step. The page title is 'Add Device'. A message states: 'There are two options for selecting a device authentication token. Auto-generated authentication token (default)'. Below this, it explains: 'Allow the service to generate an authentication token for you. Tokens are 30 characters and contain a mix of alphanumeric characters and symbols. The token is returned to you at the end of the device registration process.' An 'Authentication token' field displays the value '1997199520012005'. To the right, the 'Self-provided authentication token' option is shown, with instructions: '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.' A note at the bottom states: '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.'

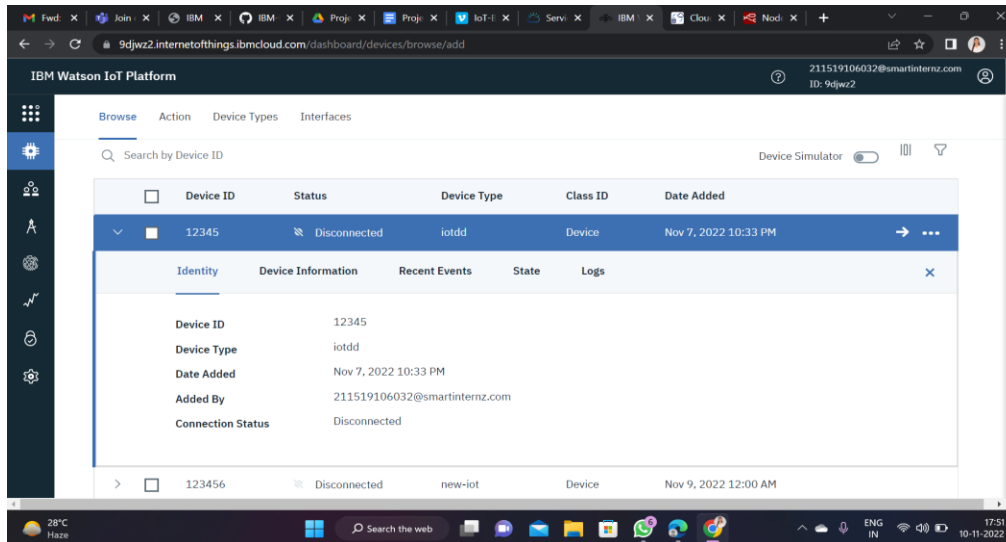
Clicking on next it goes to the summary of the device then click finish



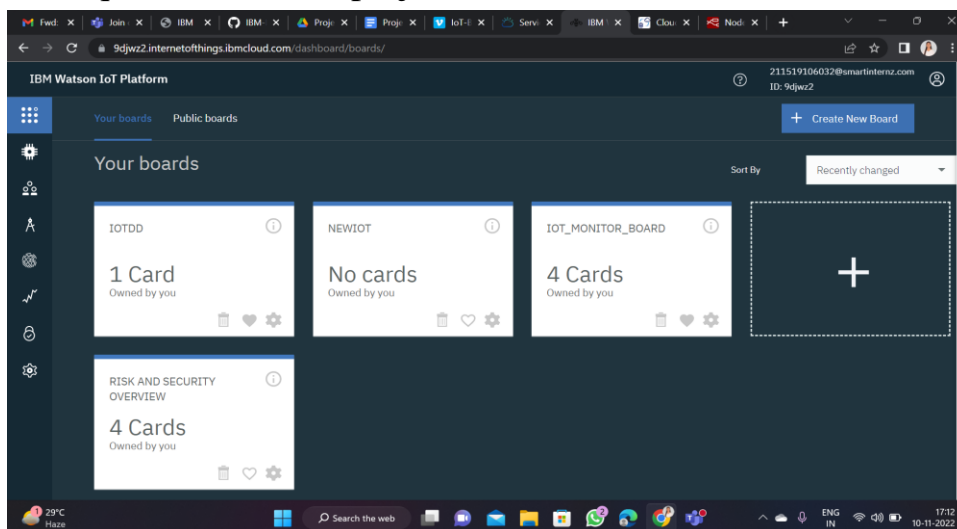
The device credentials will be displayed with all the details



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.



RESULT:

An IBM Watson cloud for IoT and a device is created