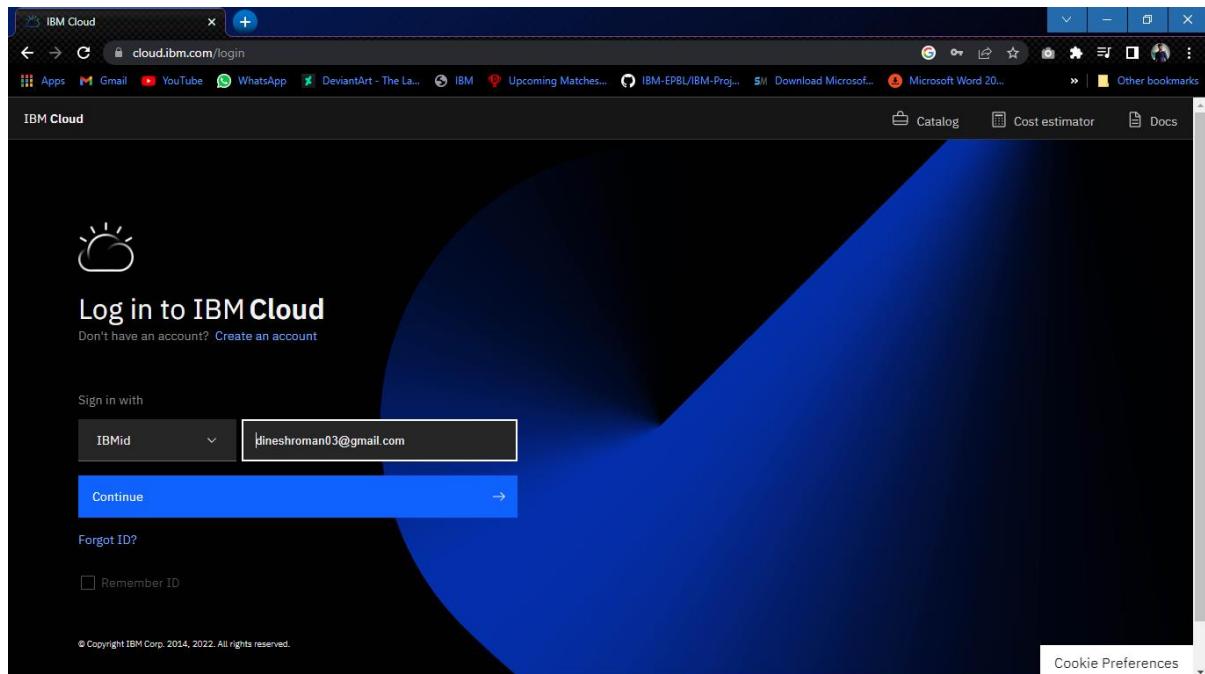


## **CREATE IBM WATSON IOT PLATFORM AND DEVICE**

### **STEPS:**

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



## Home page of IBM cloud.

The screenshot shows the IBM Cloud home page. On the left, there's a sidebar with various icons for services like Apps, Gmail, YouTube, WhatsApp, DeviantArt, IBM, Upcoming Matches, IBM-EPBL/IBM-Proj, Download Microsoft Word, and Other bookmarks. The main area has a dark header with "IBM Cloud" and a search bar. Below the header is a "Dashboard" section with a "For you" card titled "Build" and several other cards: "Explore IBM Cloud Shell", "Welcome to IBM Cloud", "Set up your IBM Cloud account", "Build a web app with Watson Speech to Text", and "Use Cloud NoSQL that offloads scaling capacity". At the bottom of the dashboard are sections for "User access", "News", and "Planned maintenance".

Click on the catalog on the top.

The screenshot shows the IBM Cloud Catalog page. The left sidebar lists categories: Compute (30), Containers (9), Networking (30), Storage (20), AI / Machine Learning (17), Analytics (10), Blockchain (1), Databases (28), Developer tools (25), Logging and monitoring (3), Migration (8), Integration (10), Internet of Things (1), Security (25), and Mobile (1). The main area displays several service cards: "Analytics Engine" by IBM, "AnonTech ViziVault Platform" by Anon Technology, Inc., "API Connect" by IBM, "App Configuration" by IBM, "App Connect" by IBM, and "App ID" by IBM. Each card includes a brief description and a list of features.

Click on IoT in the category mentioned.

The screenshot shows the IBM Cloud Catalog interface. On the left, there's a sidebar with service details: Type: Service, Provider: IBM, Last updated: 08/15/2022, Category: Internet of Things, Compliance: IAM-enabled, and Location: Frankfurt, London, Dallas, Washington DC. The main content area is titled "Internet of Things Platform". It includes a summary table with columns for Plan, Features, and Pricing. The "Lite" plan is selected, showing features like up to 500 registered devices and a maximum of 200 MB of each data metric. The pricing is listed as "Free". On the right, there's a "Summary" section with details: Internet of Things Platform, Free, Location: Frankfurt, Plan: Lite, Service name: Internet of Things Platform-v9, and Resource group: Default. Below this is a checkbox for accepting license agreements, which is unchecked. At the bottom right are "Create" and "Add to estimate" buttons.

Enter the location and in the configure your resource type the service nameand choose the plan, tick the agree with agreements and then click on create

This screenshot shows the same IBM Cloud Catalog page as above, but with a focus on the creation process. The "Create" button is now highlighted in blue. In the summary section, the "I have read and agree to the following license agreements" checkbox is checked. Below it, a progress indicator shows "Creating...". The rest of the interface remains the same, displaying the service details and configuration options.

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 interface. On the left, there's a sidebar with service details: Type Service, Provider IBM, Last updated 08/15/2022, Category Internet of Things, Compliance IAM-enabled, and Location Frankfurt, London, Dallas, Washington DC. The main area is titled "Internet of Things Platform" and shows a summary: Location Frankfurt, Plan Lite, Service name Internet of Things Platform-v9, Resource group Default. Below this, there's a "Create" button and tabs for "Create" and "About". A "Select a location" dropdown is set to "Frankfurt (eu-de)". A "Select a pricing plan" section shows a table with one row for "Lite". The table columns are "Plan", "Features", and "Pricing". The "Lite" plan includes up to 500 registered devices, a maximum of 200 MB of each data metric, and is Free. To the right, there's a "Summary" panel with a checkbox for "I have read and agree to the following license agreements" which is checked, and a "Creating..." status message. At the bottom right is a "Add to estimate" button.

Internet of Things platform child safety will be created , where there are different option like manage, plan, and connection.

The screenshot shows the "Service Details - IBM Cloud" page for the "Internet of Things Platform-v9" resource. The left sidebar has a "Manage" tab selected, along with "Plan" and "Connections". The main content area features a large graphic of interconnected nodes. Below it, a section titled "Let's get started with IBM Watson IoT Platform" with a "Launch" button and "Docs" link. A "Ready for the next level?" section introduces the "IBM Watson IoT Platform Journey": "Lite" (selected), "Non-Production", and "Production". Each journey step has a brief description. The "Lite" step says it provides a lightweight development environment. The "Non-Production" step says it's a full-featured offering. The "Production" step says it's a managed SaaS offering for managing and analyzing data.

Service Details - IBM Cloud

cloud.ibm.com/services/iotf-service/crm%3Av1%3Abluemix%3Apublic%3Aiotf-service%3Aeu-de%3Aa%2F194a638bd0c446ee899592d063235b37%

IBM Cloud Search resources and products... Catalog Manage Dinesh U's Account

Resource list / Internet of Things Platform-v9 Active Add tags

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	Free 

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

Service Details - IBM Cloud

IBM Watson IoT Platform

internetofthings.ibmcloud.com

IBM Watson IoT Platform Sign in

Buildings

Collect data from Buildings and make value from it

About cookies on this site

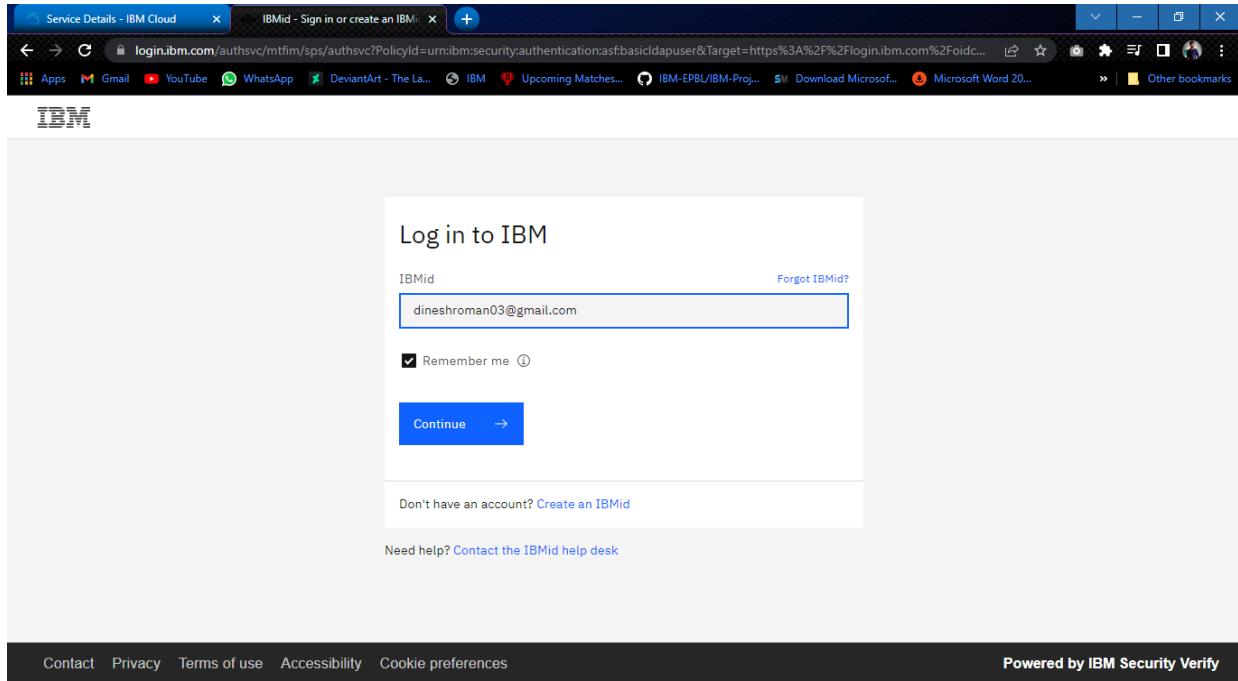
Our websites require some cookies to function properly (required). In addition, other cookies may be used with your consent to analyze site usage, improve the user experience and for advertising.

For more information, please review your [Cookie preferences](#) options and IBM's [privacy statement](#).

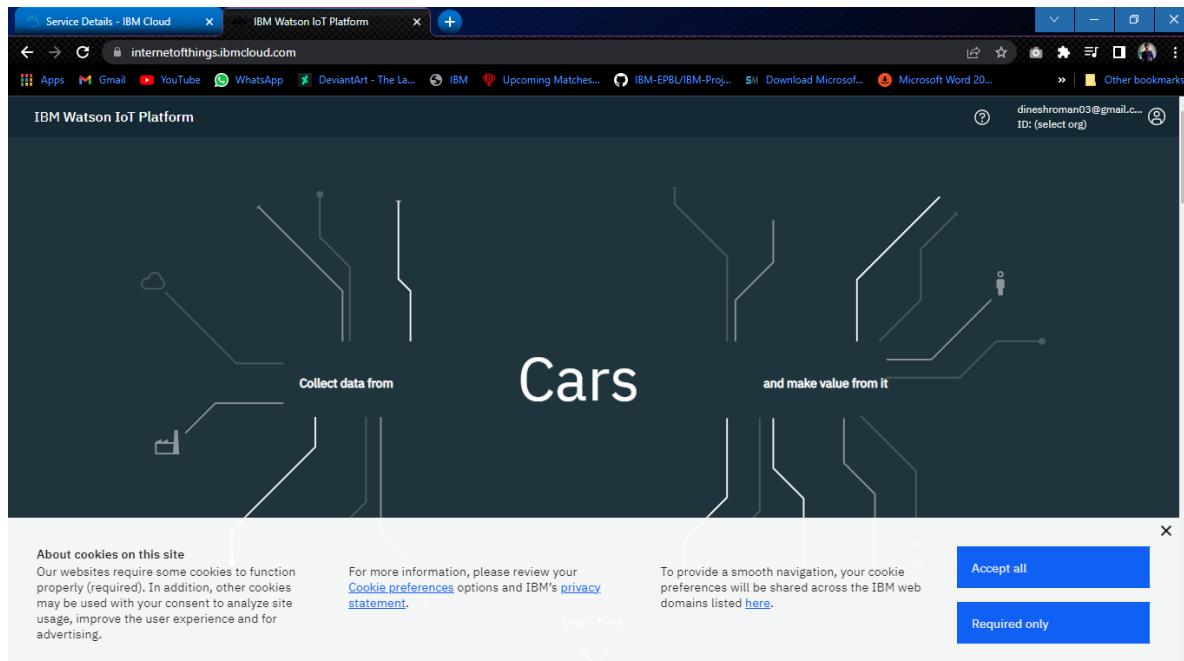
To provide a smooth navigation, your cookie preferences will be shared across the IBM web domains listed [here](#).

Accept all Required only

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 tabs, the device will help in the creation of the devices, and the display of details of the devices.

The screenshot shows the 'Browse Devices' section of the IBM Watson IoT Platform. At the top, there are tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A blue 'Add Device' button is located in the top right corner. On the left, a sidebar features icons for device management. The main area has a heading 'Browse Devices' and two buttons: 'All Devices' (highlighted in blue) and 'Diagnose'. Below this is a note about the table showing device summaries. A search bar labeled 'Search by Device ID' is present. A table header row includes columns for 'Device ID', 'Status', 'Device Type', 'Class ID', and 'Date Added'. A message at the bottom states 'You don't have any devices.' with a small icon of a person.

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

The screenshot shows the 'Usage' section of the IBM Watson IoT Platform. The left sidebar has an icon highlighted in blue. The main area features a heading 'Usage Summary' with two sections: 'THIS MONTH' (0 bytes transferred) and 'PREVIOUS MONTH' (0 bytes transferred). Below this is a section titled 'Data Transferred' with a date range selector. The date range is set from '11/10/2022' to '11/11/2022'. The date range selector includes buttons for '1', '3', '6', and 'Max' months.

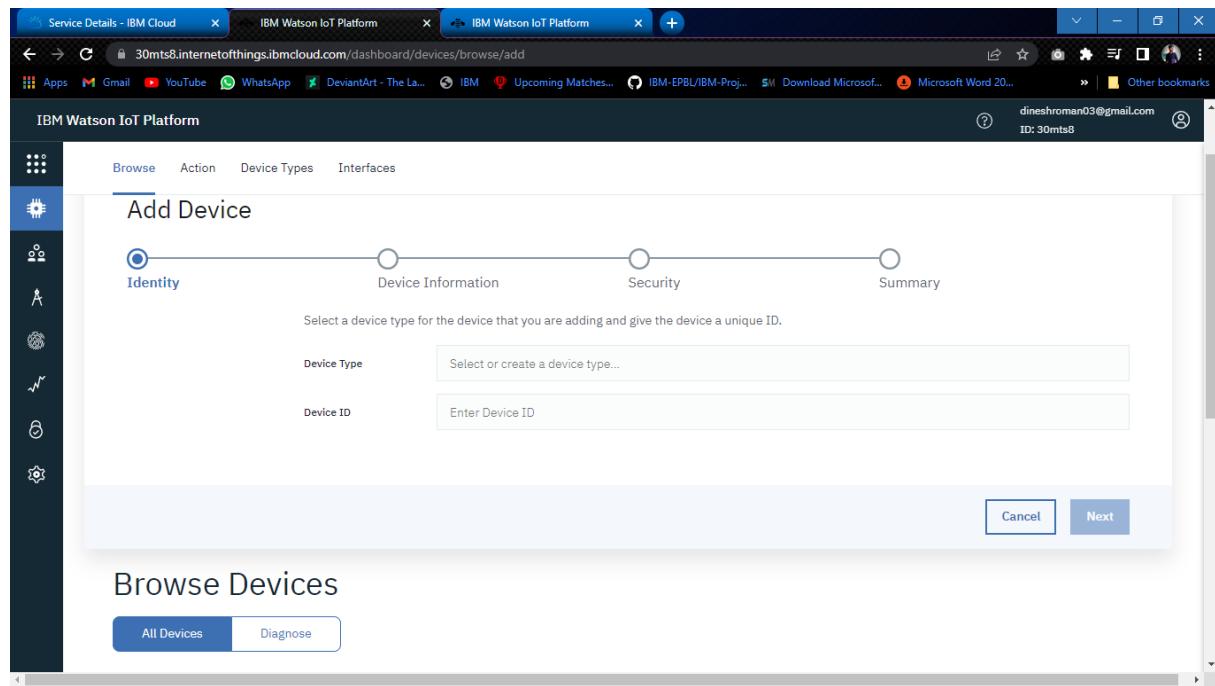
The member tab is adding the teams' members to work in the platform.

This screenshot shows the 'Browse Members' section of the IBM Watson IoT Platform. The interface includes a sidebar with various icons and a main content area titled 'Browse Members'. A search bar at the top right allows users to search for member emails. Below the search bar is a table header with columns: Email Address, Name, Role, Added By, and Expires. The table displays one result for 'dineshroman03@gmail.com' with the role 'Administrator'. There are also icons for deleting and filtering the data.

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

This screenshot shows the 'Browse API Keys' section of the IBM Watson IoT Platform. The interface includes a sidebar with various icons and a main content area titled 'Browse API Keys'. A search bar at the top right allows users to search for app descriptions. Below the search bar is a table header with columns: Key, Description, Role, and Expires. The table displays 0 results. In the center of the page is a small bee icon, and below it is the text 'There are no API Keys' followed by a 'Generate API Key' button.

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



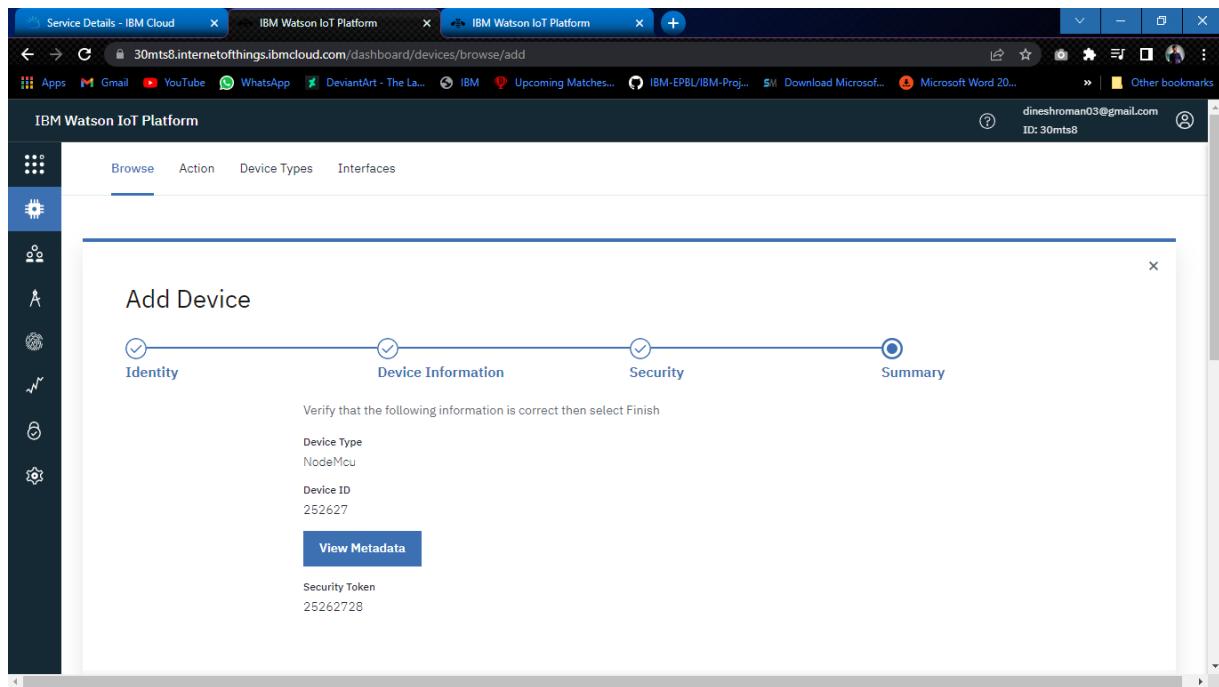
This page to enter extra details and of the hardware.

The screenshot shows the 'Add Device' wizard on the IBM Watson IoT Platform. The current step is 'Identity'. The interface includes a sidebar with icons for device types like Sensors, Actuators, and Interfaces. The main area has fields for Serial Number, Model, Description, Hardware Version, Manufacturer, Device Class, Firmware Version, and Descriptive Location. A 'Next' button is visible at the bottom right.

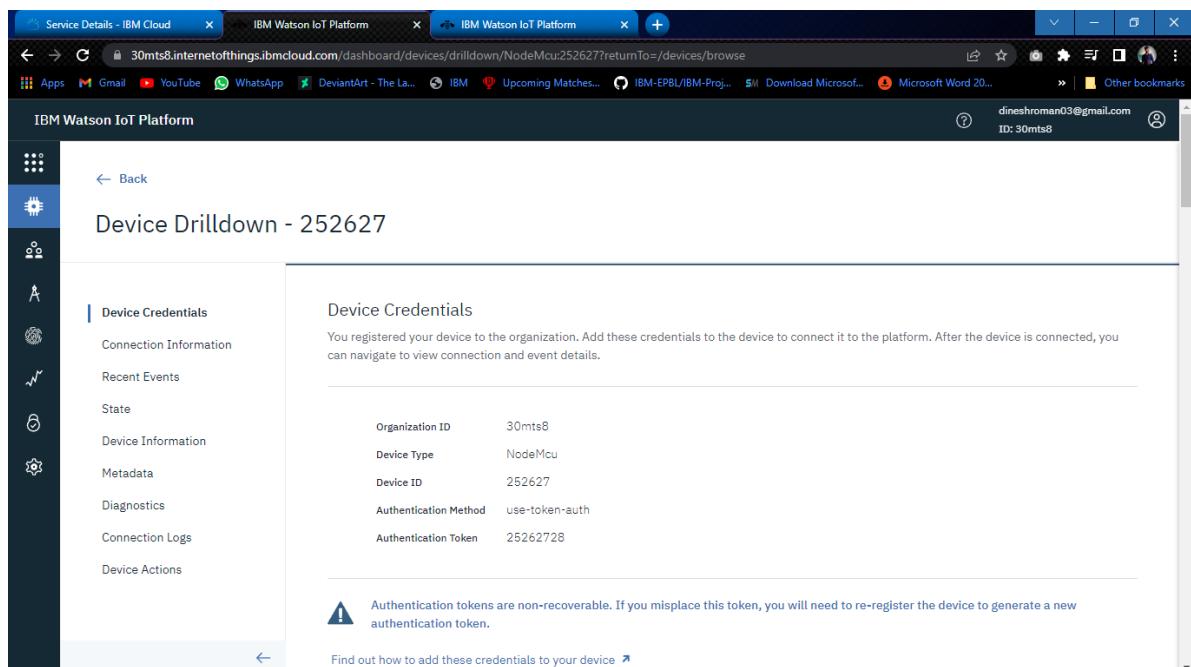
Clicking next it goes to the security where we do authentication token id.

The screenshot shows the 'Add Device' wizard on the IBM Watson IoT Platform. The current step is 'Security'. It provides two options for selecting a device authentication token: 'Auto-generated authentication token (default)' and 'Self-provided authentication token'. The 'Auto-generated' option is selected by default. Below the token selection, there's a field for 'Authentication Token' containing '25262728'. A note below the field says: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.' Another note states: 'Authentication token are encrypted before we store them.' A 'Next' button is visible at the bottom right.

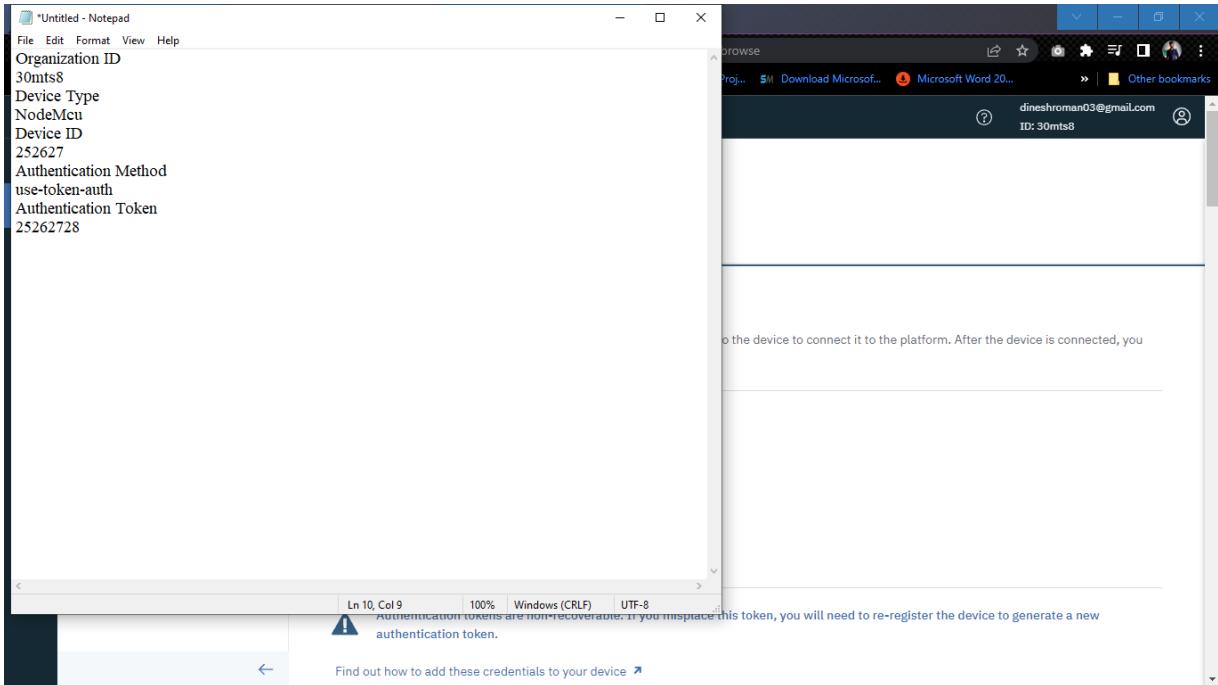
Clicking on next it goes to the summary of the device then click finish.



The devices 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.



Clicking on the devices tab we can now see the added devices. Clicking on it will display the other details.

The screenshot shows the 'Devices' tab of the IBM Watson IoT Platform. The URL is `30mts8.internetofthings.ibmcloud.com/dashboard/devices/browse`. The dashboard lists a single device:

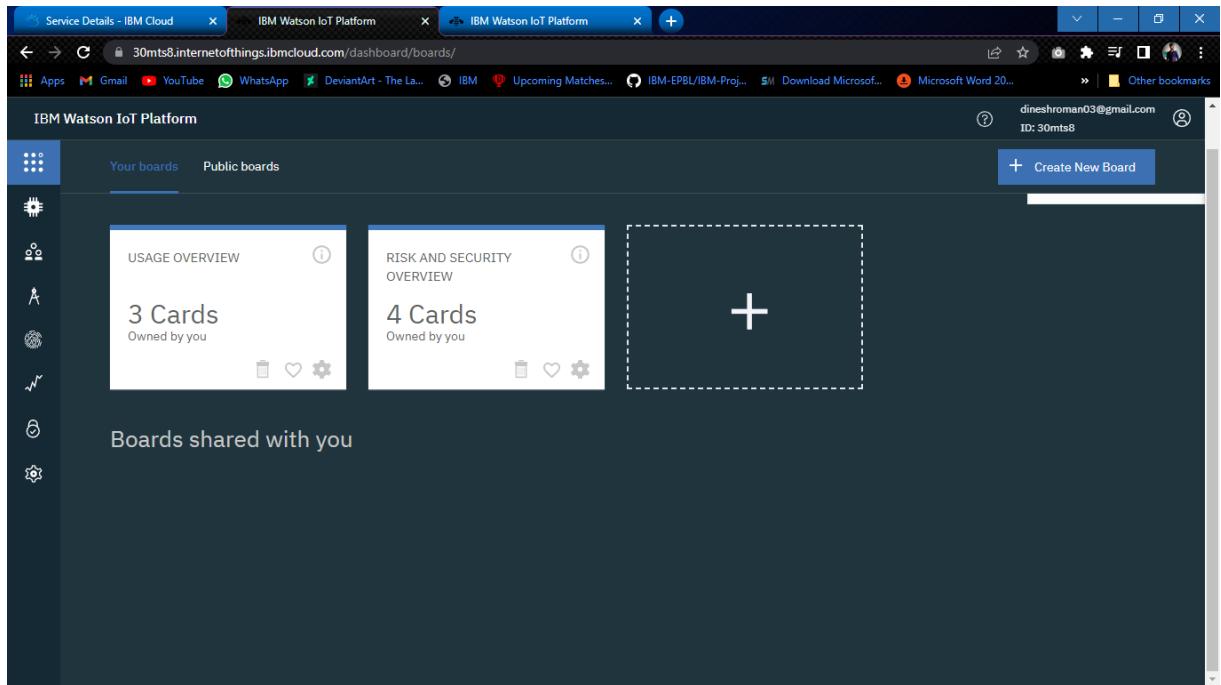
Device ID	Status	Device Type	Class ID	Date Added
252627	Disconnected	NodeMcu	Device	Nov 11, 2022 6:10 PM

Details for the device:

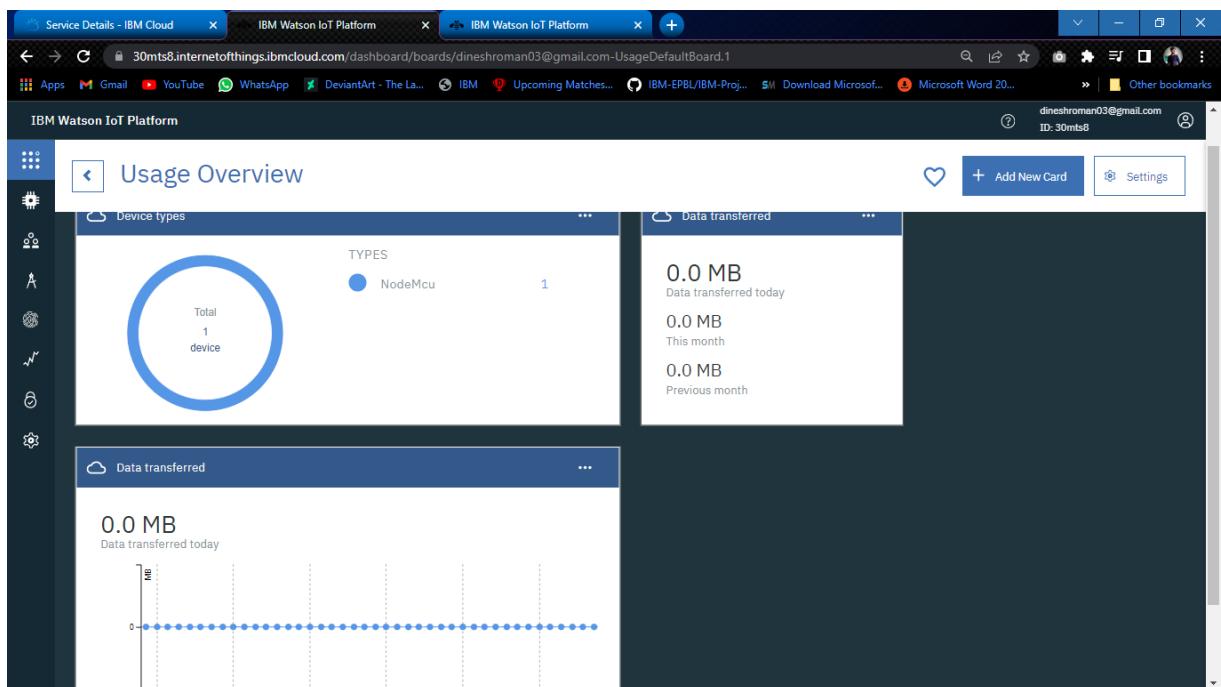
Identity	Device Information	Recent Events	State	Logs
Device ID	252627			
Device Type	NodeMcu			
Date Added	Nov 11, 2022 6:10 PM			
Added By	dineshroman03@gmail.com			
Connection Status	Disconnected			

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

The boards will display card for the project.



## Result:



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