

<b>Date</b>	<b>07 November 2022</b>
<b>Team ID</b>	<b>PNT2022TMID42239</b>
<b>Name</b>	<b>Monish R_710019106028</b>
<b>Project Name</b>	<b>Signs with Smart Connectivity for Better Road Safety</b>

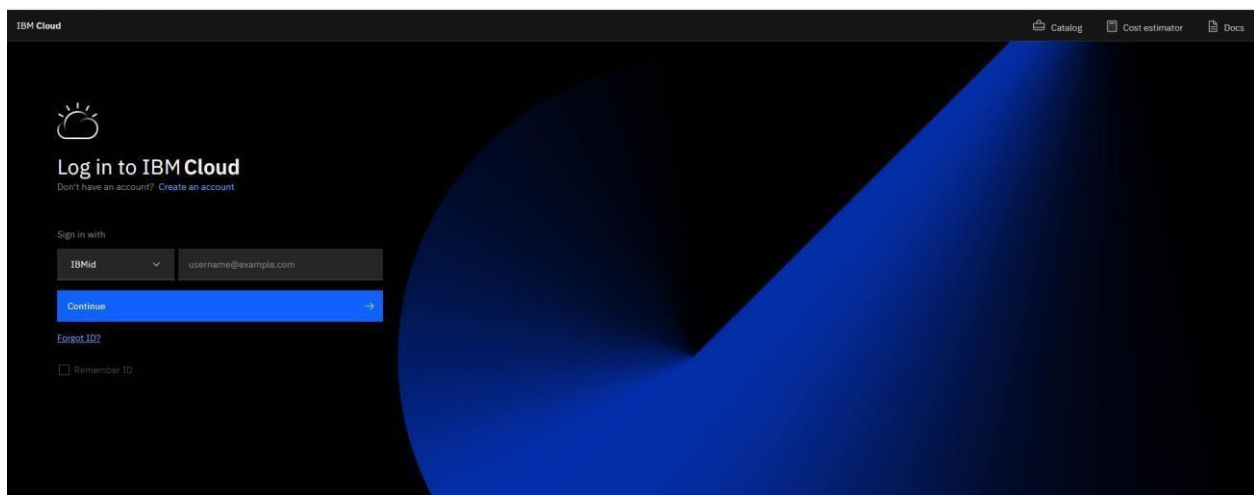
## CREATE IBM WATSON IOT PLATFORM AND DEVICE

### AIM:

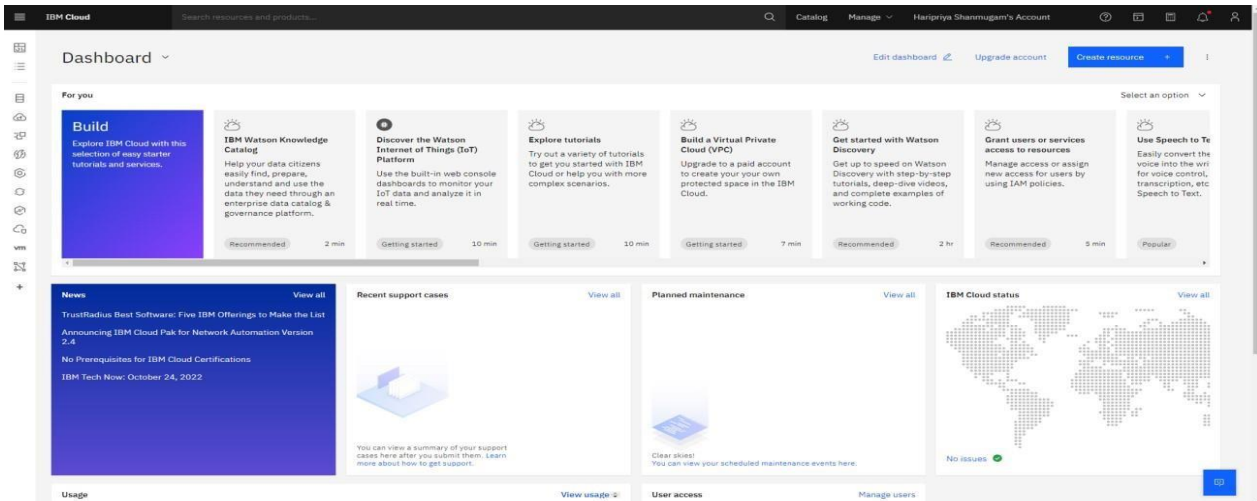
To create the IBM Watson IoT platform and device

### STEPS:

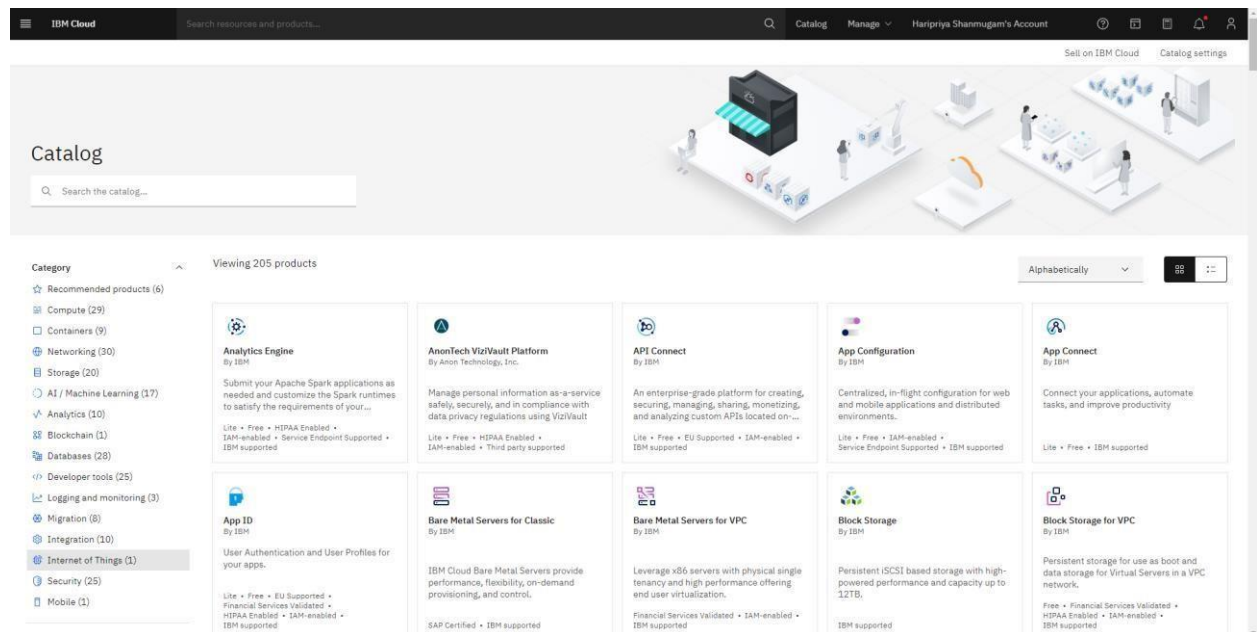
1. Firstly create an IBM cloud account with IBMid and password.



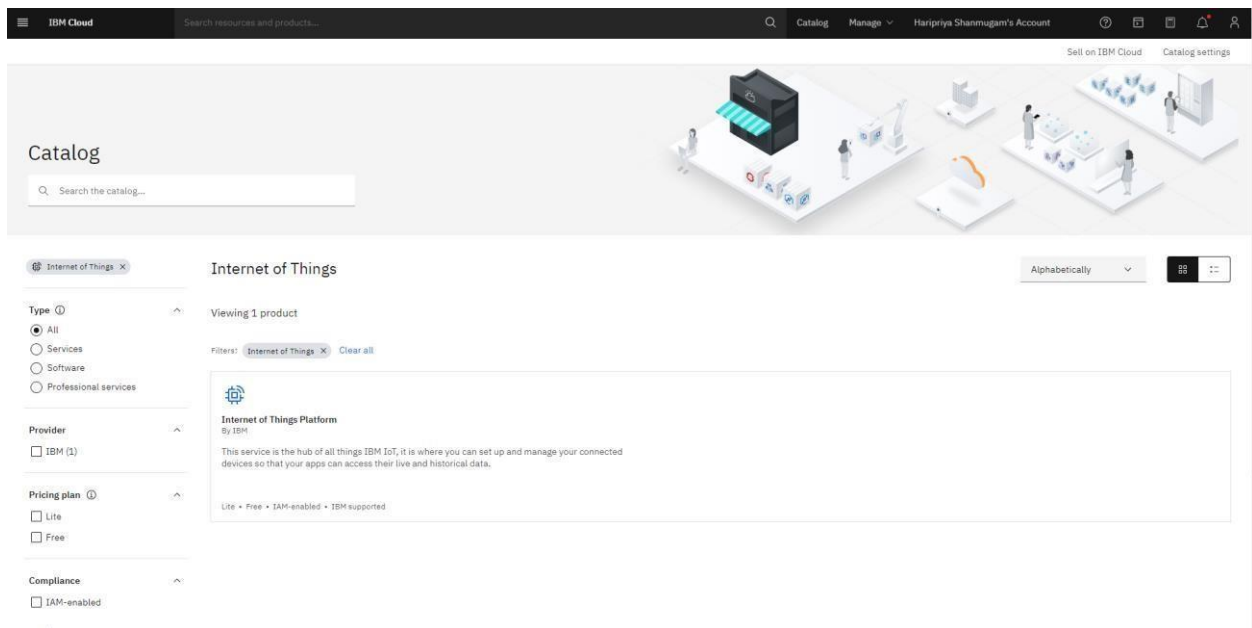
2. Home page of IBM cloud.



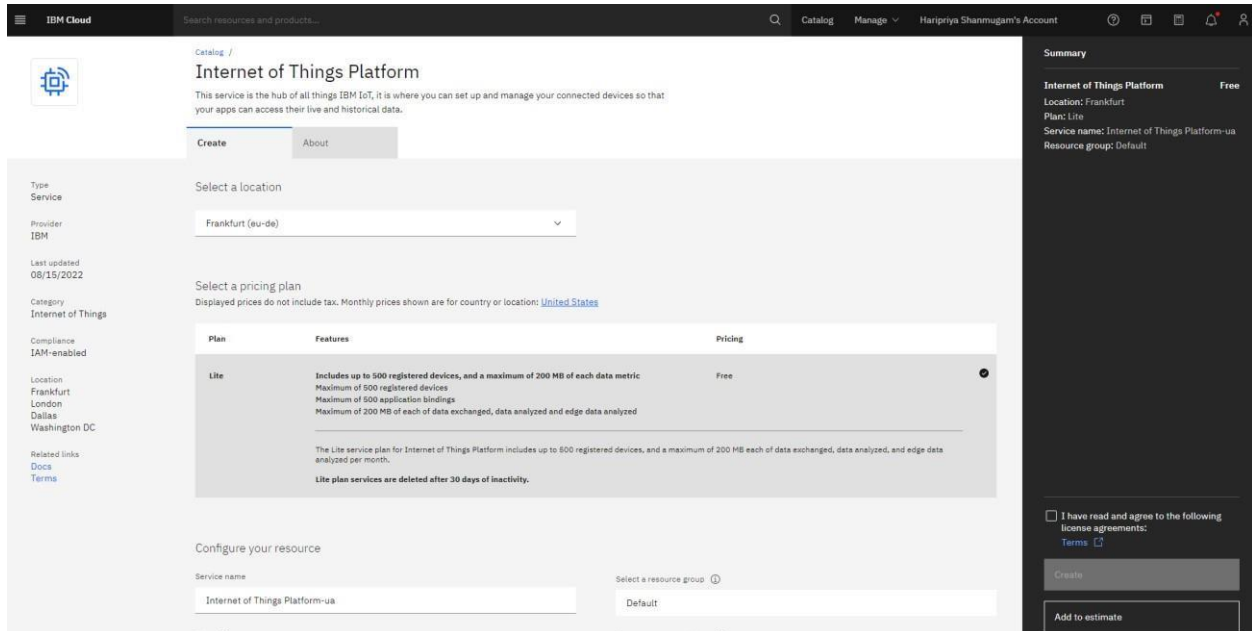
3. Click on the catalog on the top.



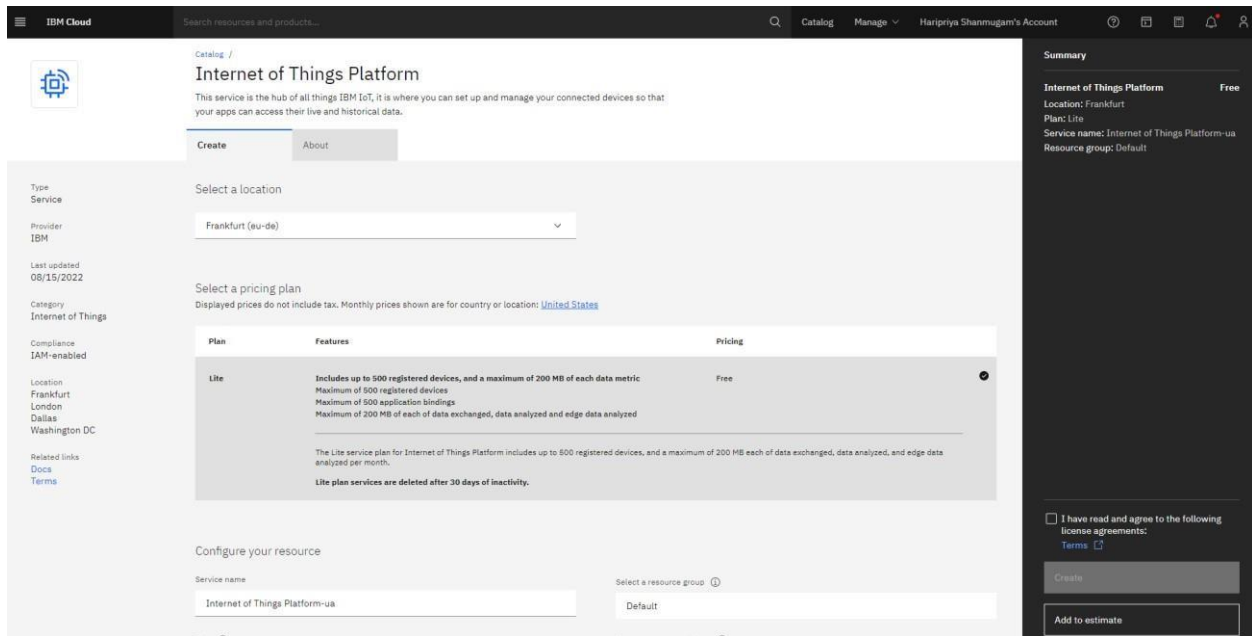
4. Click on IoT in the category mentioned.



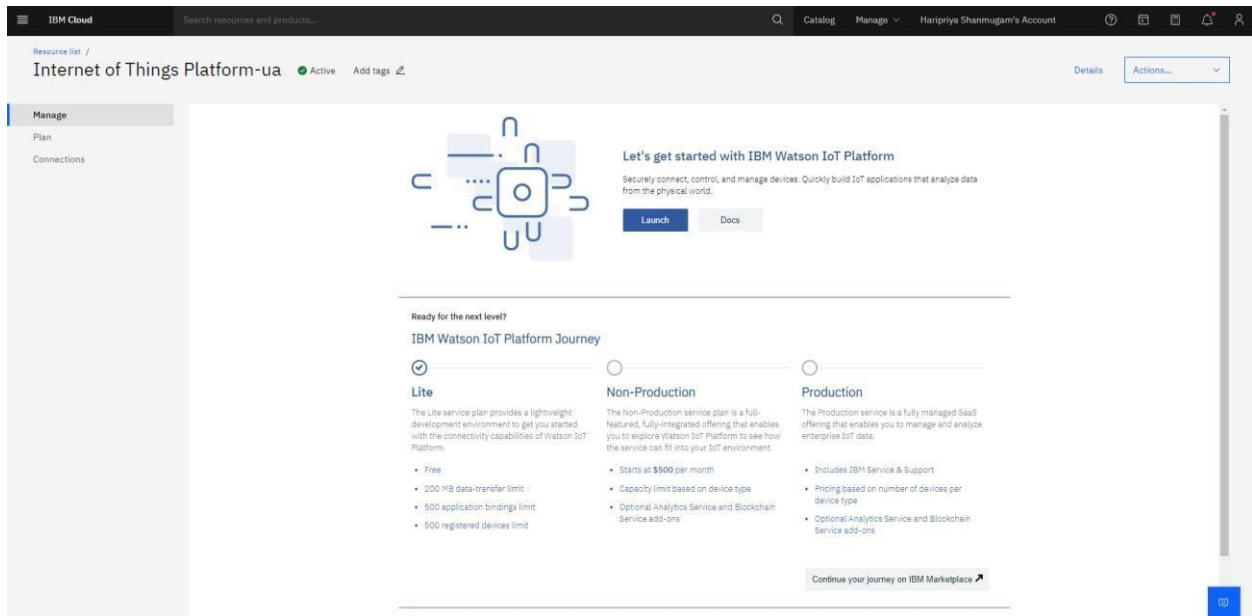
5. If already a lite is present delete it else u can't create another.



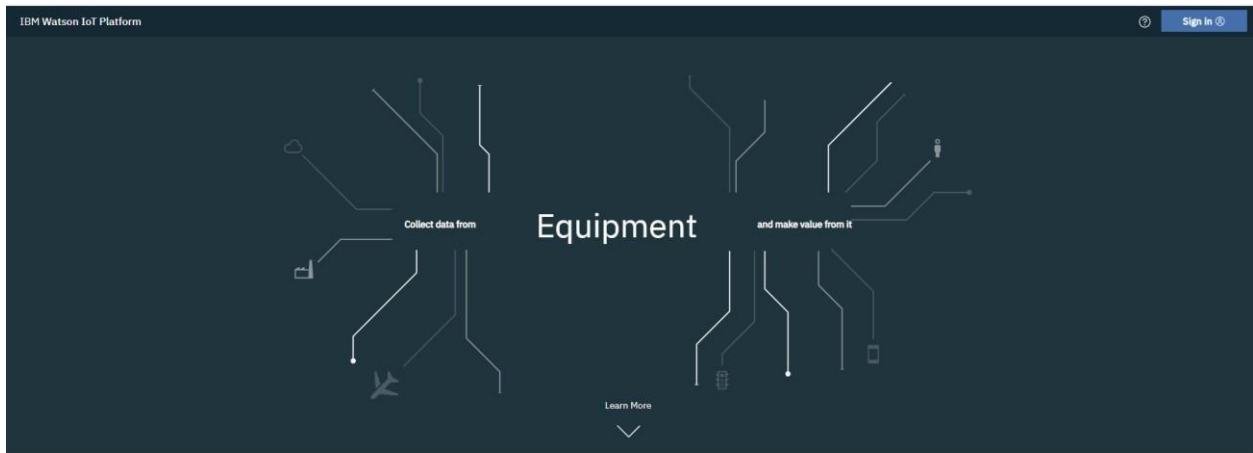
6. Enter the location and in the configure your resource type the service name and choose the plan, tick the agree with agreements and then click on create.



- 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)



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



## Powerful web dashboard

Flexible, scalable and easy to use

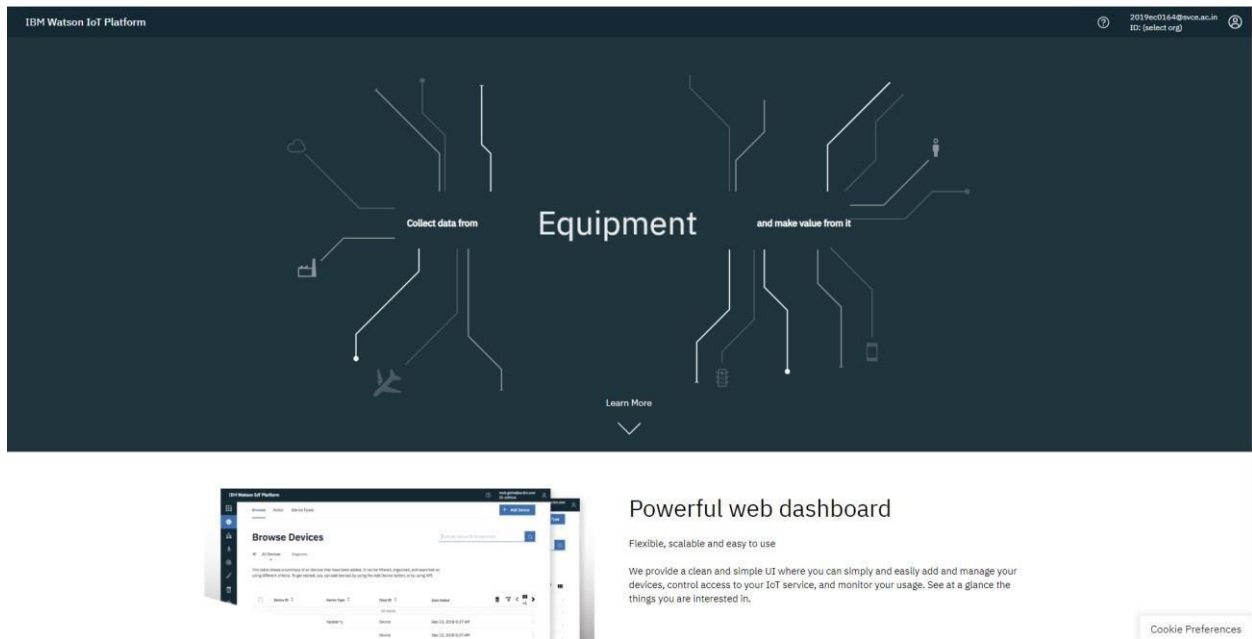
We provide a clean and simple UI where you can simply and easily add and manage your devices, control access to your IoT service, and monitor your usage. See at a glance the things you are interested in.

[Cookie Preferences](#)

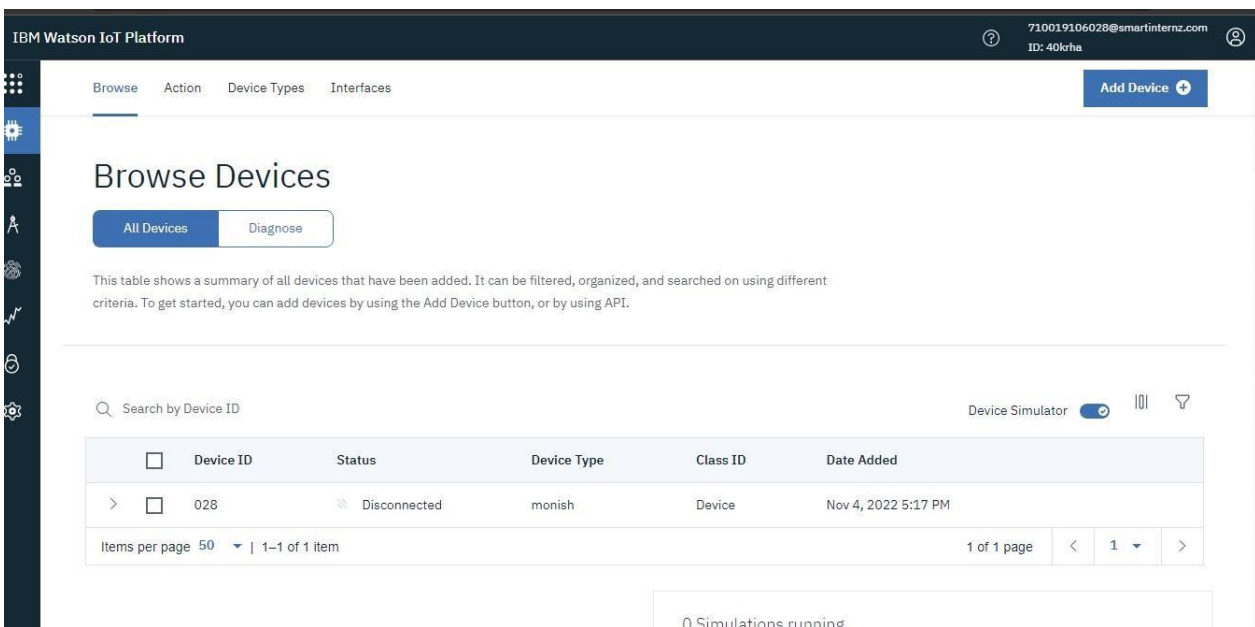
9. Enter the details to sign in to the Watson Cloud to create a device.

 The image shows the IBM login page. At the top is the IBM logo. Below it is a large grey rectangle. In the center of the rectangle is a white box with the title "Log in to IBM". Inside this box, there is a field for "IBMid" with a "Forgot IBMid?" link to its right. Below the field is a checkbox labeled "Remember me" with an information icon. A blue "Continue" button with a right arrow is below the checkbox. At the bottom of the white box, it says "Don't have an account? [Create an IBMid](#)". Below the white box, there is a link that says "Need help? [Contact the IBMid help desk](#)".

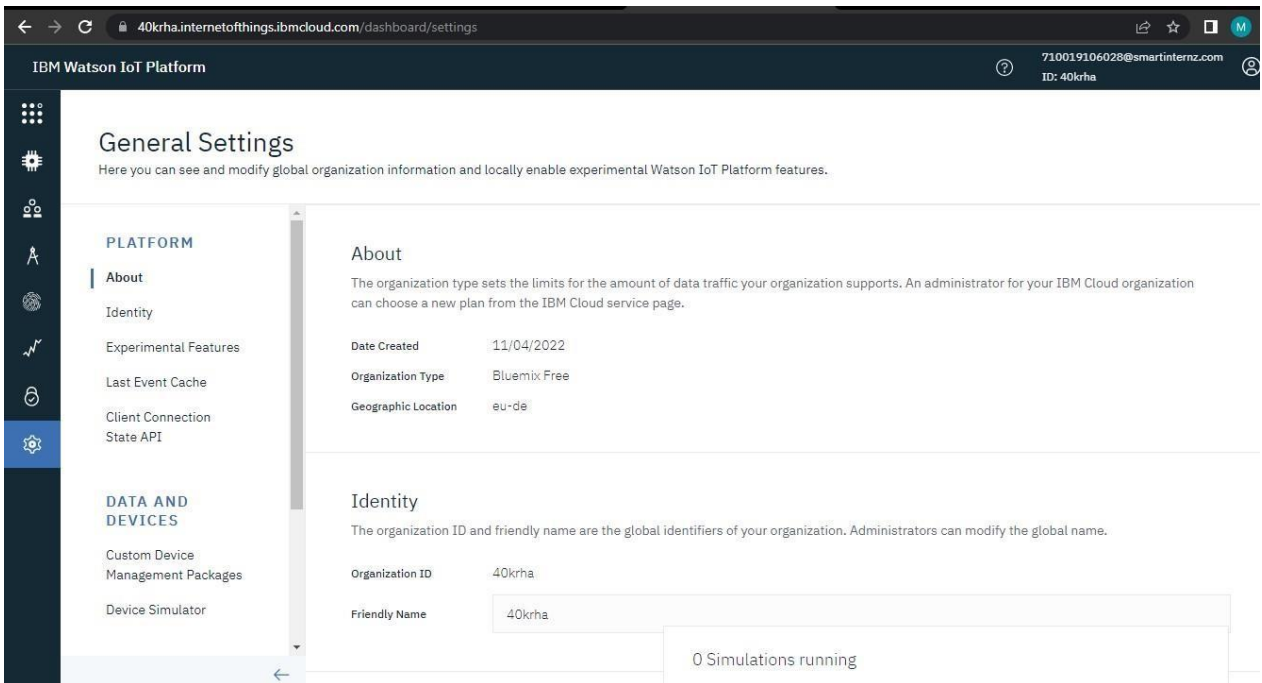
10. Once logged in the name will be displayed and it goes back to the first page.



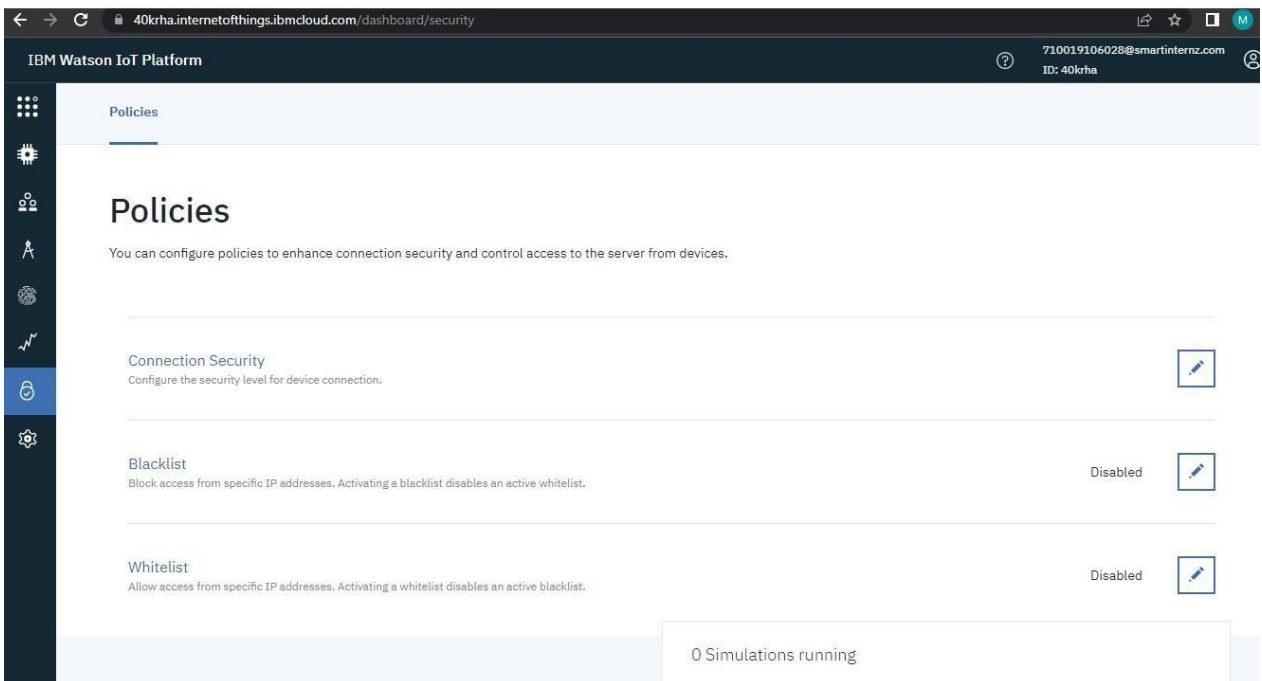
11. And again clicking on the launch button will open this tab, the device will help in the creation of the devices, the addition of devices, and the display of details of the devices.



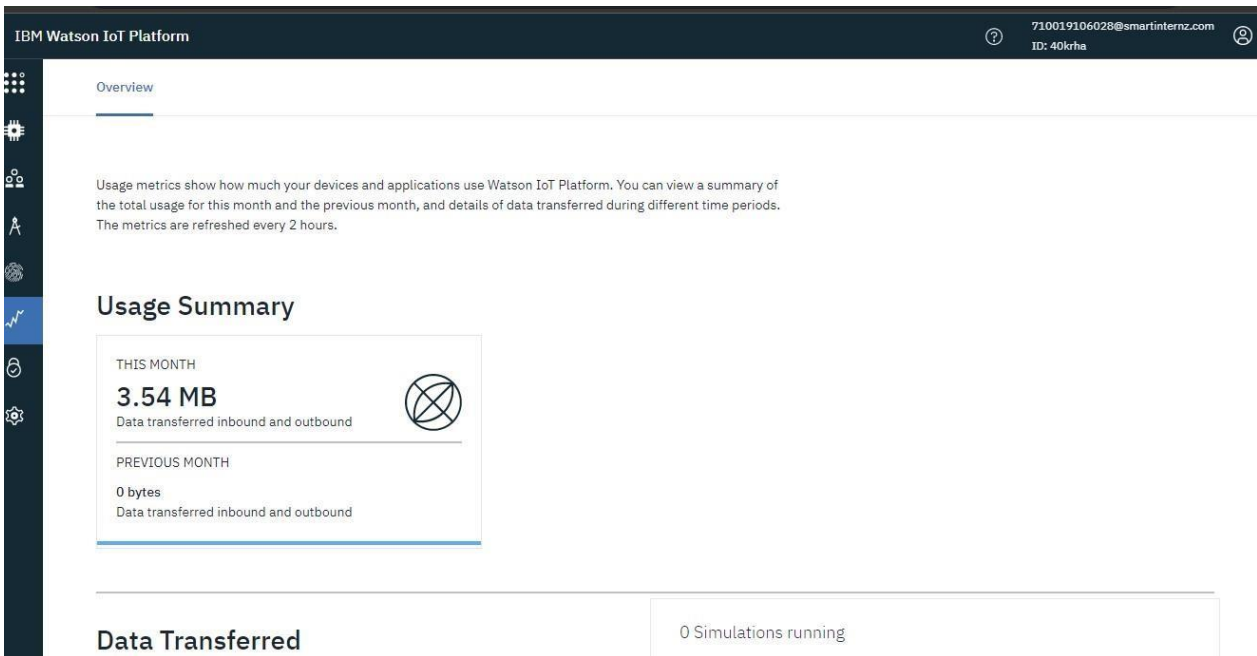
12. The setting tab is used to change the general setting if needed for the project.



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.

The screenshot shows the 'Browse Members' page in the IBM Watson IoT Platform. The page header includes the platform name and user information. The main content area is titled 'Browse Members' and contains a search bar and a table of members.

Search bar: Type the member email to search for

Table:

<input type="checkbox"/>	Email Address	Name	Role	Added By	Expires	
1 result						
<input type="checkbox"/>	710019106028@smartinternz....	710019106028@smar...	Administrator	-	-	

0 Simulations running

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



IBM Watson IoT Platform

710019106028@smartinternz.com  
ID: 40krha

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](#).

☐

Key

Description

Role

Expires

2 results

☐

a-40krha-dy3gcv0tjq

API Key for the device simulator

Standard Application

☐

a-40krha-llmbnvimr3

API Key for the device simulator

Standard Application

0 Simulations running

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

IBM Watson IoT Platform

710019106028@smartinternz.com  
ID: 40krha

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

>

☐

028

Disconnected

monish

Device

Nov 4, 2022 5:17 PM

Items per page 50 | 1-1 of 1 item

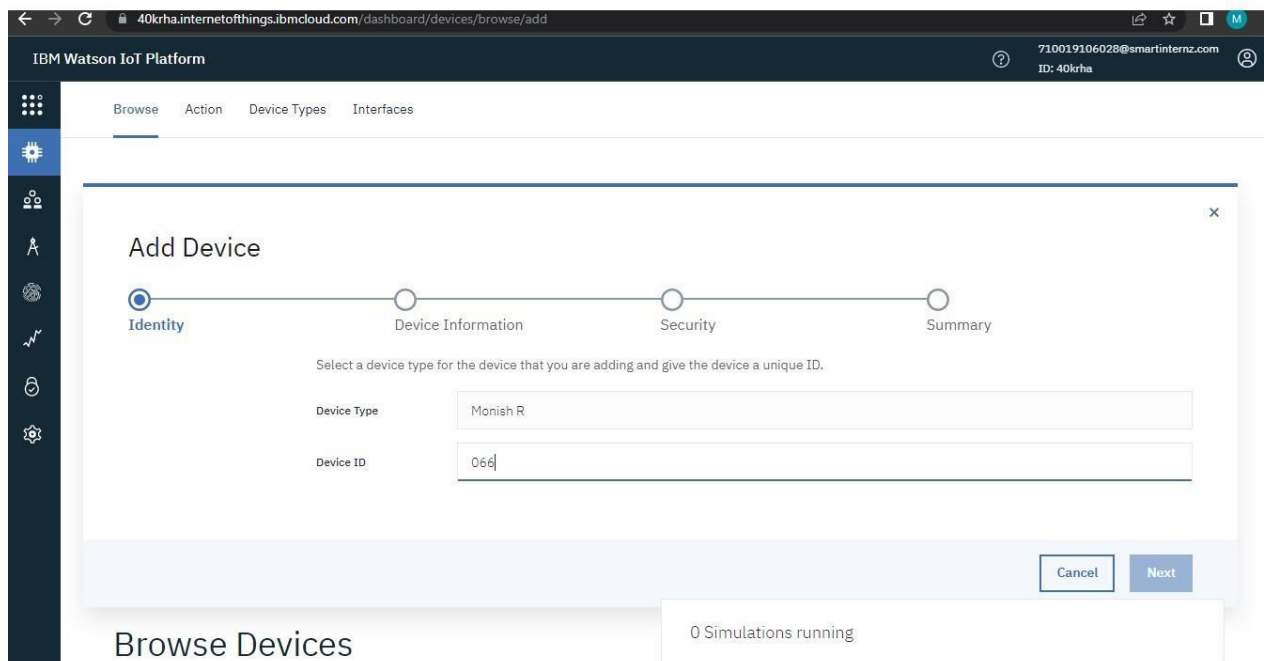
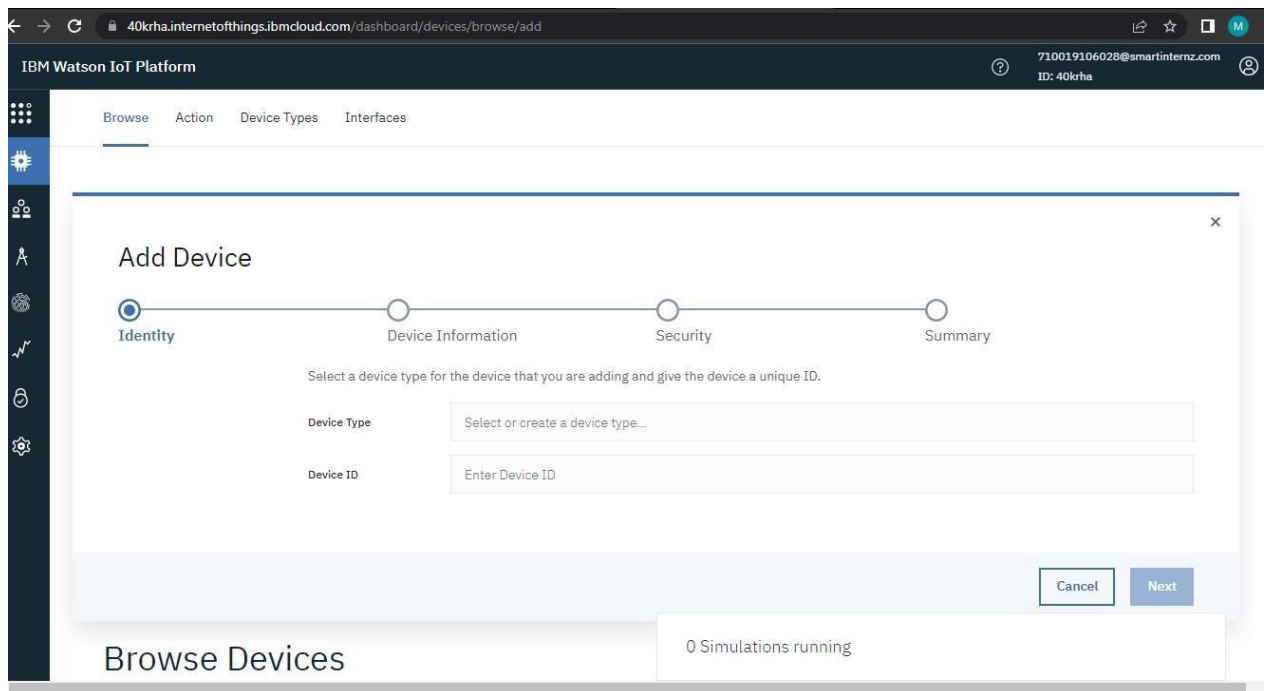
1 of 1 page

<

1

>

0 Simulations running



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

The screenshot shows the 'Add Device' page in the IBM Watson IoT Platform. The page is divided into four steps: Identity, Device Information (current), Security, and Summary. The 'Device Information' step contains a form with the following fields:

Field	Value
Serial Number	Enter Serial Number
Model	Enter Model
Description	Enter Description
Hardware Version	Enter Hardware Version
Manufacturer	Enter Manufacturer
Device Class	Enter Device Class
Firmware Version	Enter Firmware Version
Descriptive Location	Enter Descriptive Location

Below the form is a button labeled 'Add Metadata +'. At the bottom right, it says '0 Simulations running'.

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

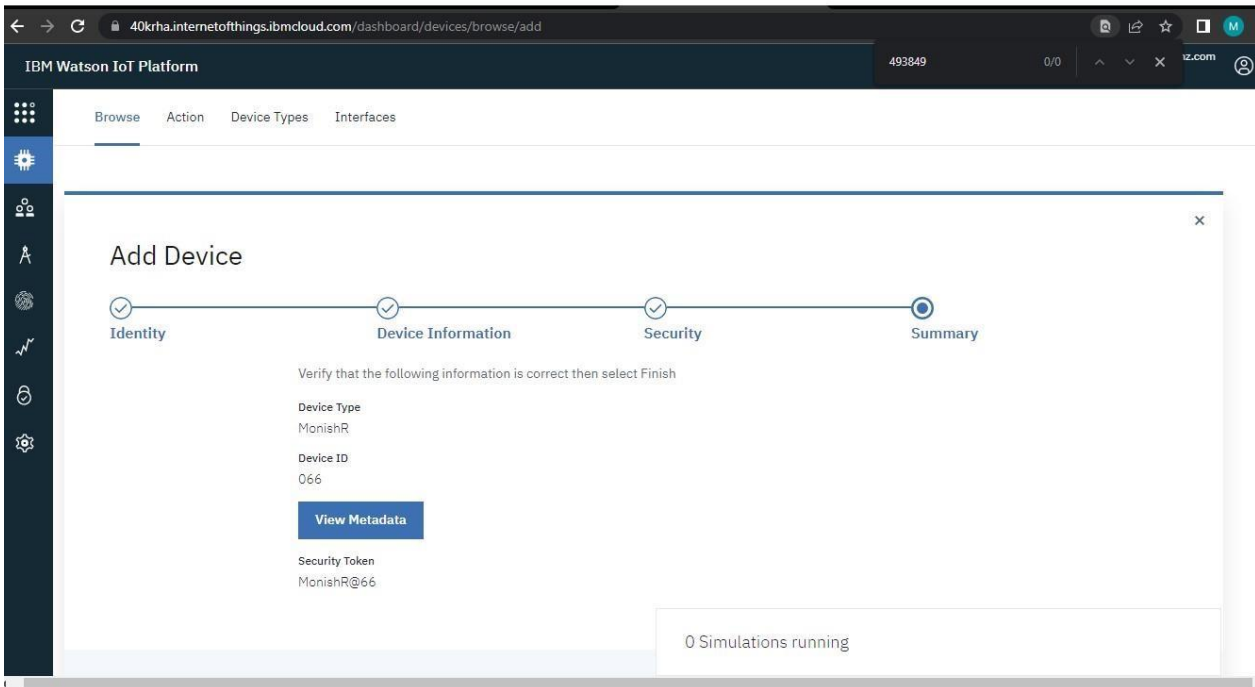
The screenshot shows the 'Security' step of the 'Add Device' process. It presents two options for selecting a device authentication token:

- 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.
- 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.

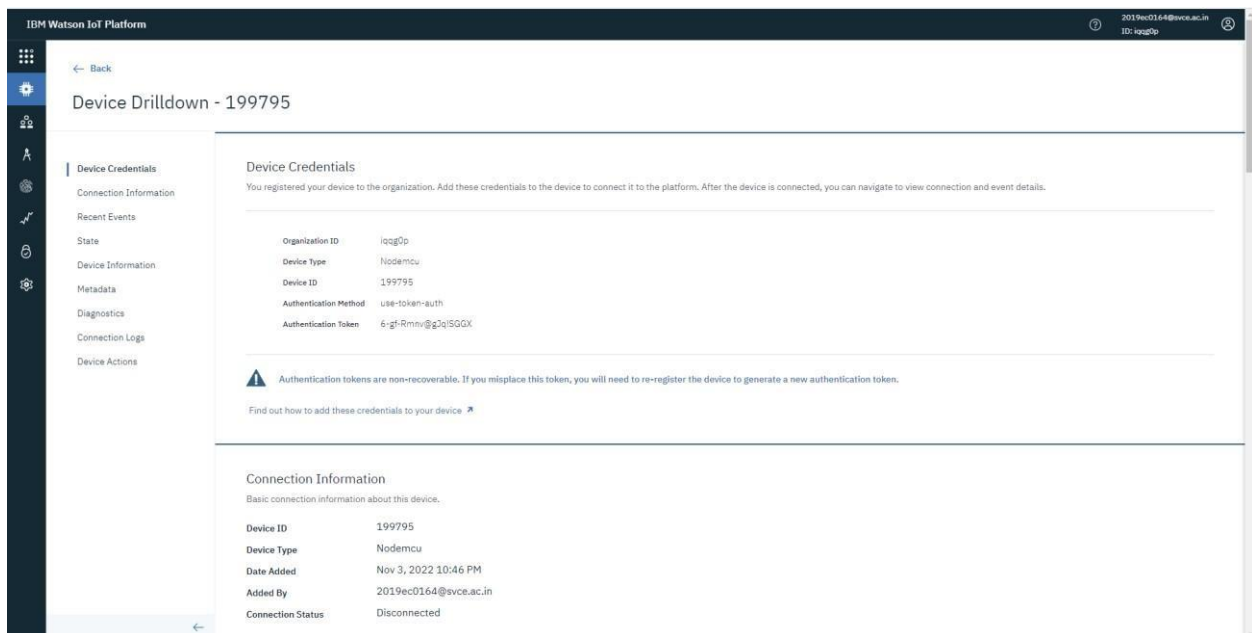
The 'Authentication Token' field is populated with 'MonishR@66'. Below the field, a note states: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.' and 'Authentication token are encrypted before we store them.'

At the bottom right, it says '0 Simulations running'.

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.



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 - 199795

← Back

- Device Credentials
- Connection Information
- Recent Events
- State
- Device Information
- Metadata
- Diagnostics
- Connection Logs
- Device Actions

#### 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 use these credentials to manage the device.

Organization ID	lqag0p
Device Type	Nodemcu
Device ID	199795
Authentication Method	use-token-auth
Authentication Token	6-gf-Rmrv@g3q15G0X

⚠ Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to get a new one.

Find out how to add these credentials to your device →

#### Connection Information

Basic connection information about this device.

Device ID	199795
Device Type	Nodemcu
Date Added	Nov 3, 2022 10:46 PM
Added By	2019ec0164@vcoe.ac.in
Connection Status	Disconnected

```
File Edit Format View Help
Organization ID lqag0p
Device Type Nodemcu
Device ID 199795
Authentication Method use-token-auth
Authentication Token 6-gf-Rmrv@g3q15G0X
```

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.

IBM Watson IoT Platform

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

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By	Device Class
199795	Disconnected	Nodemcu	Device	Nov 3, 2022 10:46 PM		2019ec0164@vcoe.ac.in	

Items per page: 50 | 1-1 of 1 item

1 of 1 page

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains various icons for navigation. The main content area displays a table of devices with columns: Device ID, Status, Device Type, Class ID, and Date Added. One device is listed with ID '028', Status 'Disconnected', and Device Type 'monish'. Below the table, a detailed view of the selected device is shown, including fields for Device ID, Device Type, Date Added, Added By, and Connection Status. The Connection Status section indicates the device is 'Disconnected' and provides details such as 'Last Connected: Nov 6, 2022 1:50 AM', 'Client Address: 216.246.119.62 Insecure', 'Duration: a minute', and 'Data Transferred: 3.1 KB'. At the bottom, there is a status bar showing '0 Simulations running'.

Device ID	Status	Device Type	Class ID	Date Added
028	Disconnected	monish	Device	Nov 4, 2022 5:17 PM

**Device Details:**

- Device ID: 028
- Device Type: monish
- Date Added: Nov 4, 2022 5:17 PM
- Added By: 710019106028@smartinternz.com
- Connection Status: Disconnected
  - Last Connected: Nov 6, 2022 1:50 AM
  - Client Address: 216.246.119.62 Insecure
  - Duration: a minute
  - Data Transferred: 3.1 KB

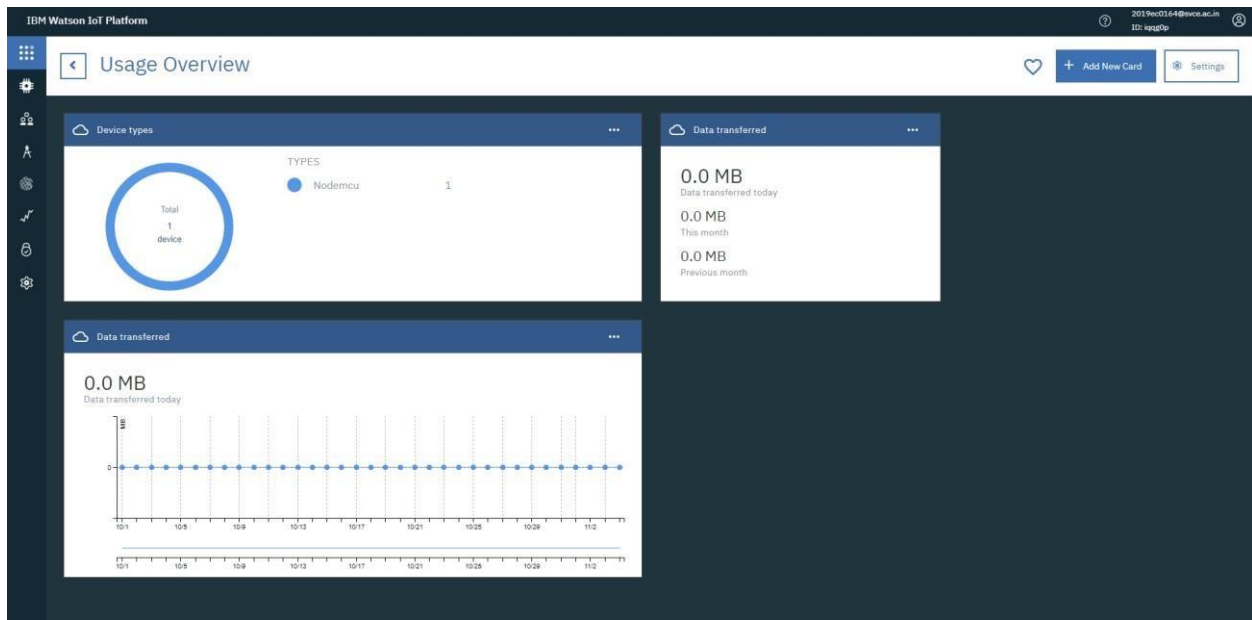
In a similar way, we can create n number of devices with a 50 per page limit as per the requirement of our project.

24. The Boards will display card for the project.

The screenshot shows the 'Your boards' section of the IBM Watson IoT Platform. The top navigation bar includes 'Your boards' and 'Public boards'. A sidebar on the left contains various icons for navigation. The main content area displays a grid of boards. Two boards are visible: 'USAGE OVERVIEW' with 3 cards and 'RISK AND SECURITY OVERVIEW' with 4 cards. Both boards are owned by the user. A dashed box with a plus sign indicates a button to create a new board. Below the grid, there is a section for 'Boards shared with you'.

**Boards:**

- USAGE OVERVIEW: 3 Cards, Owned by you
- RISK AND SECURITY OVERVIEW: 4 Cards, Owned by you



**RESULT:**

An IBM Watson cloud for IoT and a device is create