

Create IBM WATSON platform and device

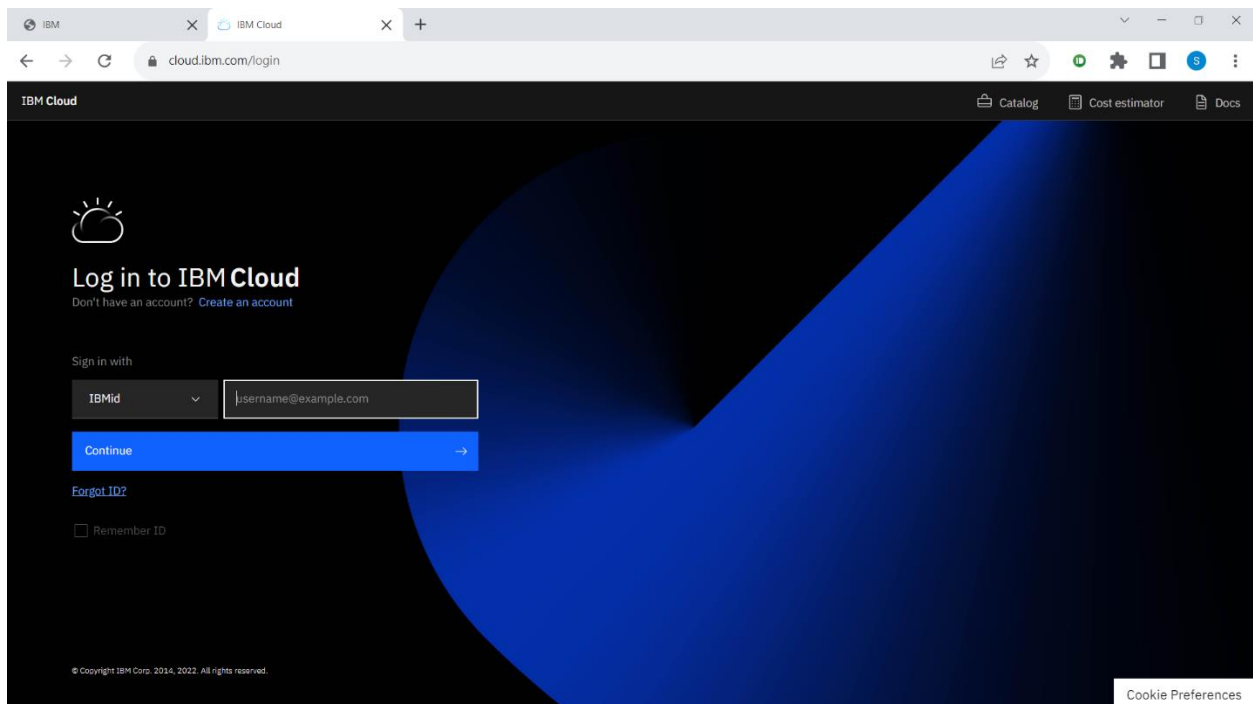
Team ID	PNT2022TMID05191
Project name	Smart waste management for metropolitan cities (IoT)

Aim:

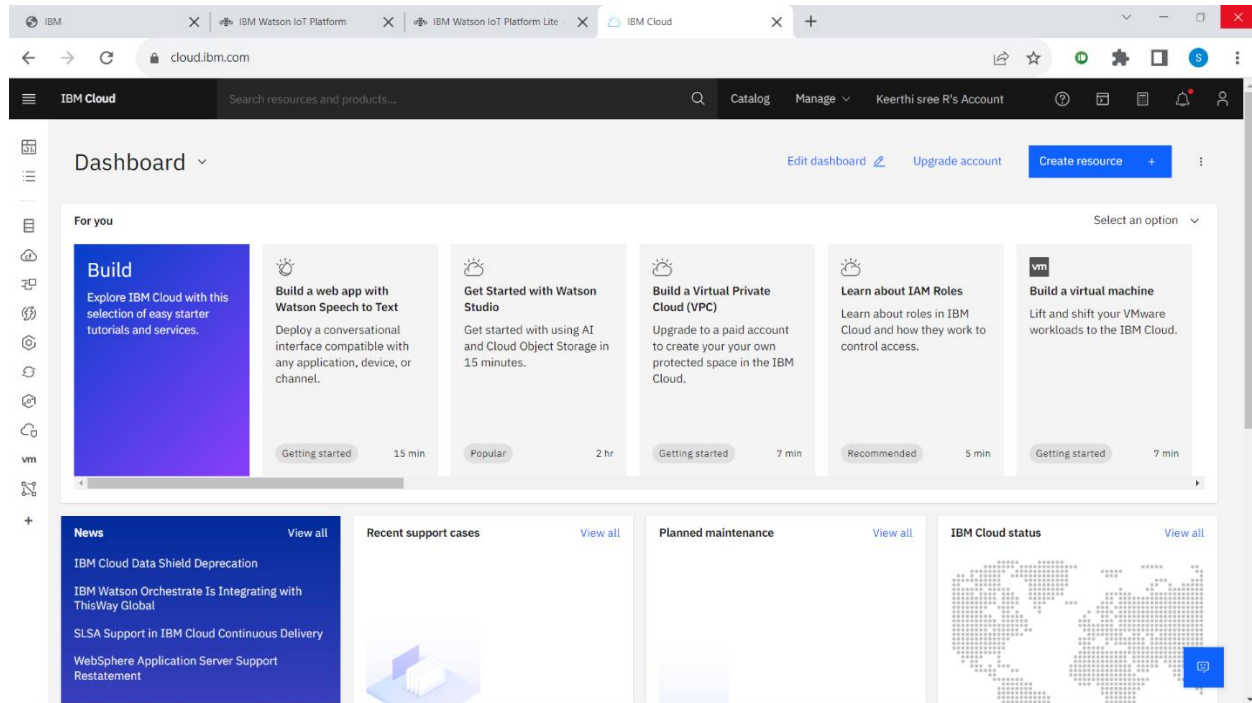
To create the IBM Watson IoT platform and device.

Procedure:

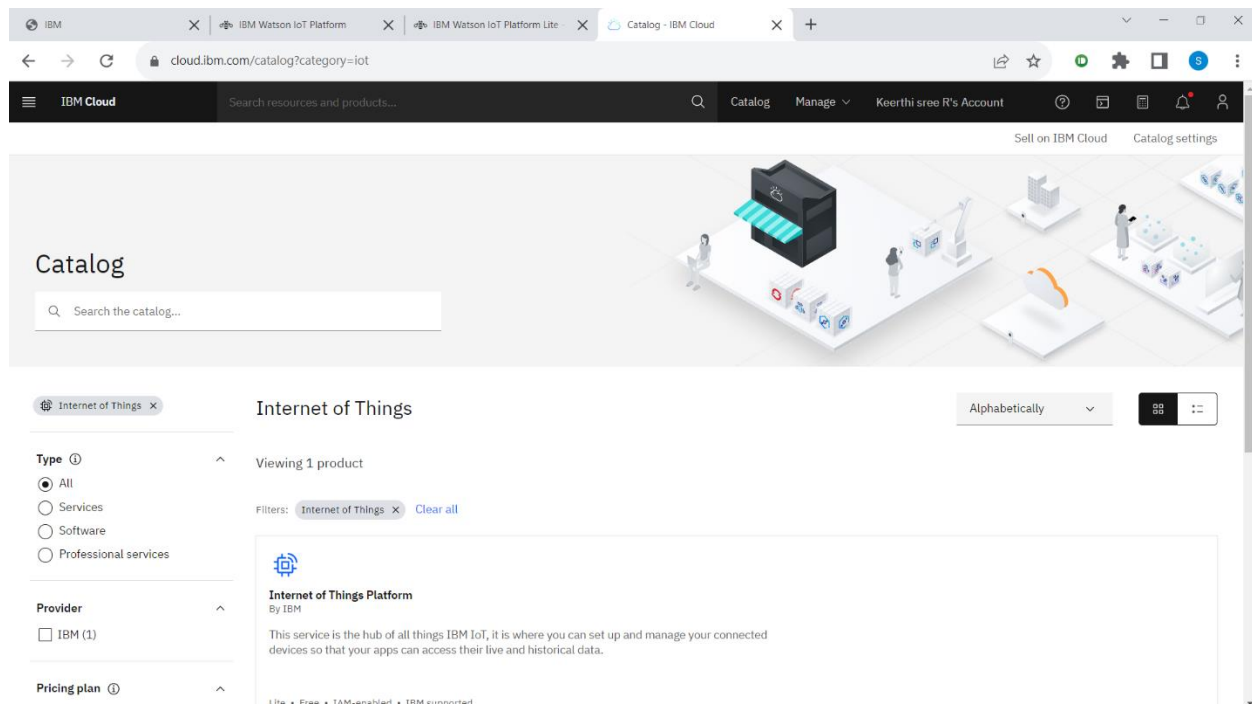
Step 1: Create an IBM cloud account with IBM id and password.



Step 2: Home page of IBM cloud



Step 3: Click on catalog and then IoT in it. Click on internet of things platform.



Step 4: If already a lite is present delete it else you can't create another. Tick agreement and click on create.

IBM Cloud

Search resources and products...

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

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	<p>Includes up to 500 registered devices, and a maximum of 200 MB of each data metric</p> <ul style="list-style-type: none">Maximum of 500 registered devicesMaximum of 500 application bindingsMaximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed <p>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.</p> <p>Lite plan services are deleted after 30 days of inactivity.</p>	Free

Summary

Internet of Things Platform Free

Location: Frankfurt

Plan: Lite

Service name: Internet of Things Platform-3a

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

Step 5: Click on launch button.

IBM Cloud

Search resources and products...

Internet of Things Platform-wc

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.

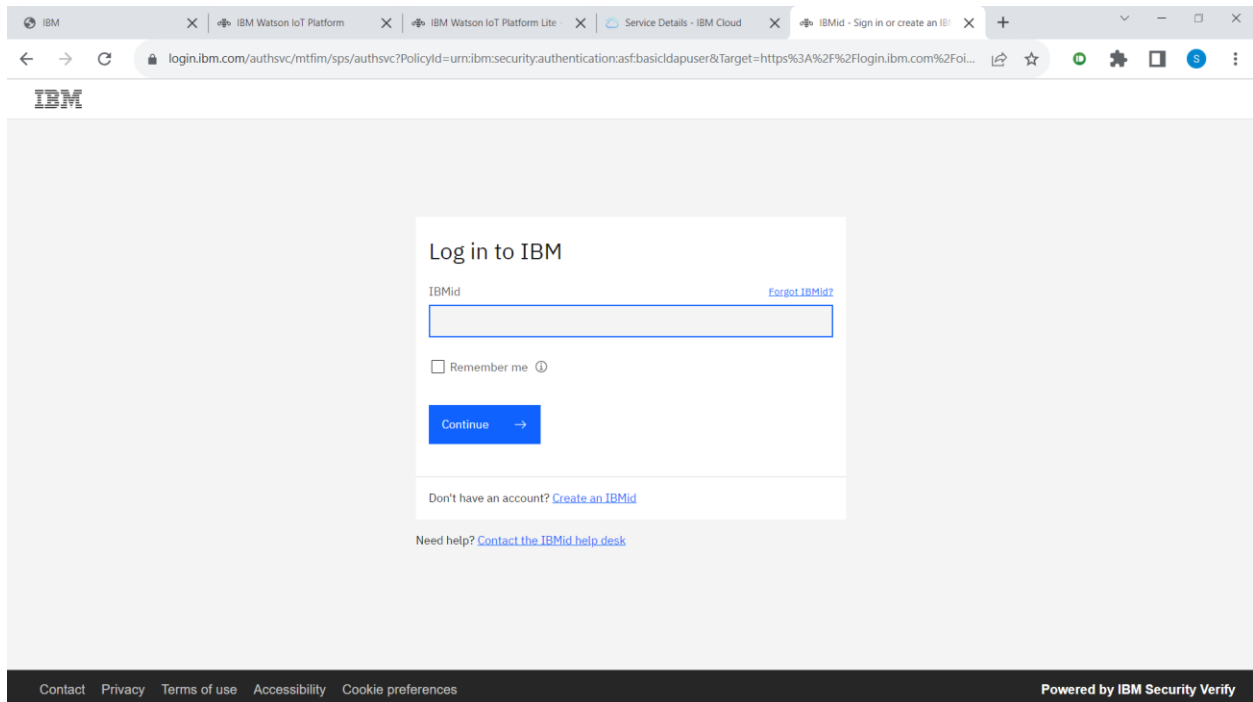
- Starts at \$500 per month
- Capacity limit based on device type

☐ Production

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

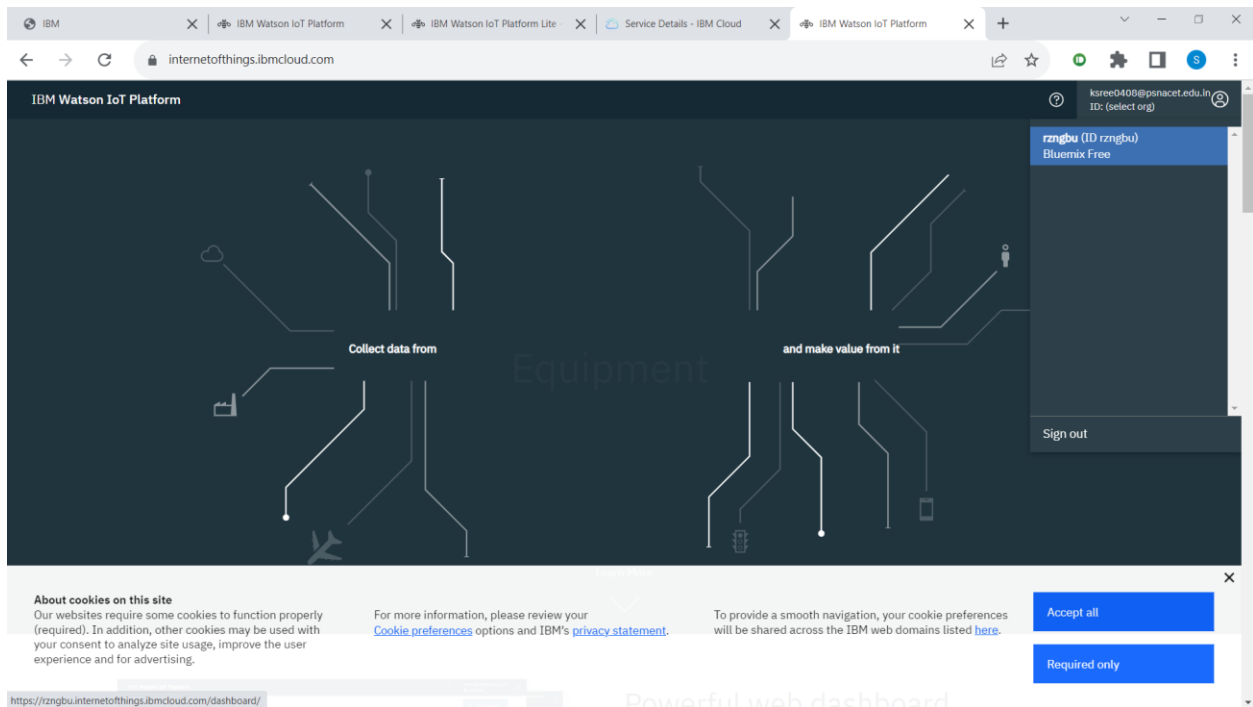
- Includes IBM Service & Support
- Pricing based on number of devices per device type

Step 6: A tab will open and click on sign in and fill it.



The screenshot shows the IBM login page in a web browser. The browser's address bar displays the URL: `login.ibm.com/authsvc/mtfirm/sps/authsvc?PolicyId=urn:ibm:security:authentication:asf:basicdapuser&Target=https%3A%2F%2Flogin.ibm.com%2F...`. The page features the IBM logo at the top left. The main content area is a white box titled "Log in to IBM". Inside this box, there is a label "IBMid" followed by a text input field. To the right of the input field is a link that says "Forgot IBMid?". Below the input field is a checkbox labeled "Remember me" with an information icon. A blue "Continue" button with a right-pointing arrow is positioned below the checkbox. At the bottom of the white box, there is a link that 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". At the bottom of the page, there is a dark footer bar containing links for "Contact", "Privacy", "Terms of use", "Accessibility", and "Cookie preferences", along with the text "Powered by IBM Security Verify".

Step 7: Once it's logged in, click on name and then Bluemix free.



The screenshot shows the IBM Watson IoT Platform dashboard in a web browser. The browser's address bar displays the URL: `internetofthings.ibmcloud.com`. The dashboard has a dark blue background with a circuit-like pattern. The main heading is "Equipment". Below the heading, there are two sections: "Collect data from" and "and make value from it". On the right side of the dashboard, there is a user profile dropdown menu. The menu is open, showing the user's name "rzngbu (ID rzngbu)" and the text "Bluemix Free". Below the user name, there is a "Sign out" button. At the bottom of the dashboard, there is a cookie consent banner. The banner contains the text "About cookies on this site" and "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." There are two buttons: "Accept all" and "Required only". At the bottom of the page, there is a URL: `https://rzngbu.internetofthings.ibmcloud.com/dashboard/`.

Step 8: This is IBM Watson platform

The screenshot shows the 'Browse Devices' page in the IBM Watson IoT Platform. The page has a dark sidebar with navigation icons and a top navigation bar with tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Browse' tab is active. Below the navigation bar, there's a 'Browse Devices' section with a sub-header 'All Devices' and a 'Diagnose' button. A text block explains that the table shows a summary of all devices and can be filtered, organized, and searched. Below this is a search bar labeled 'Search by Device ID' and a 'Device Simulator' toggle switch. The main content is a table with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The table lists three devices, all with status 'Connected' and type 'Node-123'. At the bottom, there's a pagination bar showing '1 of 1 page' and a status box indicating '4 Simulations running'.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
Node-123_1	Connected	Node-123	Device	Nov 16, 2022 12:52 PM	
Node-123_2	Connected	Node-123	Device	Nov 16, 2022 12:52 PM	
Node-123_3	Connected	Node-123	Device	Nov 16, 2022 12:52 PM	

Step 9: Click on Add device then device type and fill details.

The screenshot shows the 'Add Type' dialog box in the IBM Watson IoT Platform. The dialog has a title bar and a close button. It features a progress bar with two steps: 'Identity' (selected) and 'Device Information'. Below the progress bar, there's a text block explaining that device types group devices with similar characteristics and that users should give the device type a unique name and description. The form has three fields: 'Type' (with 'Device' and 'Gateway' radio buttons), 'Name' (with a placeholder 'Enter Name'), and 'Description'. At the bottom right, there are 'Cancel' and 'Next' buttons. The background shows the 'Device Types' page with a status box indicating '4 Simulations running'.

Step 10: Click on finish and then registered device. Give device name and device ID.

The screenshot shows the 'Add Device' dialog in the IBM Watson IoT Platform. The 'Identity' step is selected in the progress bar. Below the progress bar, there is a text prompt: 'Select a device type for the device that you are adding and give the device a unique ID.' Two input fields are present: 'Device Type' with the value 'Node-123' and 'Device ID' with the value '123456'. At the bottom right of the dialog are 'Cancel' and 'Next' buttons. Below the dialog, the 'Browse Devices' section is visible with 'All Devices' and 'Diagnose' buttons.

Step 11: Complete all the process.

The screenshot shows the 'Add Device' dialog in the IBM Watson IoT Platform, now at the 'Device Information' step. The progress bar shows 'Identity' as completed and 'Device Information' as the current step. A text prompt reads: 'You can modify the default device information and enter more information about the device for identification purposes.' The form contains two columns of input fields. The left column includes 'Serial Number' (placeholder: 'Enter Serial Number'), 'Model' (placeholder: 'Enter Model'), 'Description' (placeholder: 'Enter Description'), and 'Hardware Version' (placeholder: 'Enter Hardware Version'). The right column includes '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 with a plus icon is located below the left column. At the bottom right of the dialog are 'Back' and 'Next' buttons.

IBM Watson IoT Platform

ksree0408@psnacet.edu.in
ID: rzngbu

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

There are 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.

Authentication Token

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.

IBM Watson IoT Platform

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Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

Verify that the following information is correct then select Finish

Device Type
Node-123

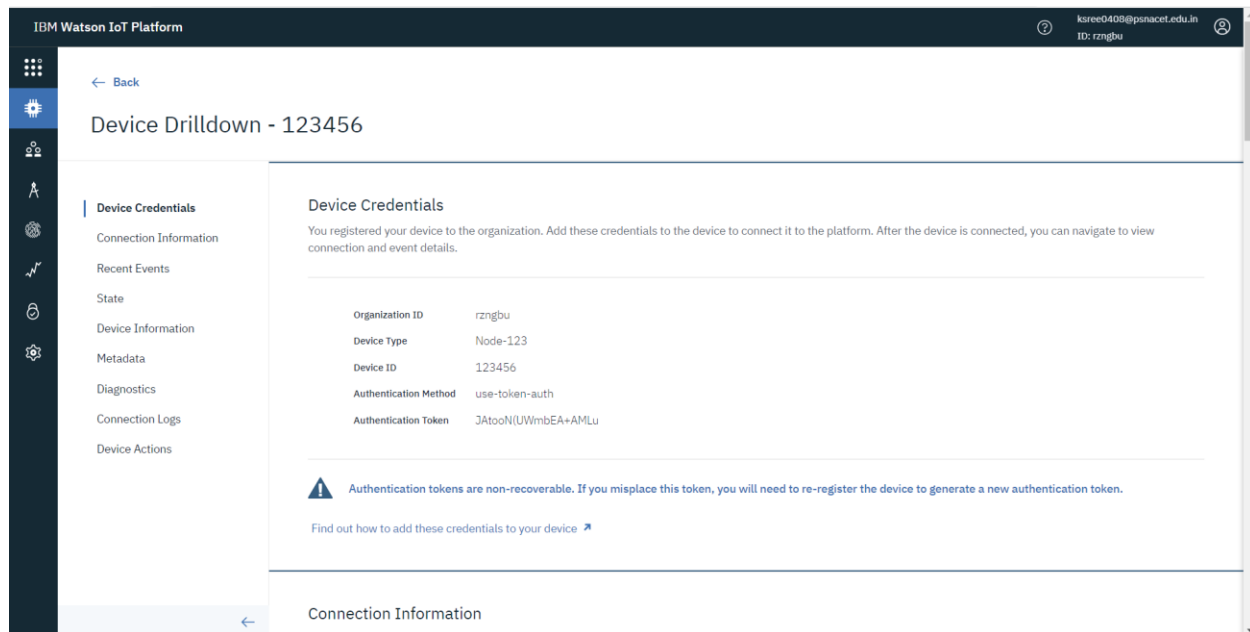
Device ID
123456

[View Metadata](#)

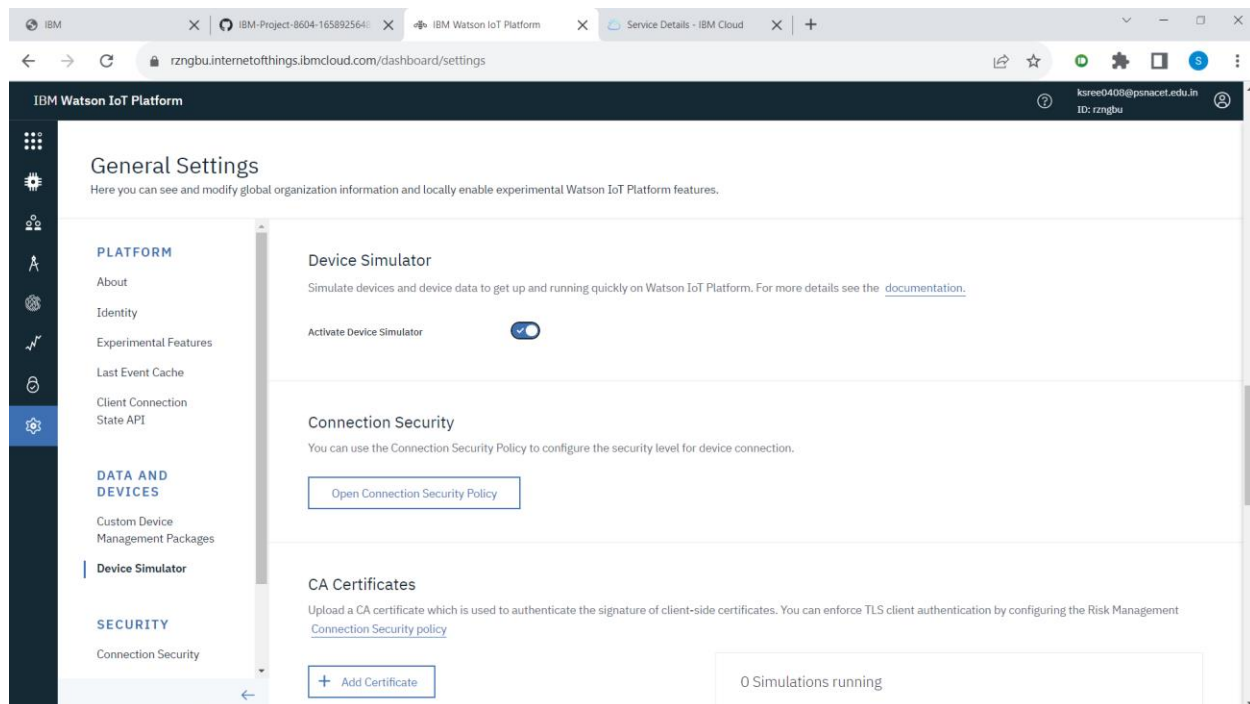
Security Token
To be generated

[Back](#) [Finish](#)

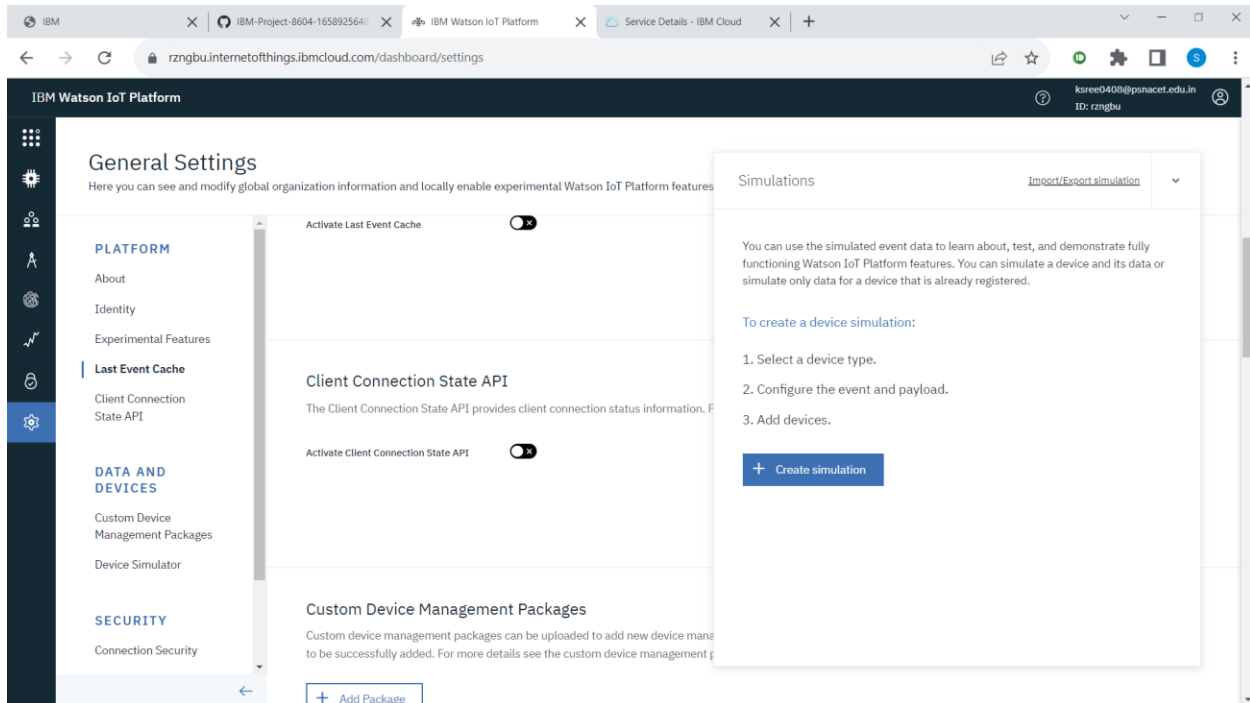
Step 12: Copy the device credentials.



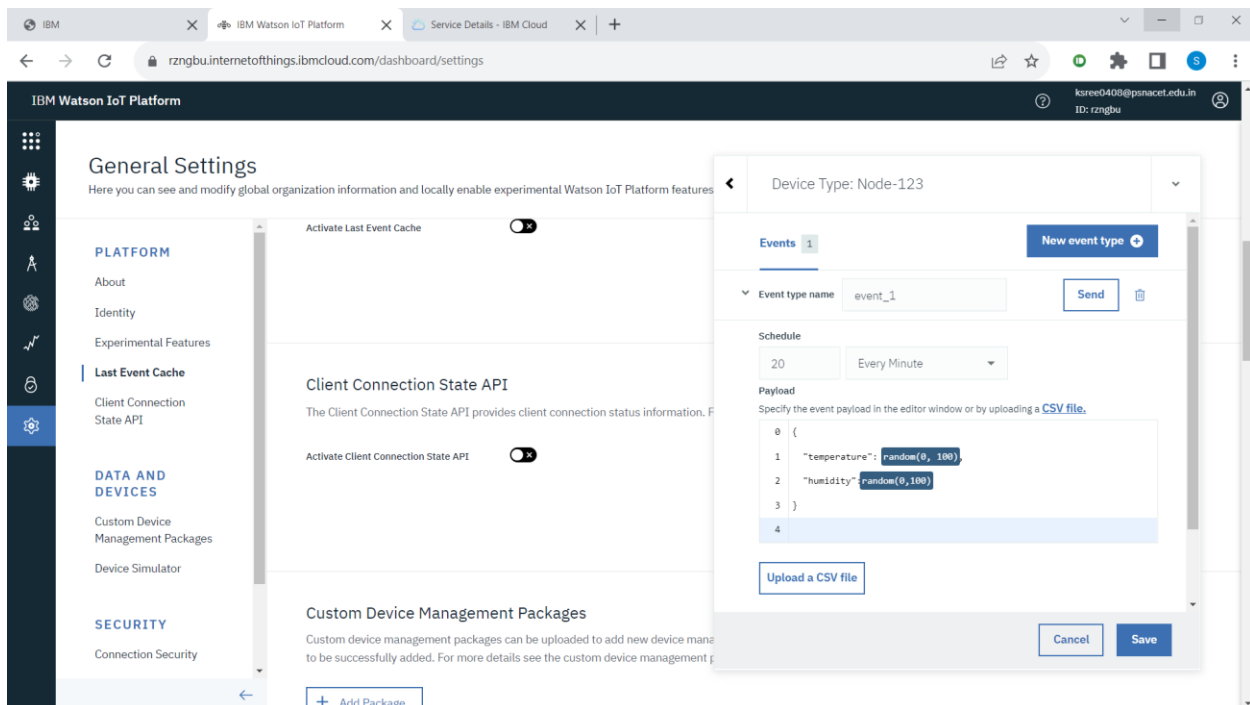
Step 13: Go to settings and click on data and devices. Go to device simulator and activate it.



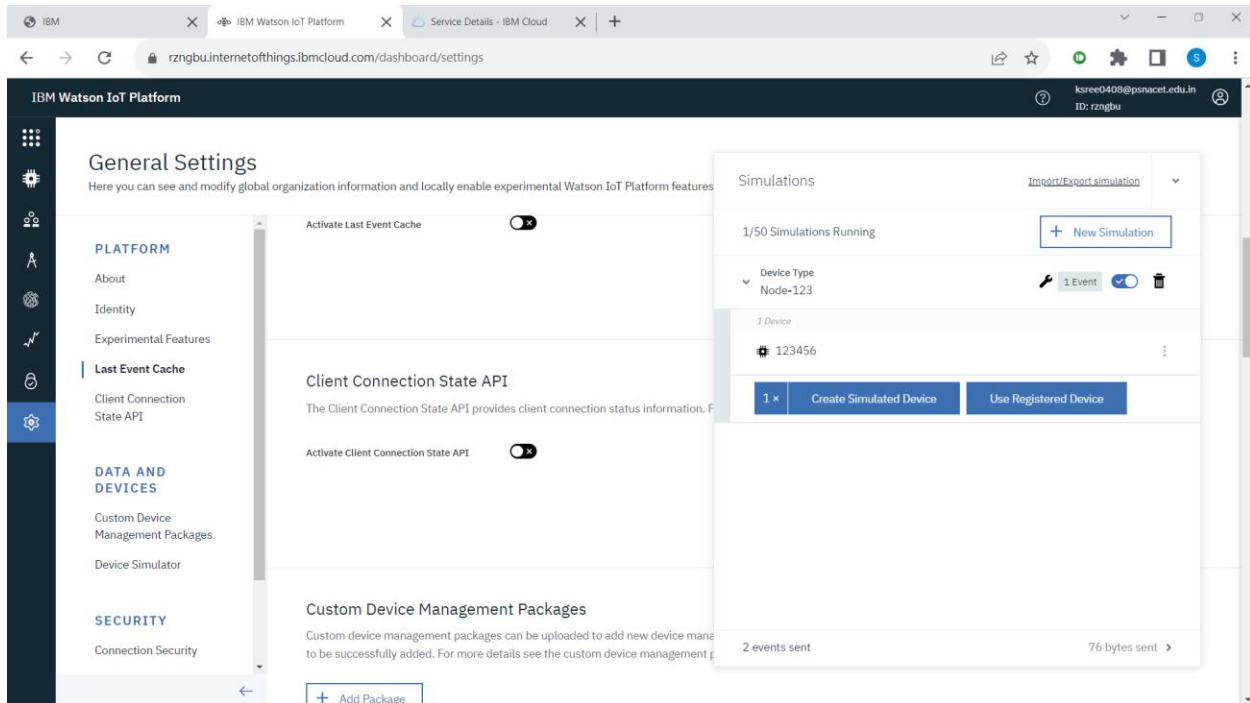
Step 14: Click on pop up on right side and create simulation.



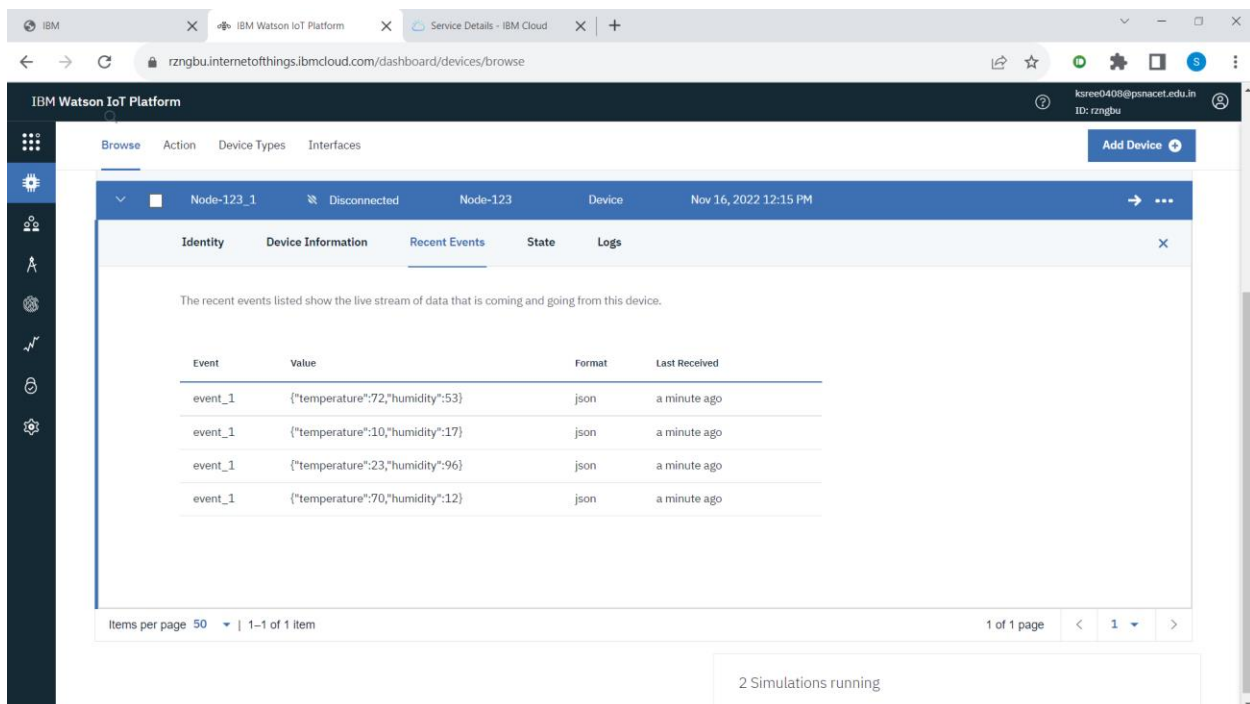
Step 15: Choose device and type code.



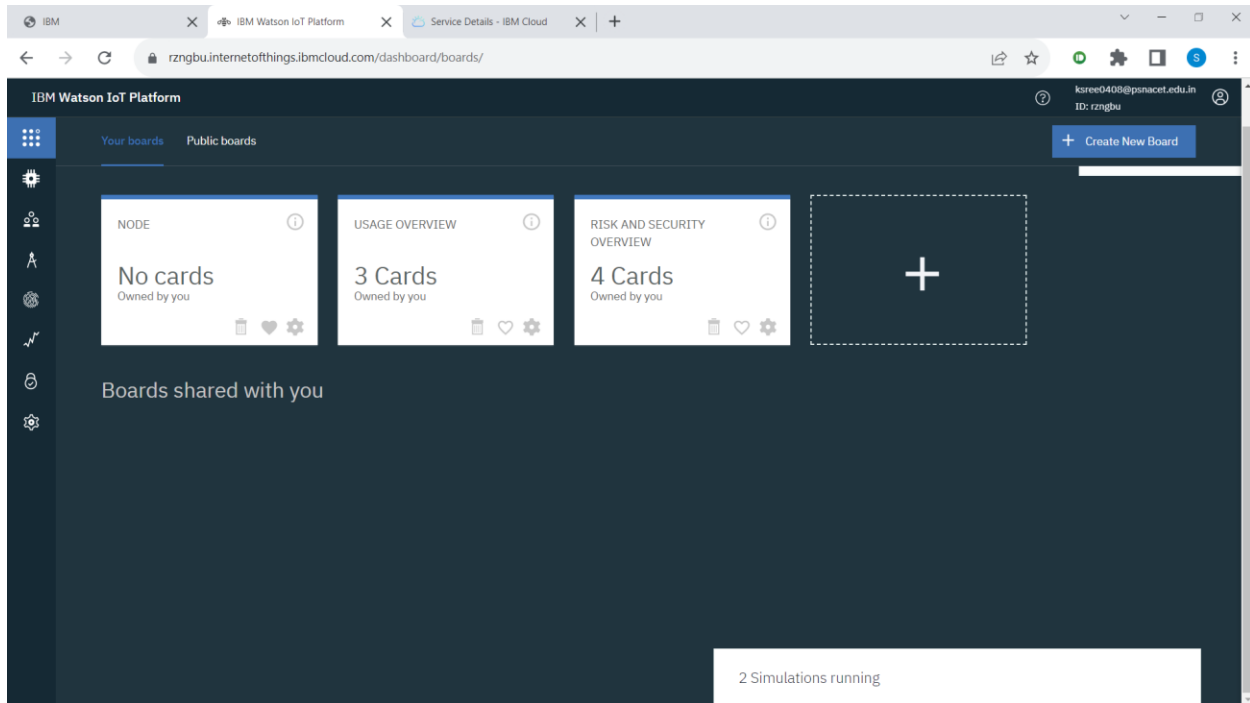
Step 16: Click on Use registered device and choose the device and run it.



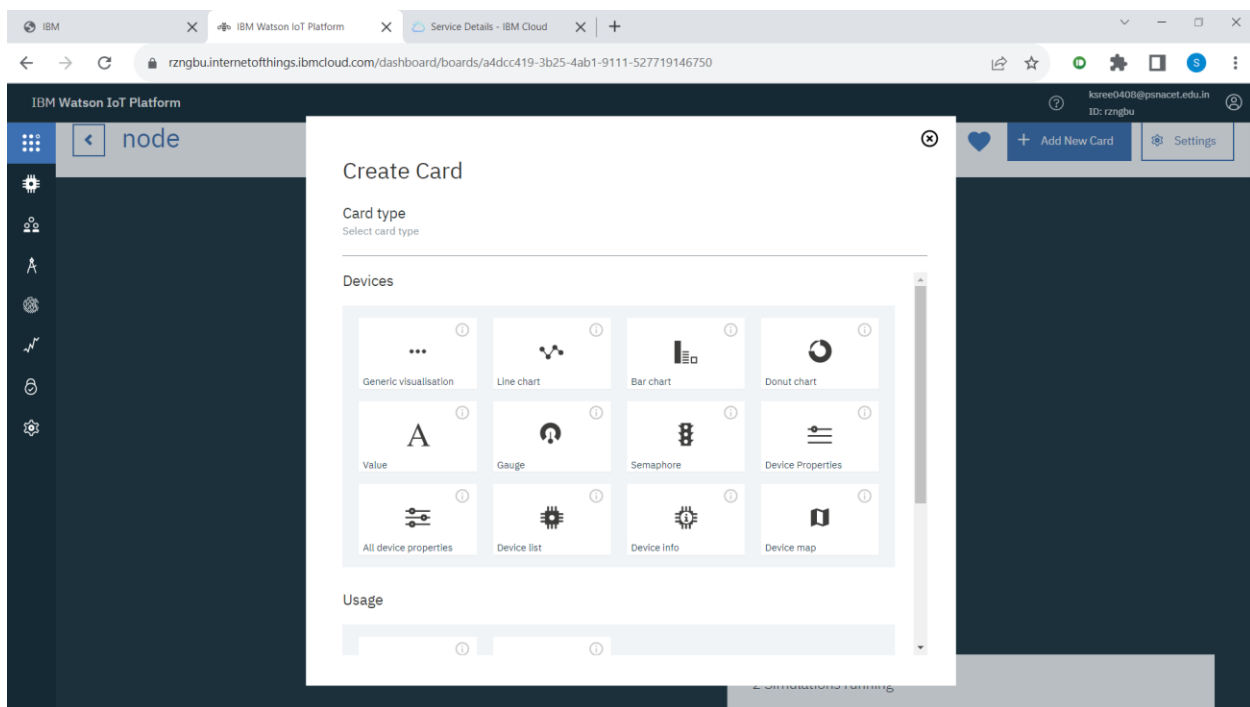
Step 17: Go to devices then click on devices and check the recent events whether the code is running or not.



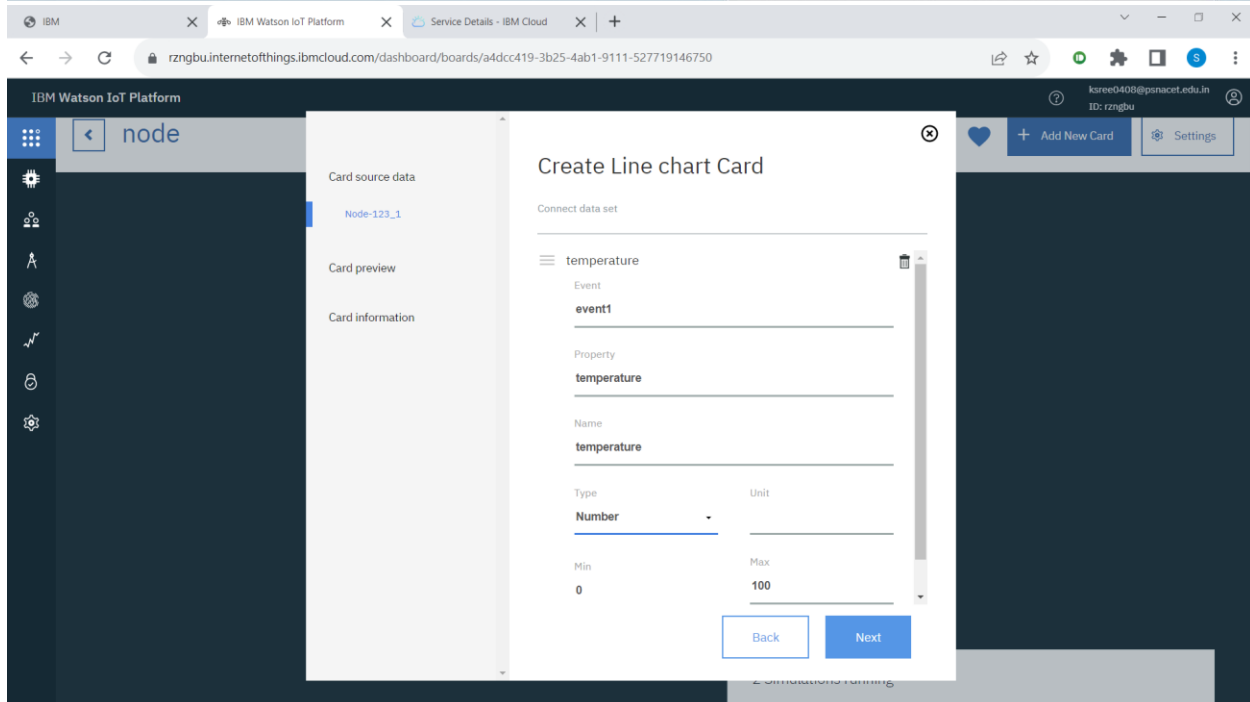
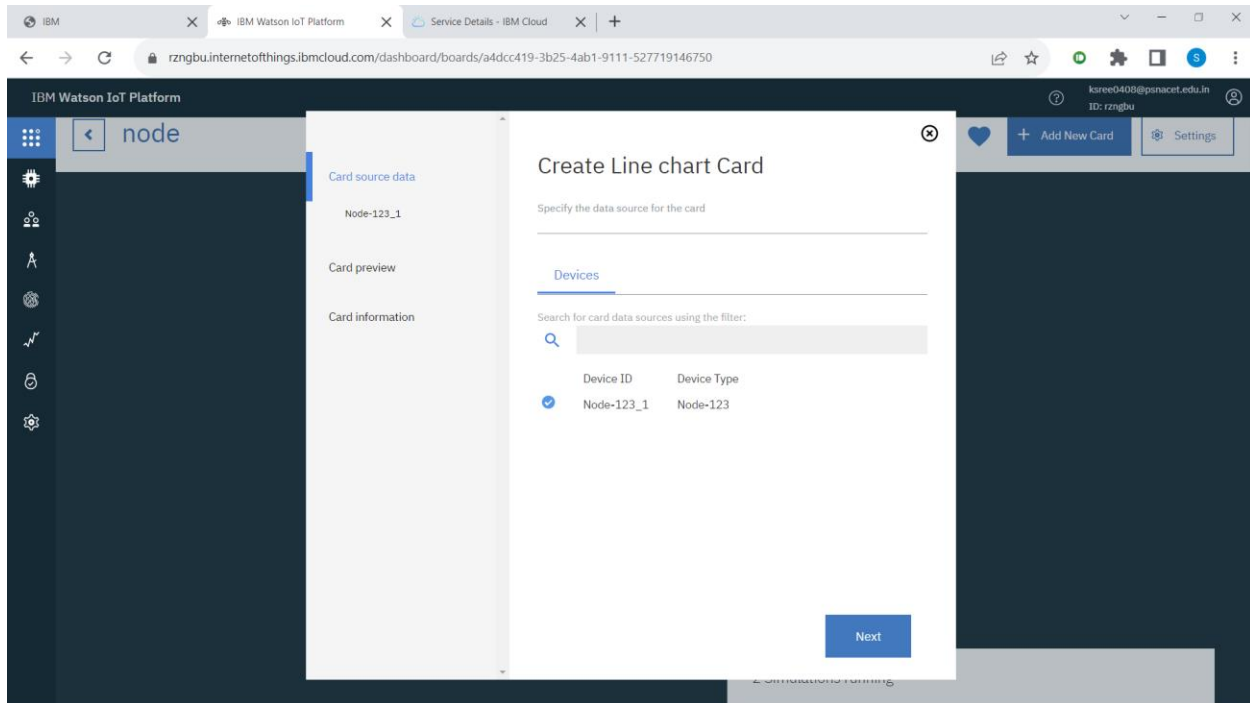
Step 18: Go to board and click on create new board, fill the details and create board.



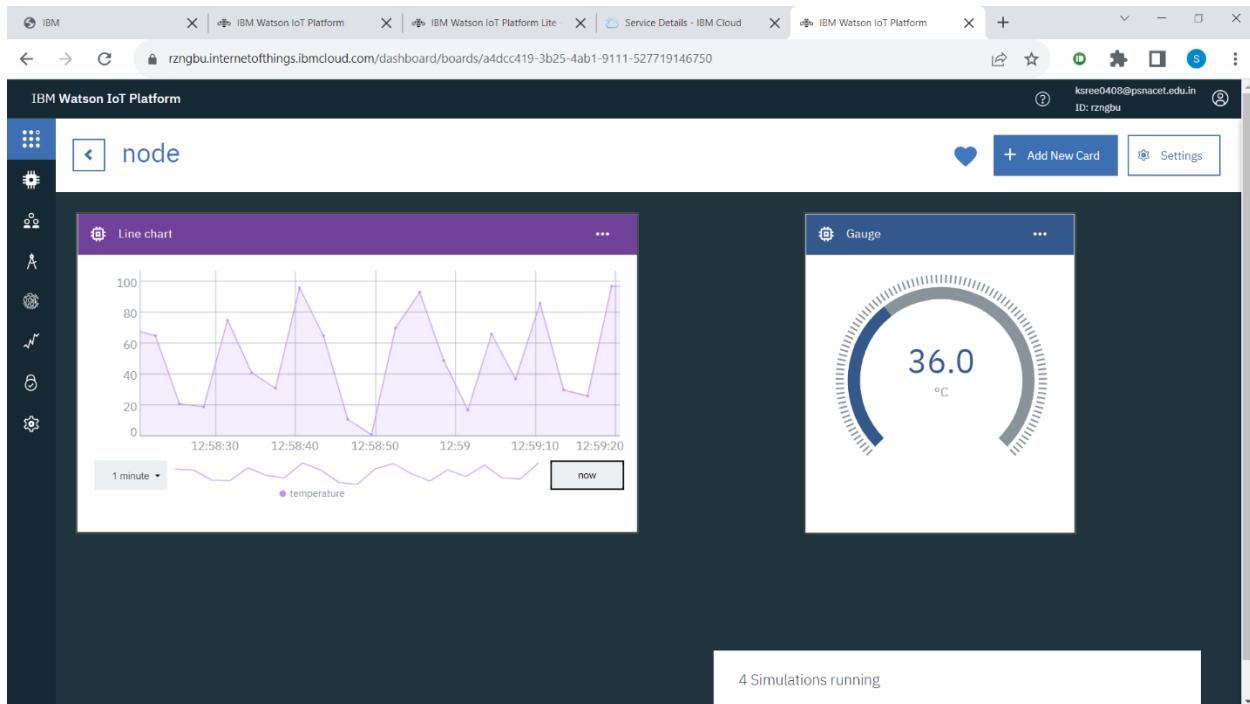
Step 18: Add new card and choose the card type.



Step 19: Choose the device and connect new data set. Fill the details to get temperature graph choose the color. Repeat the same for humidity.



Step 20: Final output graph



Result:

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