

# CREATE IBM WATSON IOT PLATFORM AND DEVICE

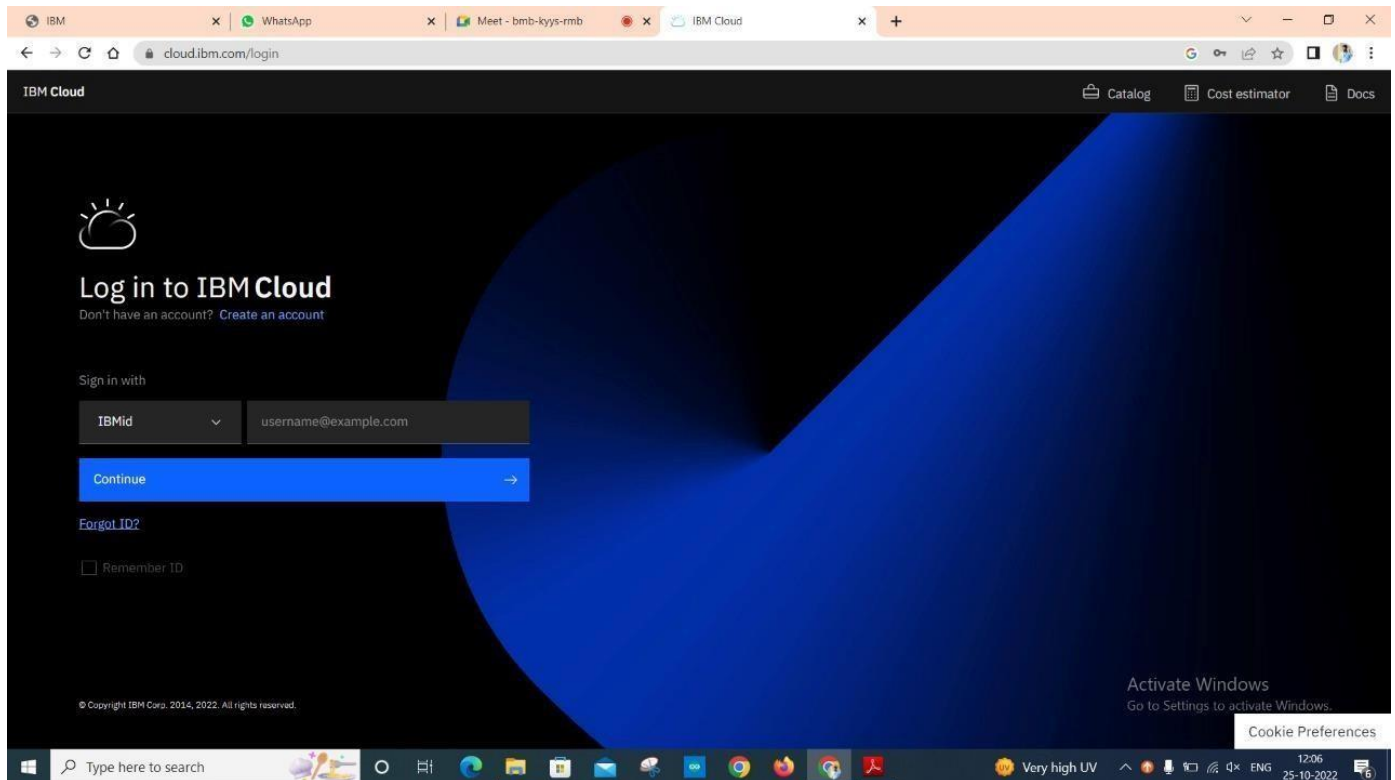
Date	25 October 2022
Team ID	PNT2022TMID01909
Project Name	Gas leakage monitoring and alerting system for industries

## AIM:

To create the IBM Watson IoT platform and device.

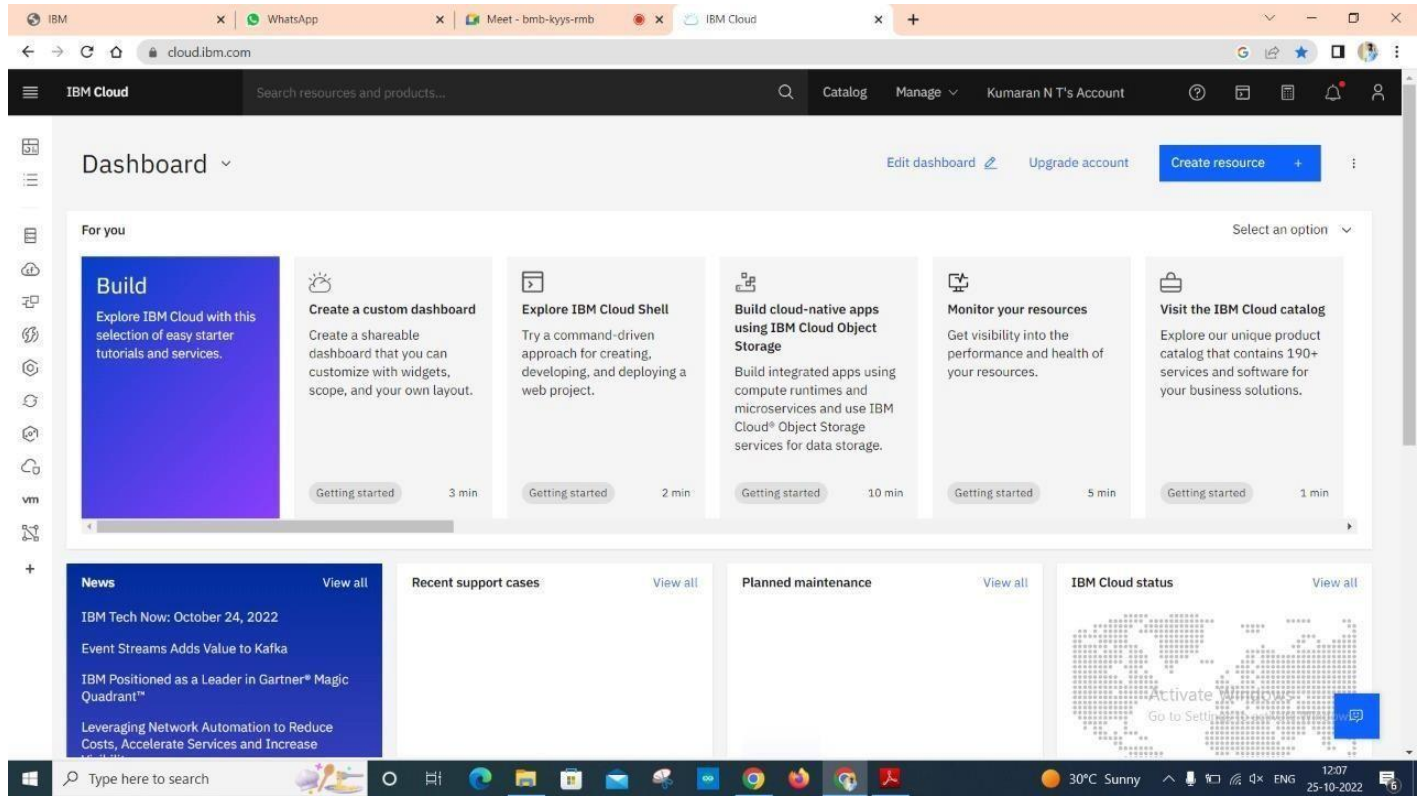
## Steps to be followed

Step 1: Firstly, create an IBM cloud account with IBM id and password.



2: Home page of IBM cloud.

## Step



Step 3: Click on the catalog on the top.

## Step

The screenshot shows the IBM Cloud Catalog interface. The top navigation bar includes the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user account (Kumaran N T's Account). The main content area displays a grid of product cards. The left sidebar shows a list of categories, with 'Internet of Things (1)' highlighted. The product cards include:

- Analytics Engine** (By IBM): Submit your Apache Spark applications as needed and customize the Spark runtimes to satisfy the requirements of your application. Features: Lite • Free • HIPAA Enabled • IAM-enabled • Service Endpoint Supported • IBM supported.
- AnonTech ViziVault Platform** (By Anon Technology, Inc.): Manage personal information as-a-service safely, securely, and in compliance with data privacy regulations using ViziVault. Features: Lite • Free • HIPAA Enabled • IAM-enabled • Third party supported.
- API Connect** (By IBM): An enterprise-grade platform for creating, securing, managing, sharing, monetizing, and analyzing custom APIs located on-premises and on the cloud. Features: Lite • Free • EU Supported • IAM-enabled • IBM supported.
- App Configuration** (By IBM): Centralized, in-flight configuration for web and mobile applications and distributed environments. Features: Lite • Free • IAM-enabled • Service Endpoint Supported • IBM supported.
- App Connect** (By IBM): Connect your applications, automate tasks, and improve productivity. Features: Lite • Free • IBM supported.
- App ID** (By IBM): User Authentication and User Profiles for your apps. Features: Lite • Free • EU Supported • Financial Services Validated • HIPAA Enabled • IAM-enabled • IBM supported.

The bottom of the screen shows a Windows taskbar with various application icons and a system tray displaying the date and time (12:07, 25-10-2022).

4: Click on IoT in the category mentioned.

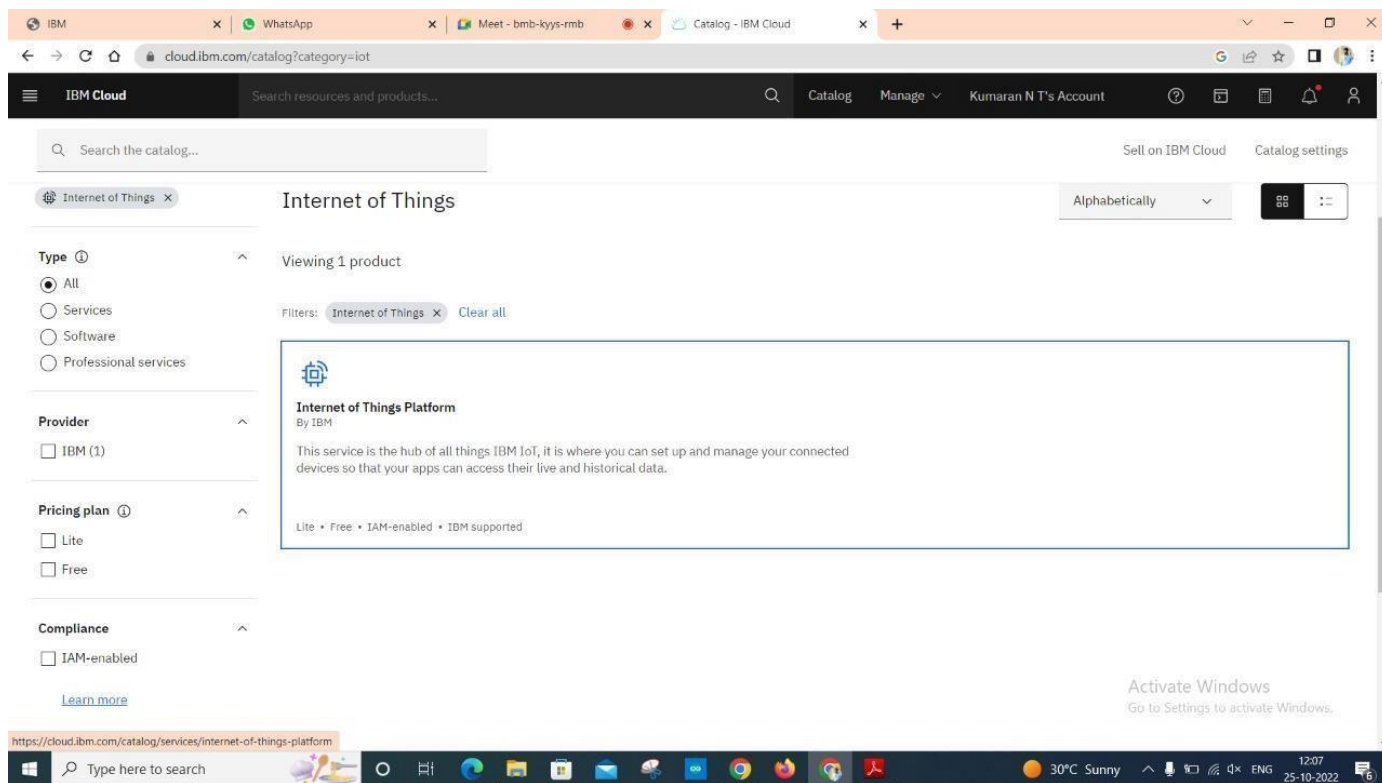
This screenshot is identical to the one above, showing the IBM Cloud Catalog interface. The 'Internet of Things (1)' category is highlighted in the left sidebar. The product cards displayed are:

- Analytics Engine** (By IBM): Submit your Apache Spark applications as needed and customize the Spark runtimes to satisfy the requirements of your application. Features: Lite • Free • HIPAA Enabled • IAM-enabled • Service Endpoint Supported • IBM supported.
- AnonTech ViziVault Platform** (By Anon Technology, Inc.): Manage personal information as-a-service safely, securely, and in compliance with data privacy regulations using ViziVault. Features: Lite • Free • HIPAA Enabled • IAM-enabled • Third party supported.
- API Connect** (By IBM): An enterprise-grade platform for creating, securing, managing, sharing, monetizing, and analyzing custom APIs located on-premises and on the cloud. Features: Lite • Free • EU Supported • IAM-enabled • IBM supported.
- App Configuration** (By IBM): Centralized, in-flight configuration for web and mobile applications and distributed environments. Features: Lite • Free • IAM-enabled • Service Endpoint Supported • IBM supported.
- App Connect** (By IBM): Connect your applications, automate tasks, and improve productivity. Features: Lite • Free • IBM supported.
- App ID** (By IBM): User Authentication and User Profiles for your apps. Features: Lite • Free • EU Supported • Financial Services Validated • HIPAA Enabled • IAM-enabled • IBM supported.

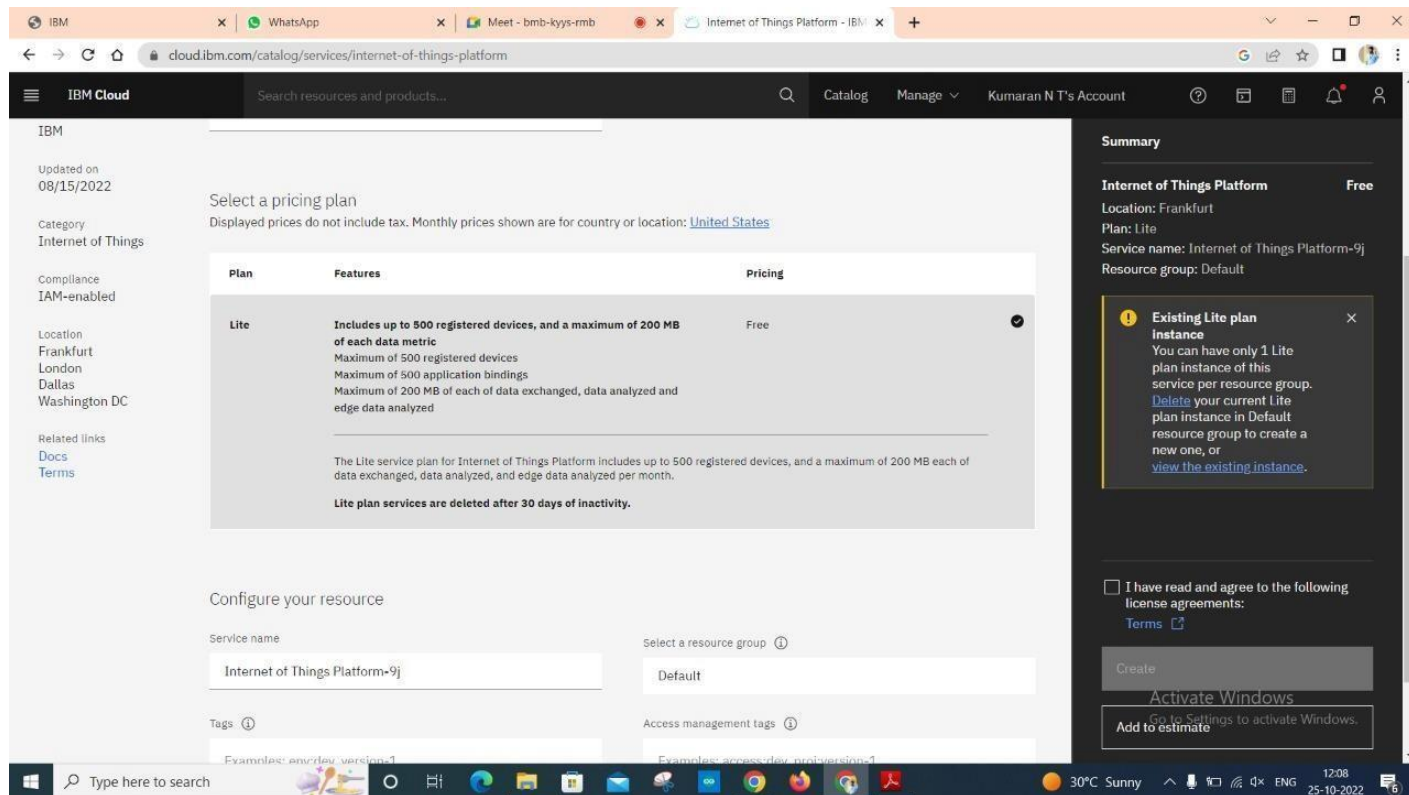
The bottom of the screen shows a Windows taskbar with various application icons and a system tray displaying the date and time (12:07, 25-10-2022).

## Step

### Step 5: Click on Internet of Things Platform.



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



## Step

Step 7: Tick agreements and then click on create.

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The page is titled "Select a pricing plan" and displays a table with two plans: "Lite" and "Free". The "Lite" plan is selected, indicated by a checkmark in the "Pricing" column. The "Lite" plan includes up to 500 registered devices and a maximum of 200 MB of each data metric. The "Free" plan is also listed, but it is not selected.

Below the table, the "Configure your resource" section is visible. It includes fields for "Service name" (Internet of Things Platform-9j) and "Select a resource group" (Default). There are also fields for "Tags" and "Access management tags".

On the right side, a "Summary" panel shows the service details: "Internet of Things Platform", "Free", "Location: Frankfurt", "Plan: Lite", "Service name: Internet of Things Platform-9j", and "Resource group: Default". Below the summary, there is a warning message about the "Existing Lite plan instance" and a checkbox for "I have read and agree to the following license agreements".

At the bottom right, there are buttons for "Create", "Activate Windows", and "Add to estimate".

8: Click on the launch button.

## Step

IBM Cloud

Search resources and products...

Internet of Things Platform-hg 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.

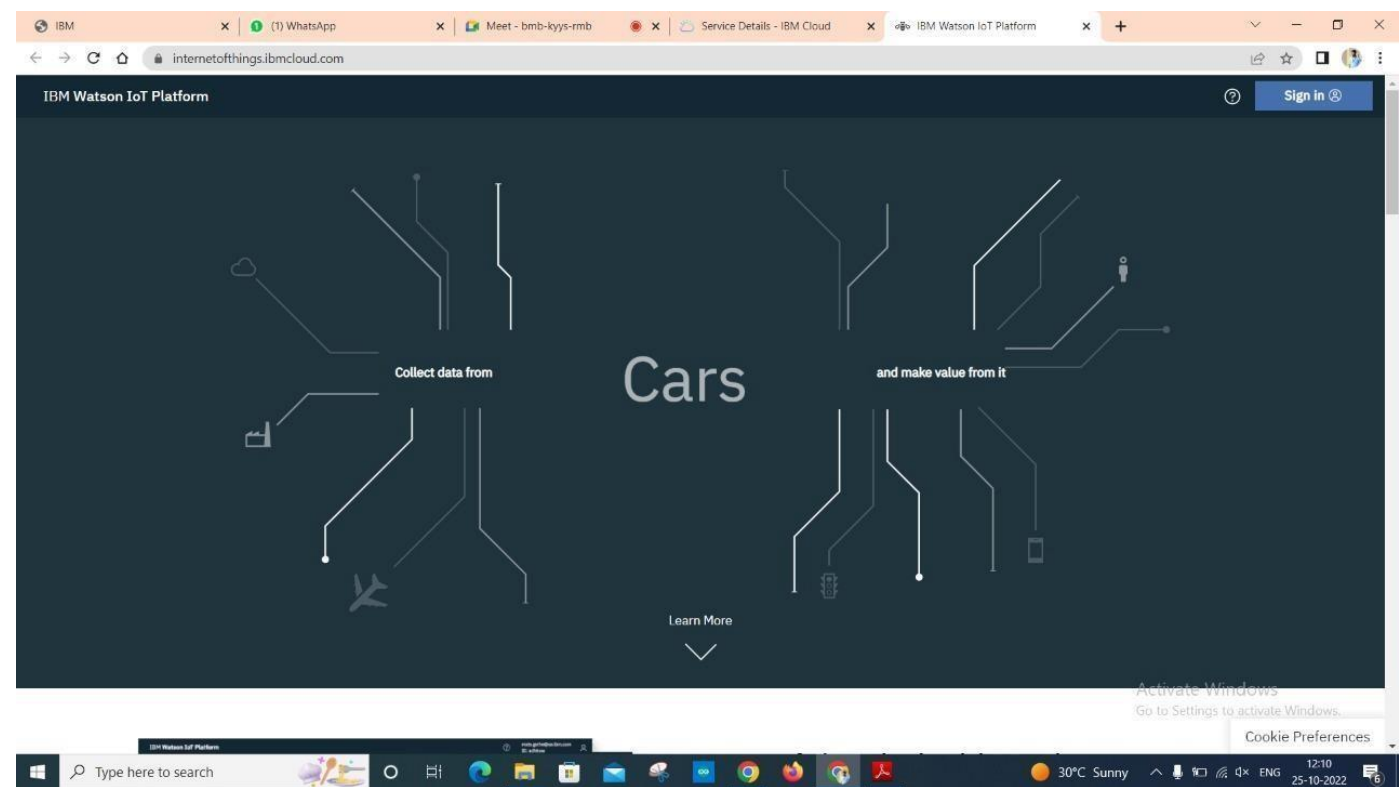
- Includes IBM Service & Support
- Pricing based on number of devices per

**Activate Windows**  
Go to Settings to activate Windows.

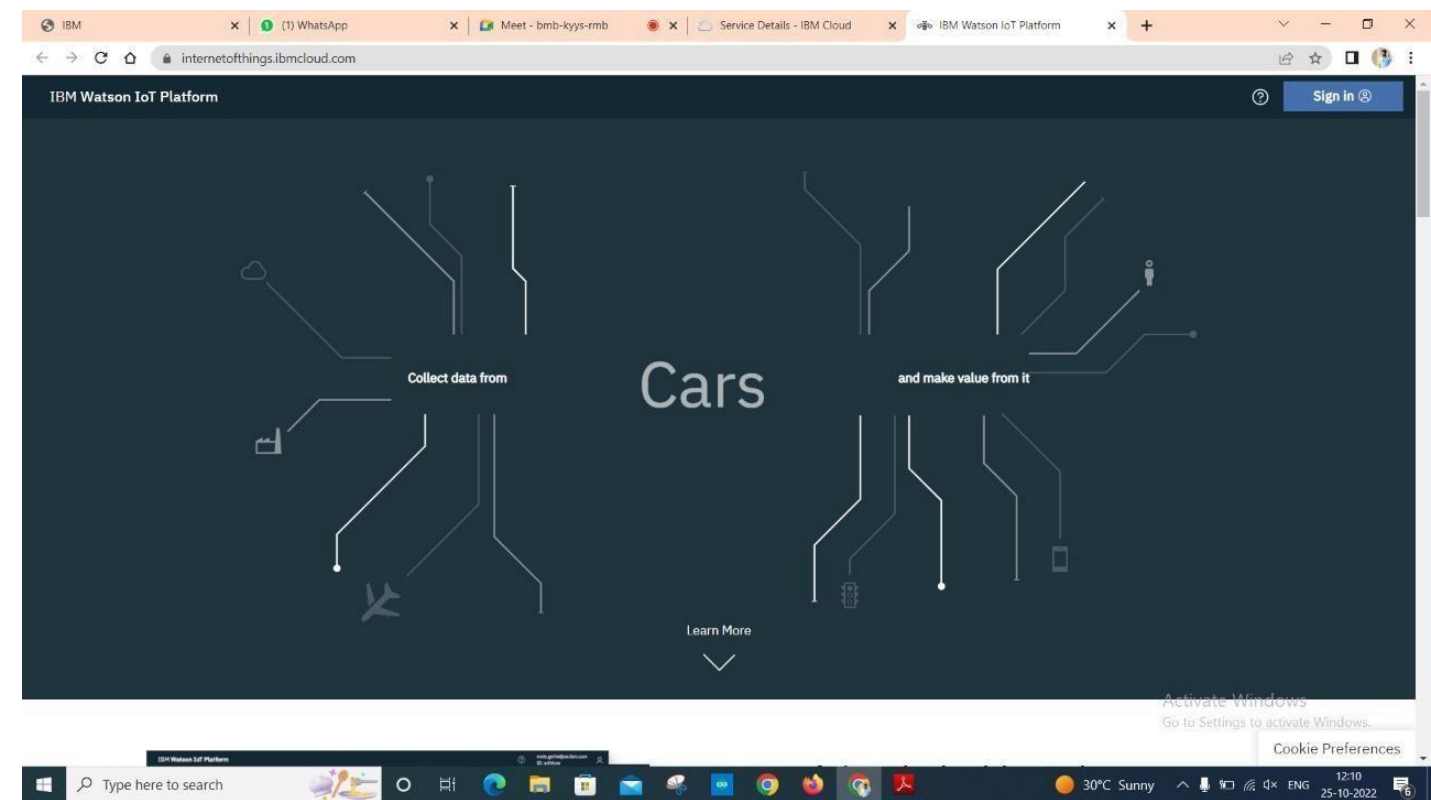
Step 9: After clicking on the launch button this tab will open.



Step

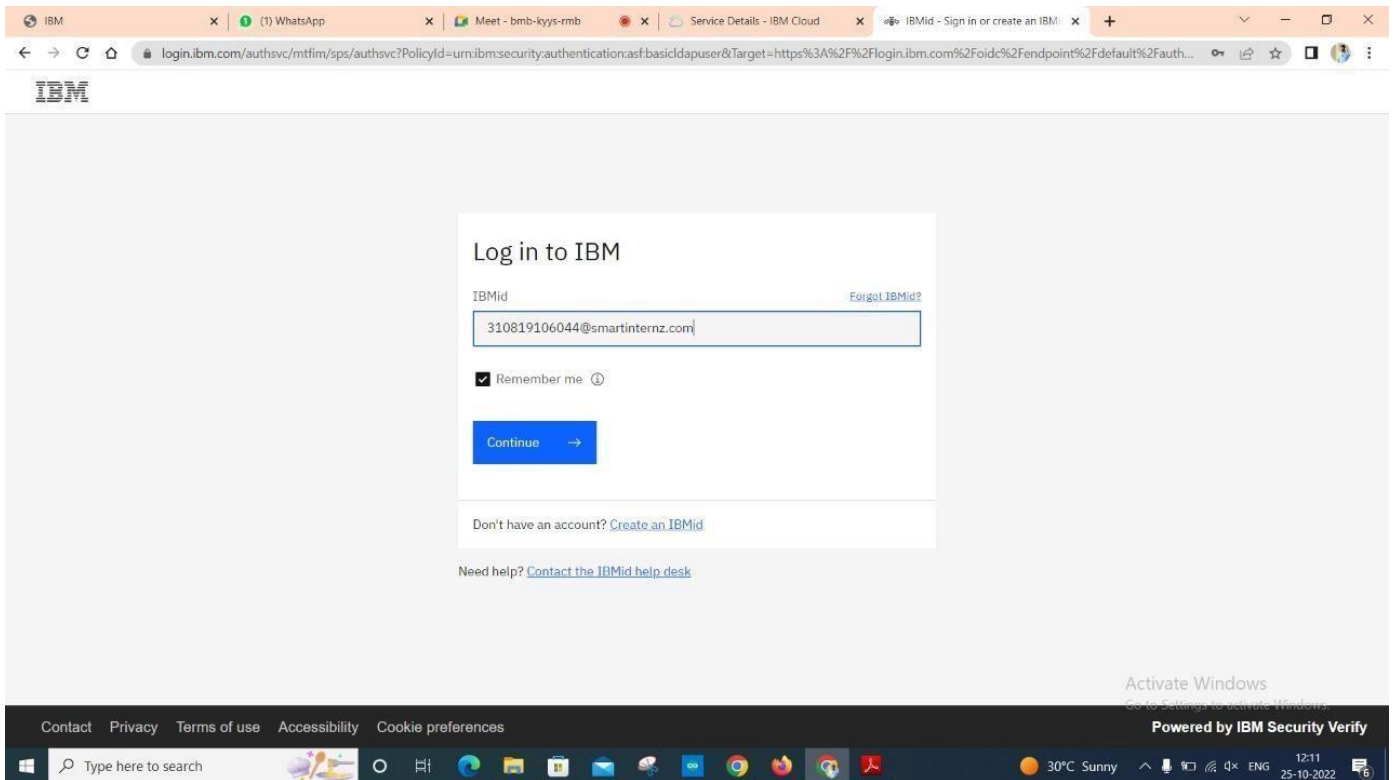


10: Click on Sign in.



## Step

### Step 11: Fill the login details.



The screenshot shows the IBM login page in a web browser. The browser's address bar displays the URL: `login.ibm.com/authsvc/mtflim/sps/authsvc?PolicyId=urn:ibm:security:authentication:asf:basicdapuser&Target=https%3A%2F%2Flogin.ibm.com%2Foidc%2Fendpoint%2Fdefault%2Fauth...`. The page features the IBM logo at the top left. The main content area is titled "Log in to IBM" and includes a text input field for the IBMid, which contains the email address `310819106044@smartinternz.com`. To the right of the input field is a link that says "Forgot IBMid?". Below the input field is a checked checkbox labeled "Remember me" with a help icon. A blue "Continue" button with a right-pointing arrow is positioned below the checkbox. At the bottom of the login form, there is a link that says "Don't have an account? Create an IBMid". Below the login form, there is a link that says "Need help? Contact the IBMid help desk". The Windows taskbar is visible at the bottom, showing the search bar, task view button, and several application icons. The system tray shows the date and time as 12:11 on 25-10-2022. A watermark "Activate Windows" is visible in the bottom right corner.

Log in to IBM

IBMid [Forgot IBMid?](#)

`310819106044@smartinternz.com`

☒ Remember me ⓘ

[Continue](#) →

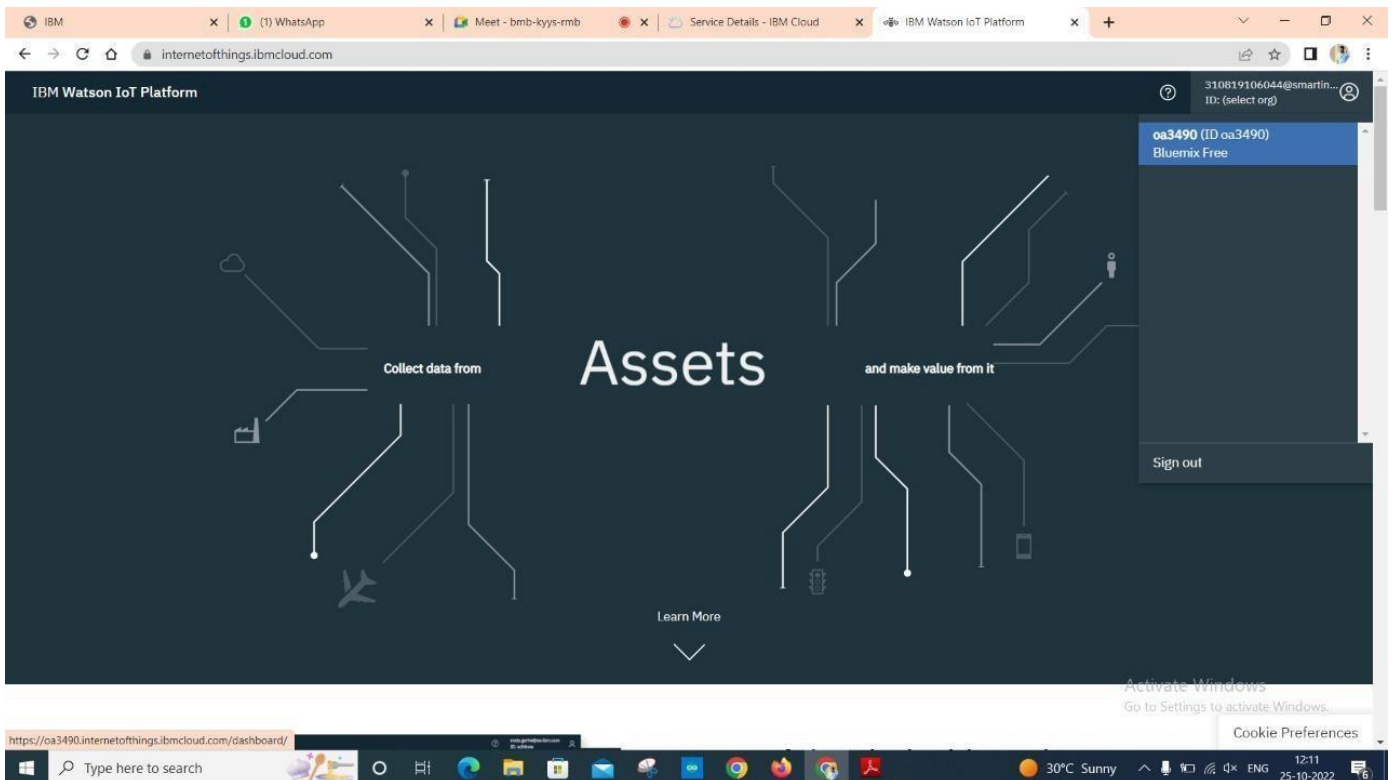
Don't have an account? [Create an IBMid](#)

Need help? [Contact the IBMid help desk](#)

Activate Windows  
Go to Settings to activate Windows.

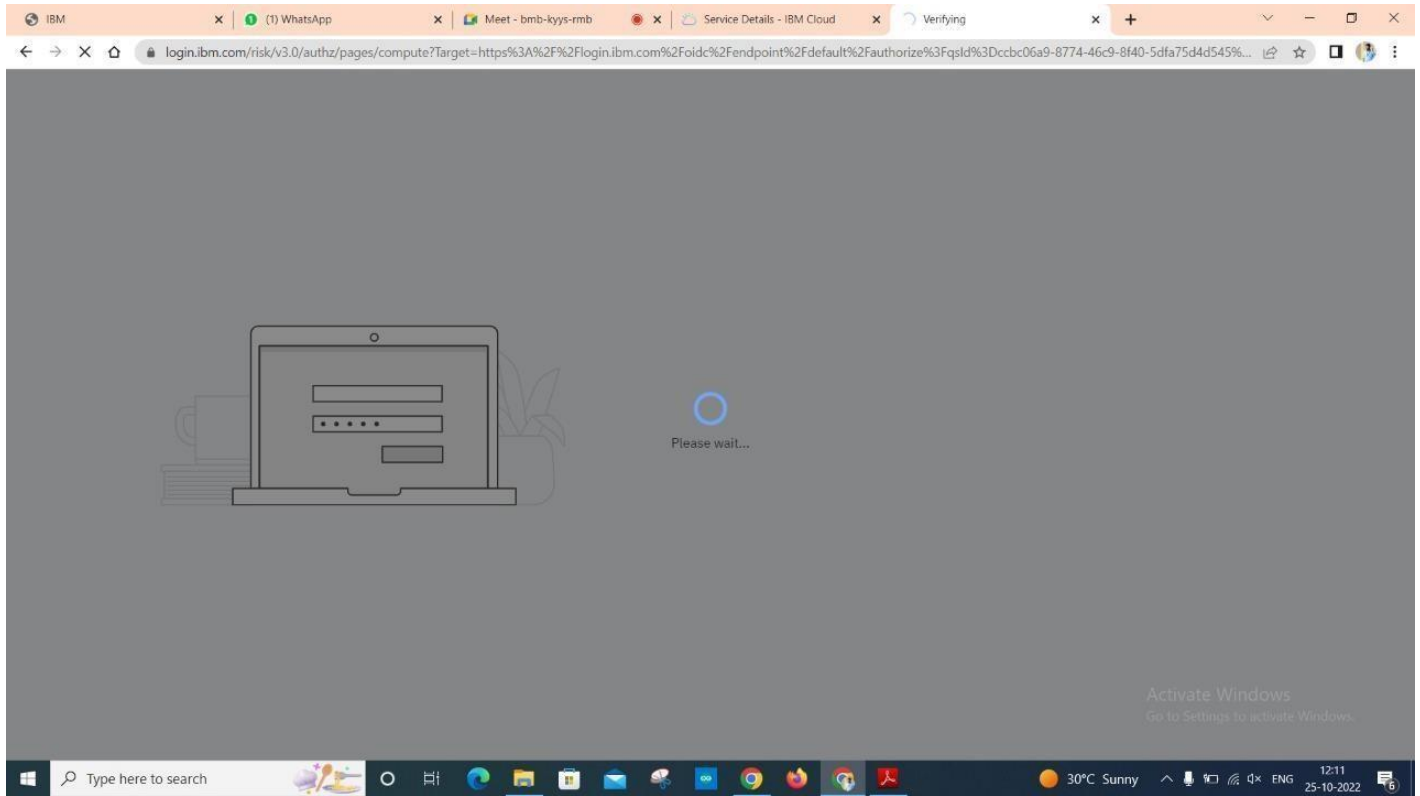
Powered by IBM Security Verify

### 12: Sign in on progress.





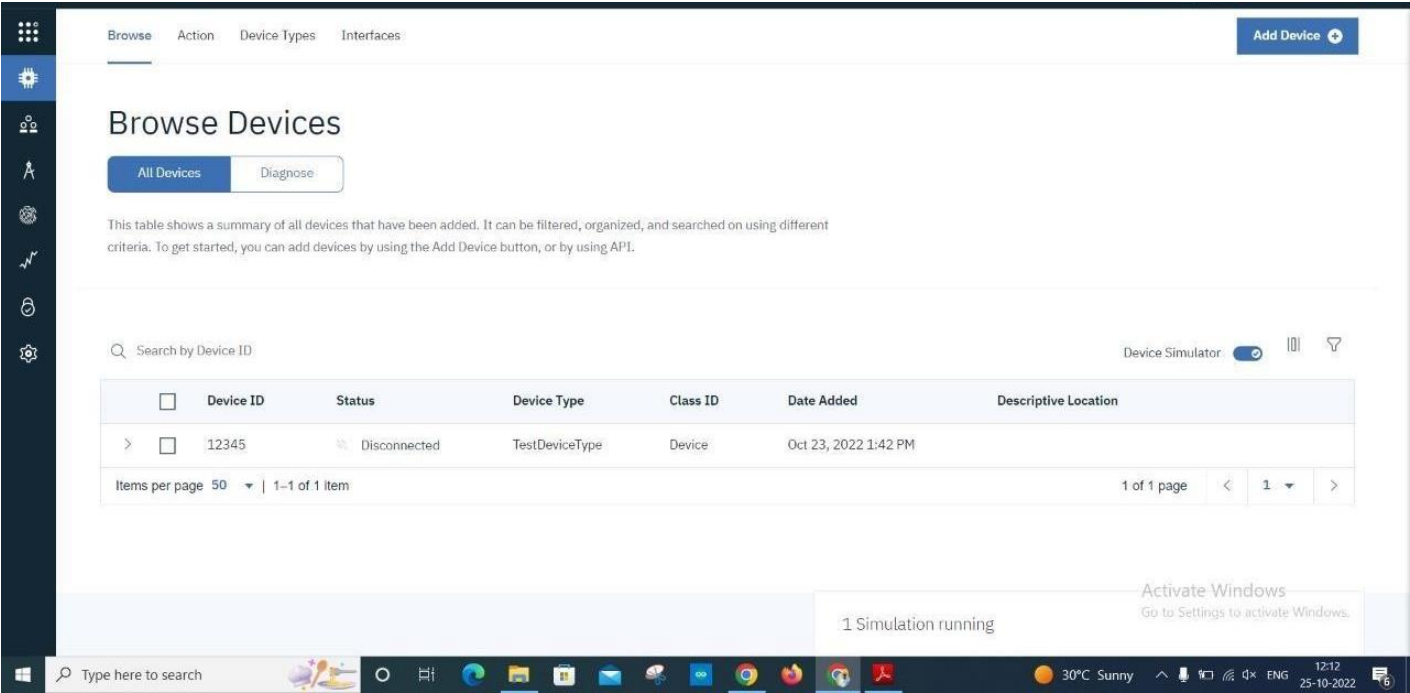
## Step



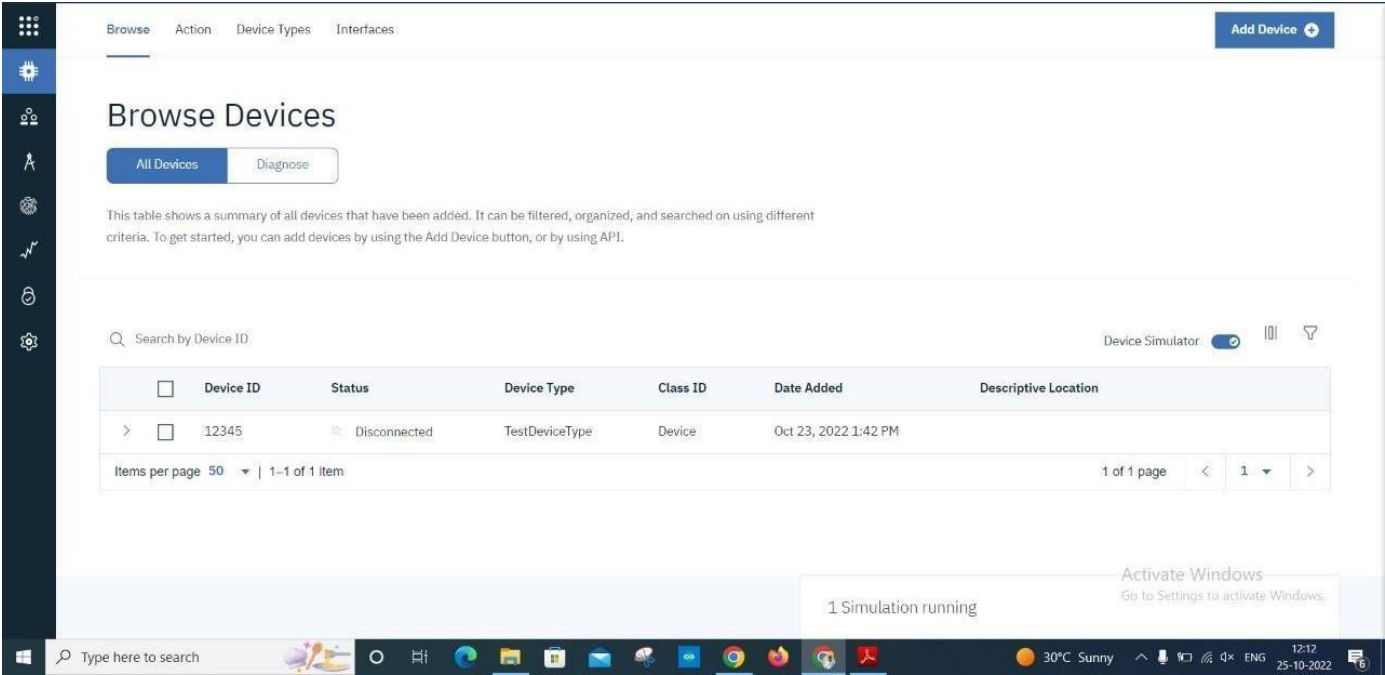
Step 13: Once it id logged in, the name will be displayed click on it and then click on Bluemix Free.

14: This is the IBM Watson platform.

Step



Step 15: Click on Add Device.



16: Click on Device Type.

## Step

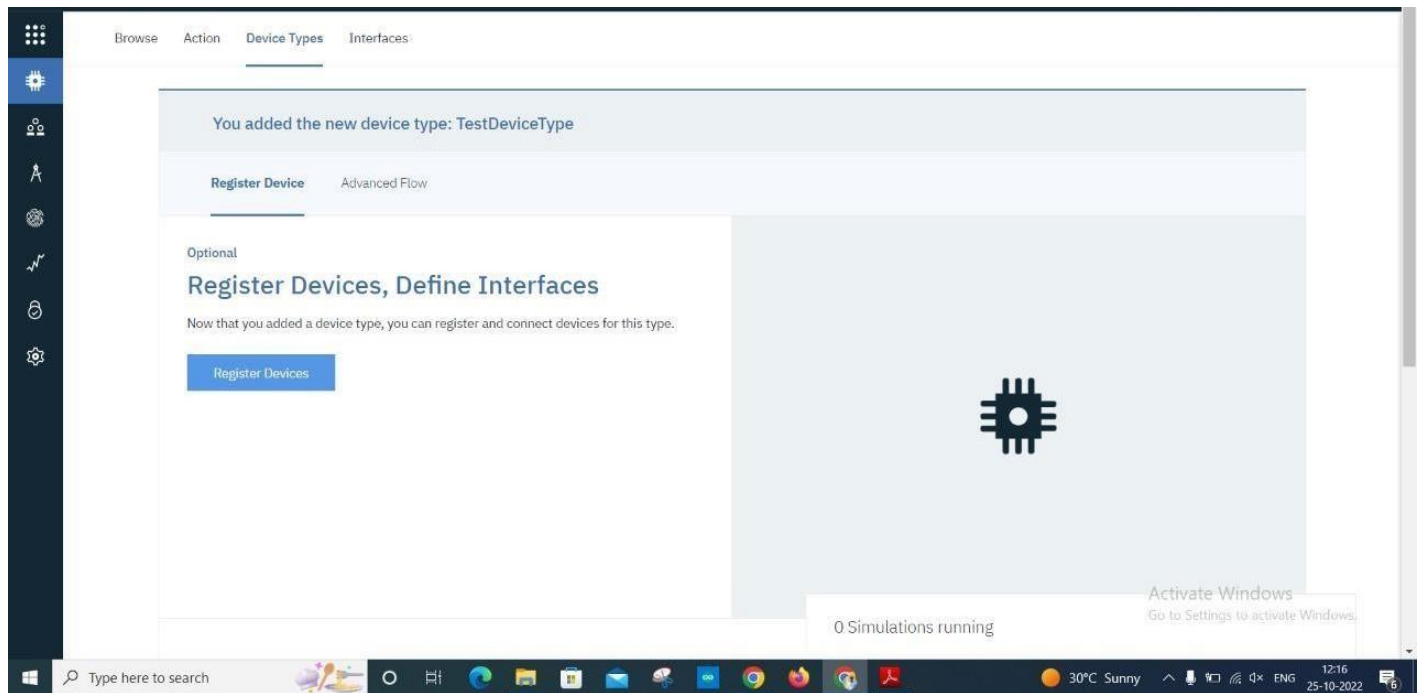
The screenshot shows a software interface with a sidebar on the left containing various icons. The main window has a top navigation bar with 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Add Device' dialog is open, featuring a progress bar with four steps: 'Identity' (selected), 'Device Information', 'Security', and 'Summary'. Below the progress bar, a text prompt reads: 'Select a device type for the device that you are adding and give the device a unique ID.' There are two input fields: 'Device Type' with a dropdown menu showing 'Select or create a device type...' and 'Device ID' with a text input field containing 'Enter Device ID'. At the bottom right of the dialog are 'Cancel' and 'Next' buttons. Below the dialog, the 'Browse Devices' section is visible, showing 'All Devices' and 'Diagnose' buttons. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with weather (30°C Sunny) and date/time (12:15, 25-10-2022).

### Step 17: Fill the details.

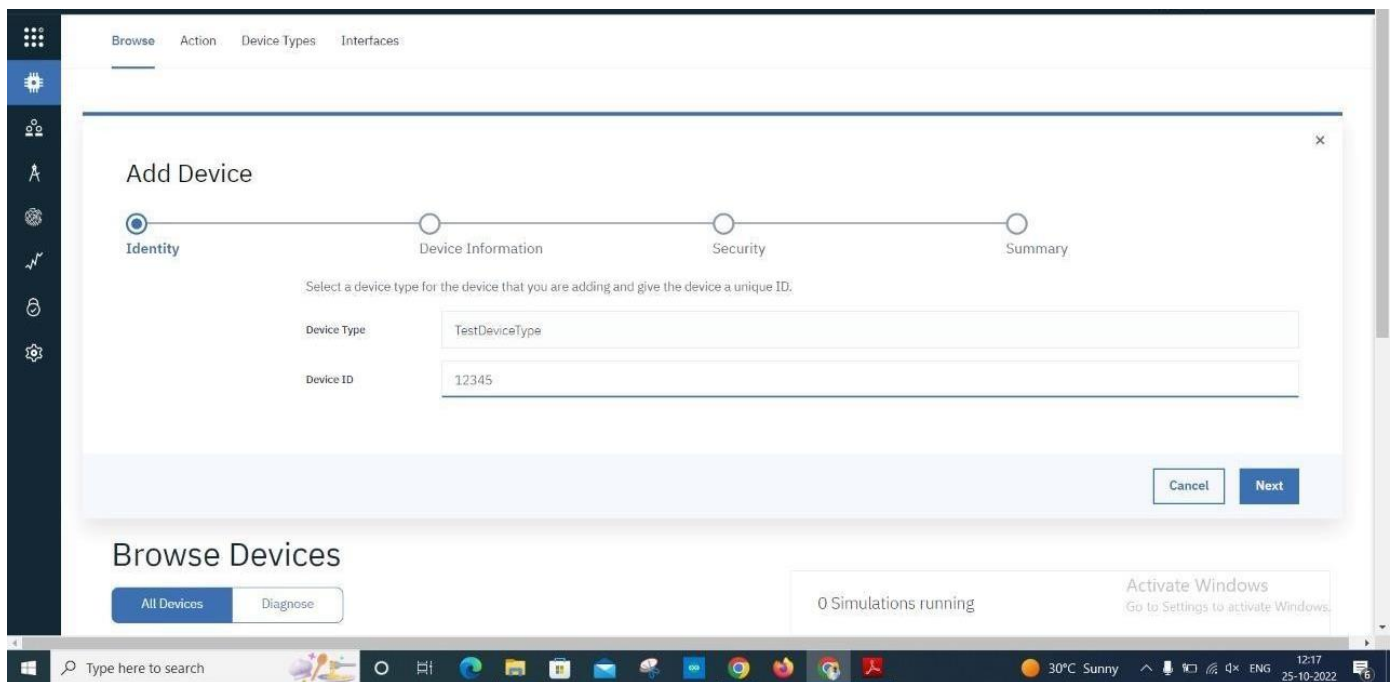
The screenshot shows the 'Add Type' dialog in the same software interface. The progress bar now shows 'Identity' and 'Device Information' (selected). A text prompt reads: 'Device types group devices that have similar characteristics, such as model number, firmware version, or location. Give the device type a unique name and a description that identifies characteristics that are shared by devices of this type.' There are two radio buttons: 'Device' (selected) and 'Gateway'. Below them is a 'Name' input field containing 'TestDeviceType'. A text prompt below the name field reads: '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.' There is also a 'Description' input field. At the bottom right of the dialog are 'Cancel' and 'Next' buttons. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with weather (30°C Sunny) and date/time (12:16, 25-10-2022).

### 18: Click on Register Devices.

## Step

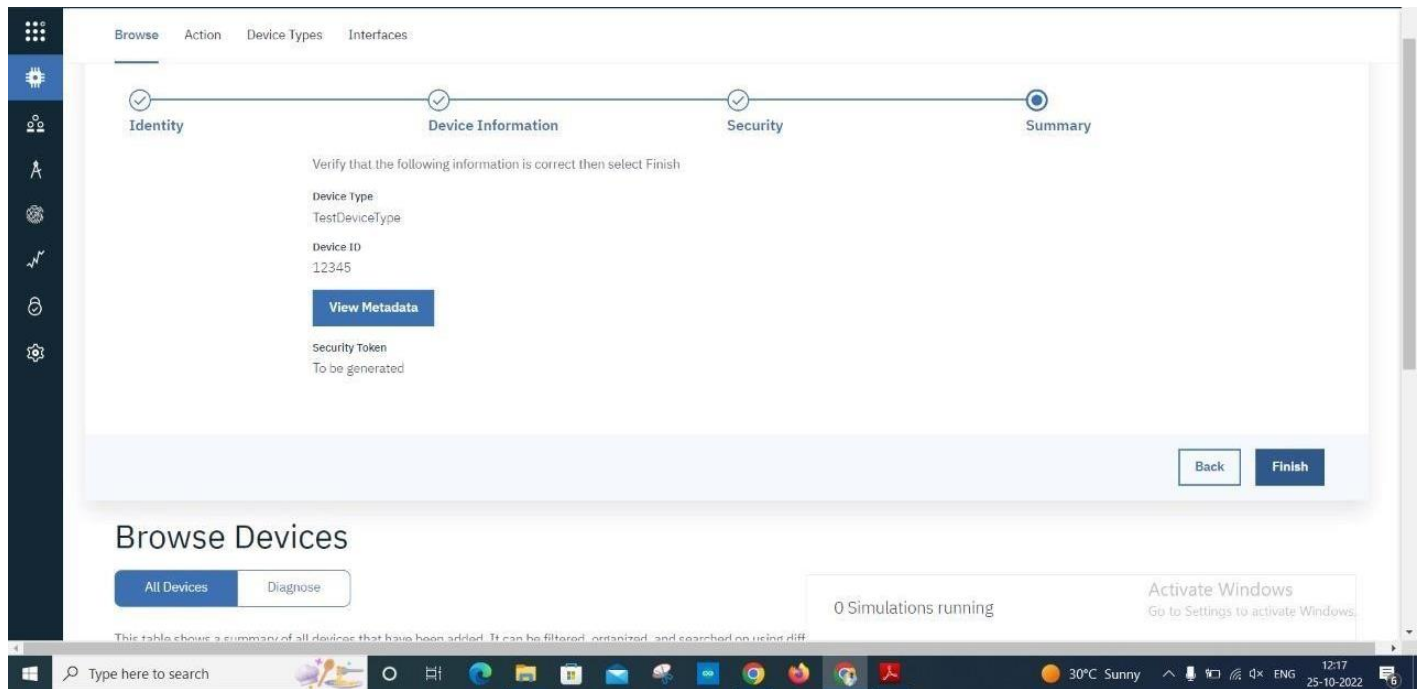


Step 19: Give the device name which you have created and give Device ID.

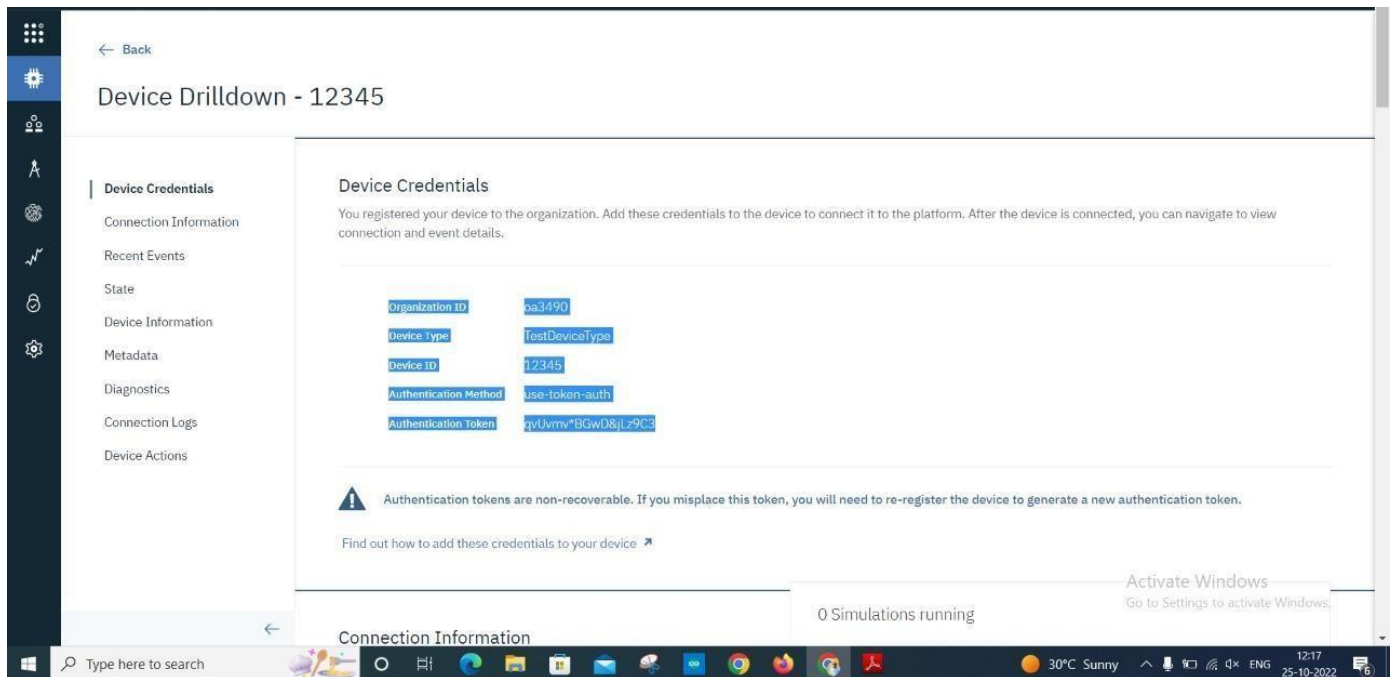


20: After giving all the data, Click on Finish.

## Step

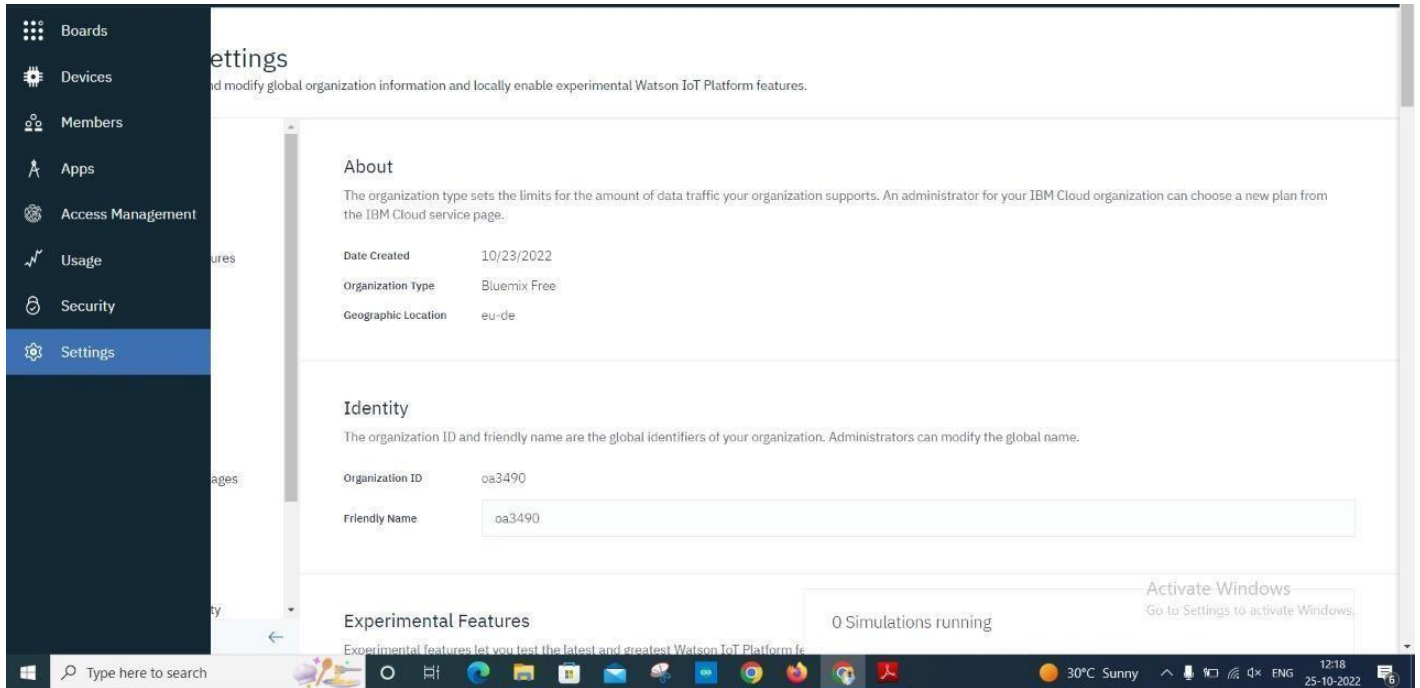


Step 21: After creating the device, Copy the Device Credentials.

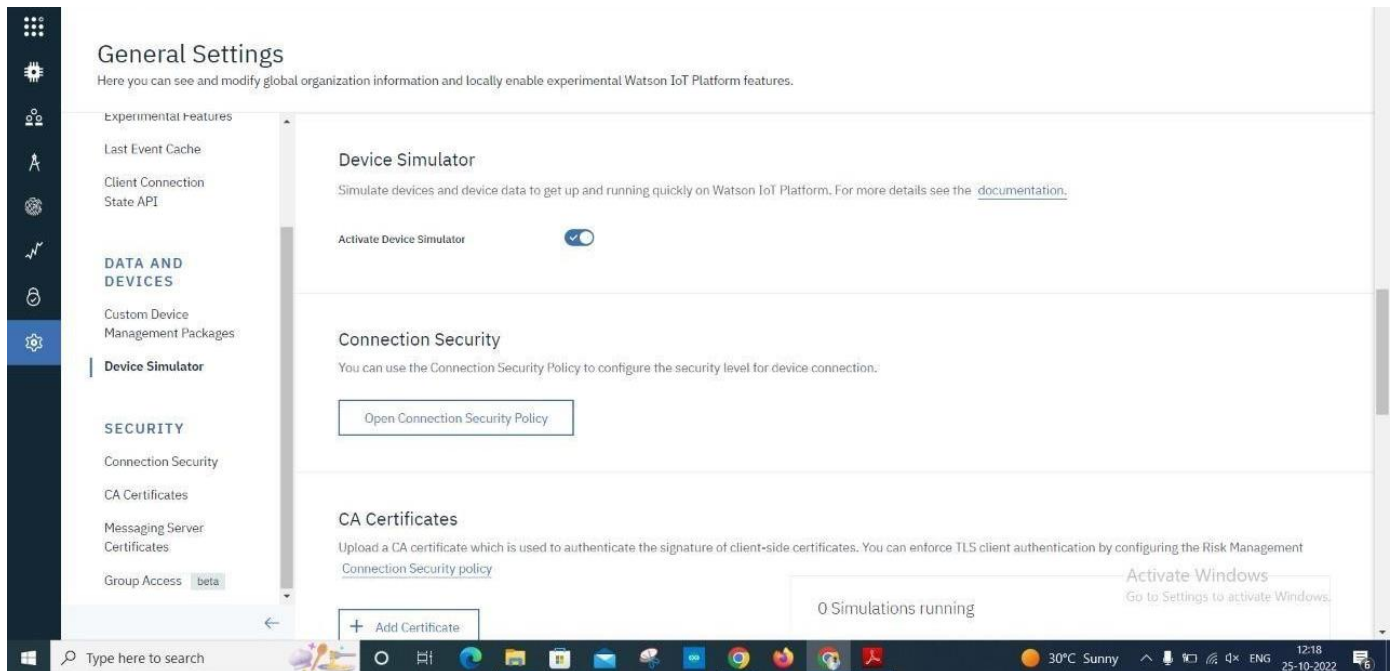


22: Go to Setting, click on Data and Devices.

## Step



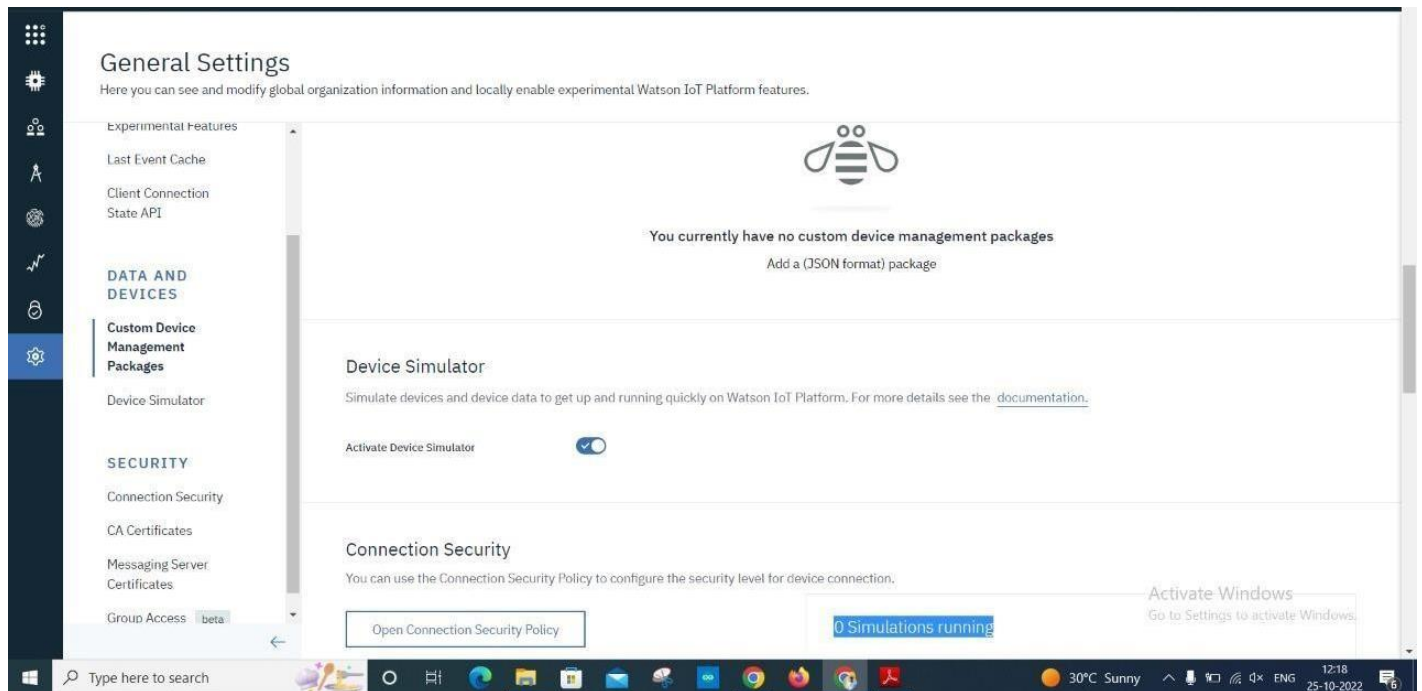
Step 23: Then click on Device Simulator and Activate Device Simulator.



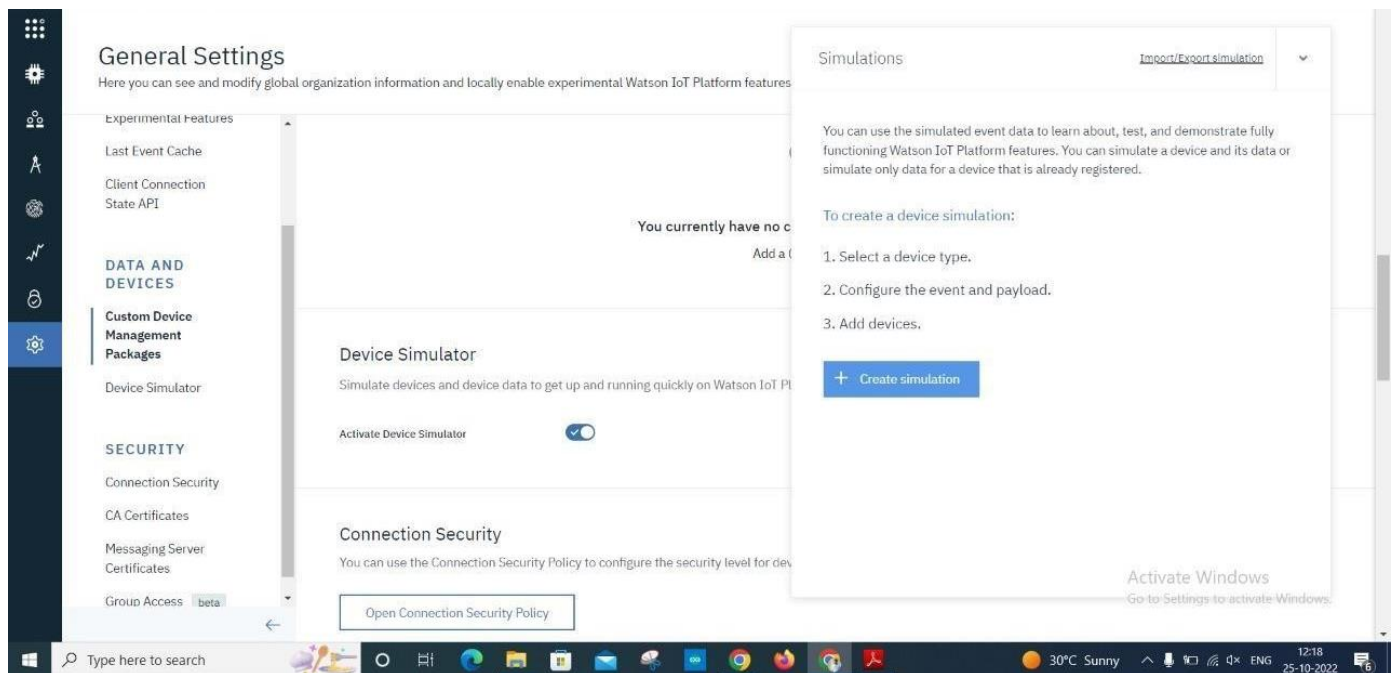
24: Click on the pop-up screen on the right side.



## Step

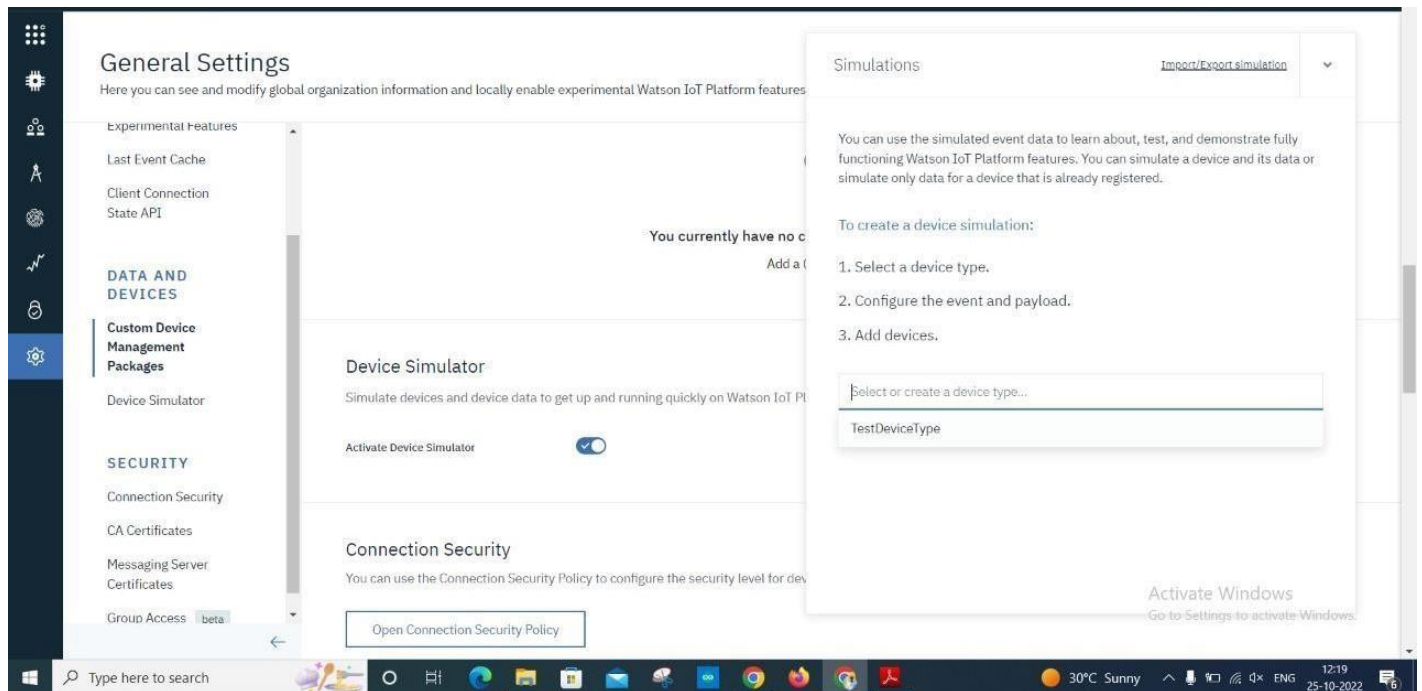


## Step 25: Click on Create Simulation.

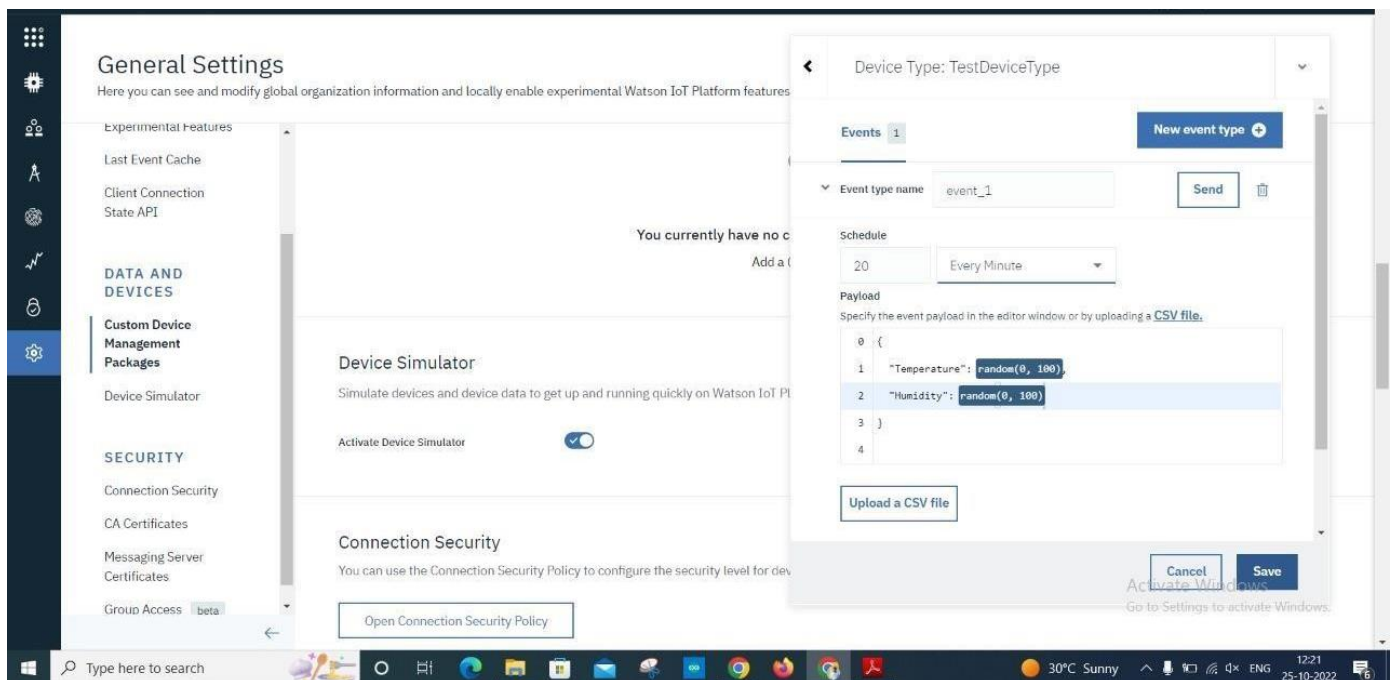


## 26: Choose the Device.

## Step

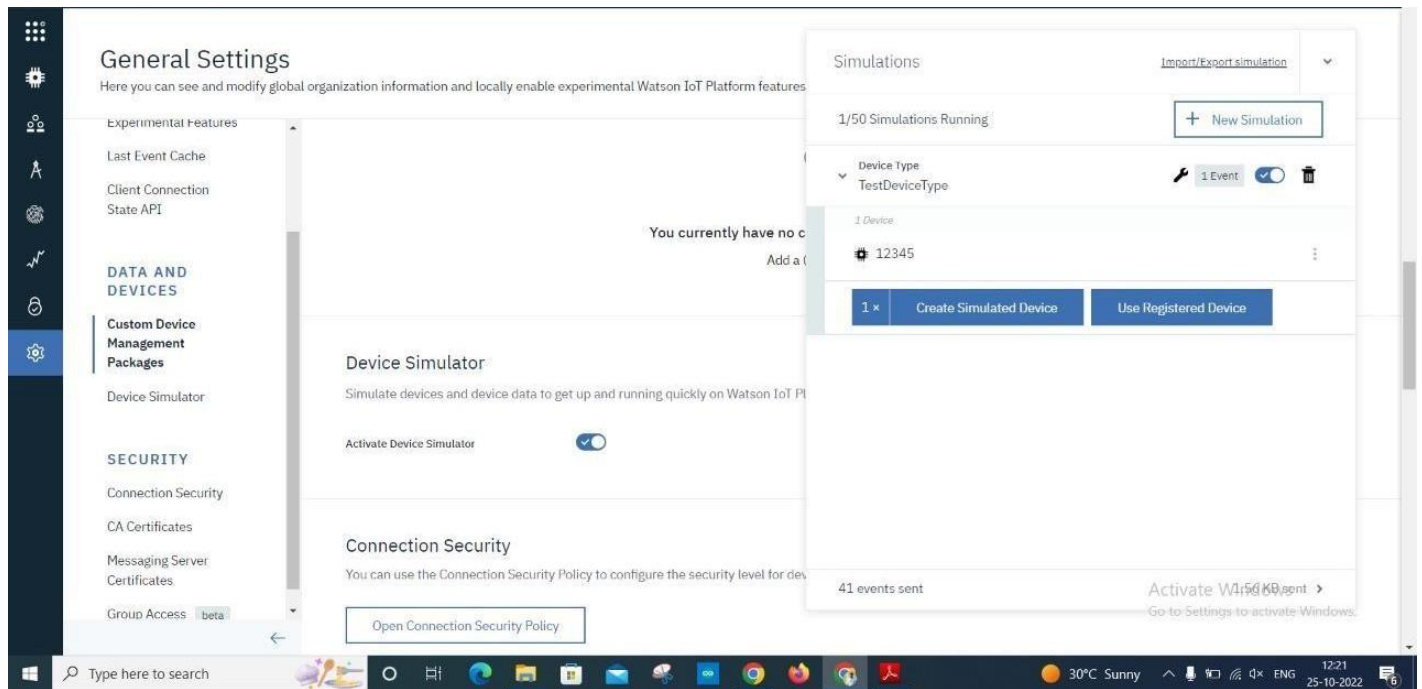


## Step 27: Type the code.

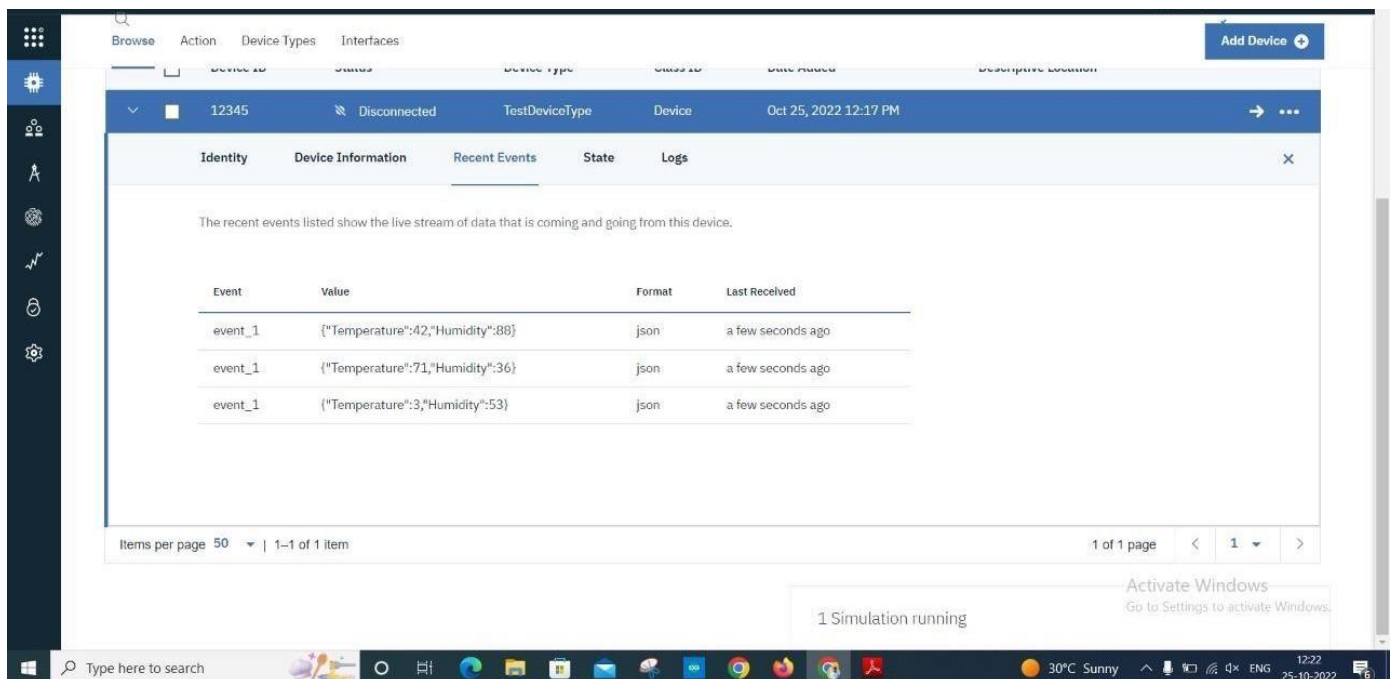


28: Click on Use Registered Device and choose the device and run it.

## Step

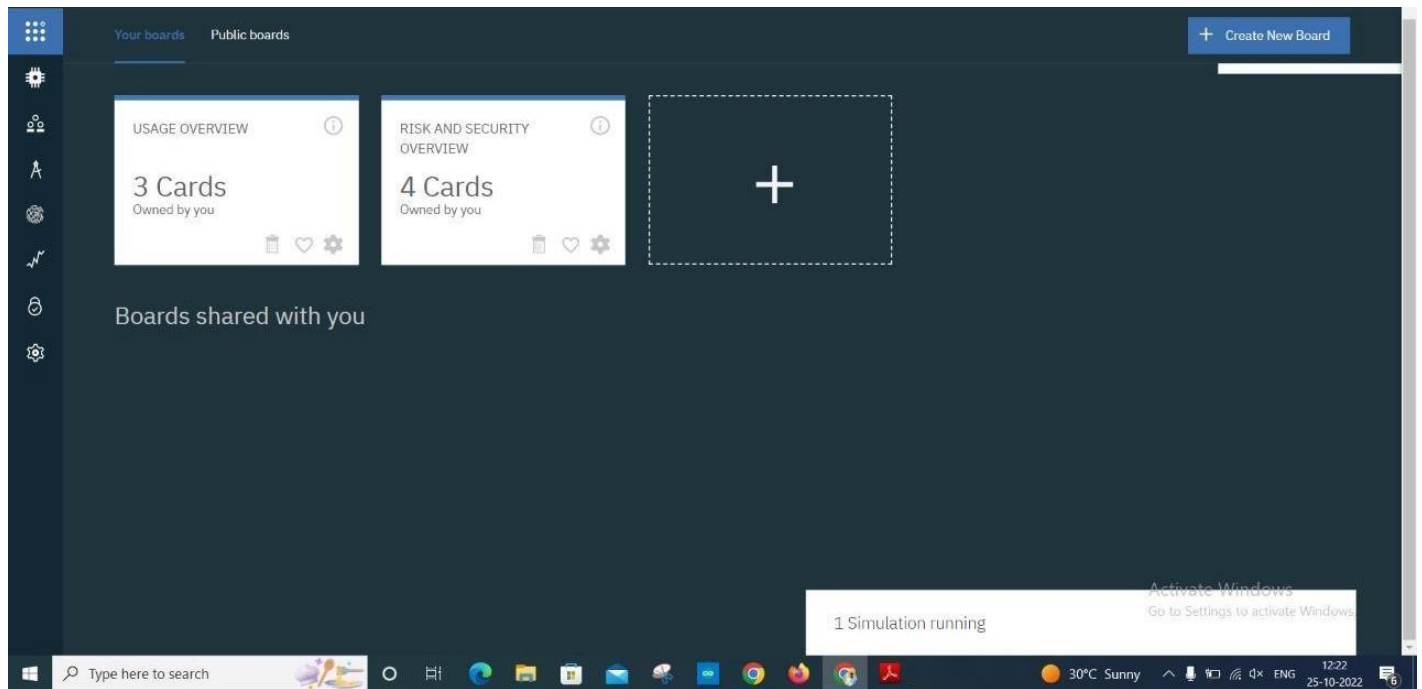


Step 29: Go to devices then click on devices and check the recent events whether the code is running or not.

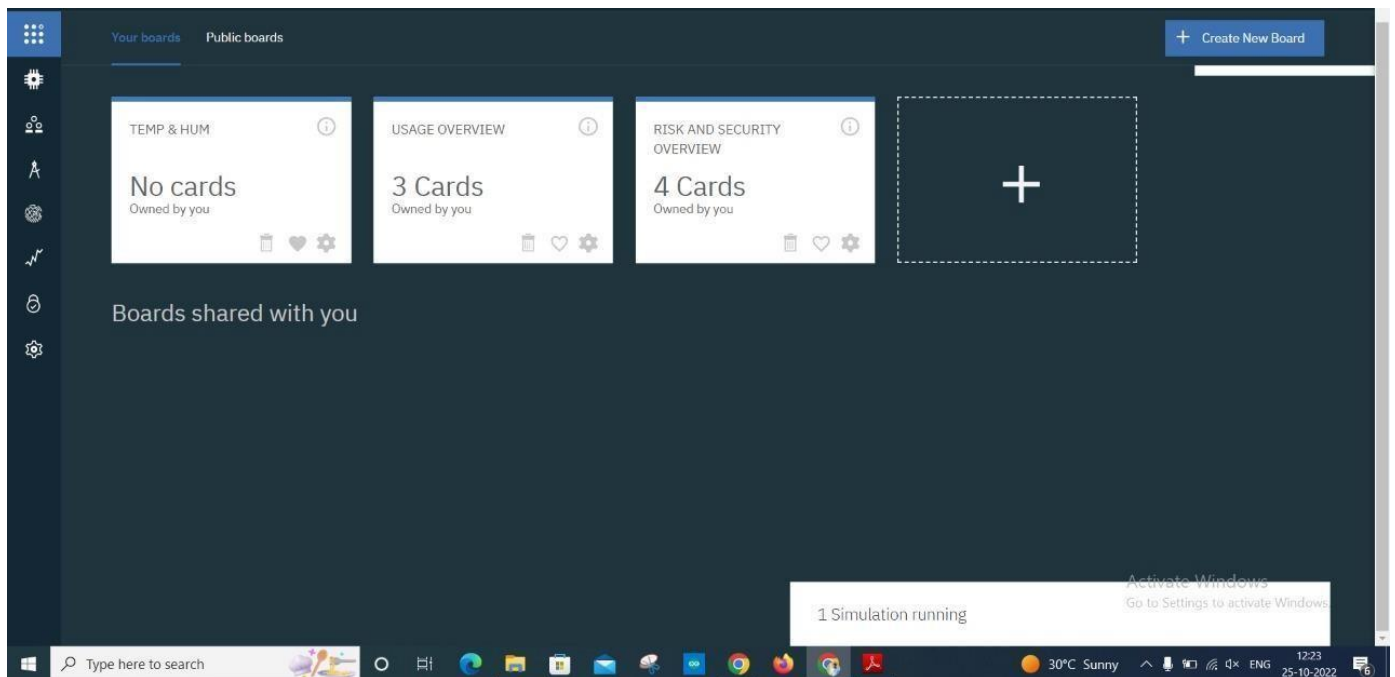


30: Go to Board and click on + Create New Board, fill the details and create a board.

## Step

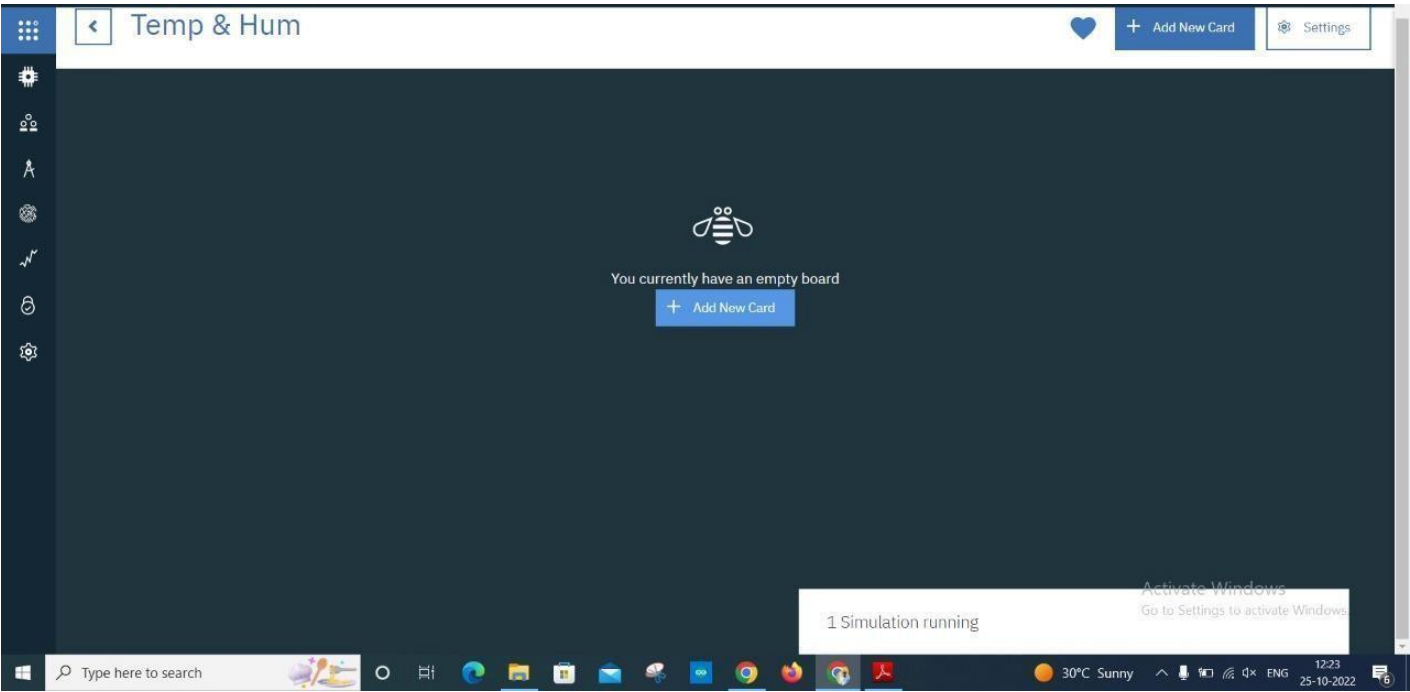


Step 31: Click on the board which is created.

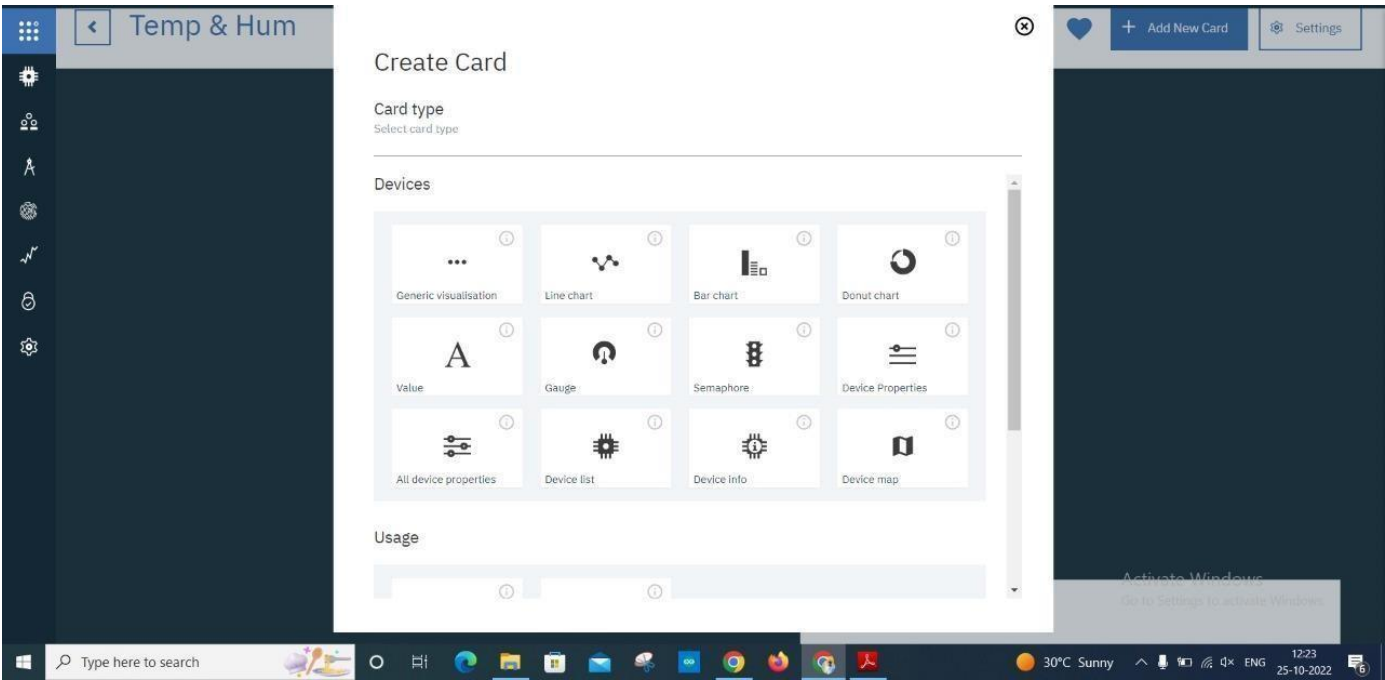


32: Go Add New Card.

Step

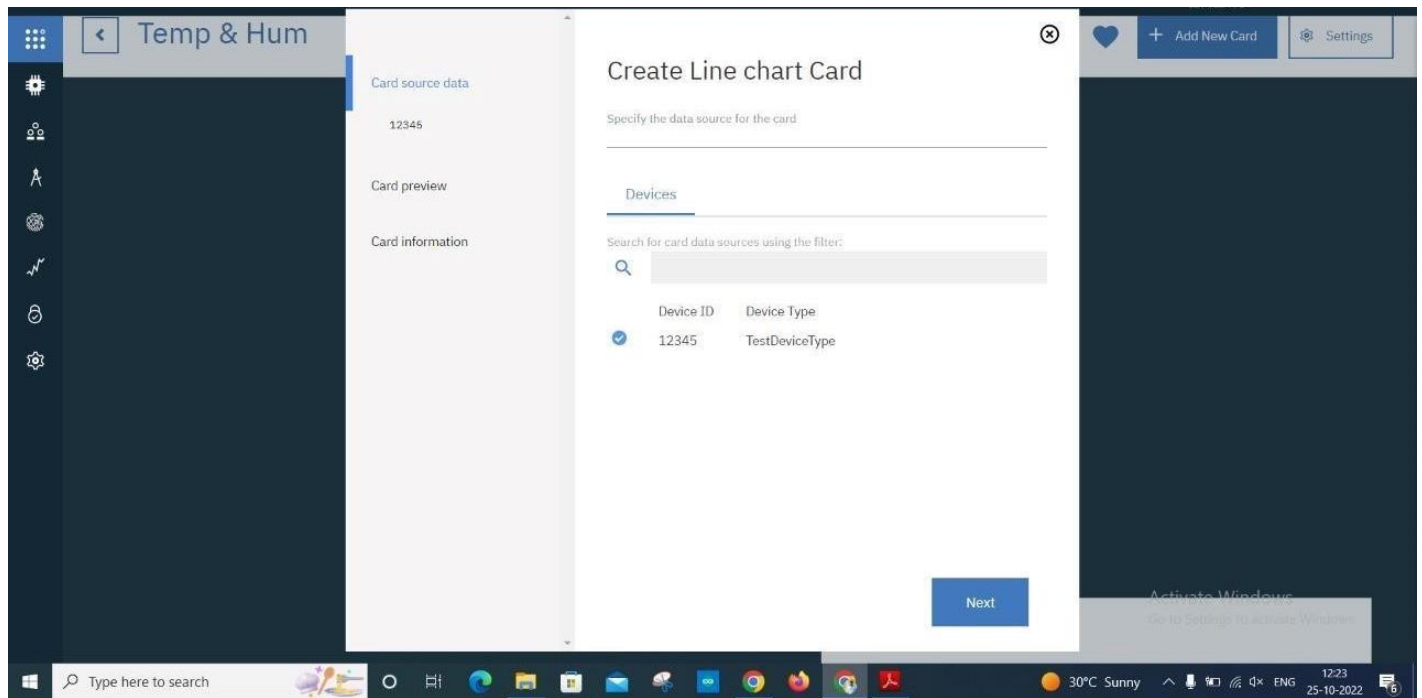


Step 33: Choose the Card Type.

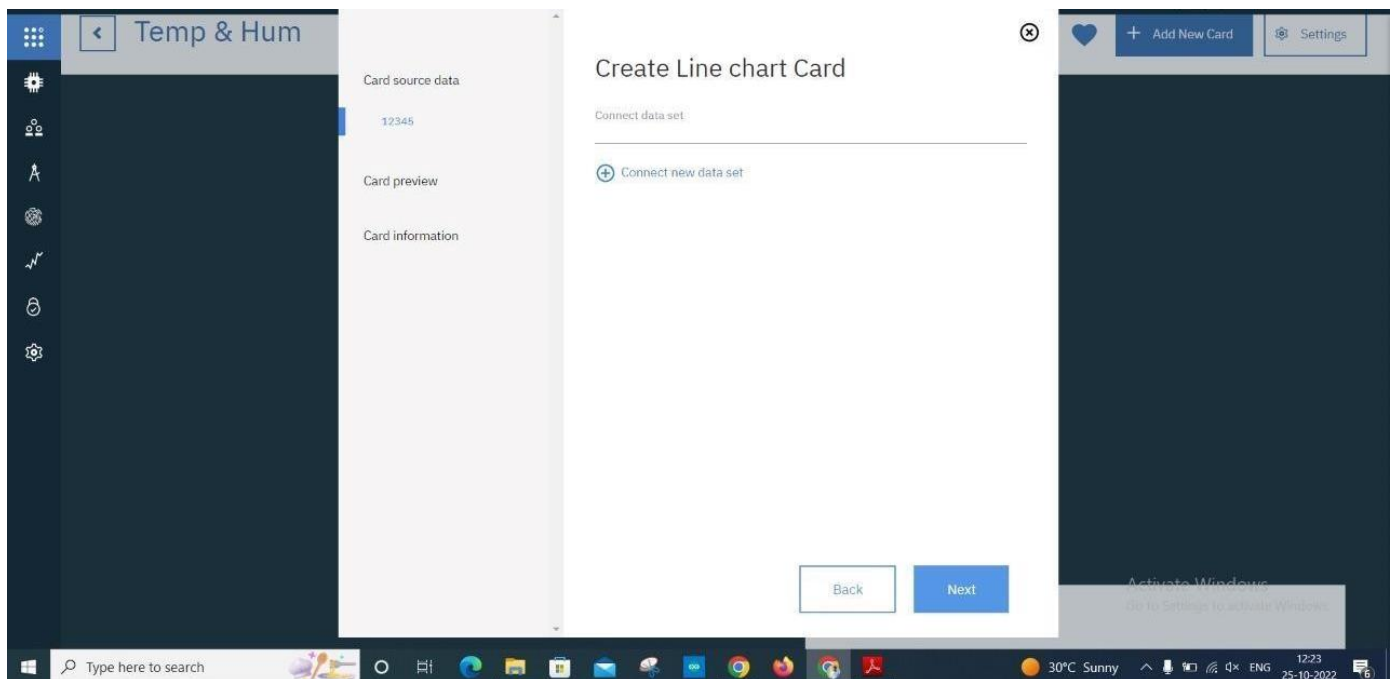


34: Choose the device.

## Step



Step 35: Click on Connect new data set.



36: Fill the details to get Temperature graph.



## Step

Temp & Hum

Card source data

12345

Card preview

Card information

### Create Line chart Card

Connect data set

Temperature

Event

event\_1

Property

Temperature

Name

Temperature

Type

Number

Unit

100

Back

Next

## Step 37: Choose the Colour.

Temp & Hum

Card source data

12345

Card preview

Card information

### Create Line chart Card

Enter title and description of the card

Title

Line chart

Color scheme

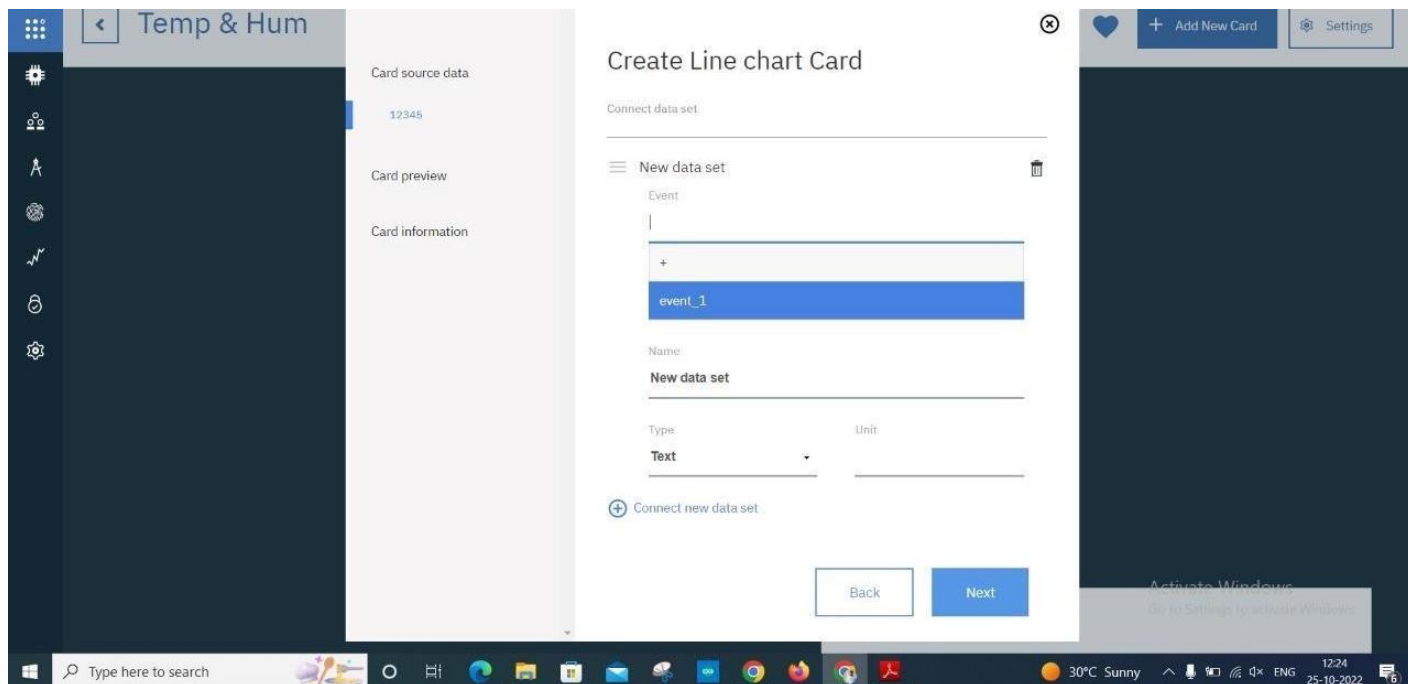
A line chart to display time series information with historic and live data.

Back

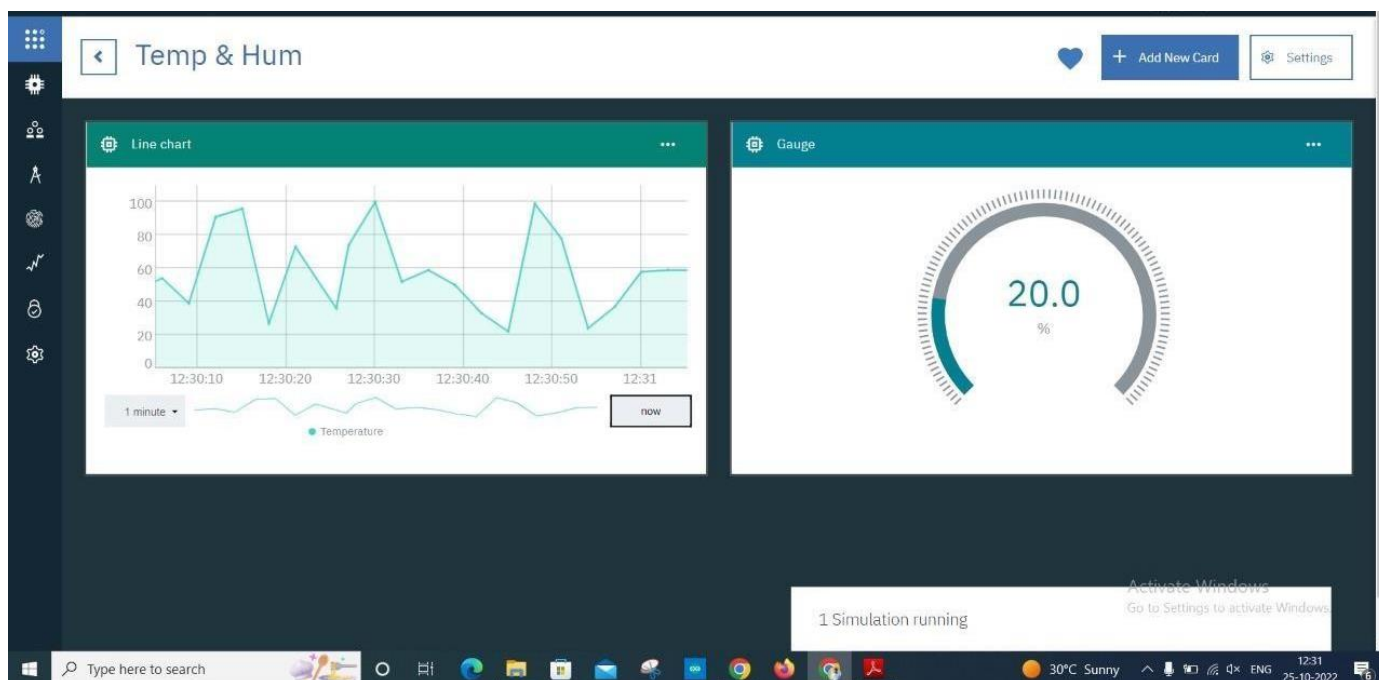
Submit

38: Repeat the same process again to get the Humidity graph.

## Step



Step 39: Here is the Final graph.



**Result:**

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