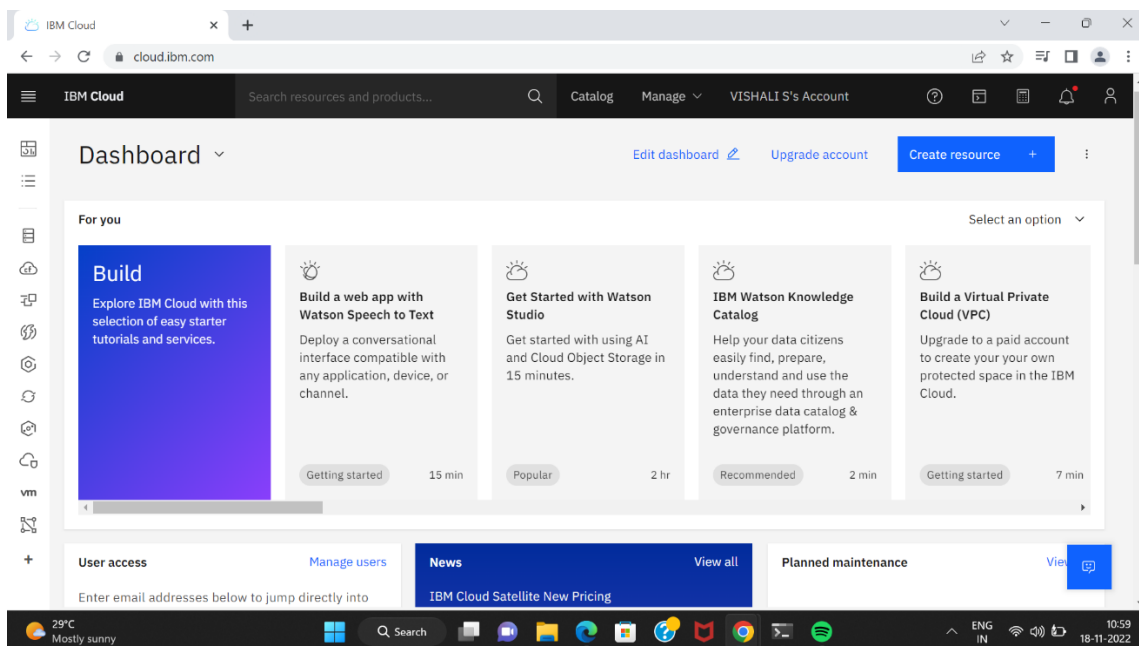


CREATE IBM WATSON IOT PLATFORM AND DEVICE

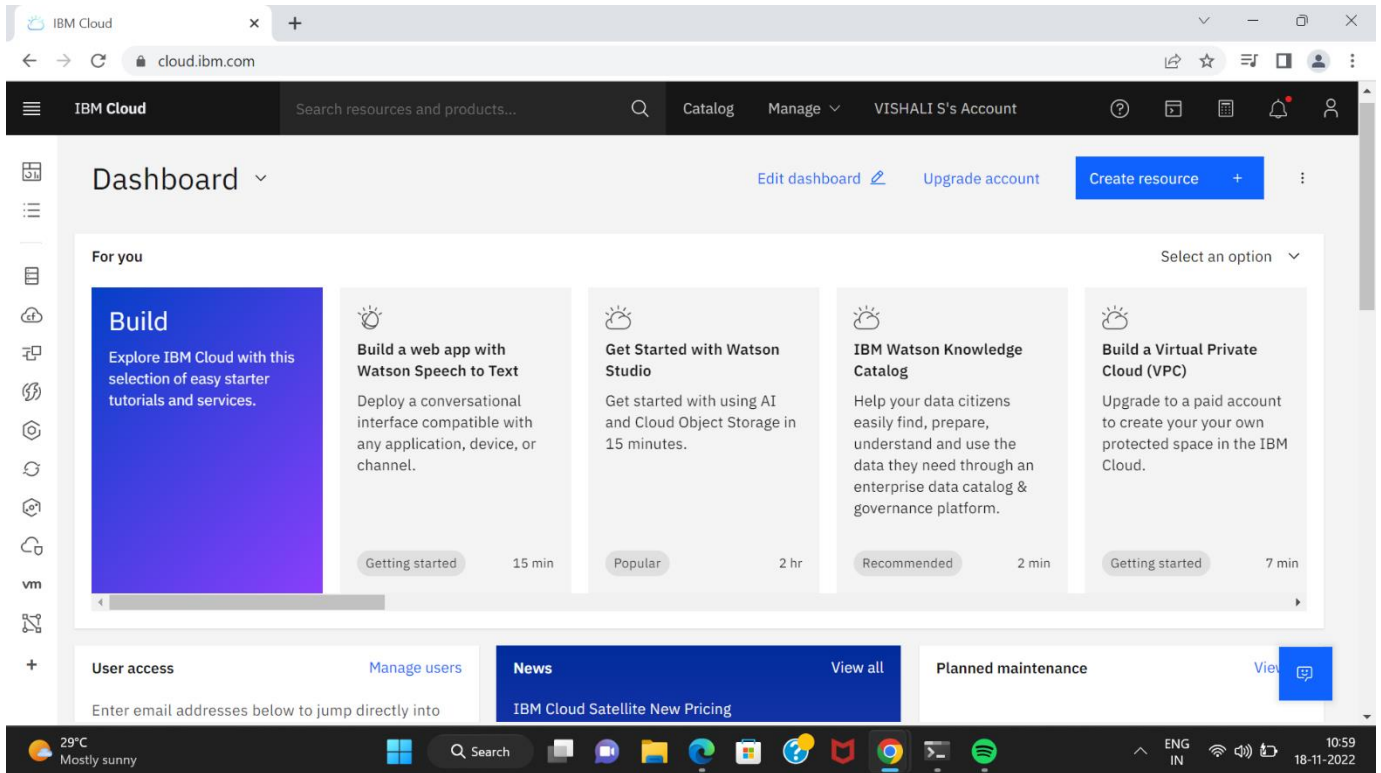
Date	25 October 2022
Team ID	PNT2022TMID18159
Project Name	Smart Solutions for Railways

Steps to be followed

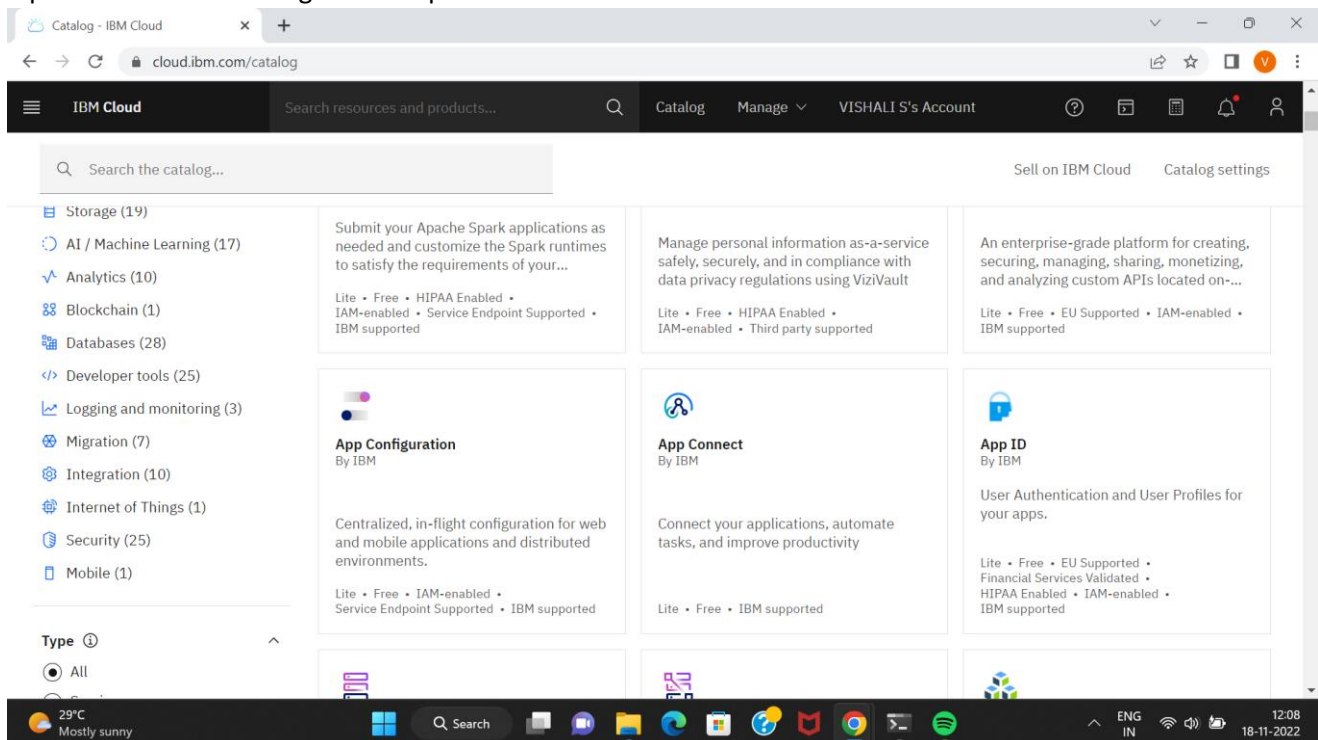
Step 1: Firstly, create an IBM cloud account with IBM id and password.



Step 2: Home page of IBM cloud.



Step 3: Click on the catalog on the top.



Step 4: Click on IoT in the category mentioned.

Step 5: Click on Internet of Things Platform.

Service Details - IBM Cloud

cloud.ibm.com/services/iotf-service/cm%3Av1%3Abluemix%3Apublic%3Aiotf-service%3Aeu-de%3Aa%2Fcbcb8a546967c4e55b3721a729bc03606%3A46d4...

IBM Cloud Search resources and products... Catalog Manage VISHALI S's Account

Resource list / Internet of Things Platform-ae 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 Non-Production

29°C Mostly sunny 12:10 18-11-2022

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

Internet of Things Platform - IBM

cloud.ibm.com/catalog/services/internet-of-things-platform

IBM Cloud Search resources and products... Catalog Manage VISHALI S's Account

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

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	Includes up to 500 registered devices, and a	Free

Summary

Internet of Things Platform Free

Location: Frankfurt

Plan: Lite

Service name: Internet of Things Platform-ae

Resource group: Default

☒ I have read and agree to the following license agreements: [Terms](#)

Creating...

Add to estimate

Waiting for cloud.ibm.com...

29°C Mostly sunny 12:10 18-11-2022

Step 7: Tick agreements and then click on create.

Step 8: Click on the launch button.

The screenshot shows the IBM Cloud Service Details page for 'Internet of Things Platform-ae'. The page is active and shows a 'Launch' button. The URL in the browser is cloud.ibm.com/services/iotf-service/crm%3Av1%3Abluemix%3Apublic%3Aaio%3Ade%3Aa%2Fcb8a546967c4e55b3721a729bc03606%3A46d4.... The page includes a sidebar with 'Manage', 'Plan', and 'Connections' options. The main content area features a diagram of a central node connected to various devices and a 'Launch' button. Below the diagram, there is a section titled 'Ready for the next level?' with a link to 'IBM Watson IoT Platform Journey'.

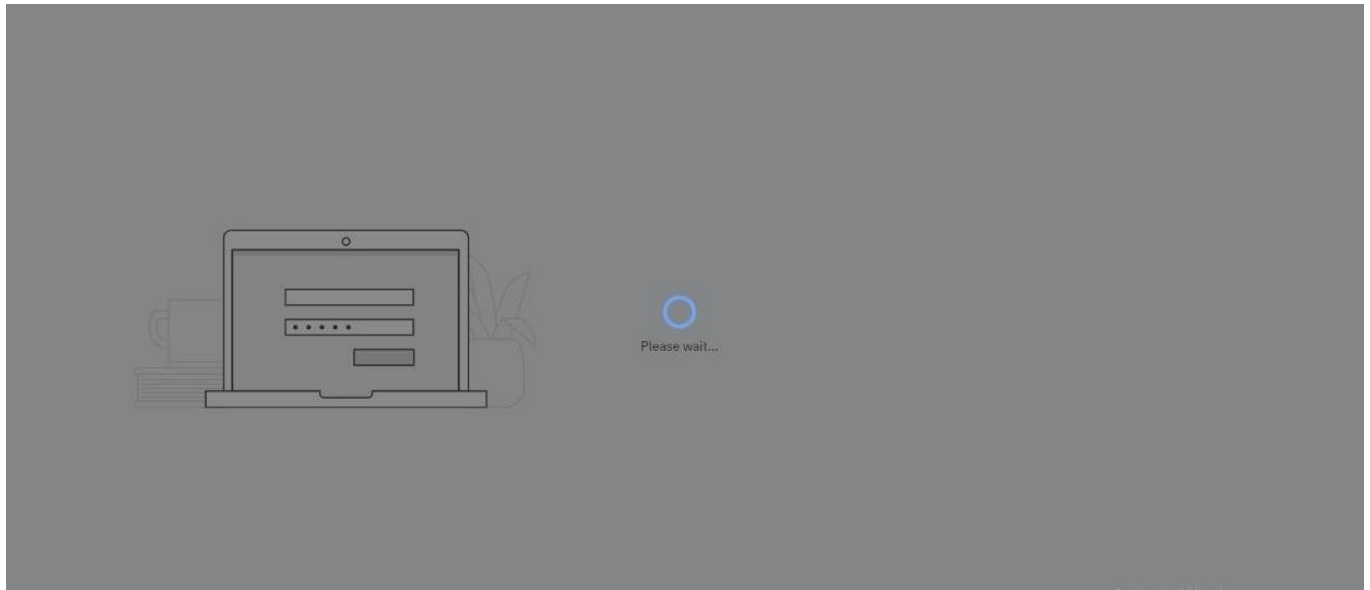
Step 9: After clicking on the launch button this tab will open.

The screenshot shows the IBM Watson IoT Platform dashboard. The URL in the browser is internetofthings.ibmcloud.com. The dashboard has a dark theme and features a large central graphic with the word 'Cars' in the middle. To the left of 'Cars' is the text 'Collect data from' and to the right is 'and make value from it'. The dashboard also includes a 'Cookie Preferences' button in the bottom right corner. The user's account information is visible in the top right corner, showing 'vishalisattanathan_ec@m...' and 'ID: (select org)'.

Step 10: Click on Sign in.

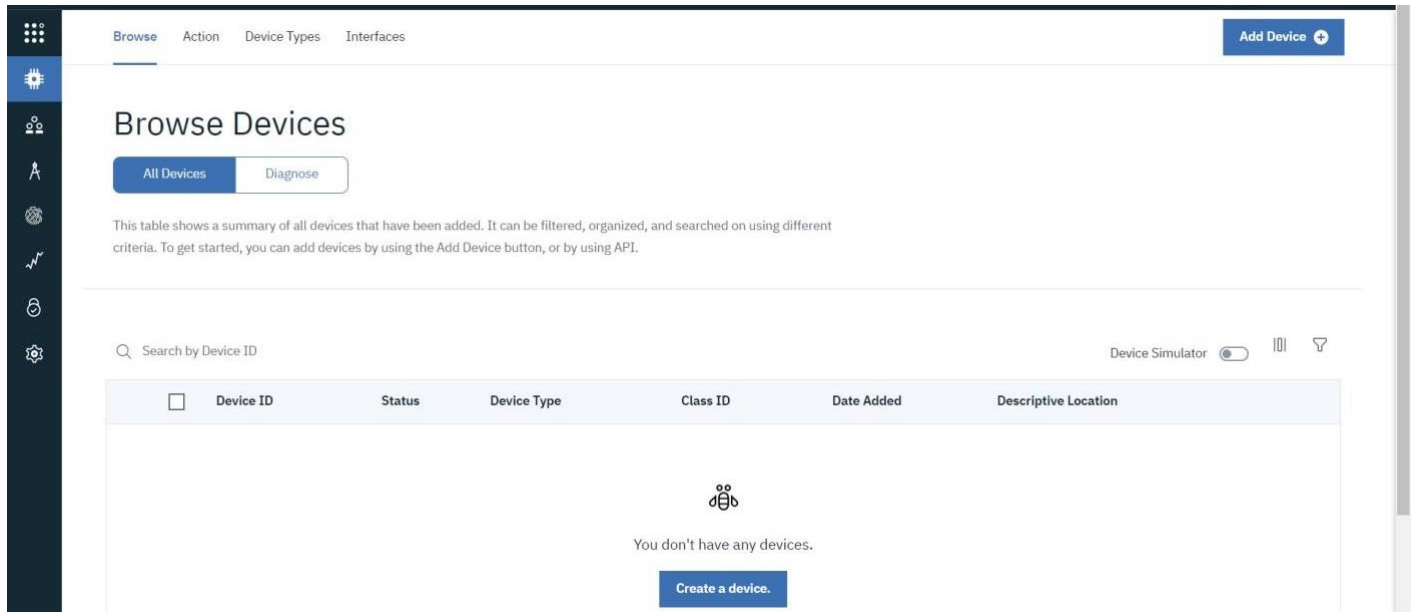
Step 11: Fill the login details.

Step 12: Sign in on progress.



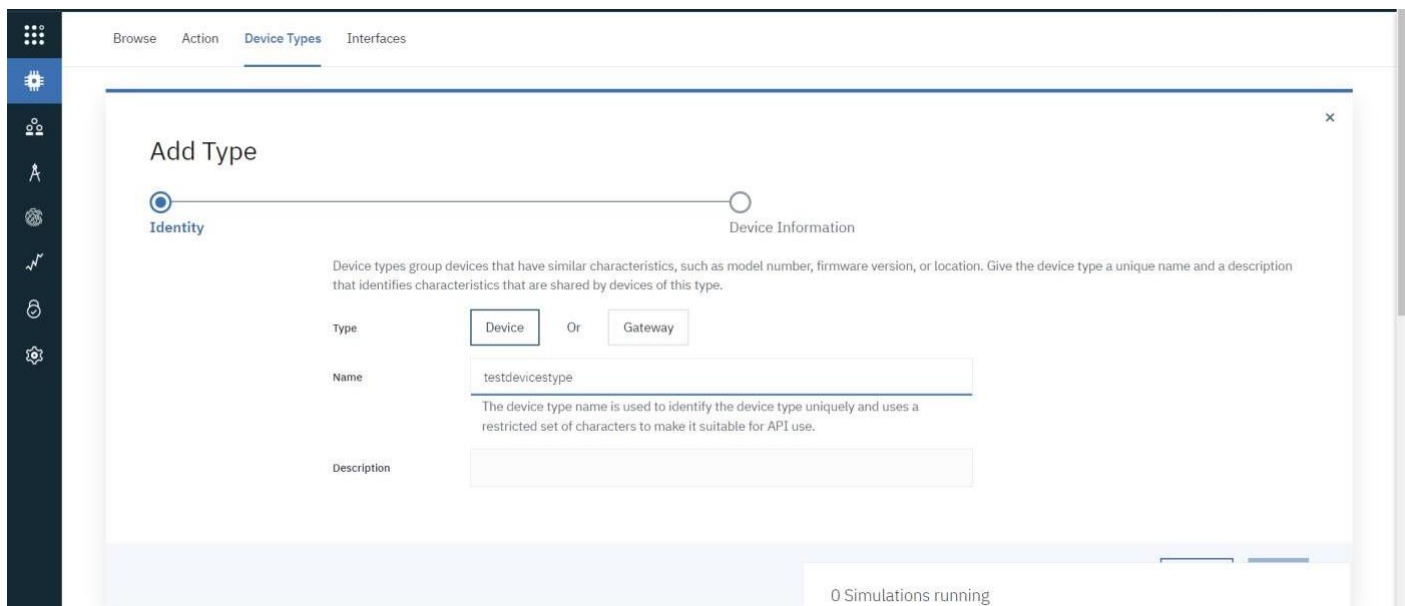
Step 13: Once it is logged in, the name will be displayed click on it and then click on Bluemix Free.

Step 14: This is the IBM Watson platform.



Step 15: Click on Add Device.

step 16: Click on Device Type.



Step 17: Fill the details.

Browse Action Device Types Interfaces

Add Type

Identity Device Information

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.

Type Or

Name

Description

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.

0 Simulations running

Step 18: Click on Register Devices.

Browse Action Device Types Interfaces

You added the new device type: testdevicetype

Register Device Advanced Flow

Optional

Register Devices, Define Interfaces

Now that you added a device type, you can register and connect devices for this type.

0 Simulations running

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

Browser Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

Select a device type for the device that you are adding and give the device a unique ID.

Device Type testdevicetype

Device ID 6789

Cancel Next

Browse Devices

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

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

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

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

General Settings

Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features.

PLATFORM

- About
- Identity
- Experimental Features
- Last Event Cache
- Client Connection State API

DATA AND DEVICES

- Custom Device Management Packages
- Device Simulator

SECURITY

Device Simulator

Simulate devices and device data to get up and running quickly on Watson IoT Platform. For more details see the [documentation](#).

Activate Device Simulator ☒

Connection Security

You can use the Connection Security Policy to configure the security level for device connection.

[Open Connection Security Policy](#)

CA Certificates

Upload a CA certificate which is used to authenticate the signature of client-side

0 Simulations running

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

General Settings
Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features.

PLATFORM

- About
- Identity
- Experimental Features
- Last Event Cache
- Client Connection State API

DATA AND DEVICES

- Custom Device Management Packages
- Device Simulator**

SECURITY

Device Simulator
Simulate devices and device data to get up and running quickly on Watson IoT Platform. For more details see the [documentation](#).

Activate Device Simulator ☒

Connection Security
You can use the Connection Security Policy to configure the security level for device connection.

[Open Connection Security Policy](#)

CA Certificates
Upload a CA certificate which is used to authenticate the signature of client-side certificates. You can reference the CA certificate authentication by specifying the Device Management Connection Security policy.

0 Simulations running

Step 25: Click on Create Simulation.

General Settings
Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features.

PLATFORM

- About
- Identity
- Experimental Features
- Last Event Cache
- Client Connection State API

DATA AND DEVICES

- Custom Device Management Packages
- Device Simulator

SECURITY

CA Certificates
Upload a CA certificate which is used to authenticate the signature of client-side certificates. You can reference the CA certificate authentication by specifying the Device Management Connection Security policy.

[+ Add Certificate](#)

Common Name Issued By

No certificates

Simulations [Import/Export simulation](#)

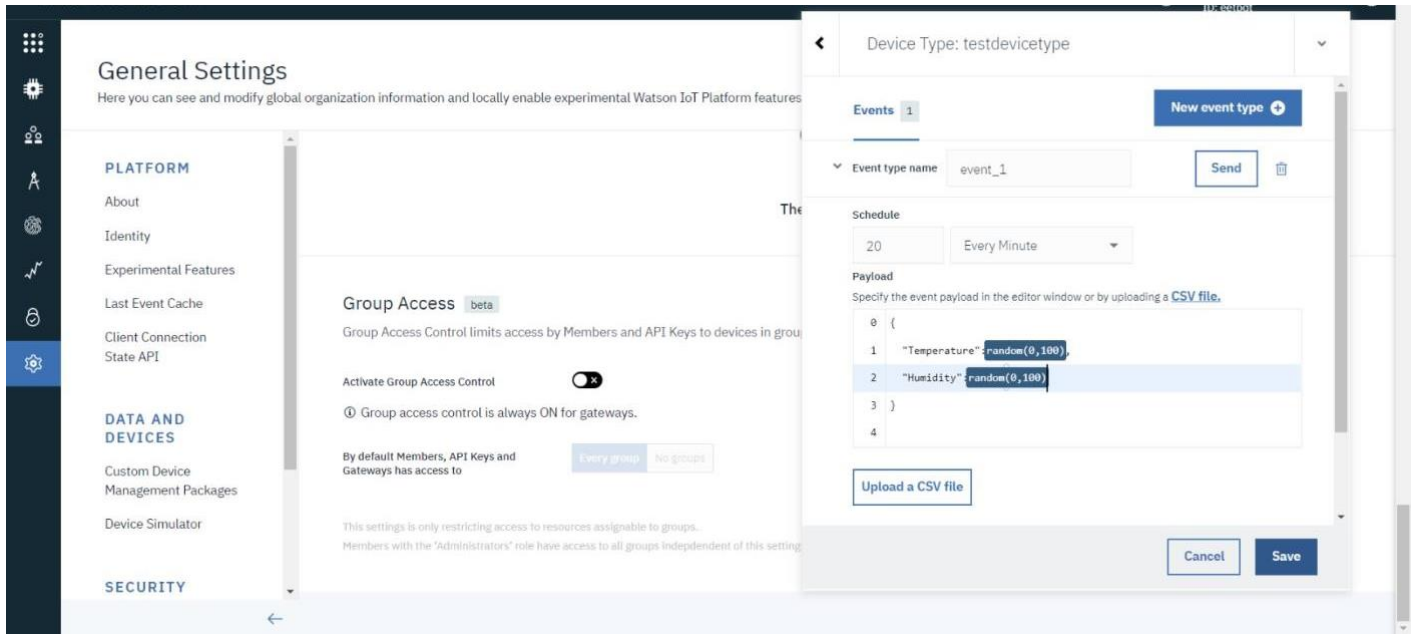
You can use the simulated event data to learn about, test, and demonstrate fully functioning Watson IoT Platform features. You can simulate a device and its data or simulate only data for a device that is already registered.

To create a device simulation:

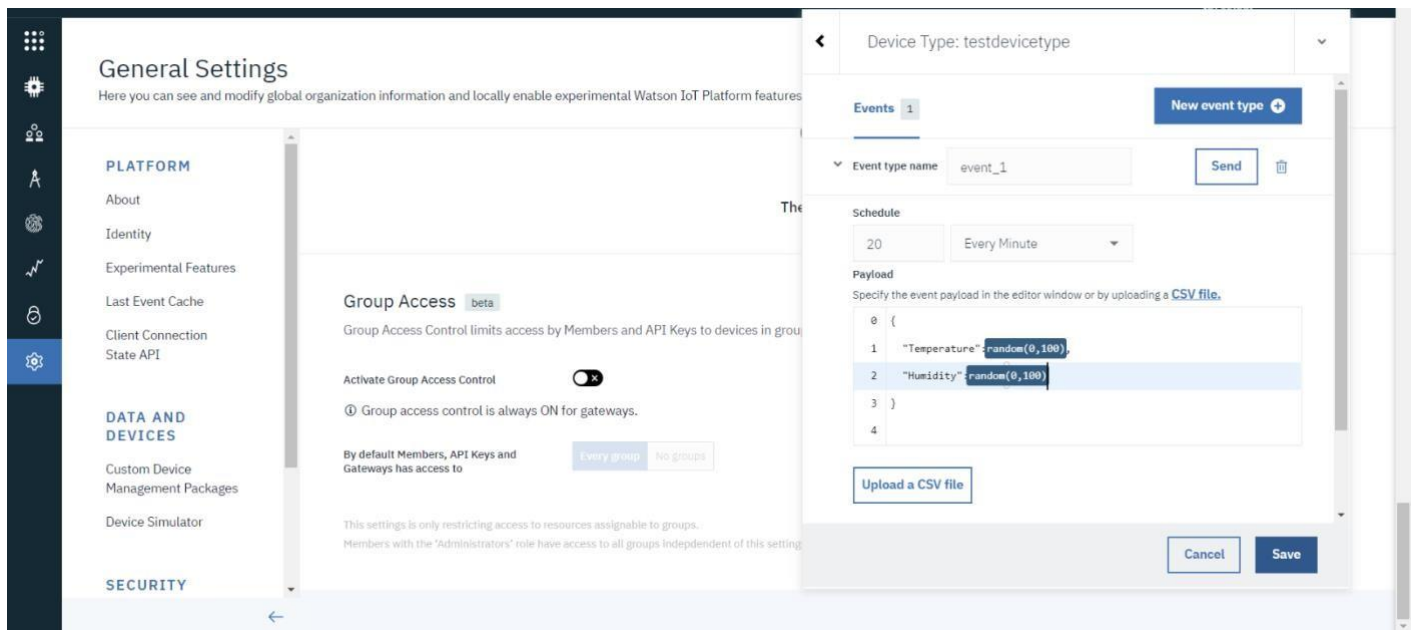
1. Select a device type.
2. Configure the event and payload.
3. Add devices.

[+ Create simulation](#)

Step 26: Choose the Device.



Step 27: Type the code.



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

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

6789 Disconnected testdevicetype Device Nov 14, 2022 11:00 AM

Identity Device Information **Recent Events** State Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"Temperature":99,"Humidity":95}	json	a few seconds ago
event_1	{"Temperature":56,"Humidity":46}	json	a few seconds ago
event_1	{"Temperature":59,"Humidity":0}	json	a few seconds ago

Items per page 50 | 1-3 of 3 items 1 of 1 page

1 Simulation running

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

Your boards Public boards + Create New Board

USAGE OVERVIEW 3 Cards Owned by you

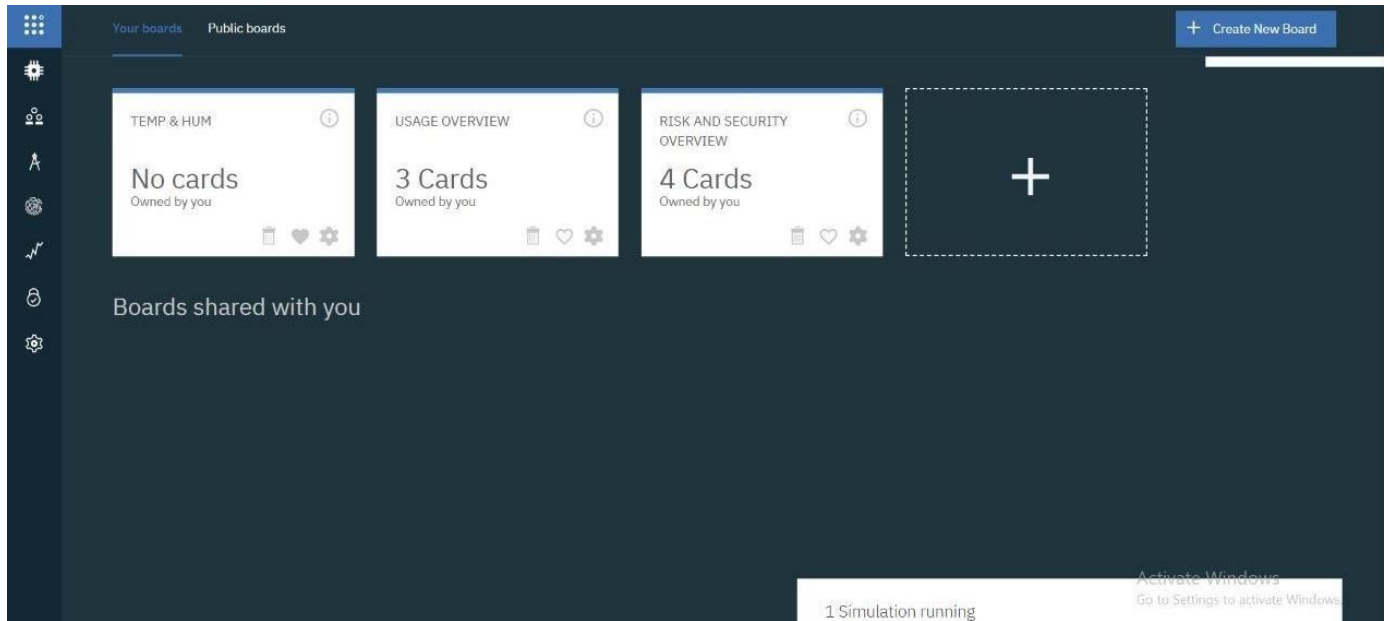
RISK AND SECURITY OVERVIEW 4 Cards Owned by you

Boards shared with you

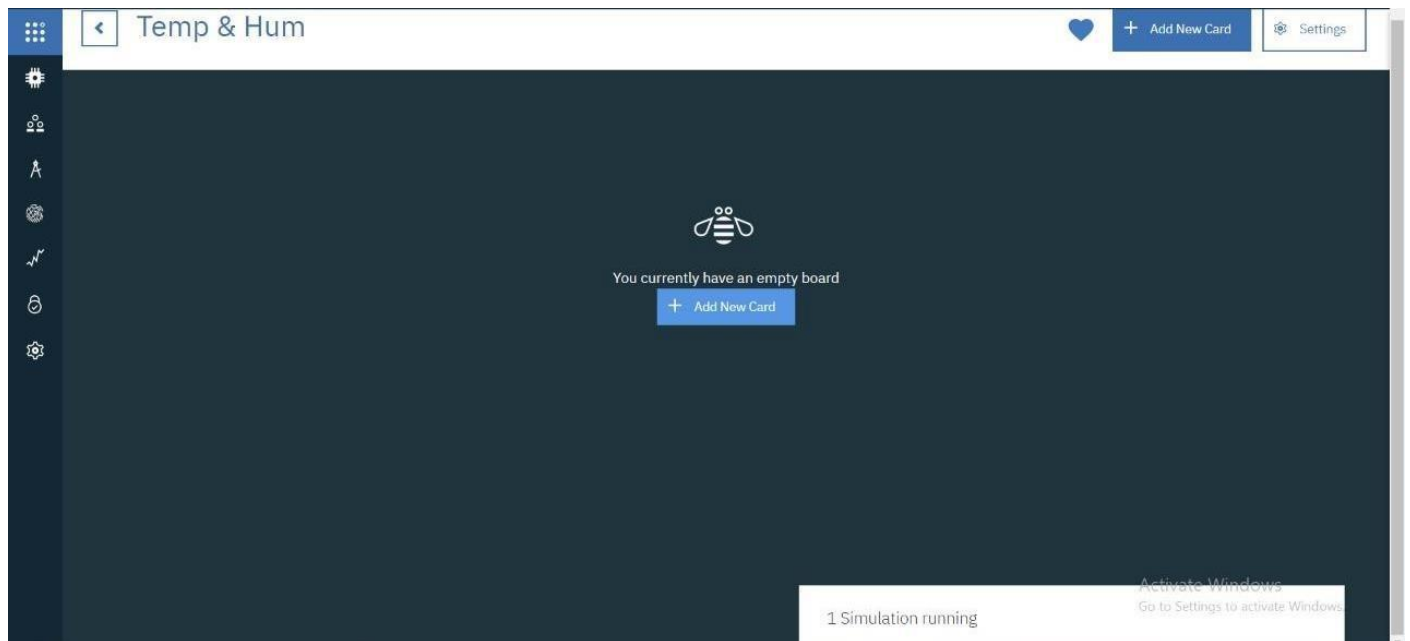
1 Simulation running

Activate Windows
Go to Settings to activate Windows

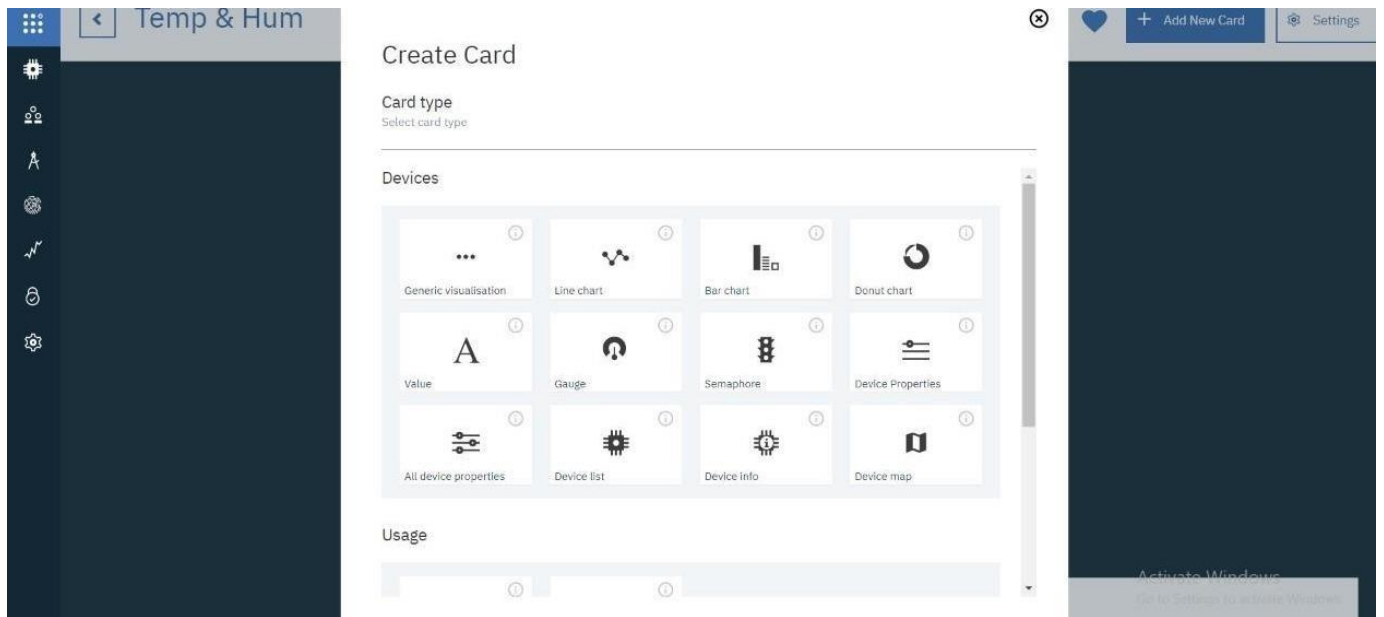
Step 31: Click on the board which is created.



Step 32: Go Add New Card.



Step 33: Choose the Card Type.



Step 34: Choose the device.

Step 35: Click on Connect new data set.

Step 36: Fill the details to get Temperature graph.

Step 37: Choose the Colour.

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

Step 39: Here is the Final graph.

