

CREATING AND CONFIGURING IBM WATSON IOT PLATFORM AND CREATING A DEVICE

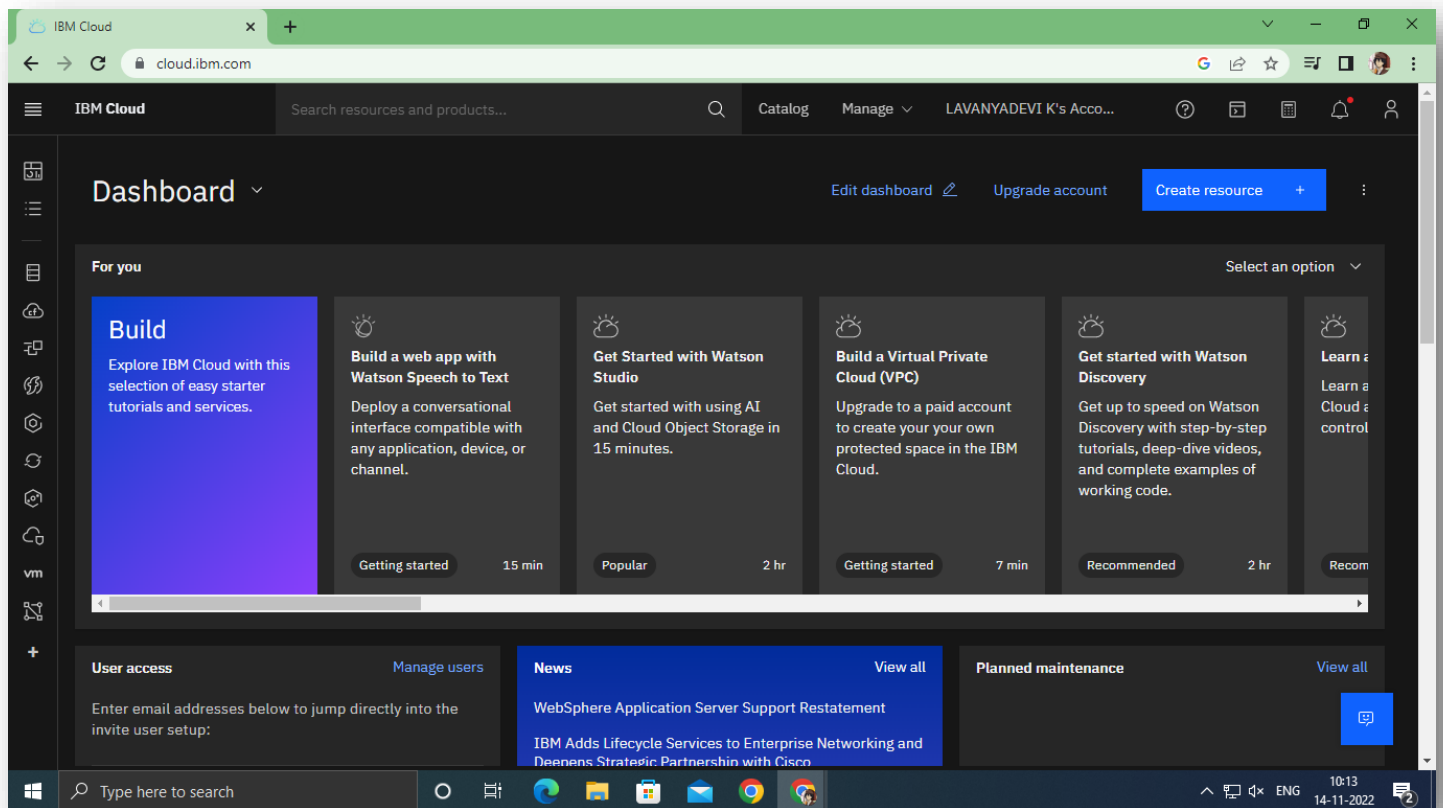
| | |
|--------------|---|
| Date | 14 November 2022 |
| Team ID | PNT2022TMID51029 |
| Project Name | Gas leakage monitoring and alerting system for industries |

Aim:

To create and configure the IBM Watson IoT platform and create a device.

Steps to be followed:

Step 1: Login to your IBM Cloud account and go to dashboard



Step 2: Click on the catalog on the top.

Catalog - IBM Cloud

cloud.ibm.com/catalog

IBM Cloud

Search resources and products...

Catalog

Manage

LAVANYADEVI K's Acco...

Sell on IBM Cloud

Catalog settings

Catalog

Search the catalog...

Category

Viewing 206 products

Alphabetically

Recommended products (6)

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)

Analytics Engine

By IBM

Submit your Apache Spark applications as needed and customize the Spark runtimes to satisfy the requirements of your application.

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

Lite • Free • HIPAA Enabled • IAM-enabled • Third party supported

API Connect

By IBM

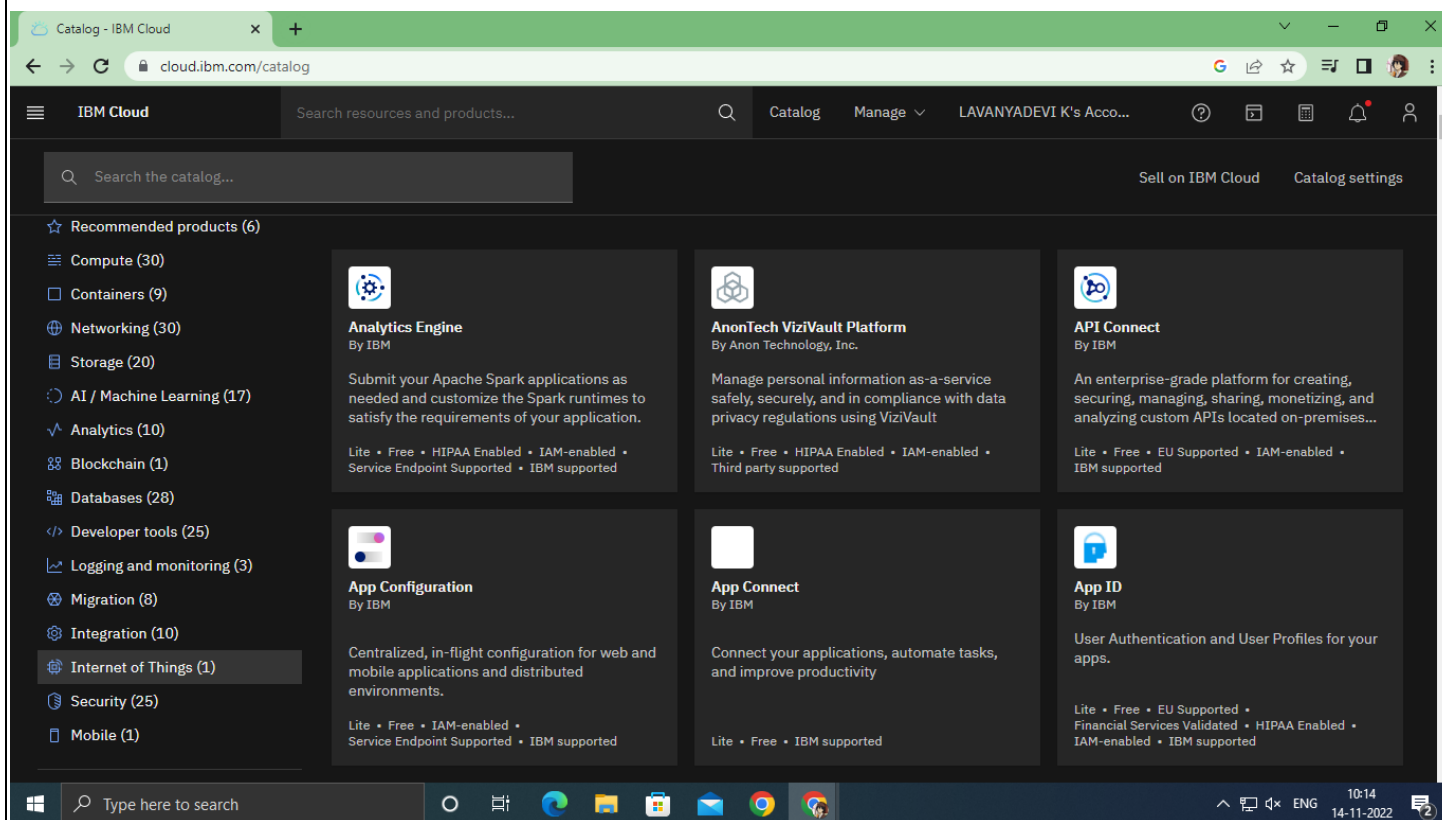
An enterprise-grade platform for creating, securing, managing, sharing, monetizing, and analyzing custom APIs located on-premises...

Lite • Free • EU Supported • IAM-enabled • IBM supported

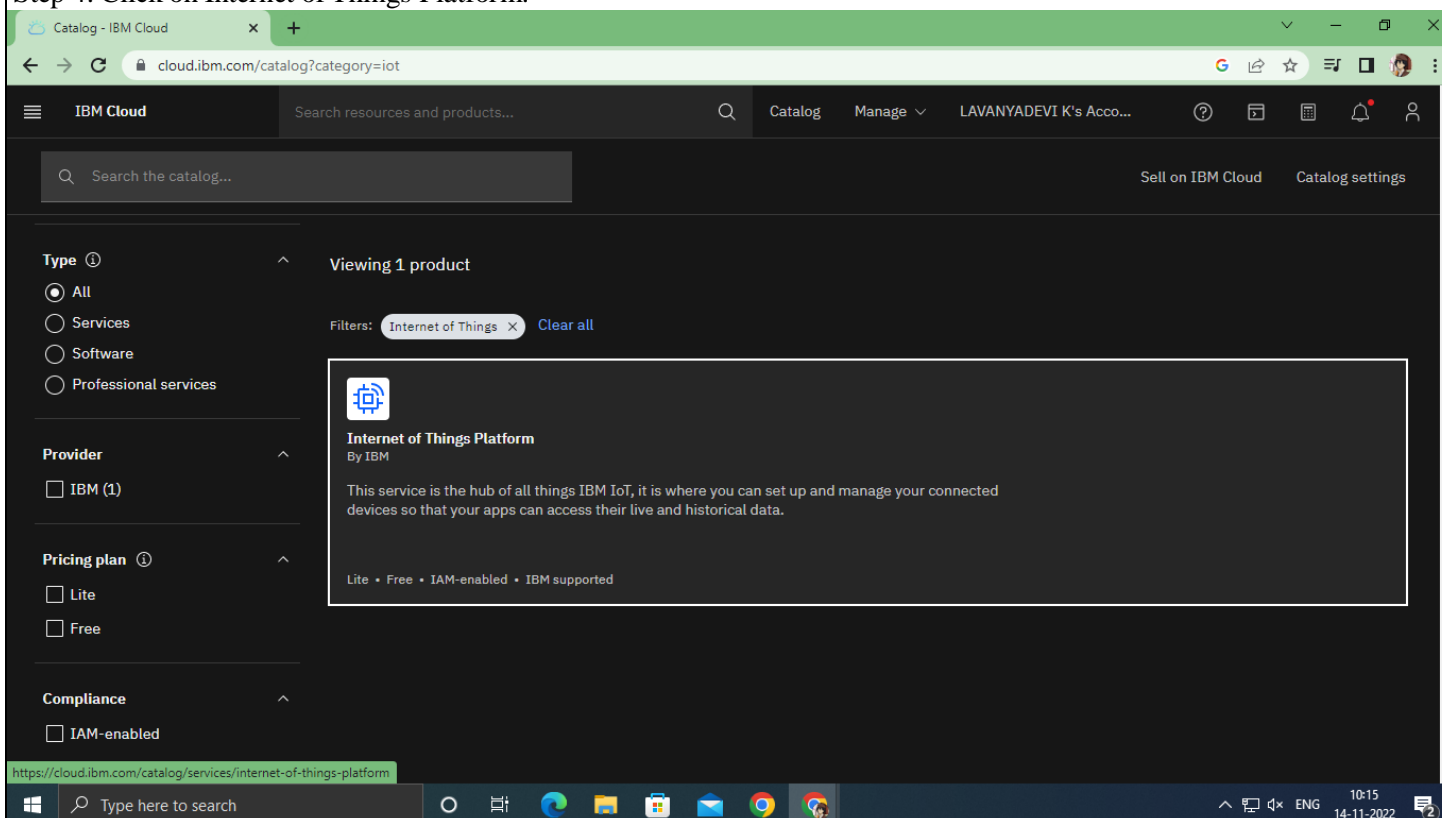
Type here to search

10:14 14-11-2022

Step 3: Click on IoT in the category mentioned.



Step 4: Click on Internet of Things Platform.



Step 5: Tick agreements and then click on create.

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The page is in the 'Create' tab, where users can select a location and a pricing plan. The 'Summary' panel on the right shows the selected location as Frankfurt and the plan as Lite, which is free. A checkbox for agreeing to the license terms is checked, and the 'Create' button is visible.

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

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 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 | Free |

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

Create

Add to estimate

Step 6: Click on the launch button.

Service Details - IBM Cloud

cloud.ibm.com/services/iotf-service/crn%3Av1%3Abluemix%3Apublic%3Aiotf-service%3Aeu-de%3Aa%2F9c14375ddaa144c7b1f5e17cad97ad9%3A7e8d2fe2...

IBM Cloud

Search resources and products...

Catalog Manage LAVANYADEVI K's Acco...

Resource list /

Internet of Things Platform-1c 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 ☐ Production

The Lite service plan provides a lightweight development environment to get you started

The Non-Production service plan is a full-featured, fully-integrated offering that enables

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

Type here to search

10:16 14-11-2022

Step 7: After clicking on the launch button this tab will open and now click on sign in option

Service Details - IBM Cloud

IBM Watson IoT Platform

internetofthings.ibmcloud.com

IBM Watson IoT Platform

Sign in

Collect data from

Cars

and make value from it

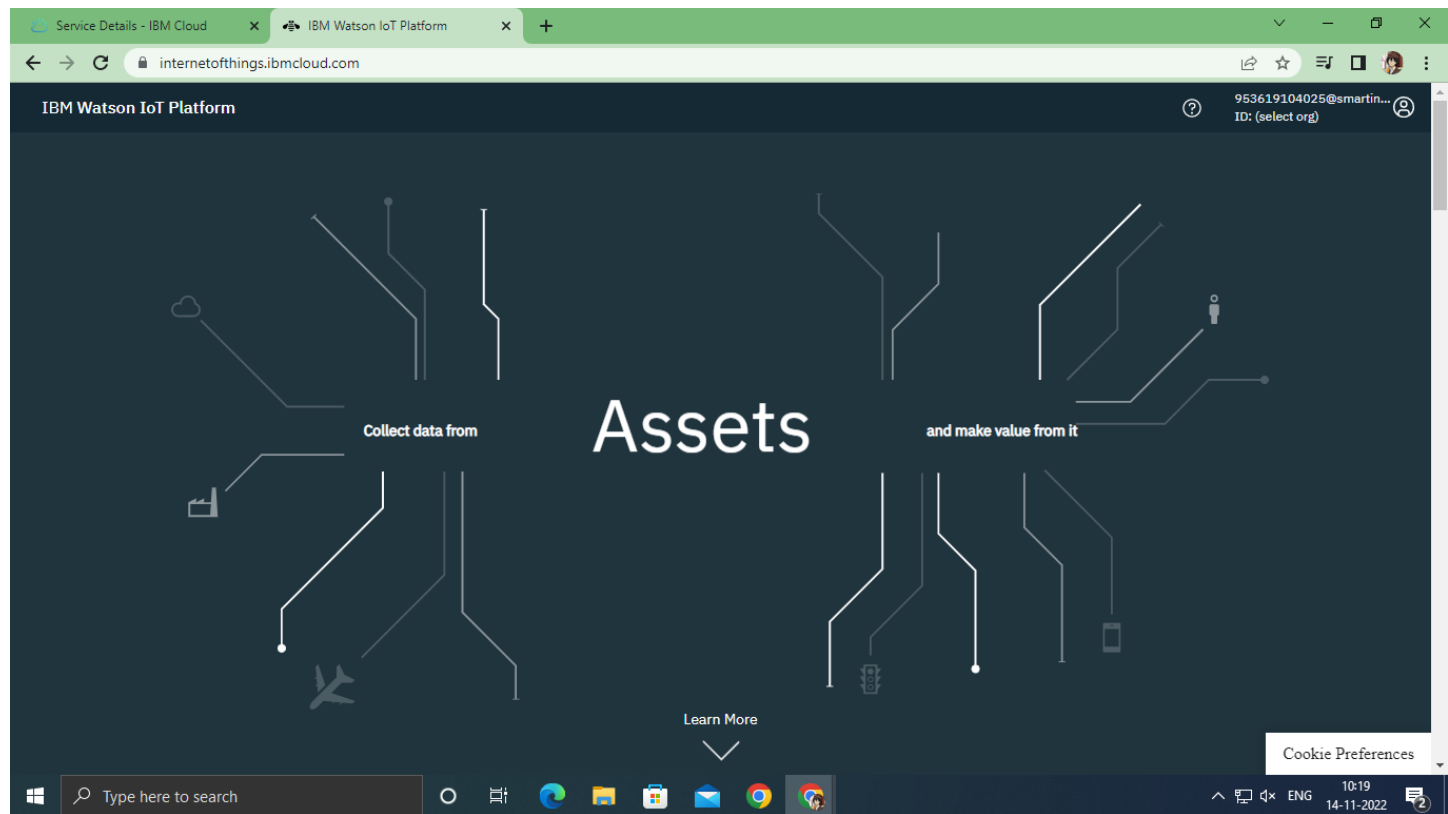
Learn More

Cookie Preferences

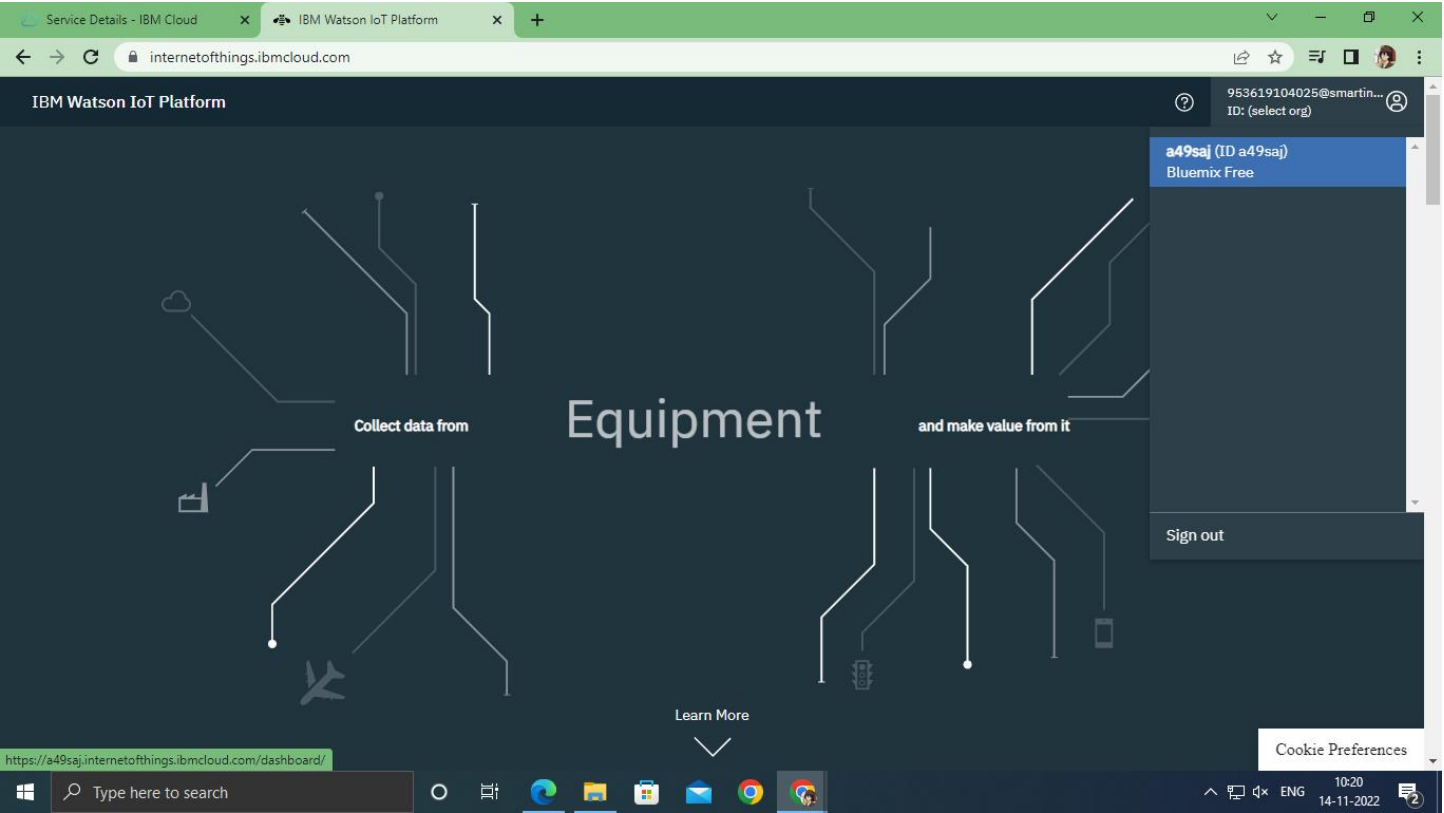
Type here to search

10:17 14-11-2022

Step 8: You will be logged in after entering your credentials



Step 9: Once it id logged in, the name will be displayed click on it and then click on Bluemix Free.



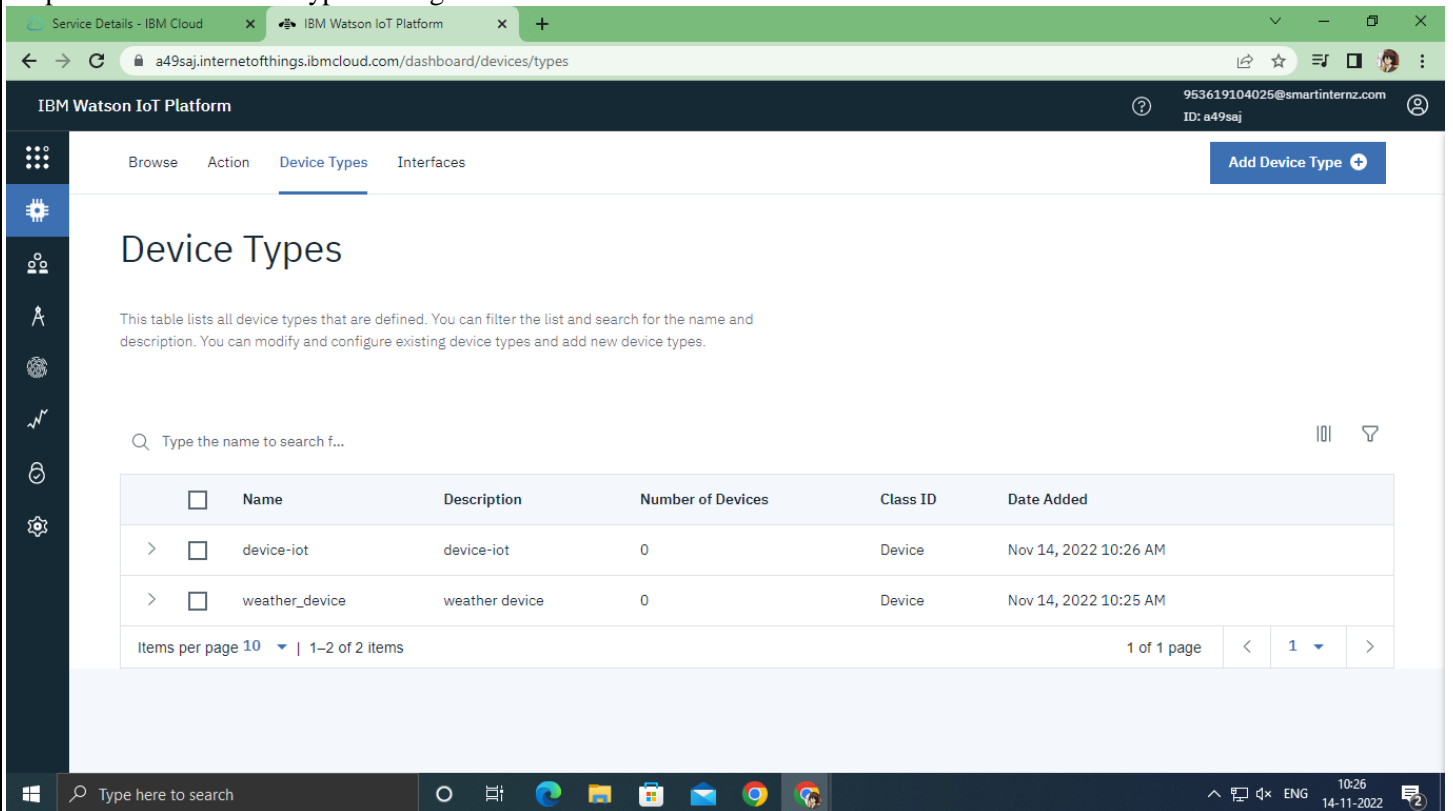
Step 10: This is the IBM Watson platform.

The screenshot shows the IBM Watson IoT Platform interface. The browser address bar displays the URL `a49saj.internetofthings.ibmcloud.com/dashboard/devices/browse`. The page header includes the IBM Watson IoT Platform logo and a user profile with ID `a49saj`. The main navigation bar has tabs for **Browse**, **Action**, **Device Types**, and **Interfaces**. A blue **Add Device** button is located in the top right corner. The **Browse Devices** section features a sub-header with **All Devices** and **Diagnose** buttons. Below this, a text block explains that the table shows a summary of all devices and can be filtered, organized, and searched. A search bar labeled **Search by Device ID** is present. To the right, there is a **Device Simulator** toggle switch and a filter icon. The table below has columns for **Device ID**, **Status**, **Device Type**, **Class ID**, and **Date Added**. The table is currently empty, displaying a message: **You don't have any devices.** The Windows taskbar at the bottom shows the search bar and several application icons.

Step 11: Click on Add Device.

This screenshot is identical to the one in Step 10, showing the IBM Watson IoT Platform 'Browse Devices' page. The interface elements, including the browser address bar, navigation tabs, buttons, search bar, and empty table, are the same as in the previous step. The message **You don't have any devices.** is still displayed at the bottom of the table area.

Step 12: Click on device type and register devices



IBM Watson IoT Platform

953619104025@smartintrnz.com
ID: a49saj

Browse Action **Device Types** Interfaces

Add Device Type

Device Types

This table lists all device types that are defined. You can filter the list and search for the name and description. You can modify and configure existing device types and add new device types.

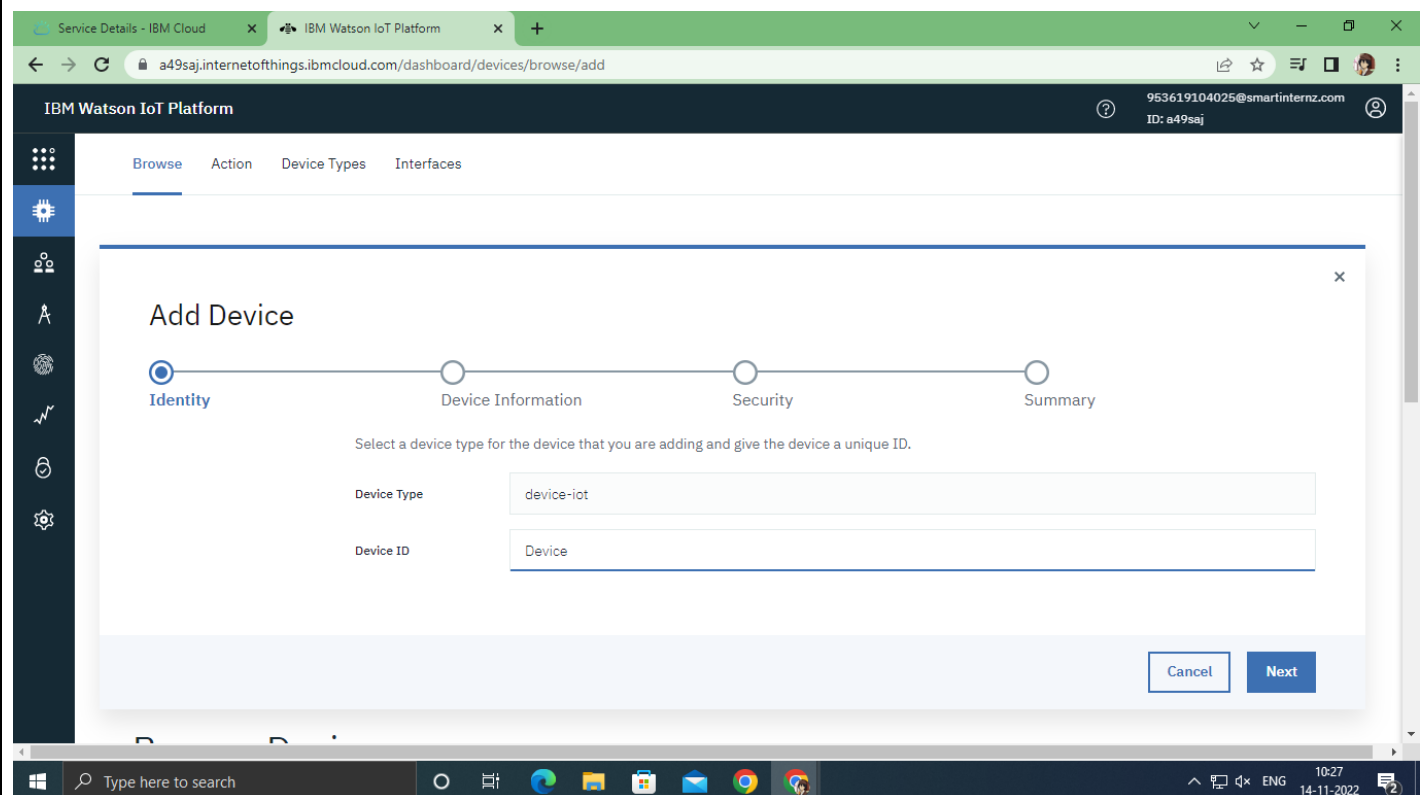
Q Type the name to search f...

| <input type="checkbox"/> | Name | Description | Number of Devices | Class ID | Date Added |
|----------------------------|----------------|----------------|-------------------|----------|-----------------------|
| > <input type="checkbox"/> | device-iot | device-iot | 0 | Device | Nov 14, 2022 10:26 AM |
| > <input type="checkbox"/> | weather_device | weather device | 0 | Device | Nov 14, 2022 10:25 AM |

Items per page 10 | 1-2 of 2 items

1 of 1 page < 1 >

Step 13: Give the device name which you have created and give Device ID.



IBM Watson IoT Platform

953619104025@smartintrnz.com
ID: a49saj

Browse Action **Device Types** Interfaces

Add Device

Identity Device Information Security Summary

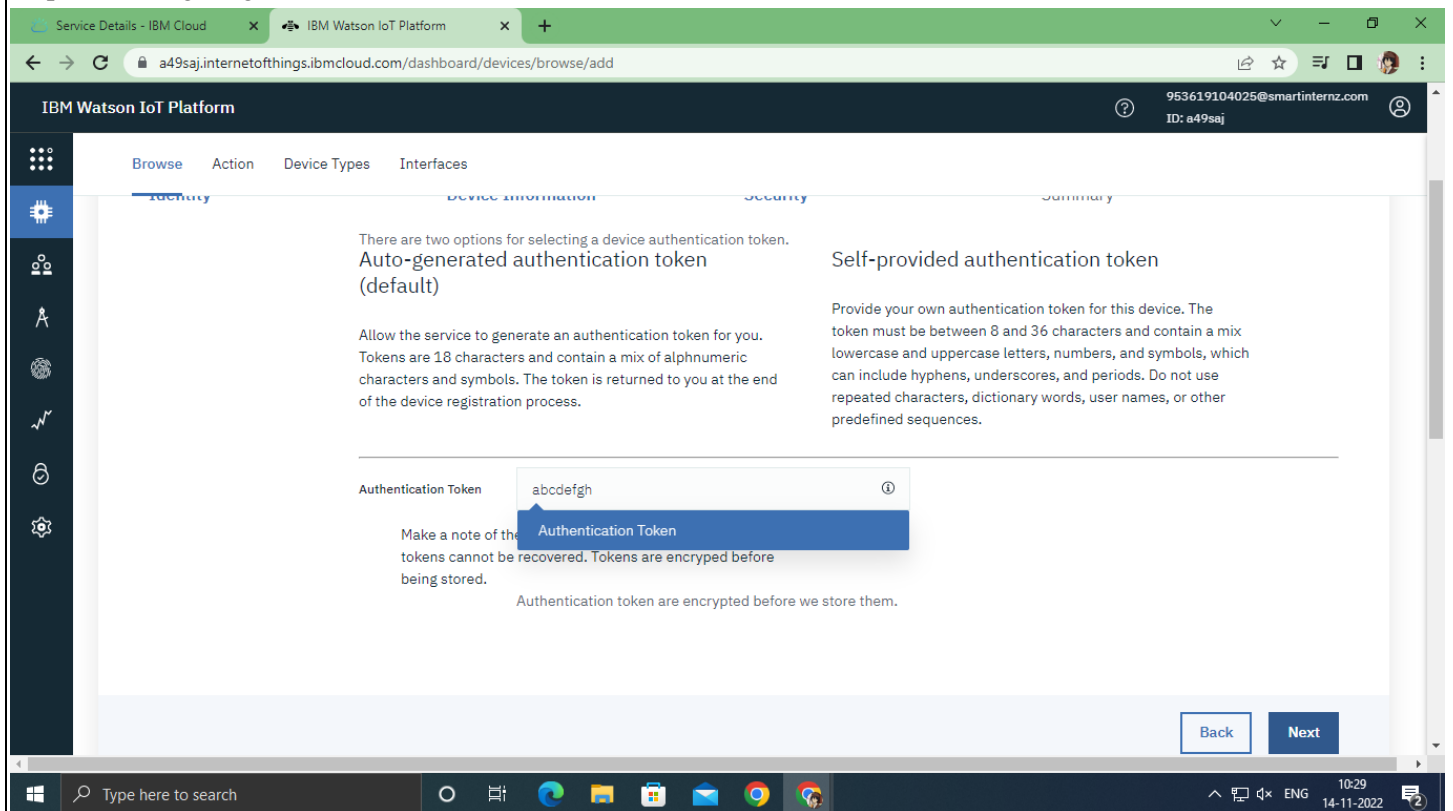
Select a device type for the device that you are adding and give the device a unique ID.

Device Type device-iot

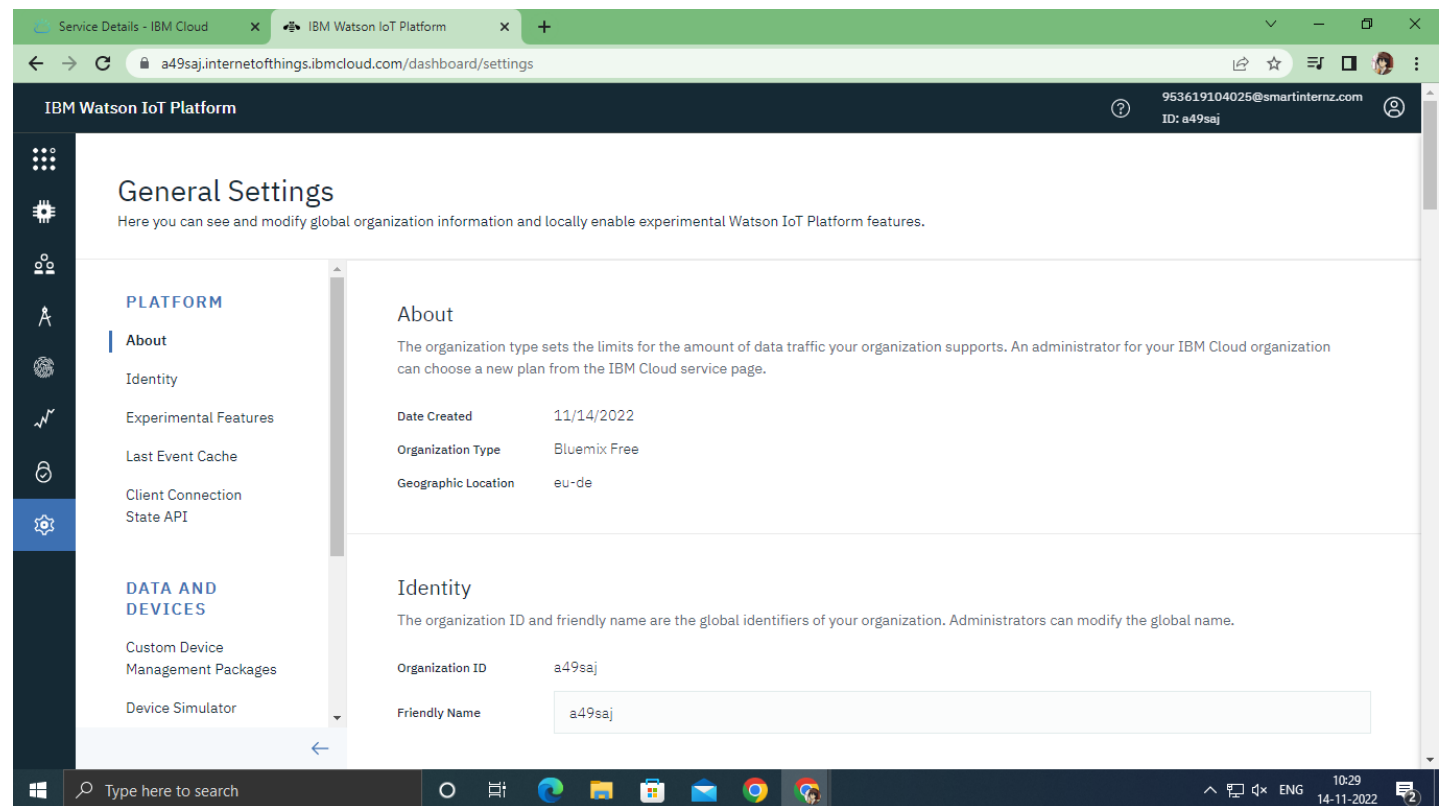
Device ID Device

Cancel Next

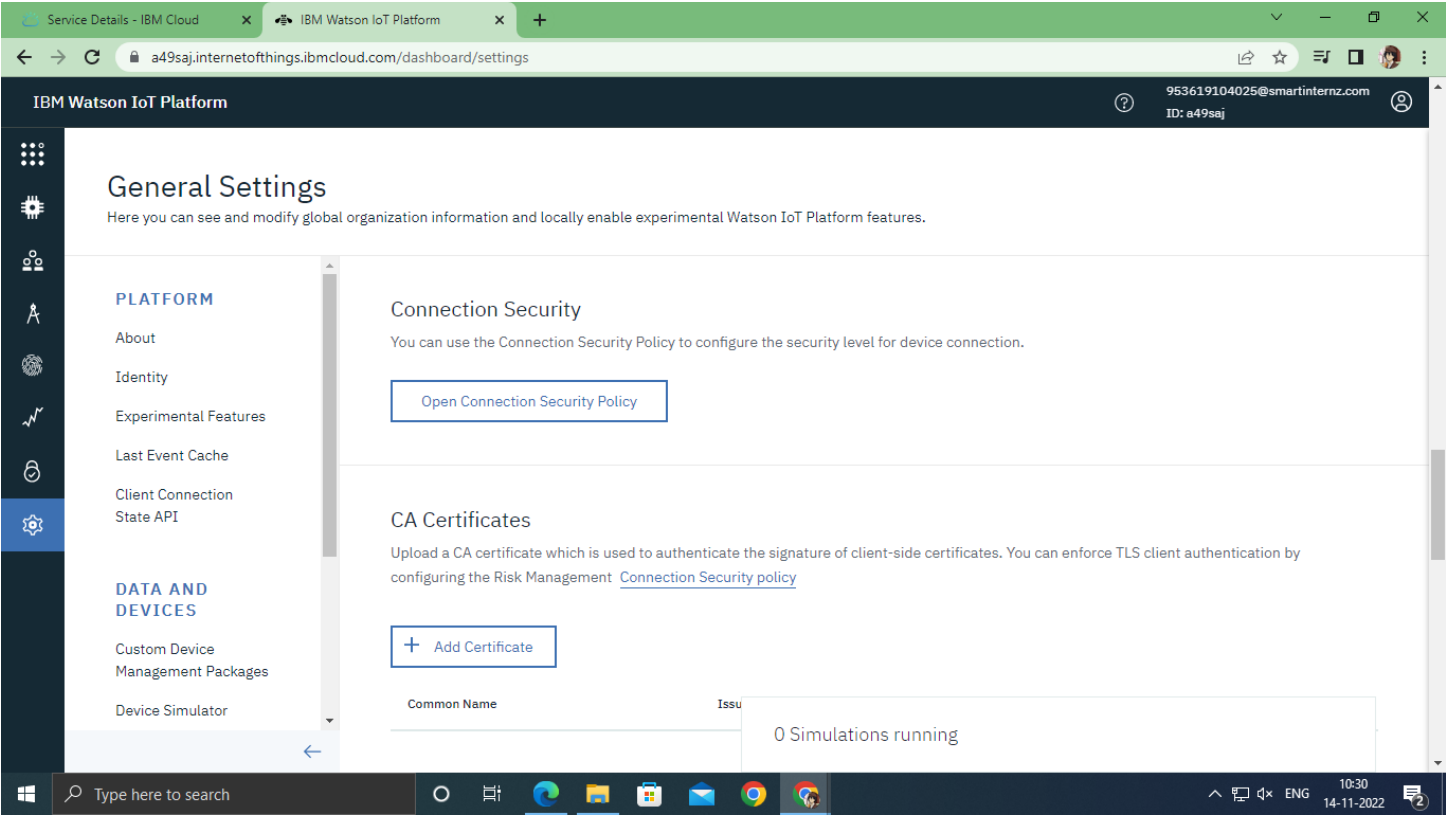
Step 14: After giving all the data, Click on next an then click on finish



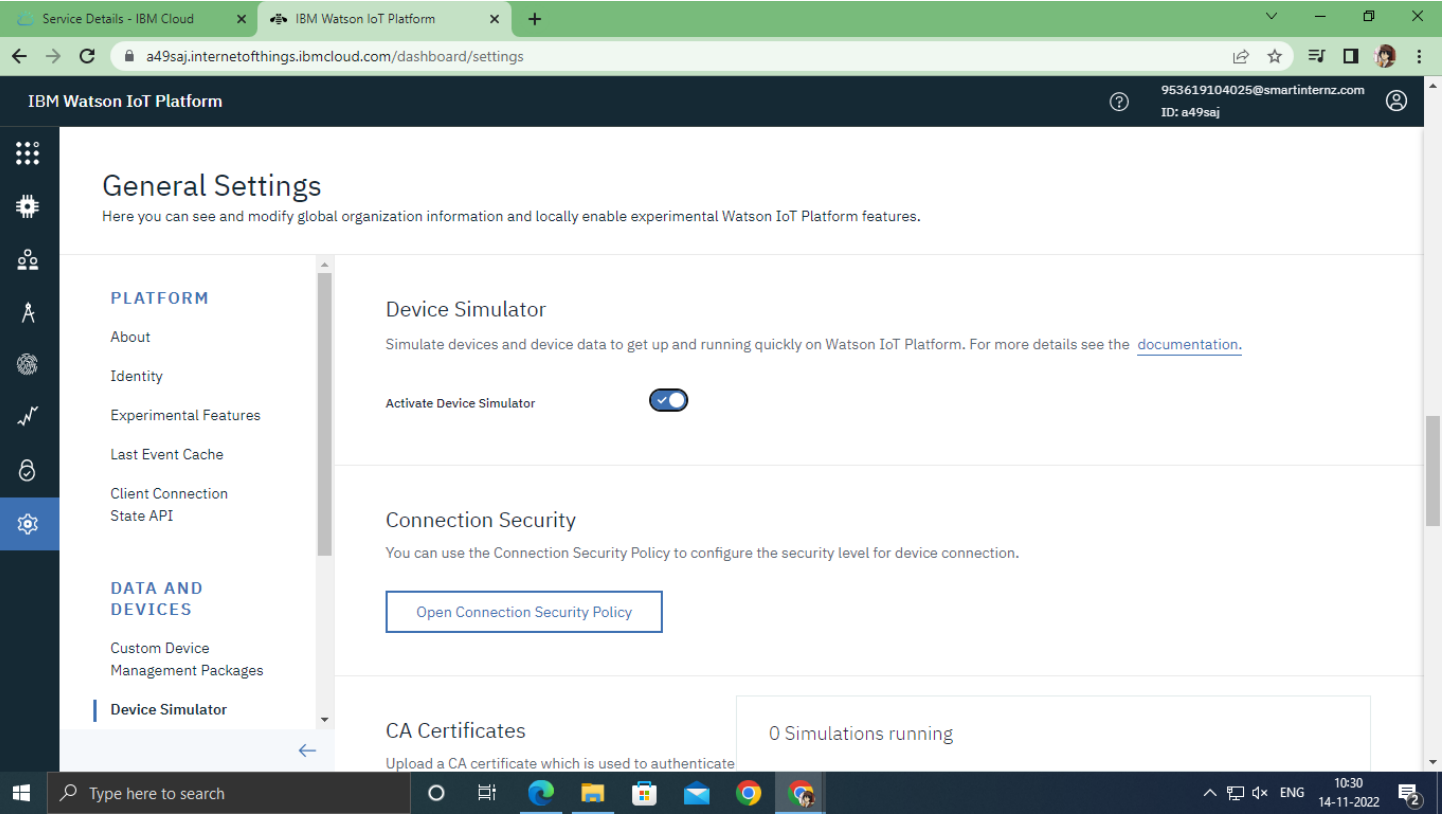
Step 15: Go to settings and this page will be displayed



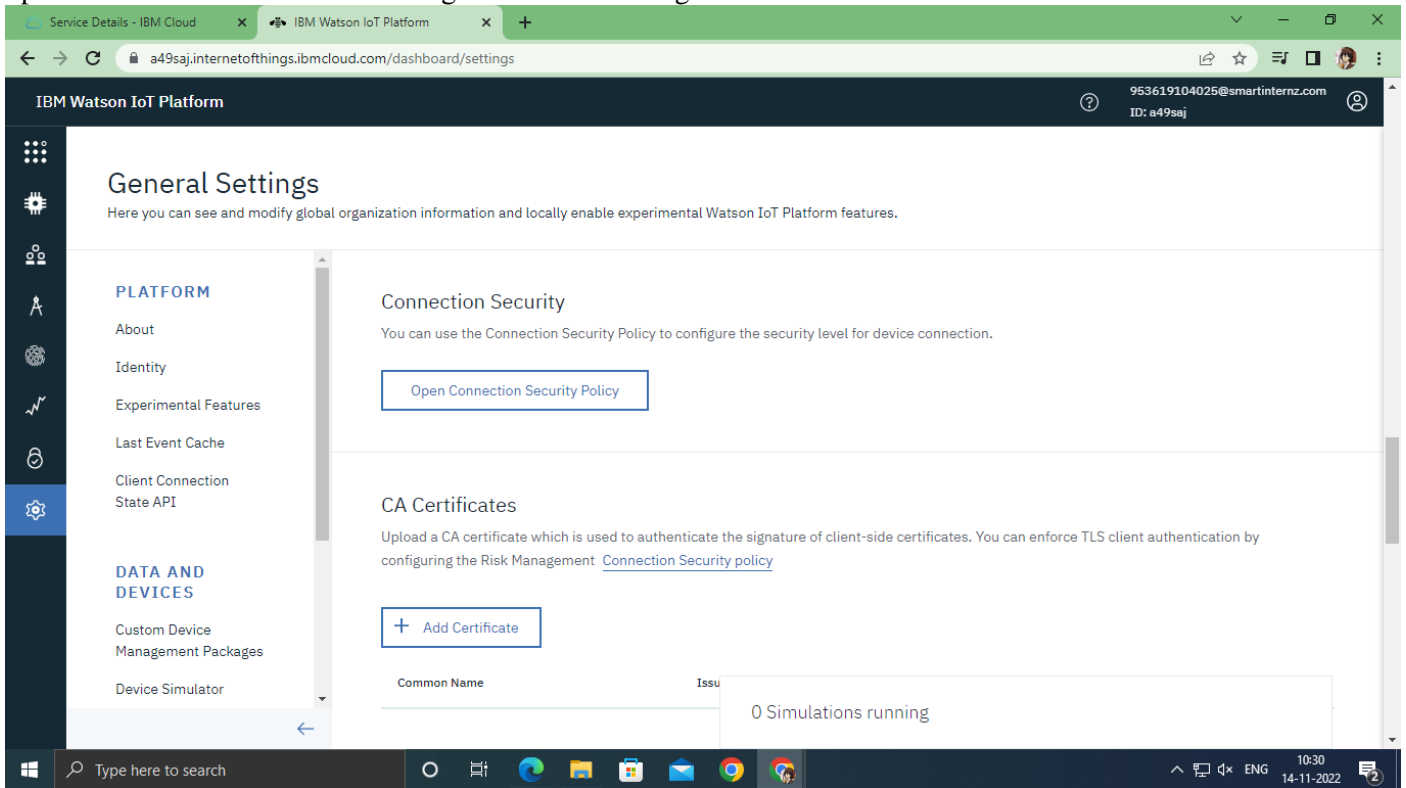
Step 16: Click on Data and Devices.



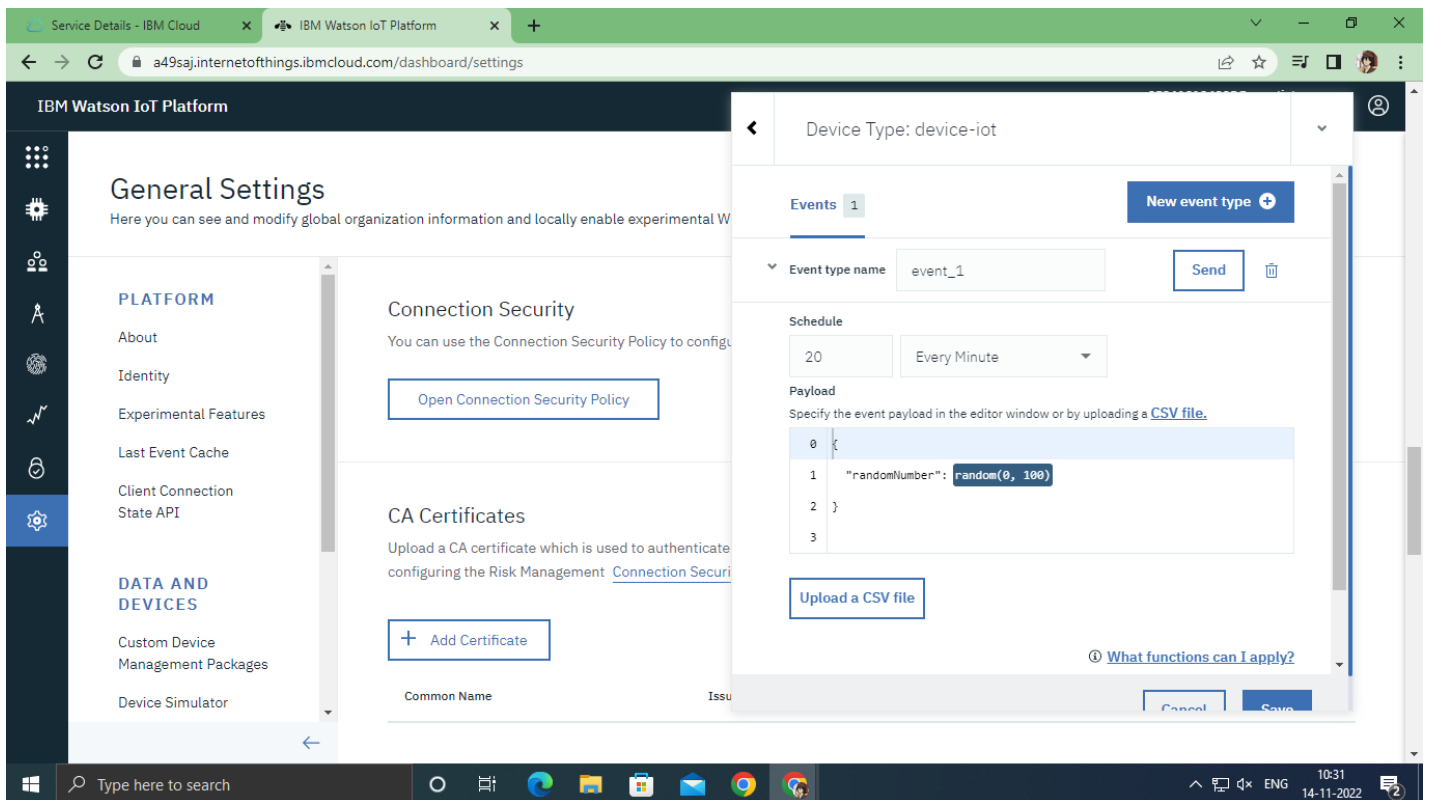
Step 17: Then click on Device Simulator and Activate Device Simulator.



Step 18: Click on “0 simulations running” on the bottom - right side.



Step 19: This will be displayed if the device name is given



Step 20: Type the code.

The screenshot displays the IBM Watson IoT Platform dashboard. The main page is titled "General Settings" and includes sections for "PLATFORM" (About, Identity, Experimental Features, Last Event Cache, Client Connection, State API) and "DATA AND DEVICES" (Custom Device, Management Packages, Device Simulator). A modal window is open for configuring a device type named "weather_device".

Device Type: weather_device

Events 1 [New event type +](#)

Event type name: [Send](#) [Delete](#)

Schedule

Payload

Specify the event payload in the editor window or by uploading a [CSV file](#).

```
0 {  
1   "Propane": random(0,2000),  
2   "Carbon_Monoxide": random(0,100),  
3   "LPG": random(0,2000),  
4   "Methane": random(0,1000),  
5   "Hydrogen": random(0,5000),  
6 }  
7
```

[Cancel](#) [Save](#)

Step 21 : Go to devices then click on devices and check the recent events whether the code is running or not.

Service Details - IBM Cloud

IBM Watson IoT Platform

← → ↻

a49saj.internetofthings.ibmcloud.com/dashboard/devices/browse

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IBM Watson IoT Platform

953619104025@smartinternz.com
ID: a49saj

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Browse

Action

Device Types

Interfaces

Add Device +

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 | {"Propane":1153,"Carbon_Monoxide":37,"LPG":... | json | a few seconds ago |
| event_1 | {"Propane":1649,"Carbon_Monoxide":18,"LPG":... | json | a few seconds ago |
| event_1 | {"Propane":1609,"Carbon_Monoxide":56,"LPG":... | json | a few seconds ago |
| event_1 | {"Propane":1577,"Carbon_Monoxide":26,"LPG":... | json | a few seconds ago |
| event_1 | {"Propane":1060,"Carbon_Monoxide":86,"LPG":... | json | a few seconds ago |

Items per page 50 | 1-1 of 1 item

1 Simulation running

🪟

Type here to search

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📶

🔍

ENG

10:43

14-11-2022

2

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

