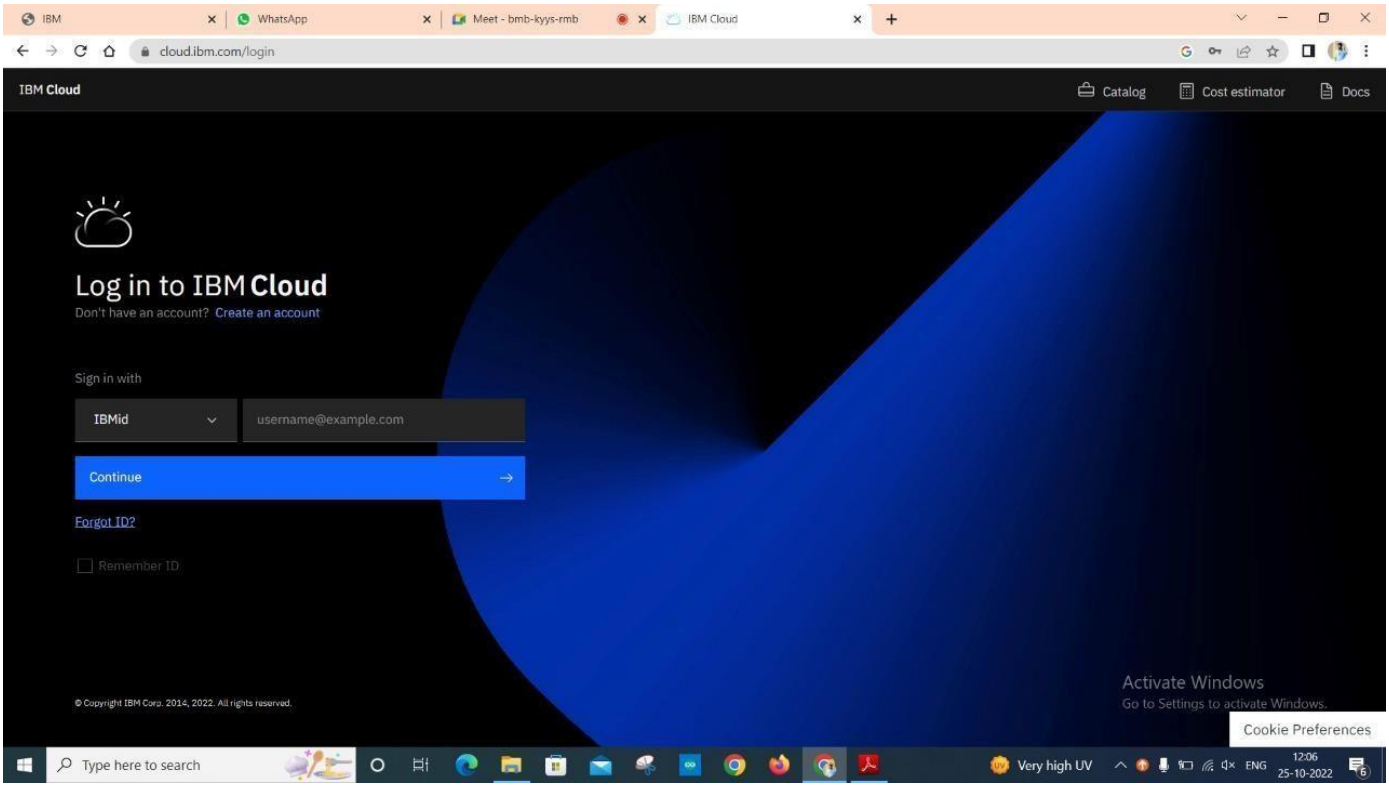
CREATE IBM WATSON IOT PLATFORM AND DEVICE CREATE IBM WATSON IOT PLATFORM AND DEVICE

Team ID	PNT2022TMID36601
Project Name	Gas leakage monitoring and alerting system for industries

AIM:

To create the IBM Watson IOT platform and device.

Steps to be followed

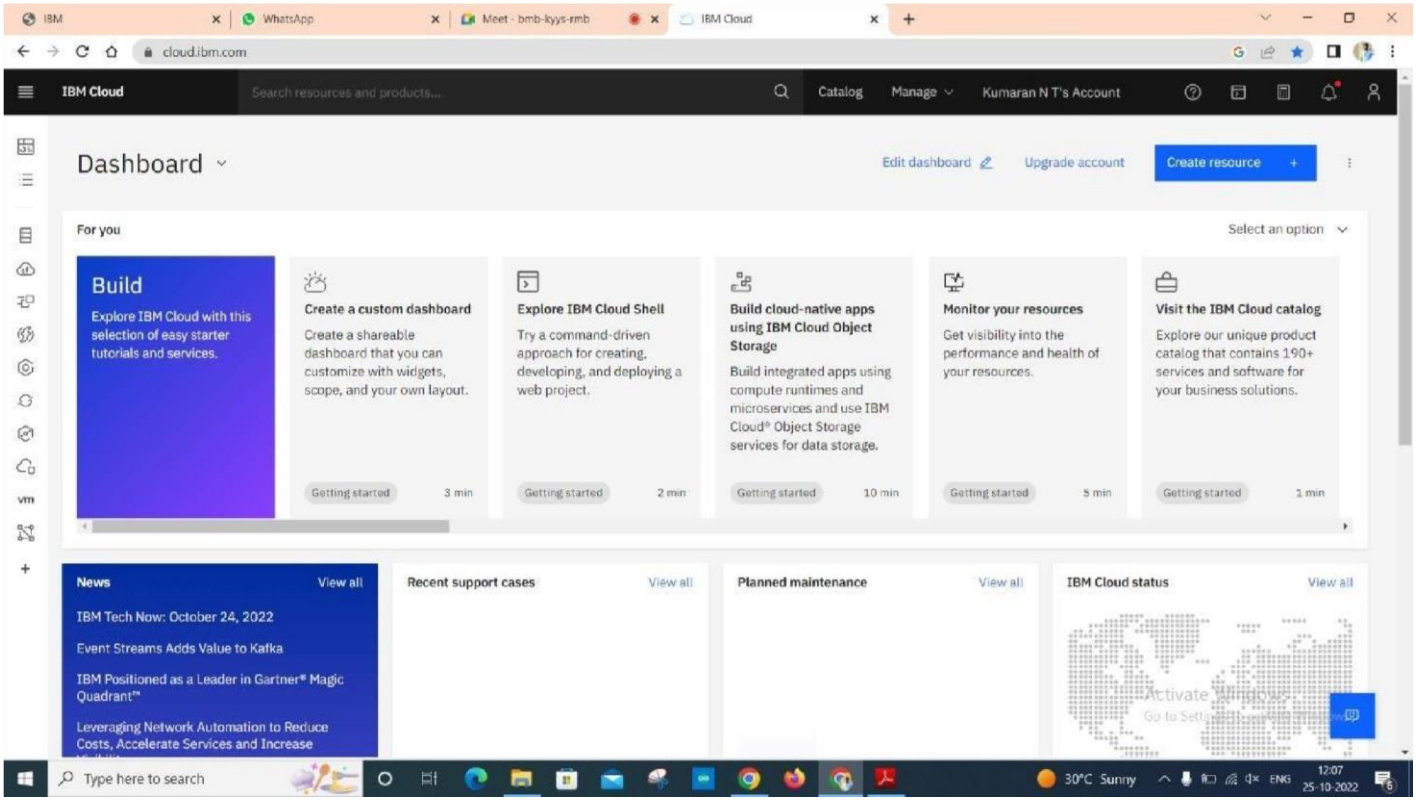


Step

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

2: Home page of IBM cloud.

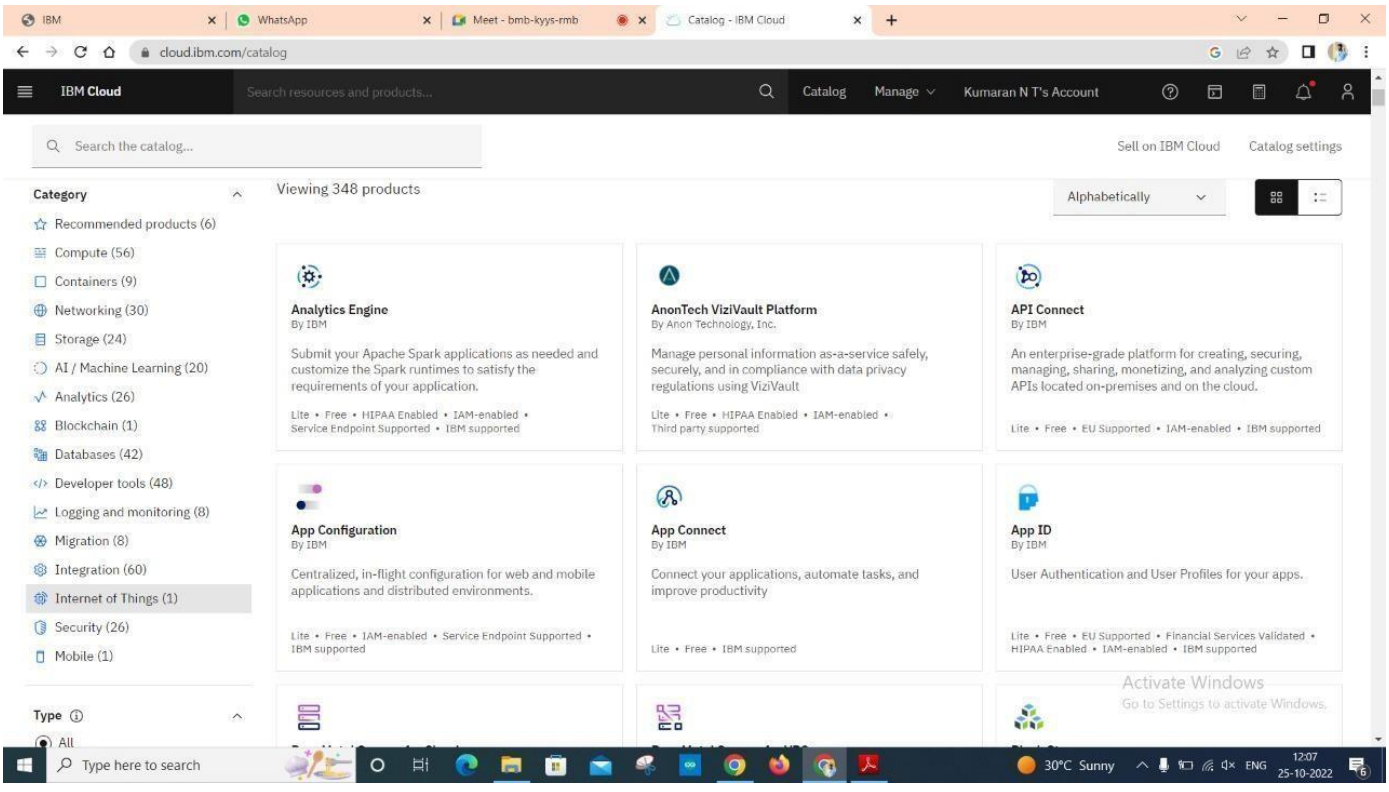
Step


IBM Cloud
Search resources and products...
Catalog
Manage
Kumaran N T's Account
Dashboard
Edit dashboard
Upgrade account
Create resource
For you
Select an option
Build
Explore IBM Cloud with this selection of easy starter tutorials and services.
Create a custom dashboard
Create a shareable dashboard that you can customize with widgets, scope, and your own layout.
Getting started 3 min
Explore IBM Cloud Shell
Try a command-driven approach for creating, developing, and deploying a web project.
Getting started 2 min
Build cloud-native apps using IBM Cloud Object Storage
Build integrated apps using compute runtimes and microservices and use IBM Cloud® Object Storage services for data storage.
Getting started 10 min
Monitor your resources
Get visibility into the performance and health of your resources.
Getting started 5 min
Visit the IBM Cloud catalog
Explore our unique product catalog that contains 190+ services and software for your business solutions.
Getting started 1 min
News
View all
IBM Tech Now: October 24, 2022
Event Streams Adds Value to Kafka
IBM Positioned as a Leader in Gartner® Magic Quadrant™
Leveraging Network Automation to Reduce Costs, Accelerate Services and Increase
Recent support cases
View all
Planned maintenance
View all
IBM Cloud status
View all
Type here to search
30°C Sunny
ENG
12:07
25-10-2022

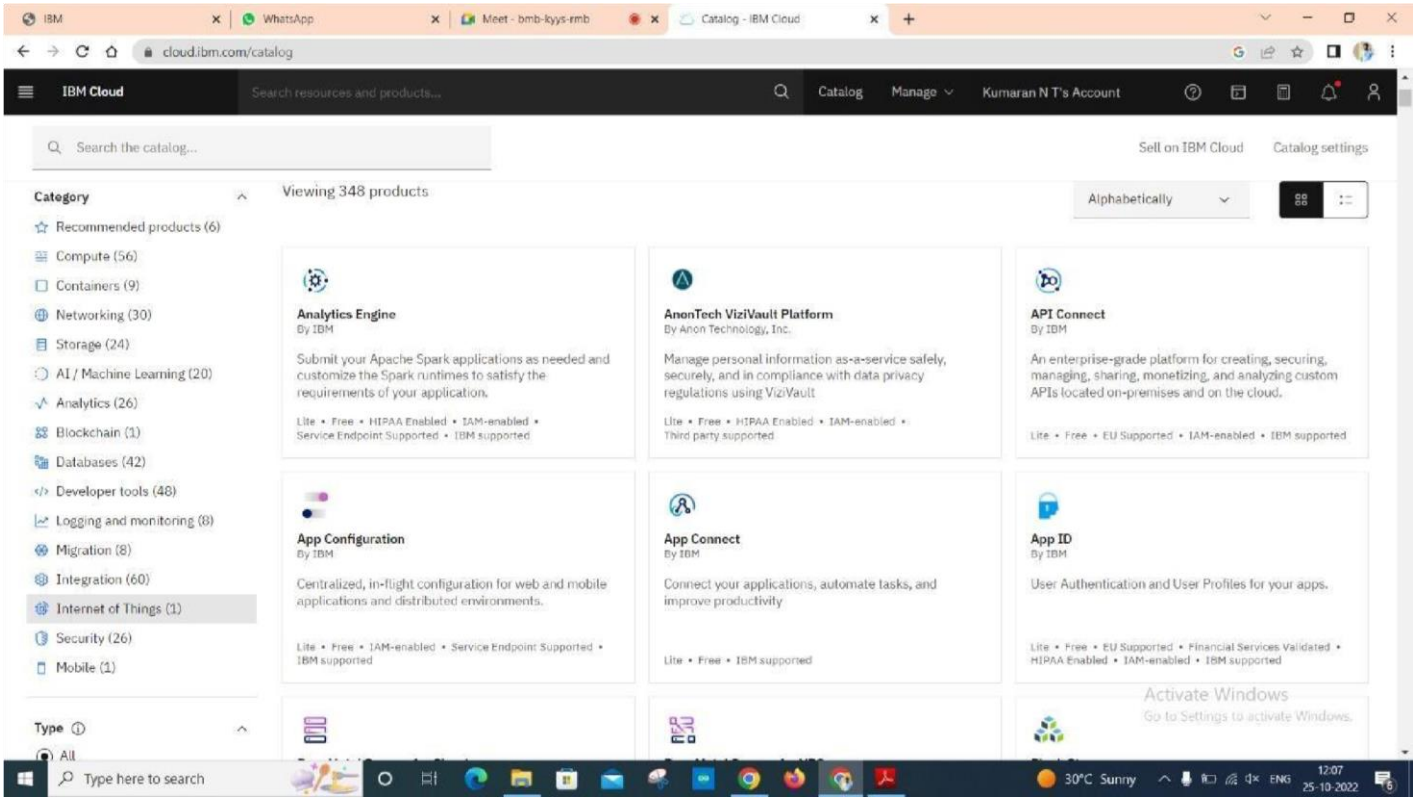
Step

Step 3: Click on the catalog on the top.

4: Click on IoT in the category mentioned.



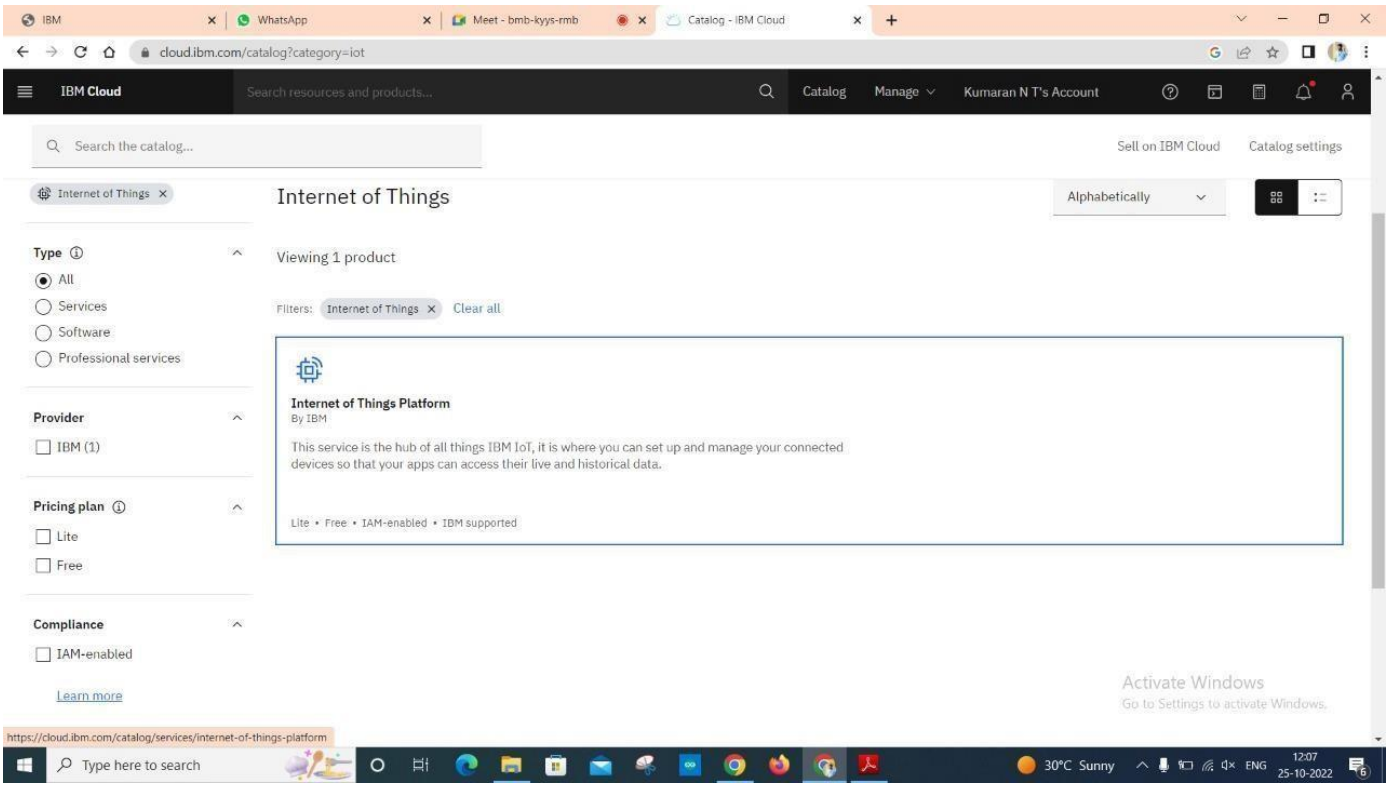
Step


IBM
WhatsApp
Meet - bmb-kyys-rmb
Catalog - IBM Cloud
cloud.ibm.com/catalog
IBM Cloud
Search resources and products...
Catalog
Manage
Kumaran N T's Account
Search the catalog...
Sell on IBM Cloud
Catalog settings
Category
Recommended products (6)
Compute (56)
Containers (9)
Networking (30)
Storage (24)
AI / Machine Learning (20)
Analytics (26)
Blockchain (1)
Databases (42)
Developer tools (48)
Logging and monitoring (8)
Migration (8)
Integration (60)
Internet of Things (1)
Security (26)
Mobile (1)
Type
All
Viewing 348 products
Alphabetically
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 and on the cloud.
Lite • Free • EU Supported • IAM-enabled • IBM supported
App Configuration
By IBM
Centralized, in-flight configuration for web and mobile applications and distributed environments.
Lite • Free • IAM-enabled • Service Endpoint Supported • IBM supported
App Connect
By IBM
Connect your applications, automate tasks, and improve productivity
Lite • Free • IBM supported
App ID
By IBM
User Authentication and User Profiles for your apps.
Lite • Free • EU Supported • Financial Services Validated • HIPAA Enabled • IAM-enabled • IBM supported
Activate Windows
Go to Settings to activate Windows.
Type here to search
30°C Sunny
ENG
12:07
25-10-2022

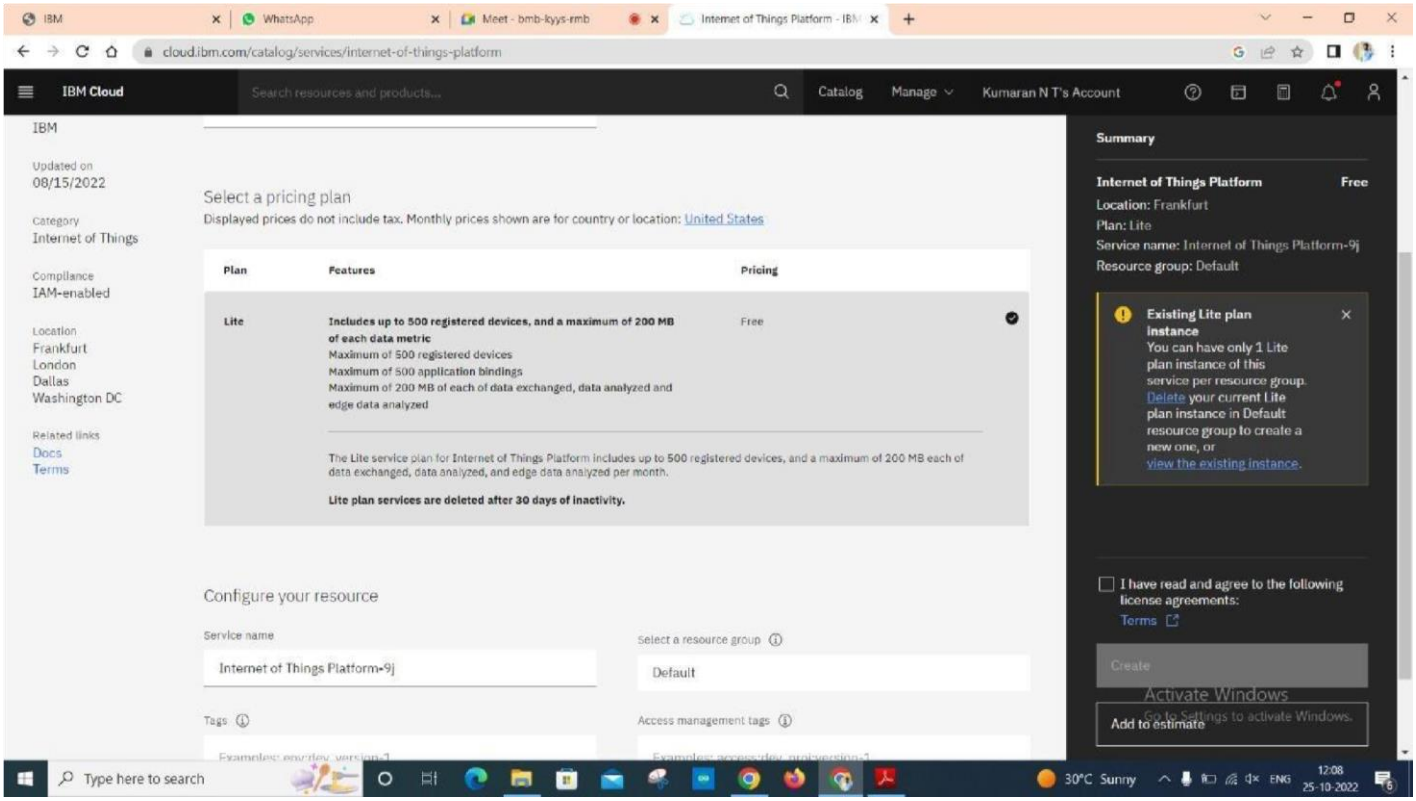
Step

Step 5: Click on Internet of Things Platform.

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



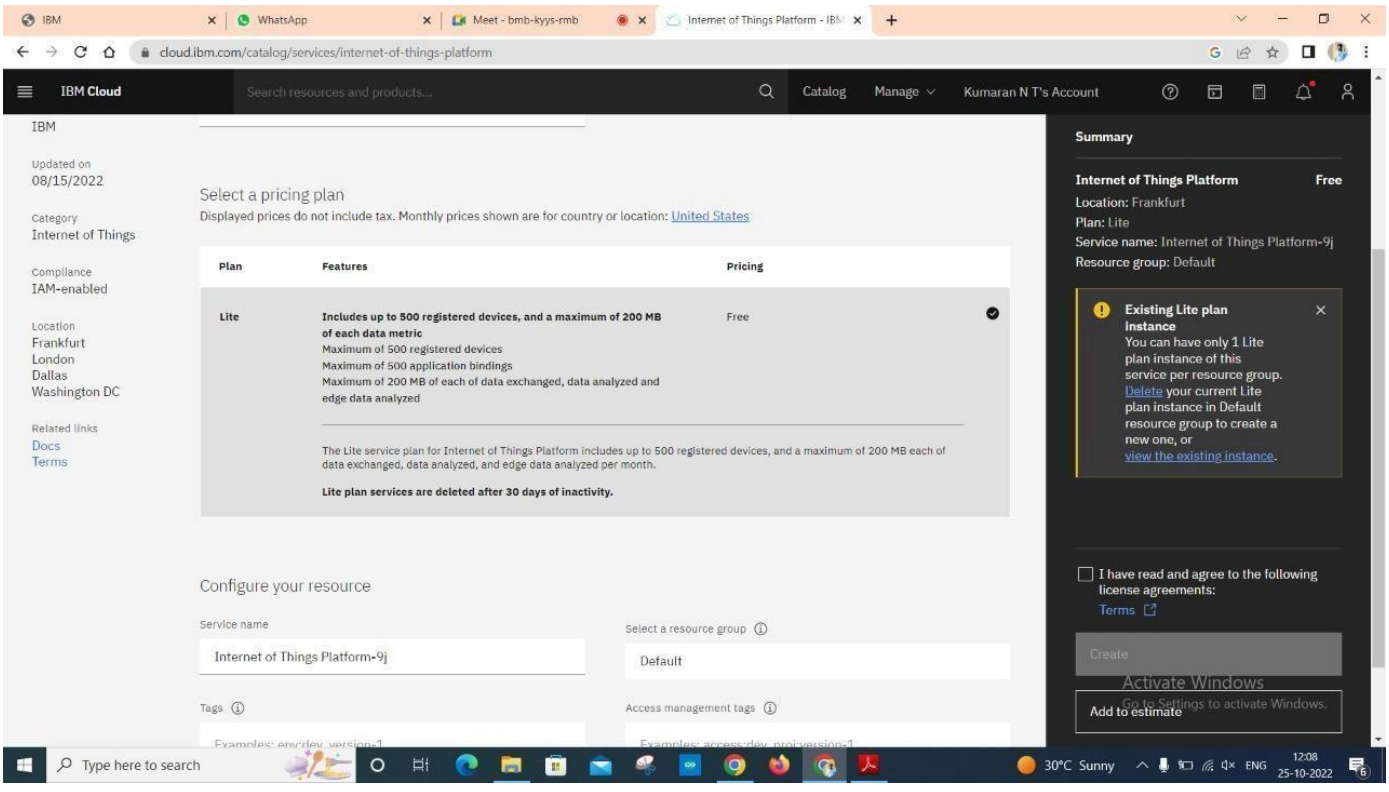
Step


IBM
WhatsApp
Meet - bmb-kyys-rmb
Internet of Things Platform - IBM
cloud.ibm.com/catalog/services/internet-of-things-platform
IBM Cloud
Search resources and products...
Catalog
Manage
Kumaran N T's Account
IBM
Updated on
08/15/2022
Category
Internet of Things
Compliance
IAM-enabled
Location
Frankfurt
London
Dallas
Washington DC
Related links
Docs
Terms
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
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.
Lite plan services are deleted after 30 days of inactivity.
Configure your resource
Service name
Internet of Things Platform-9j
Select a resource group
Default
Tags
Access management tags
Summary
Internet of Things Platform
Free
Location: Frankfurt
Plan: Lite
Service name: Internet of Things Platform-9j
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
Activate Windows
Go to Settings to activate Windows.
Type here to search
30°C Sunny
ENG
12:08
25-10-2022

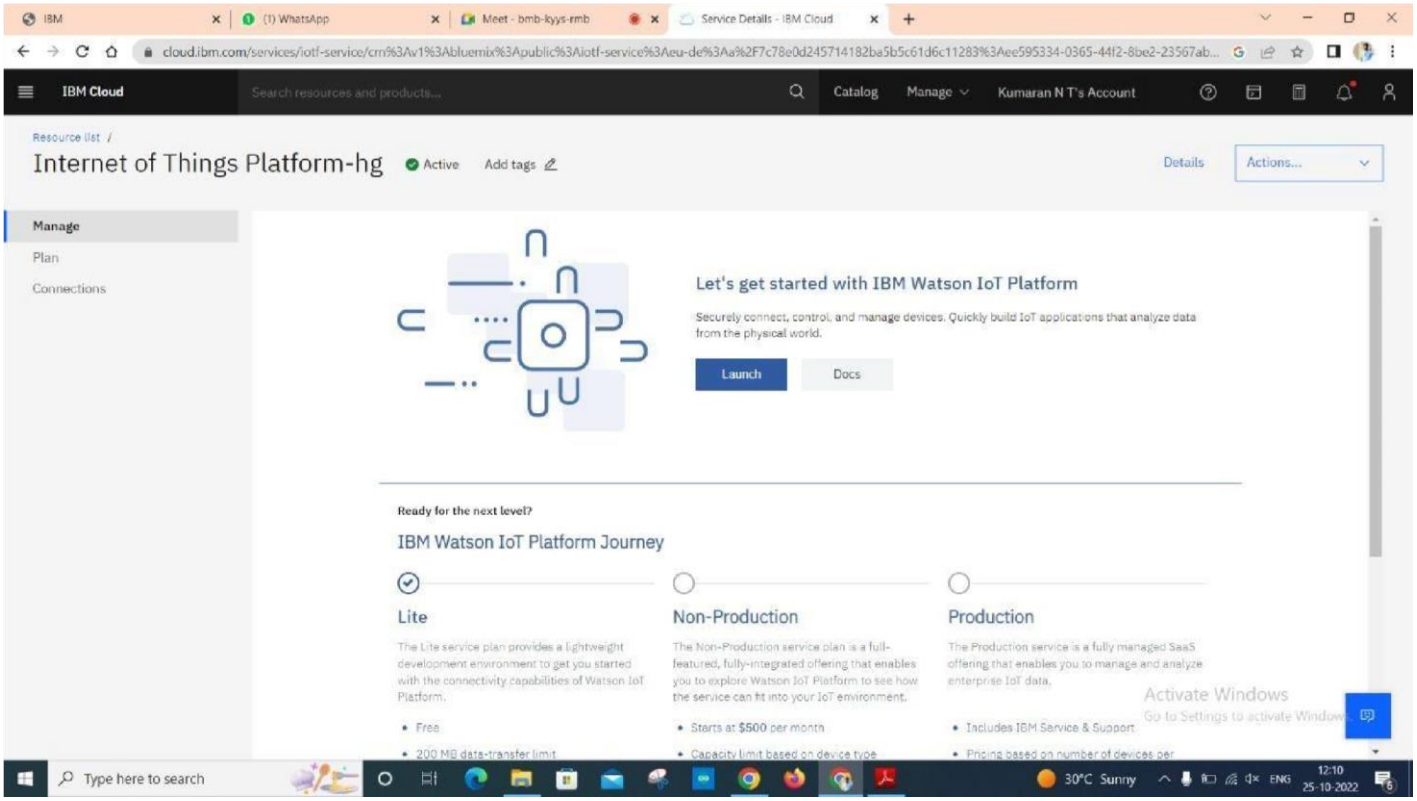
Step

Step 7: Tick agreements and then click on create.

8: Click on the launch button.



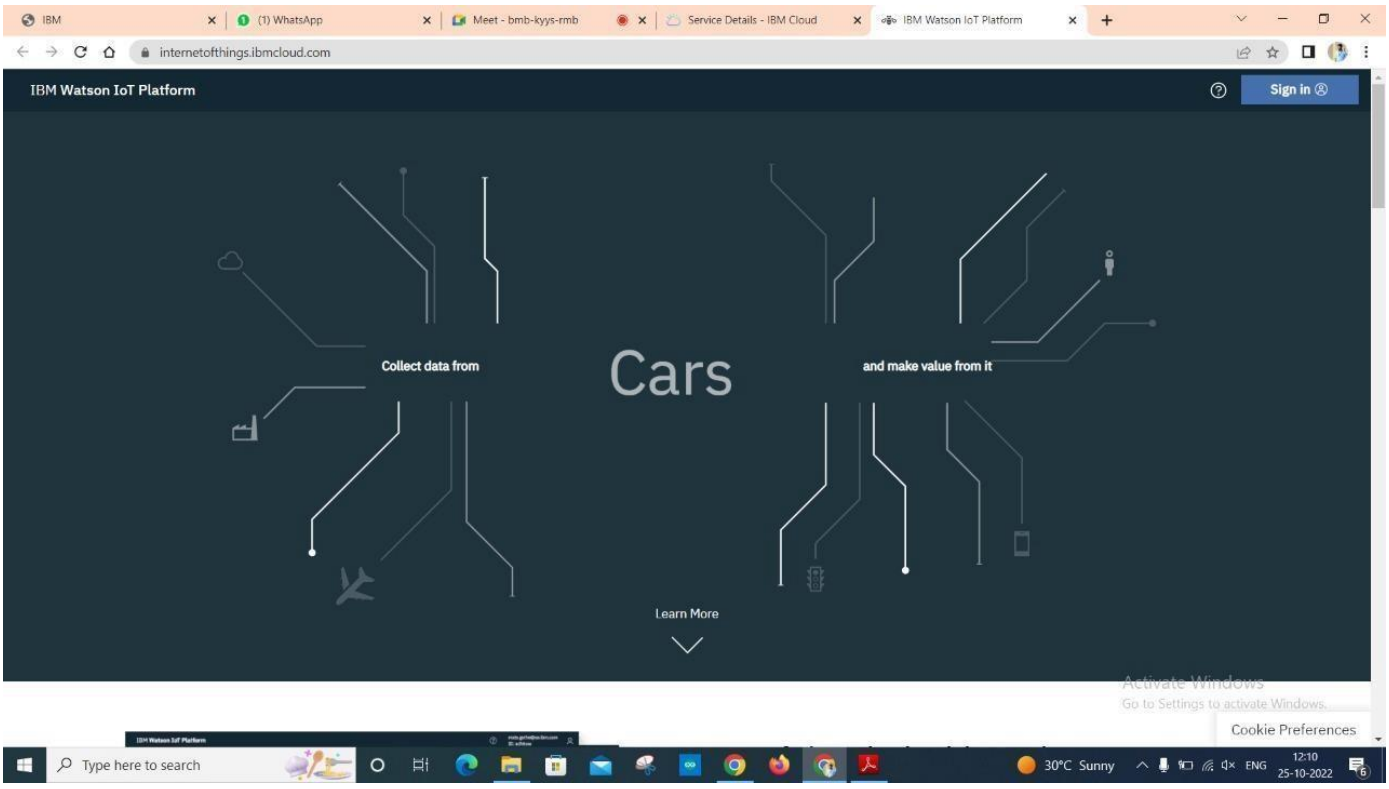
Step


IBM Cloud
Search resources and products...
Catalog
Manage
Kumaran N T's Account
Resource list /
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
Type here to search
30°C Sunny
ENG
12:10
25-10-2022

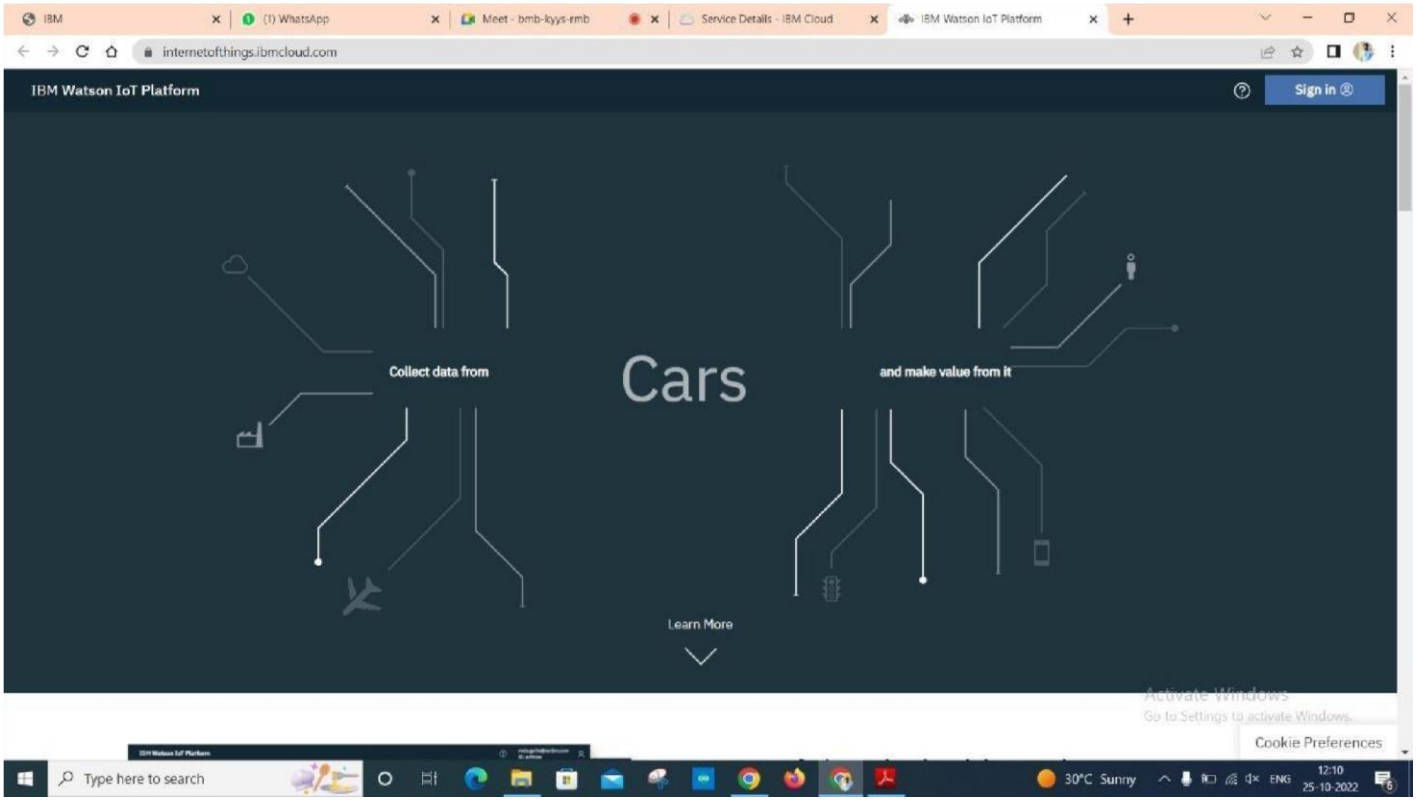
Step

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

10: Click on Sign in.



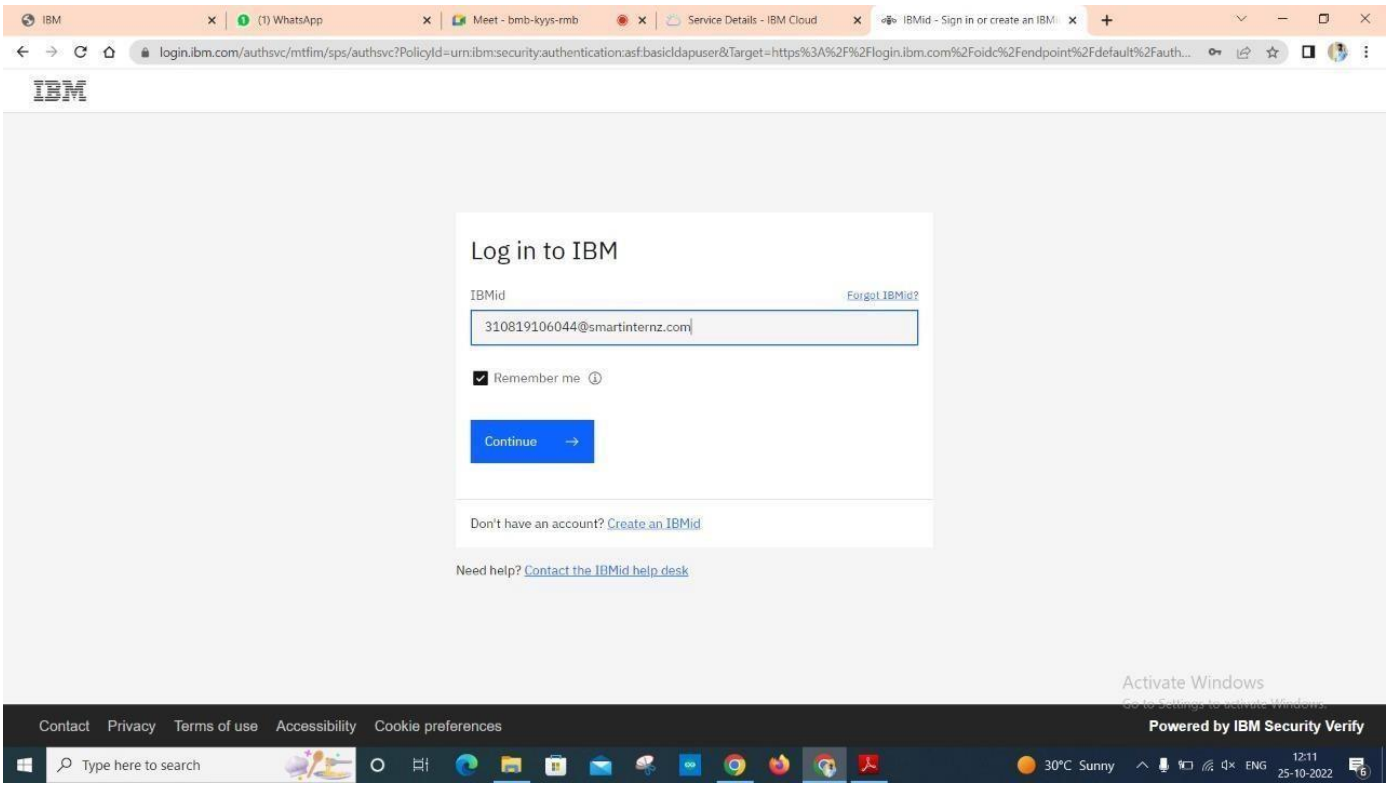
Step


IBM Watson IoT Platform
Sign in
Collect data from
Cars
and make value from it
Learn More
Cookie Preferences
Type here to search
30°C Sunny
ENG
12:10
25-10-2022

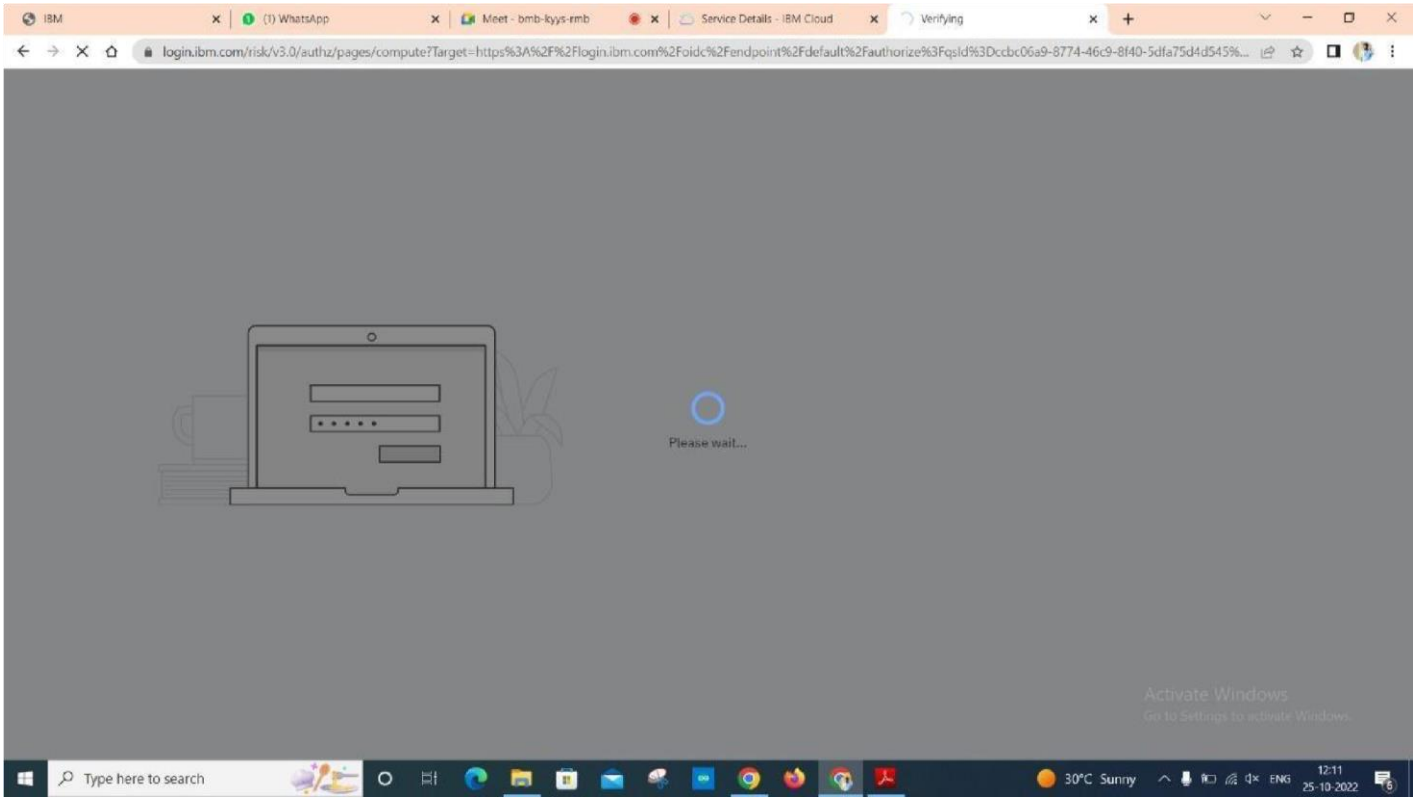
Step

Step 11: Fill the login details.

12: Sign in on progress.



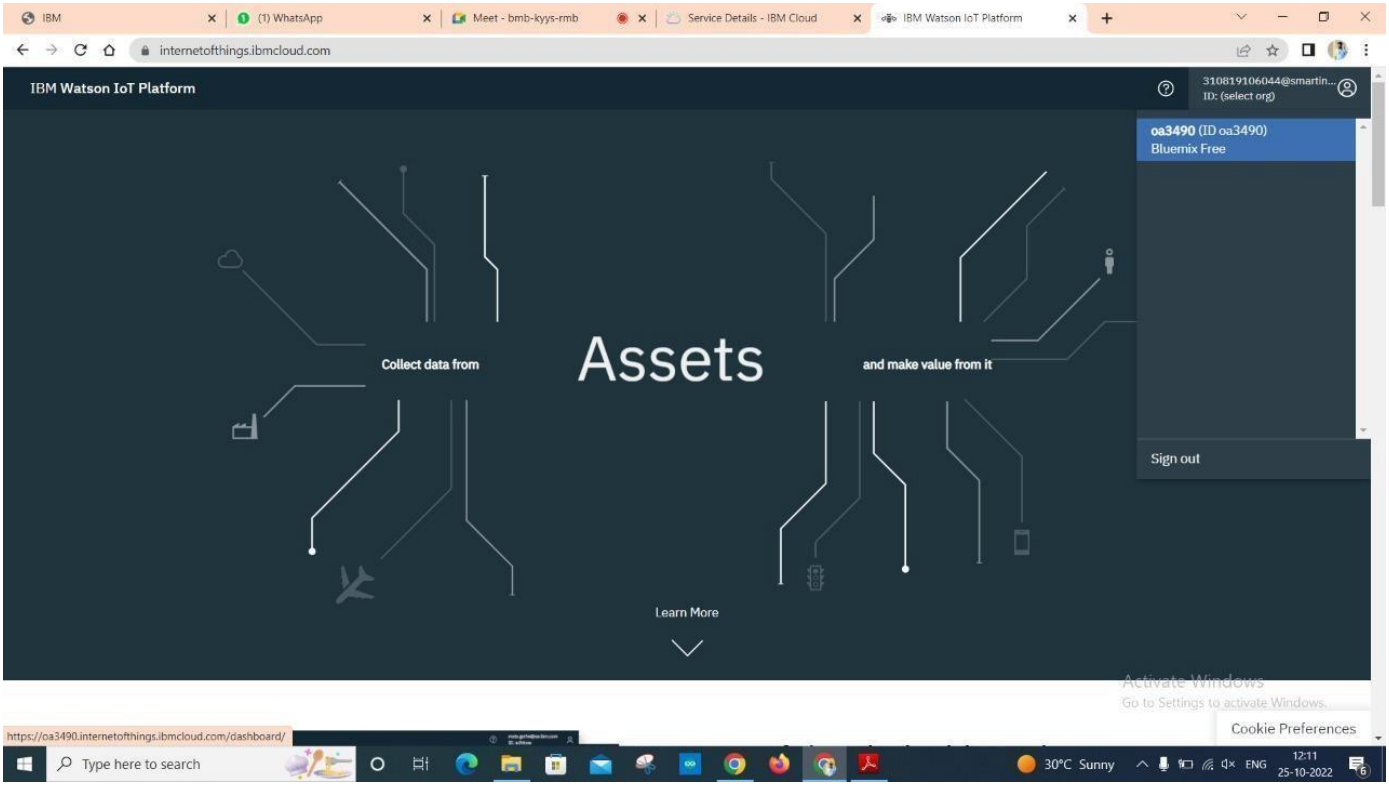
Step


IBM
(1) WhatsApp
Meet - bmb-kyys-rmb
Service Details - IBM Cloud
Verifying
login.ibm.com/risk/v3.0/authz/pages/compute?Target=https%3A%2F%2Flogin.ibm.com%2Foidc%2Fendpoint%2Fdefault%2Fauthorize%3Fqsld%3Dccbc06a9-8774-46c9-8f40-5dfa75d4d545%...
Please wait...
Activate Windows
Go to Settings to activate Windows.
Type here to search
30°C Sunny
ENG
12:11
25-10-2022

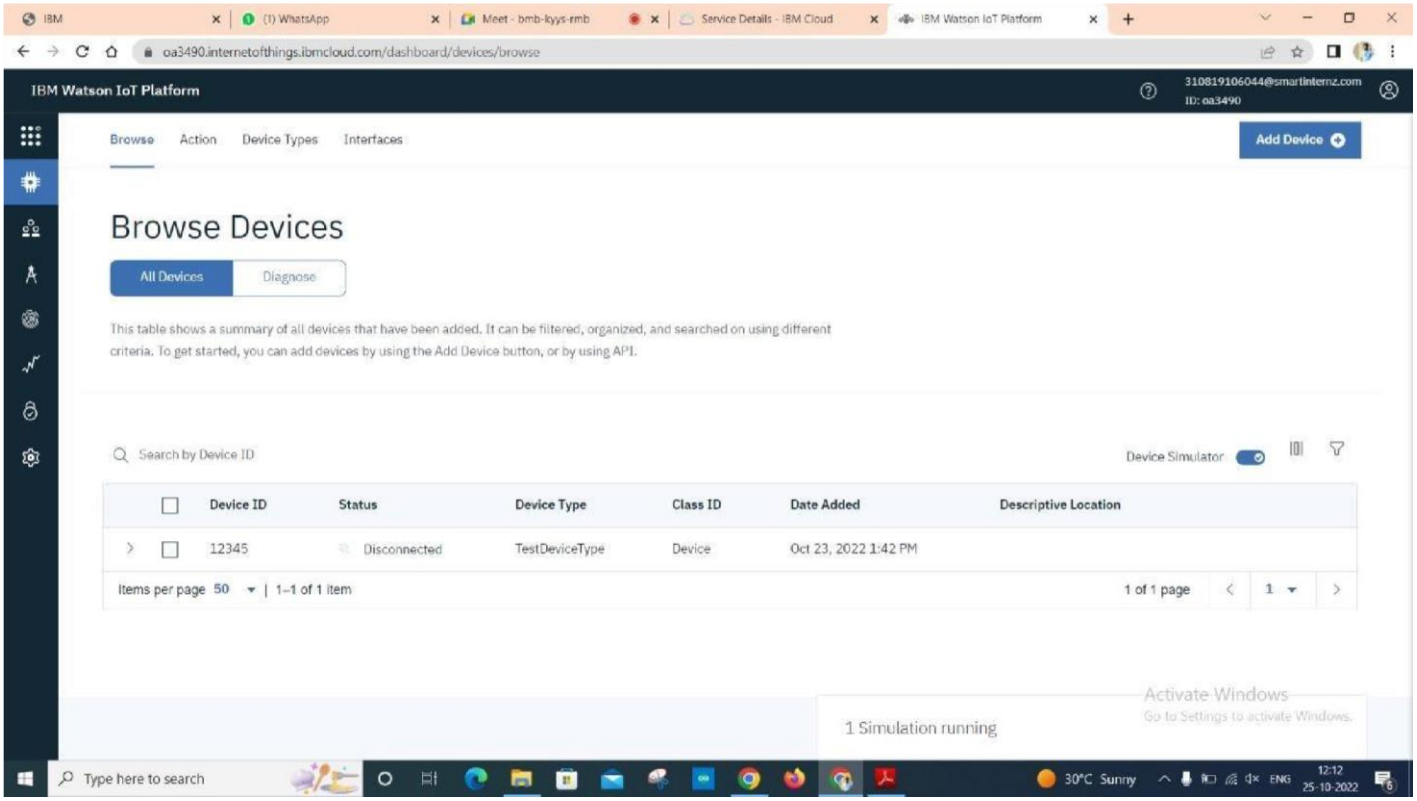
Step

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.



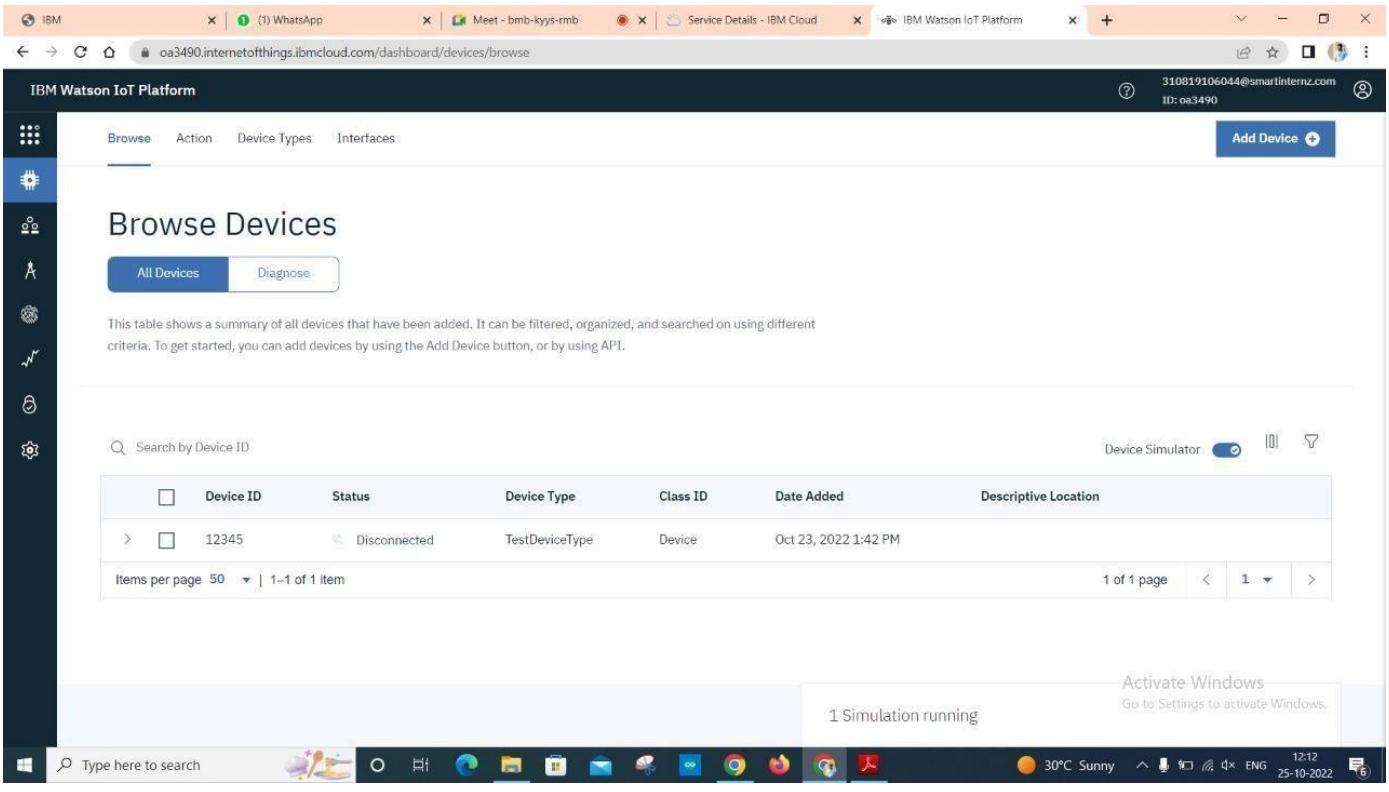
Step


IBM Watson IoT Platform
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
Descriptive Location
12345
Disconnected
TestDeviceType
Device
Oct 23, 2022 1:42 PM
Items per page 50
1–1 of 1 item
1 of 1 page
1 Simulation running
Activate Windows
Type here to search
30°C Sunny
ENG
12:12
25-10-2022

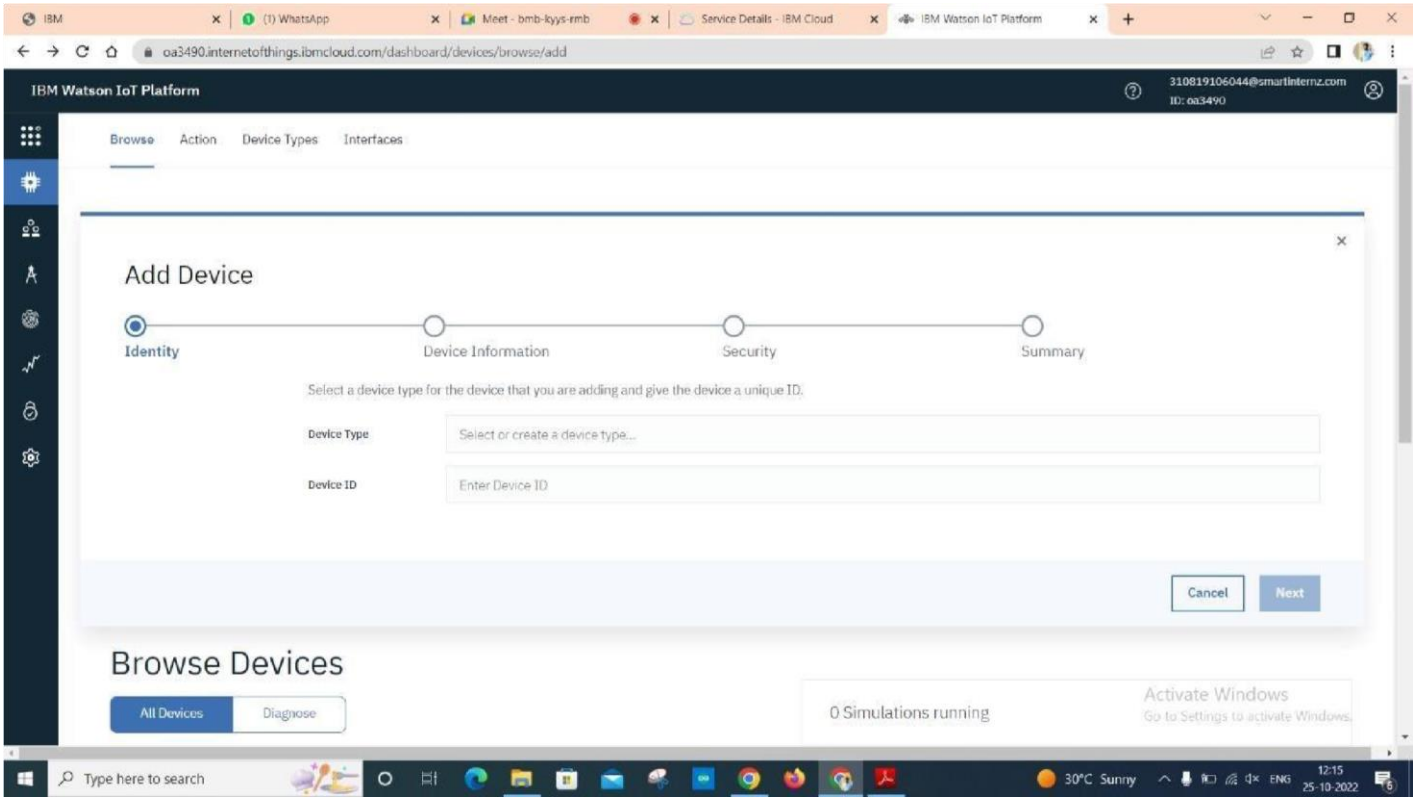
Step

Step 15: Click on Add Device.

16: Click on Device Type.



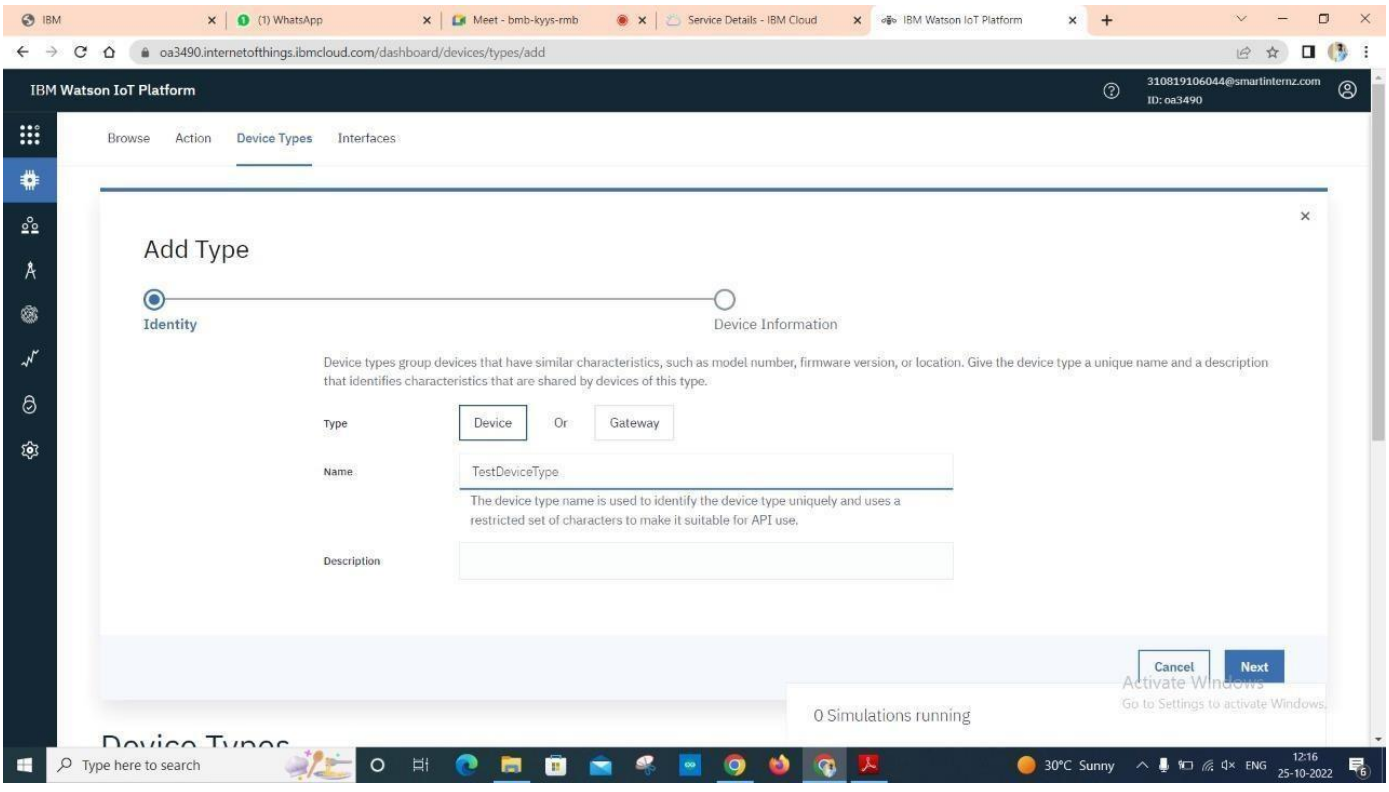
Step


IBM Watson IoT Platform
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
Select or create a device type...
Device ID
Enter Device ID
Cancel
Next
Browse Devices
All Devices
Diagnose
0 Simulations running
Activate Windows
Type here to search
30°C Sunny
ENG
12:15
25-10-2022

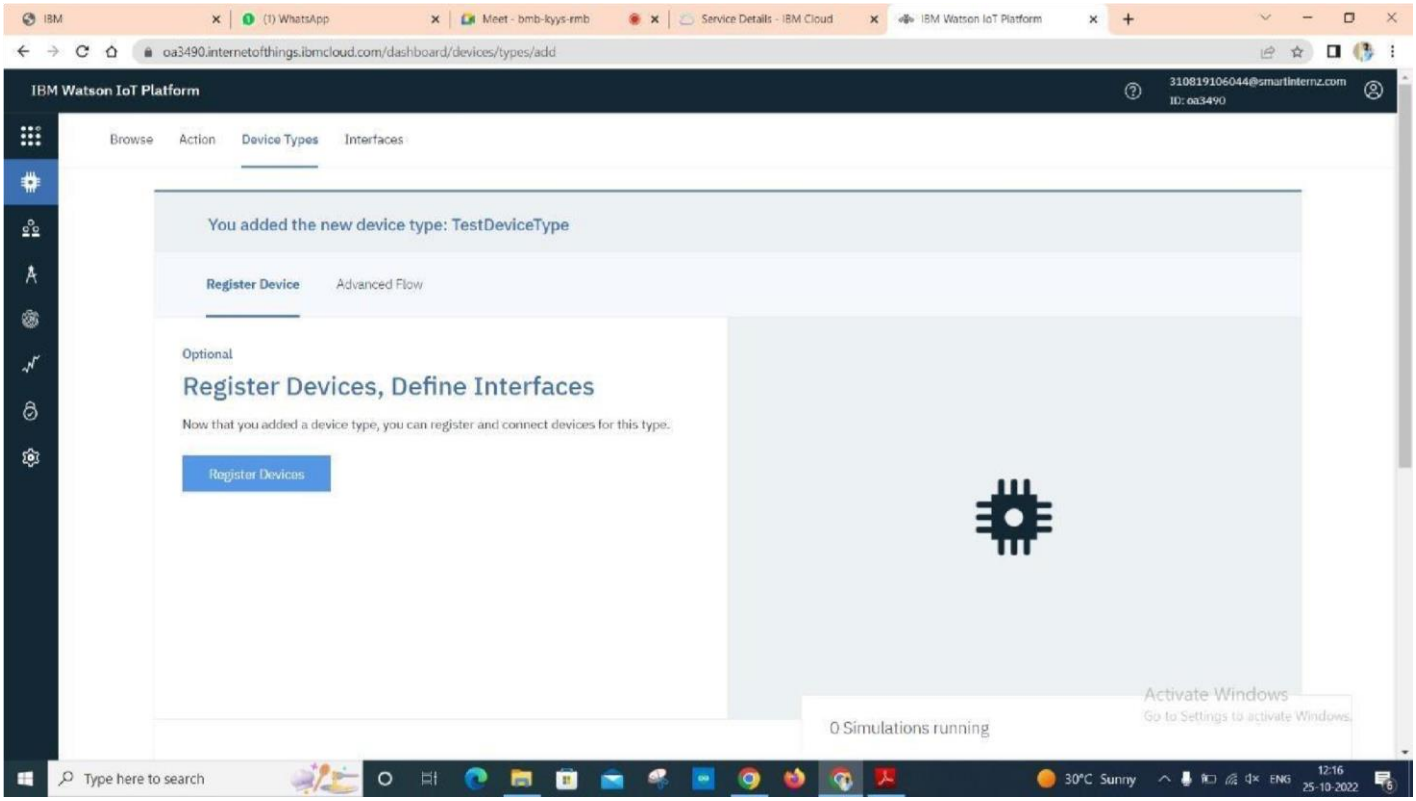
Step

Step 17: Fill the details.

18: Click on Register Devices.



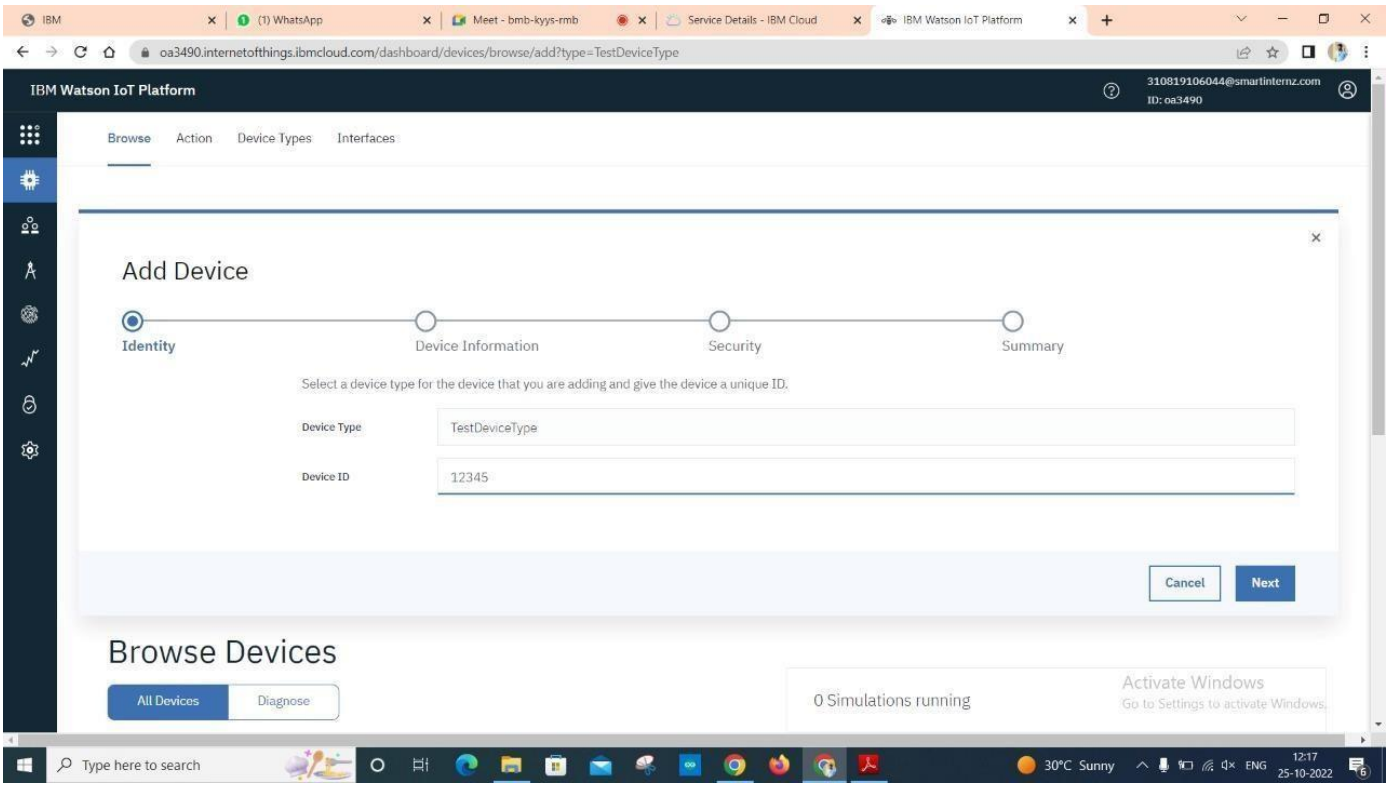
Step


IBM Watson IoT Platform
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.
Register Devices
0 Simulations running
Activate Windows
Type here to search
30°C Sunny
ENG
12:16
25-10-2022

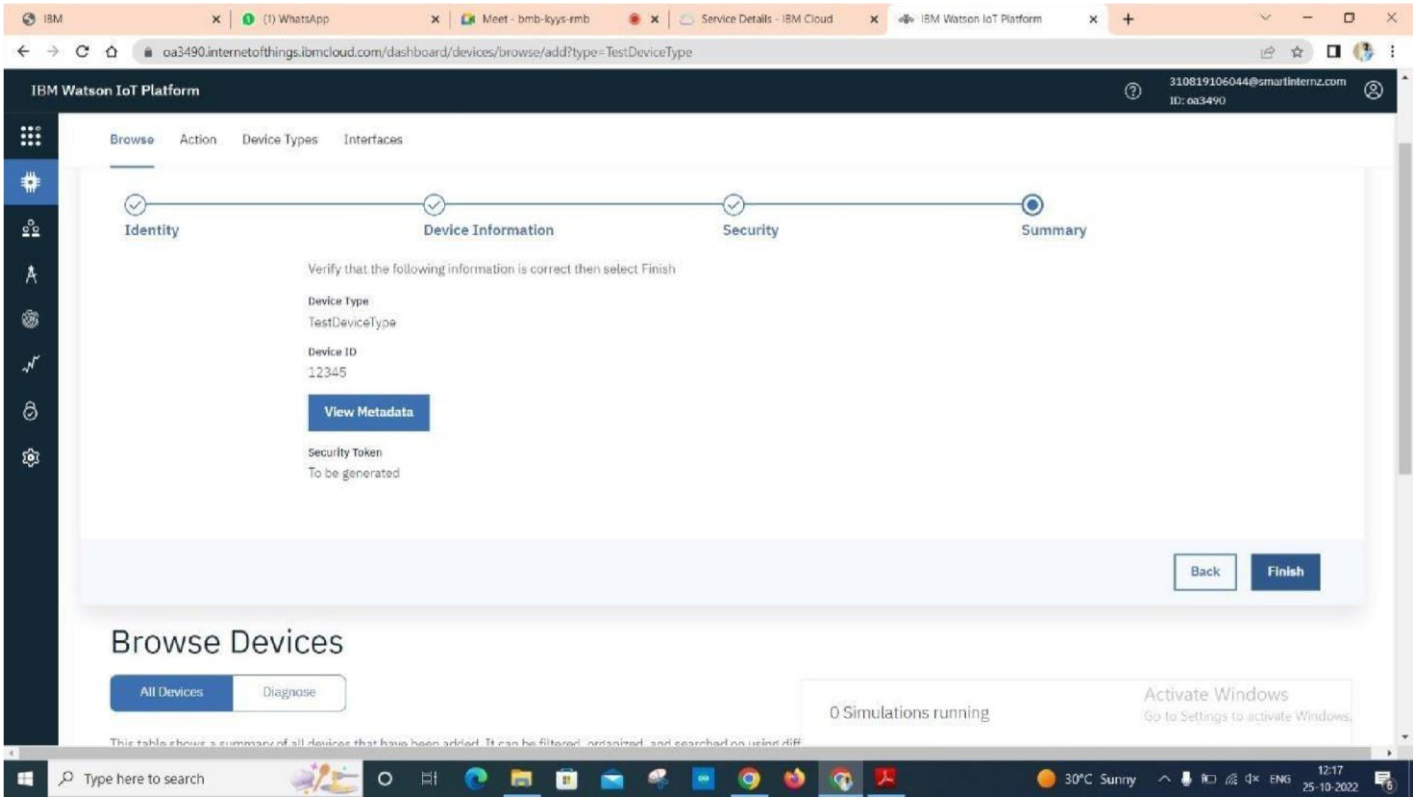
Step

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

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



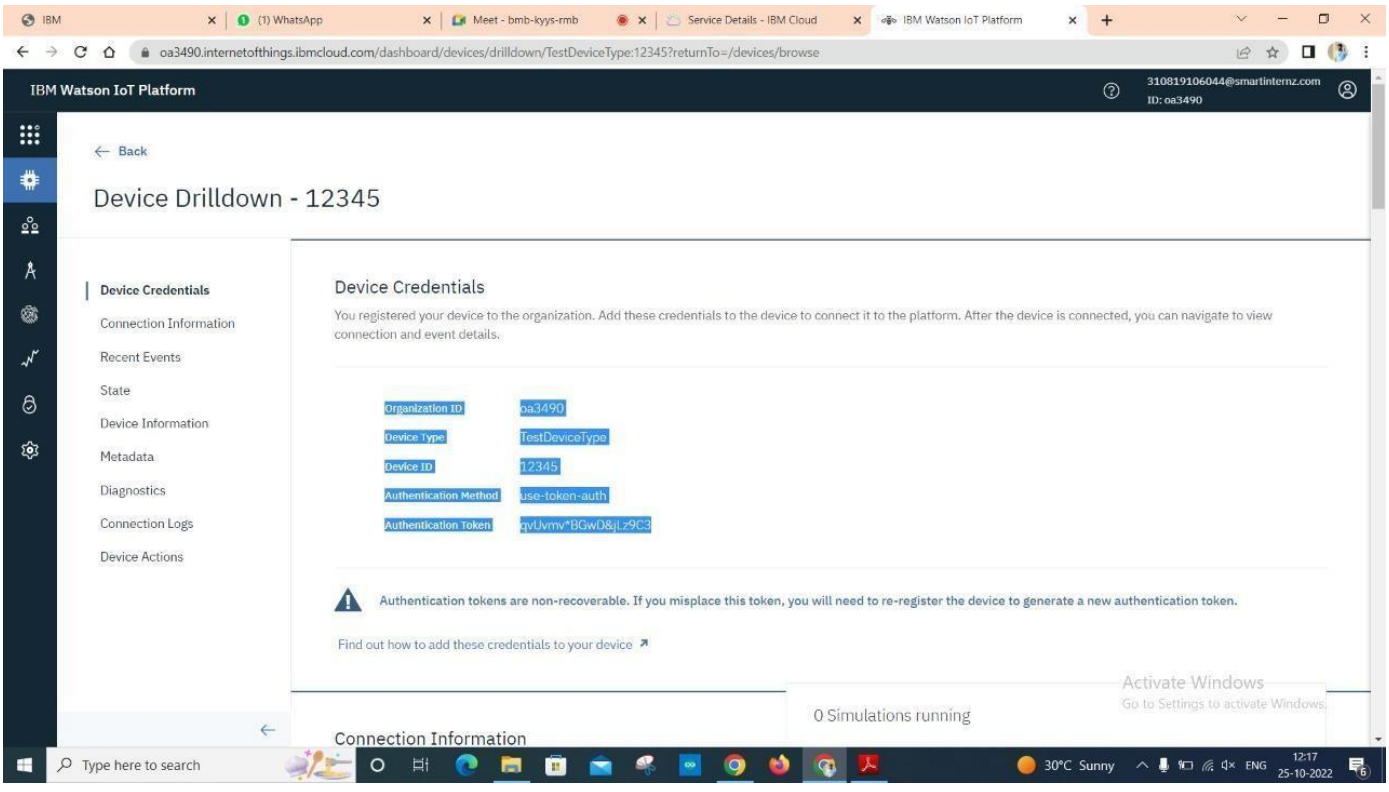
Step


IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Identity
Device Information
Security
Summary
Verify that the following information is correct then select Finish
Device Type
TestDeviceType
Device ID
12345
View Metadata
Security Token
To be generated
Back
Finish
Browse Devices
All Devices
Diagnose
0 Simulations running
Activate Windows
Type here to search

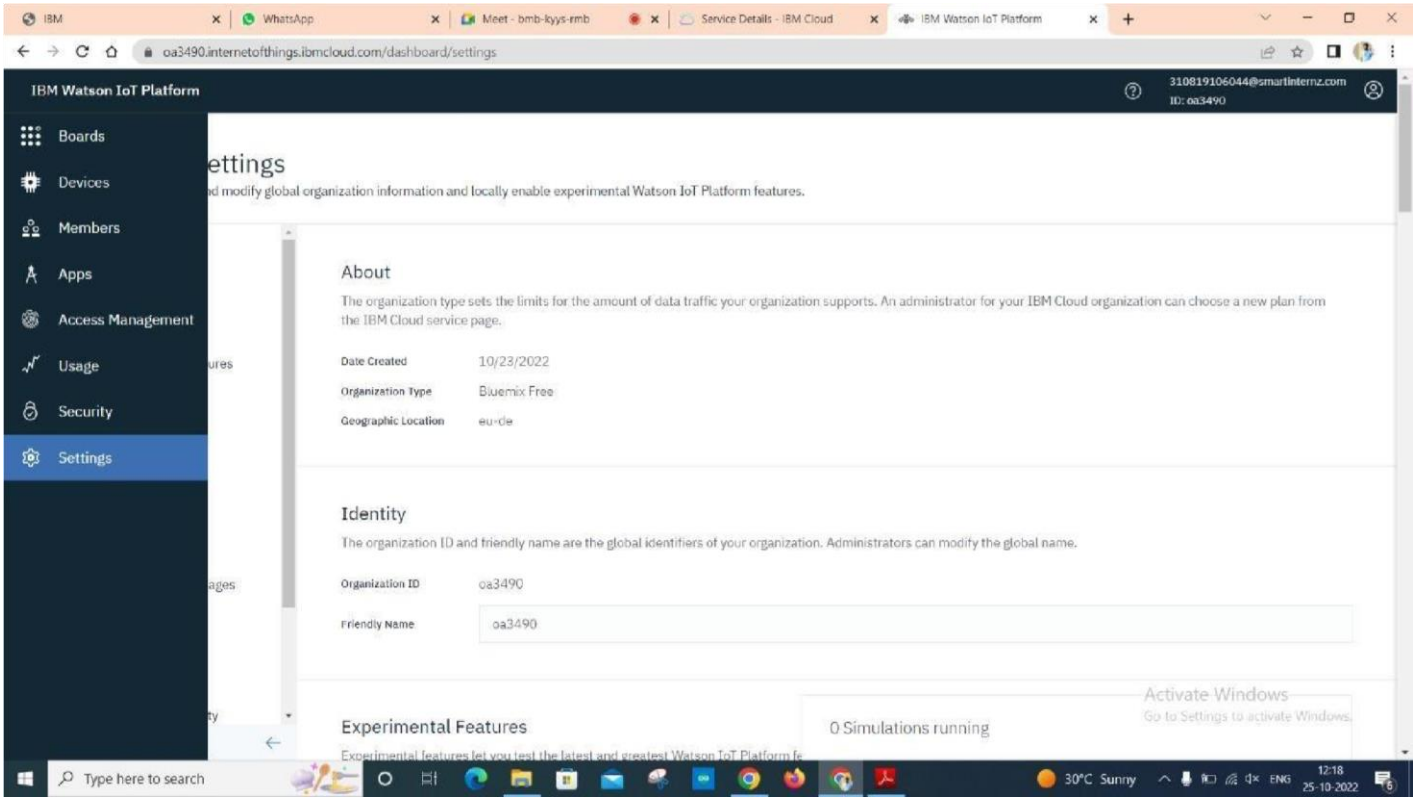
Step

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

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



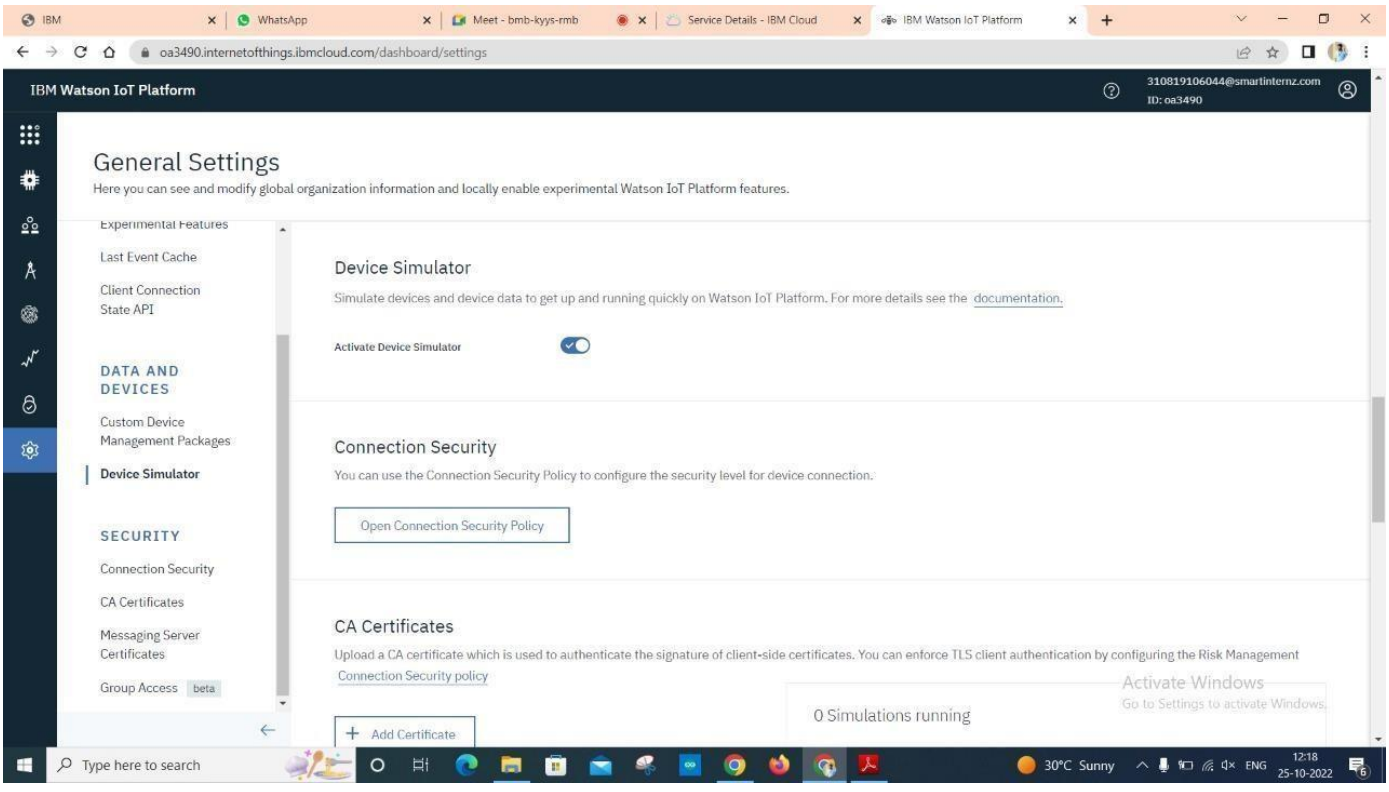
Step


IBM Watson IoT Platform
Boards
Devices
Members
Apps
Access Management
Usage
Security
Settings
About
The organization type sets the limits for the amount of data traffic your organization supports. An administrator for your IBM Cloud organization can choose a new plan from the IBM Cloud service page.
Date Created
10/23/2022
Organization Type
Bluemix Free
Geographic Location
eu-de
Identity
The organization ID and friendly name are the global identifiers of your organization. Administrators can modify the global name.
Organization ID
oa3490
Friendly Name
oa3490
Experimental Features
0 Simulations running
Activate Windows
Type here to search
30°C Sunny
ENG
12:18
25-10-2022

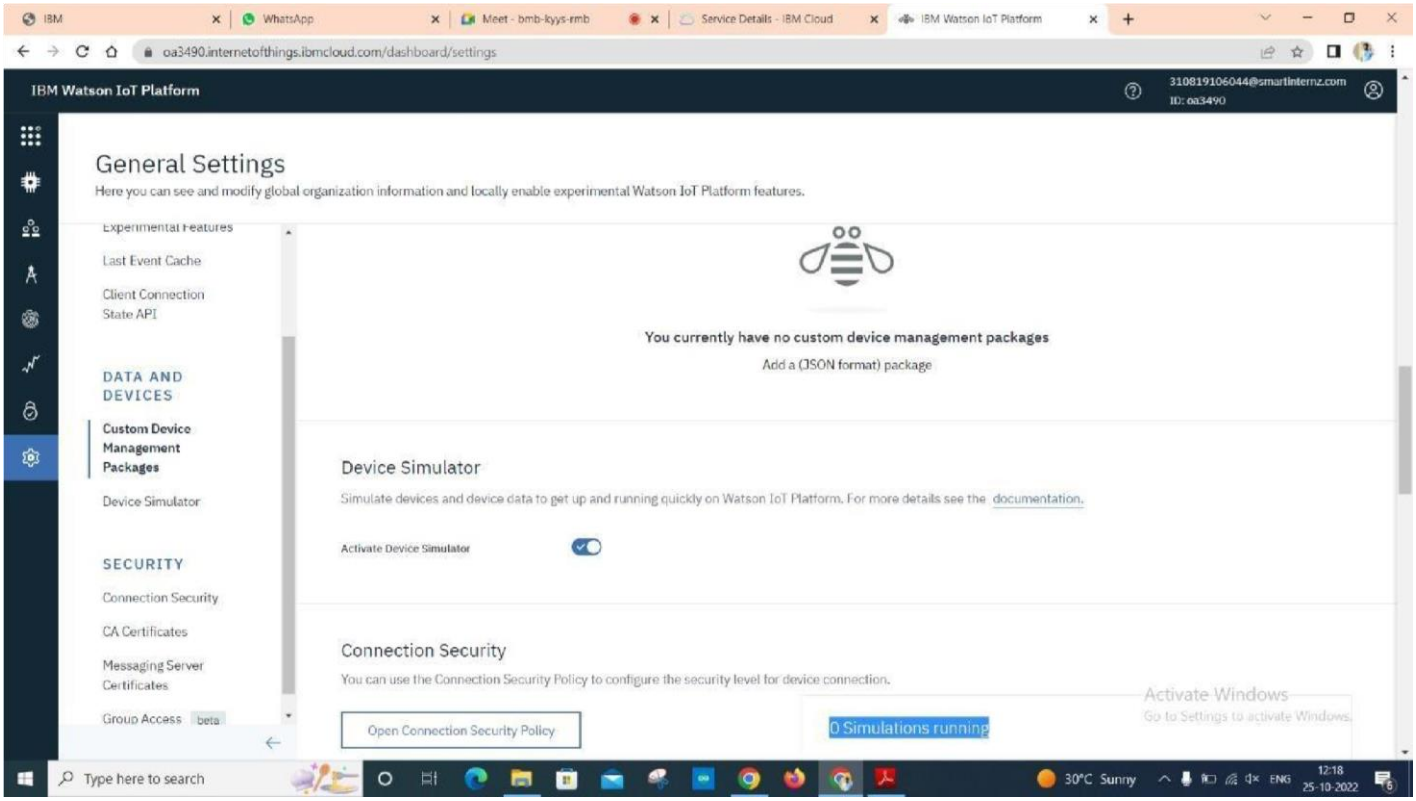
Step

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

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



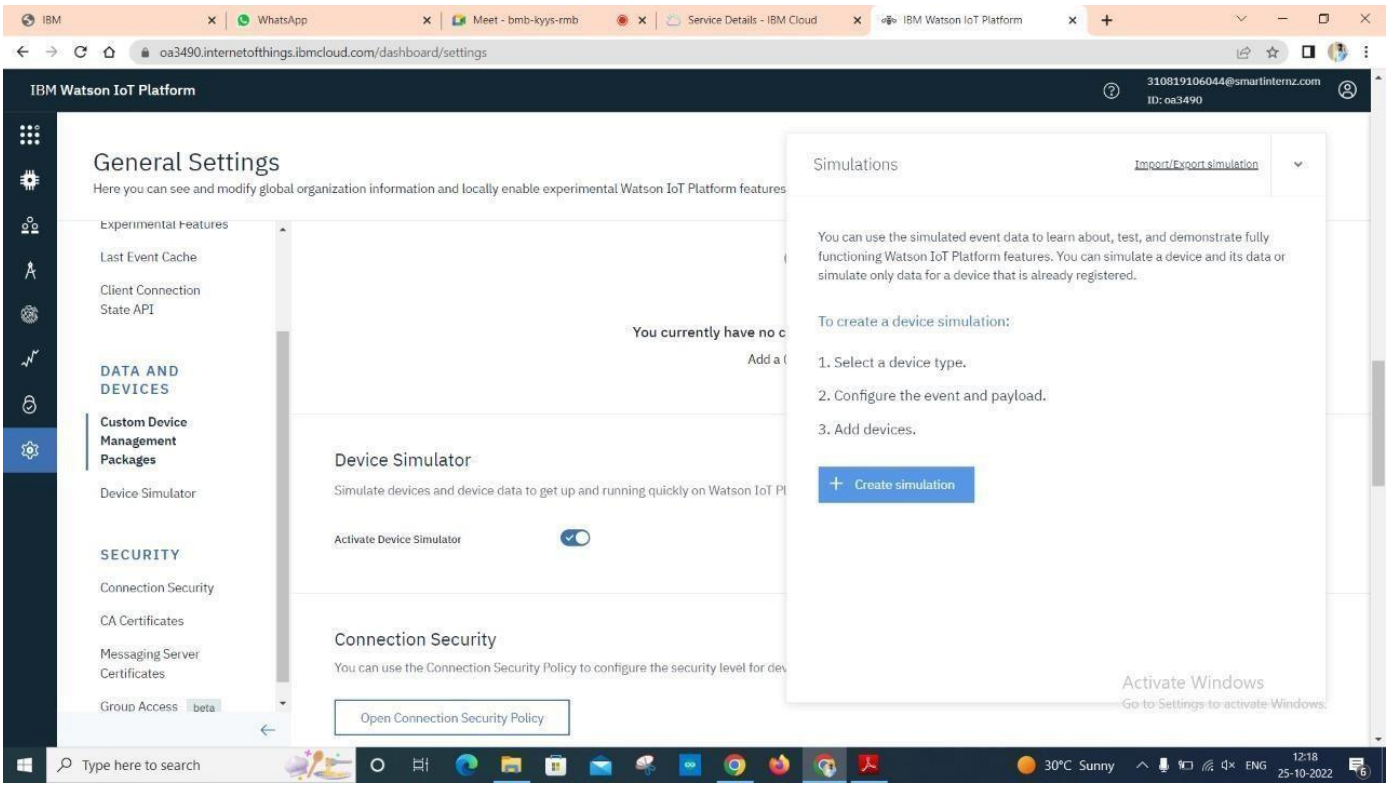
Step


IBM Watson IoT Platform
General Settings
Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features.
Experimental Features
Last Event Cache
Client Connection State API
DATA AND DEVICES
Custom Device Management Packages
Device Simulator
SECURITY
Connection Security
CA Certificates
Messaging Server Certificates
Group Access beta
You currently have no custom device management packages
Add a (JSON format) package
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
0 Simulations running
Activate Windows
Type here to search
30°C Sunny
ENG
12:18
25-10-2022

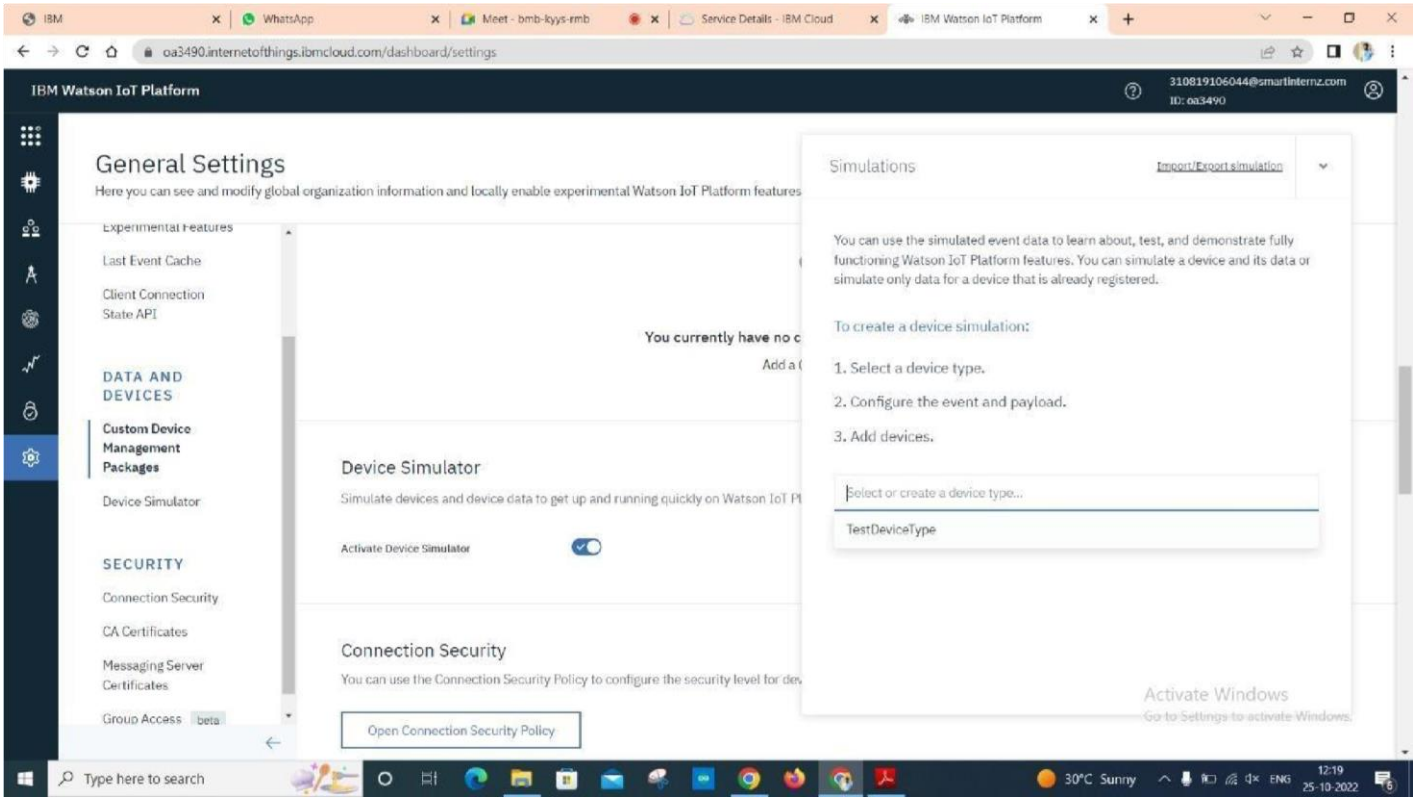
Step

Step 25: Click on Create Simulation.

26: Choose the Device.



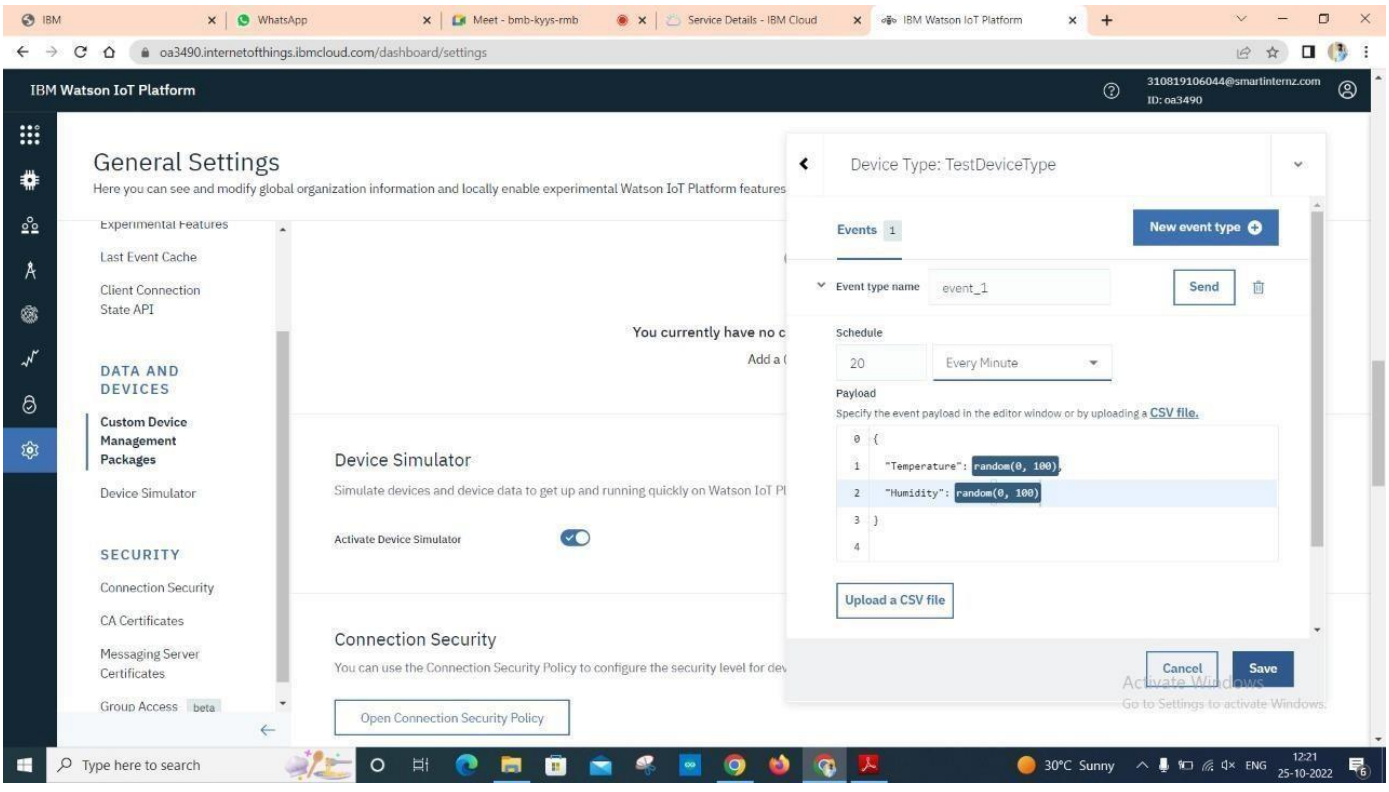
Step


IBM Watson IoT Platform
General Settings
Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features
Experimental Features
Last Event Cache
Client Connection State API
DATA AND DEVICES
Custom Device Management Packages
Device Simulator
SECURITY
Connection Security
CA Certificates
Messaging Server Certificates
Group Access beta
Device Simulator
Activate Device Simulator
Connection Security
Open Connection Security Policy
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.
Select or create a device type...
TestDeviceType
Activate Windows
Type here to search
30°C Sunny
ENG
12:19
25-10-2022

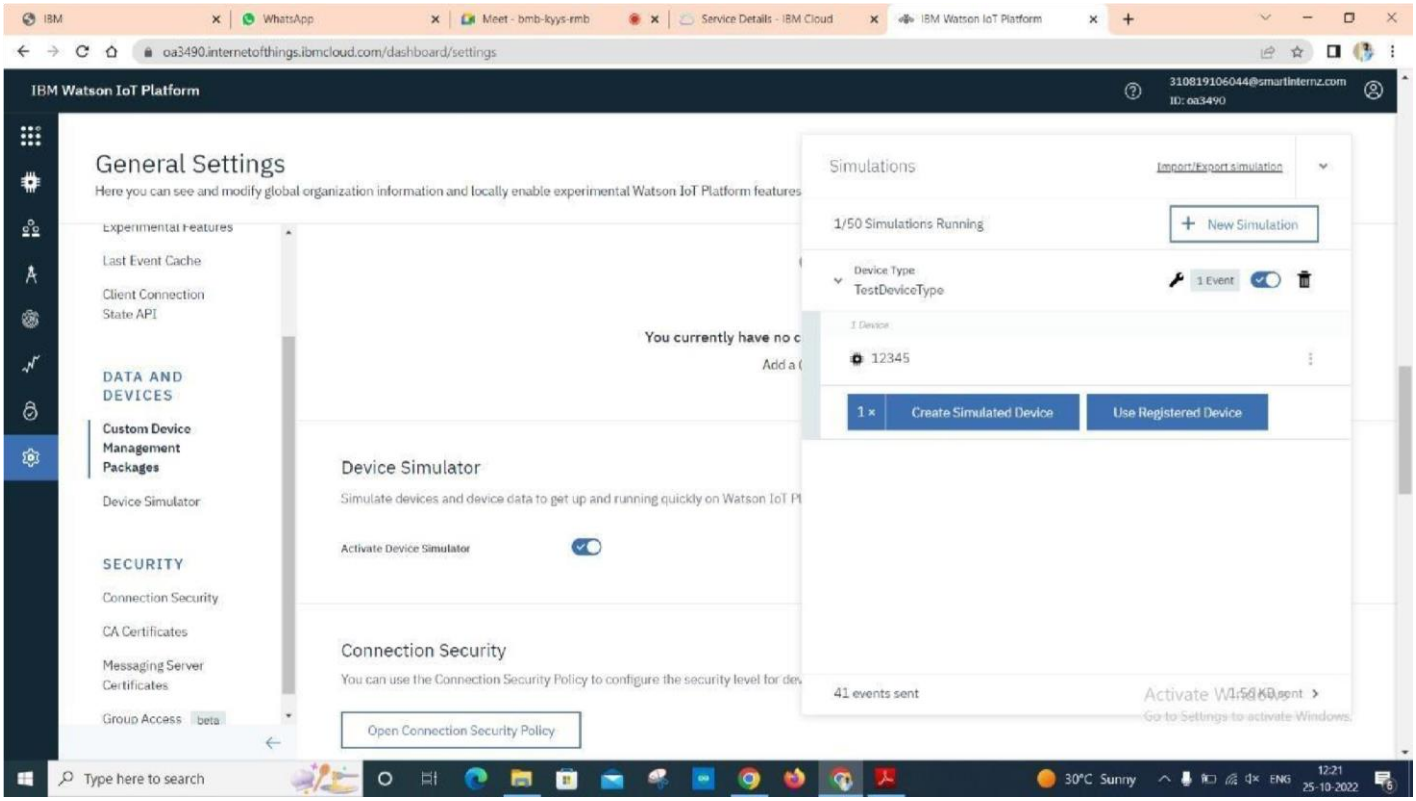
Step

Step 27: Type the code.

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



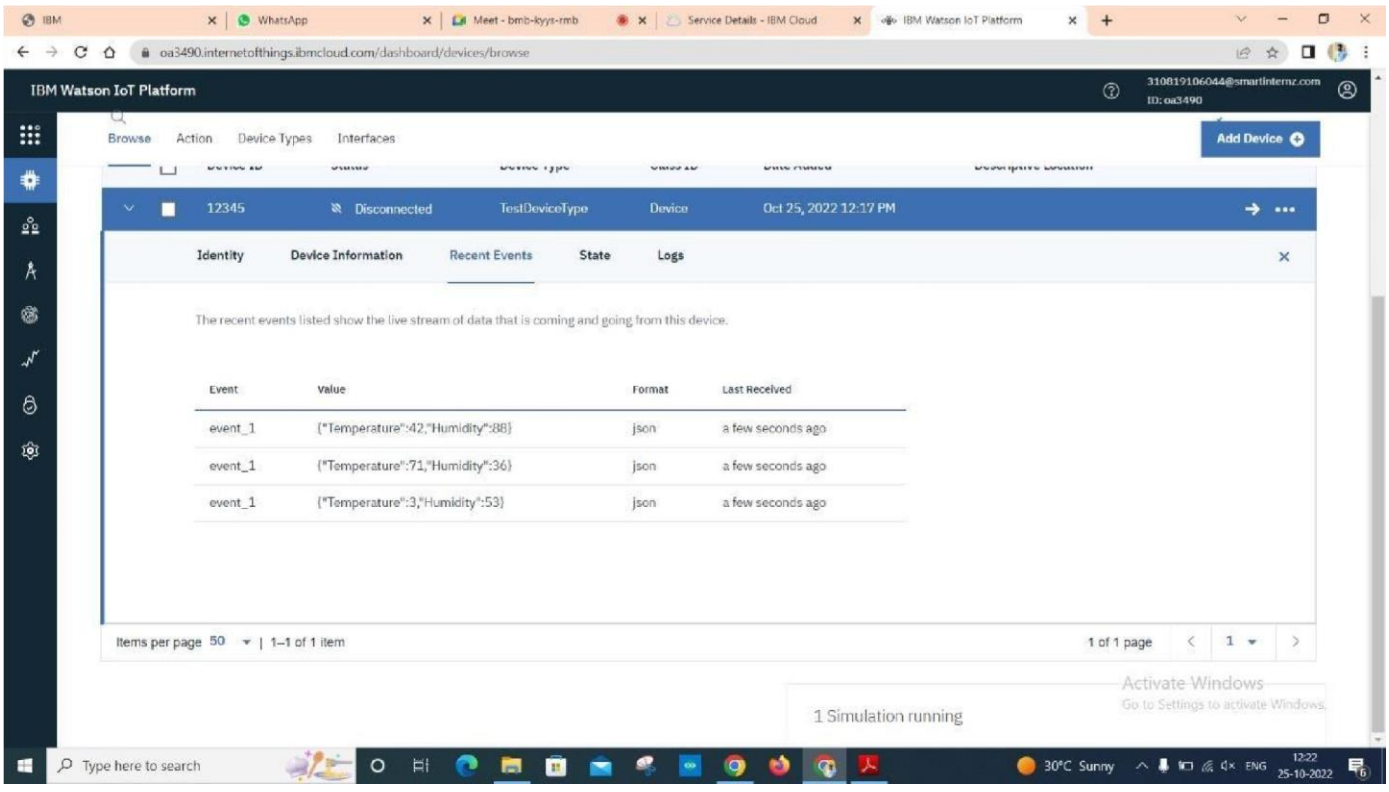
Step


IBM Watson IoT Platform
General Settings
Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features
Experimental Features
Last Event Cache
Client Connection State API
DATA AND DEVICES
Custom Device Management Packages
Device Simulator
SECURITY
Connection Security
CA Certificates
Messaging Server Certificates
Group Access beta
Device Simulator
Activate Device Simulator
Connection Security
Open Connection Security Policy
Simulations
1/50 Simulations Running
New Simulation
Device Type
TestDeviceType
1 Event
12345
1 ×
Create Simulated Device
Use Registered Device
41 events sent
Type here to search
30°C Sunny
ENG
12:21
25-10-2022

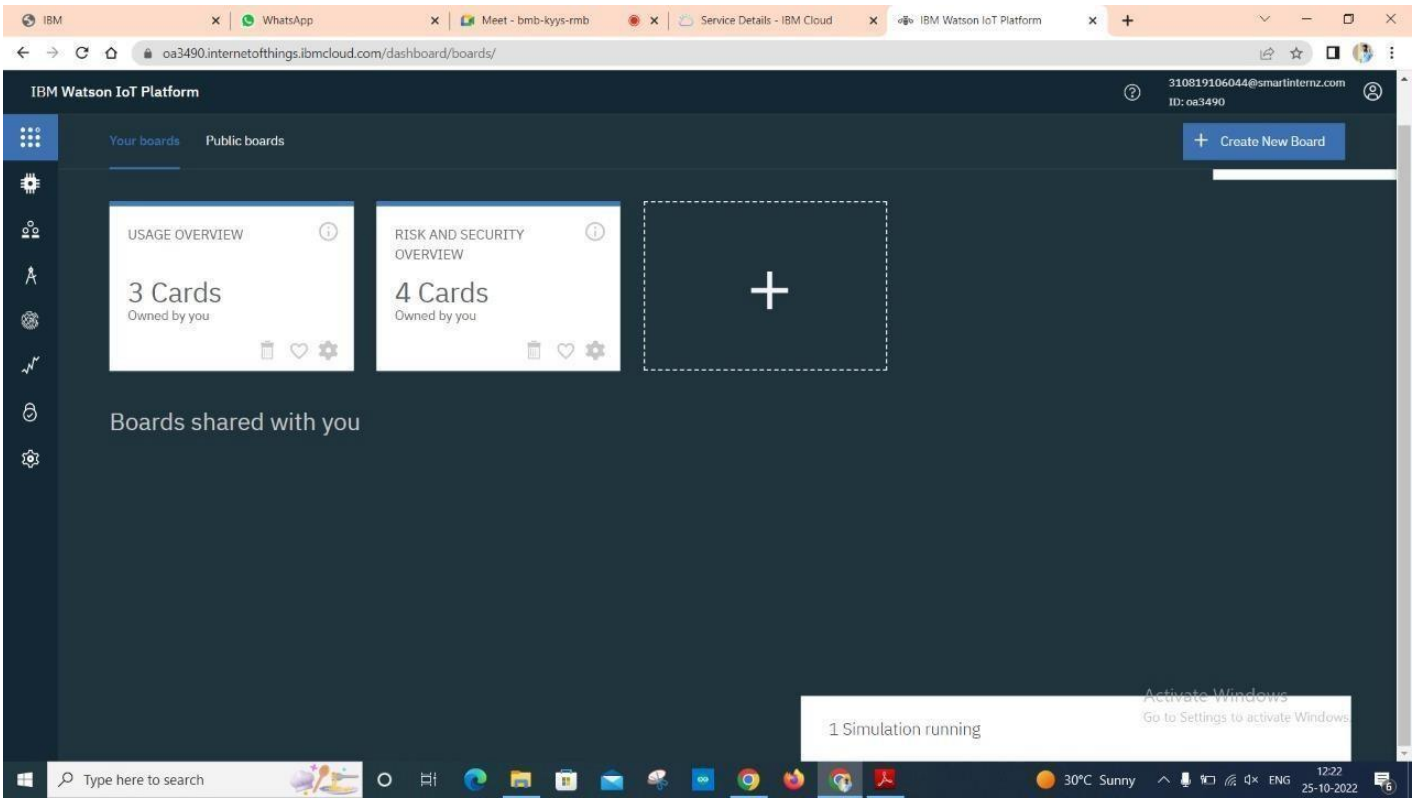
Step

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.



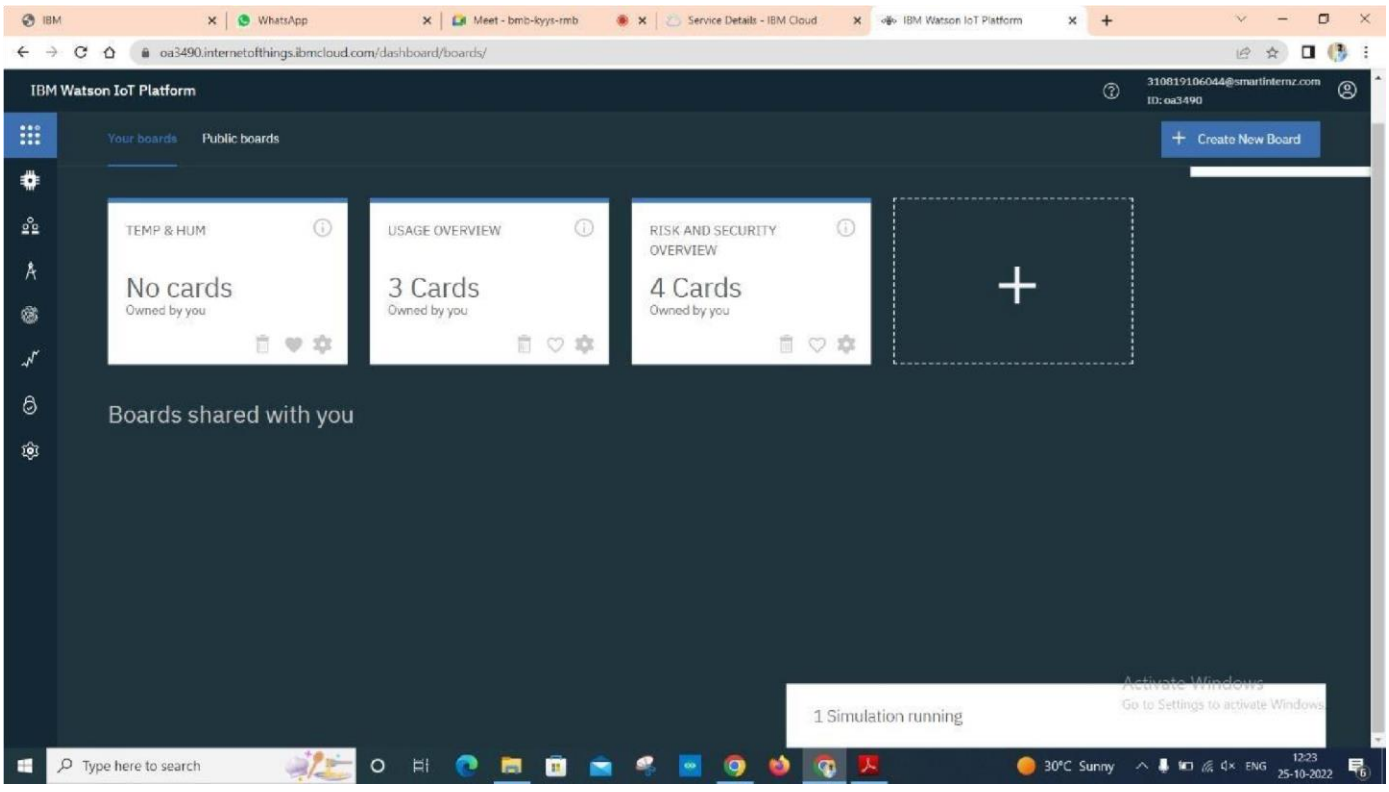
Step


IBM
WhatsApp
Meet - bmb-kyys-rmb
Service Details - IBM Cloud
IBM Watson IoT Platform
oa3490.internetofthings.ibmcloud.com/dashboard/boards/
IBM Watson IoT Platform
310819106044@smartinternz.com
ID: oa3490
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.
Type here to search
30°C Sunny
ENG
12:22
25-10-2022

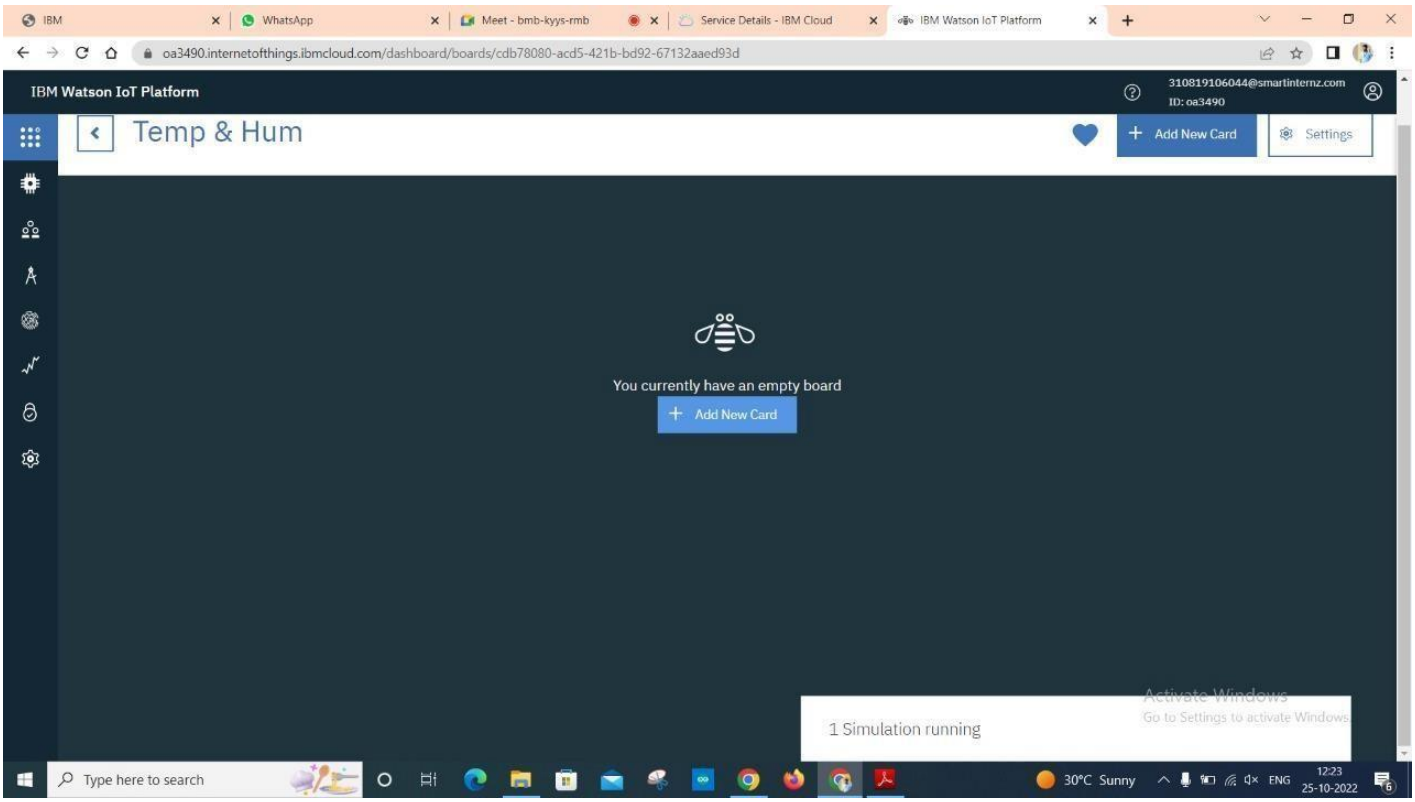
Step

Step 31: Click on the board which is created.

32: Go Add New Card.



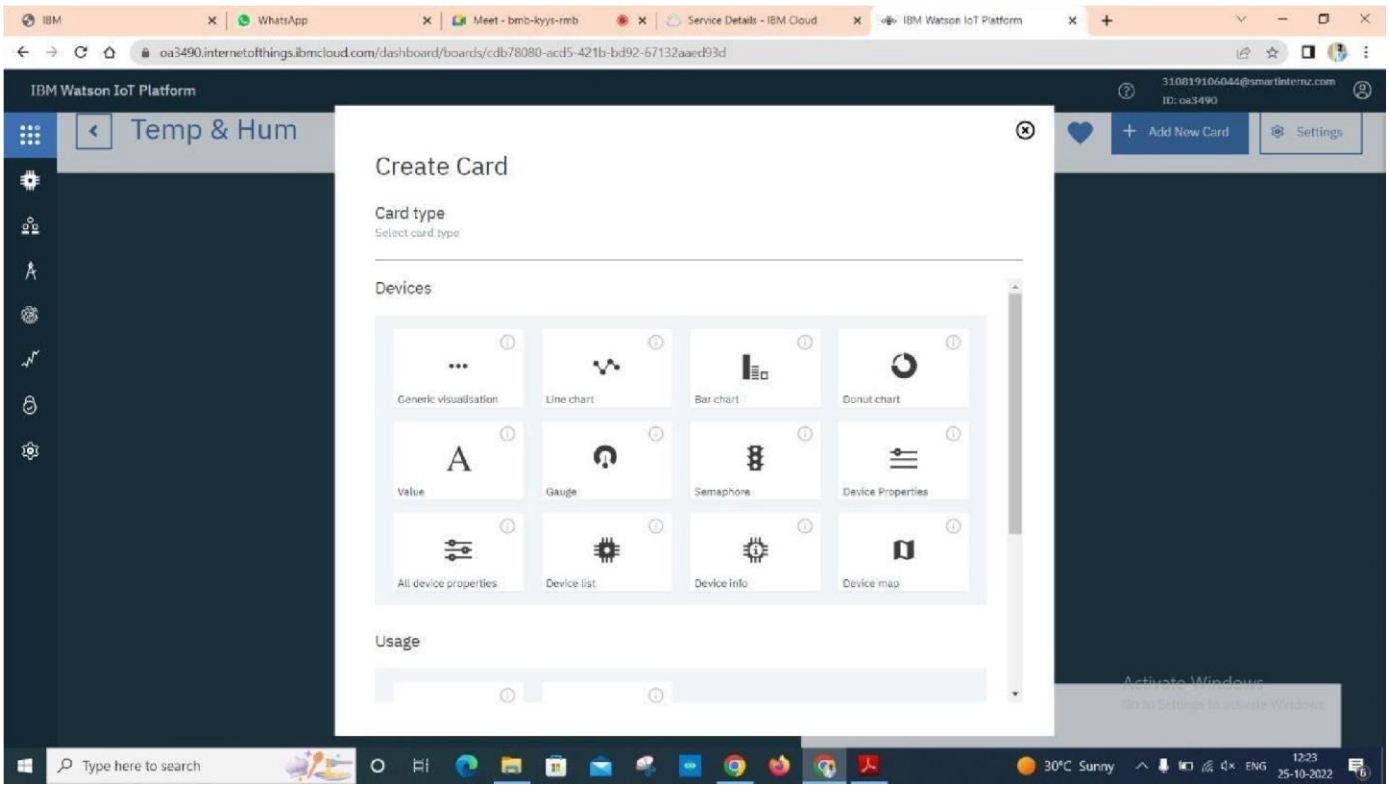
Step


IBM
WhatsApp
Meet - bmb-kyys-rmb
Service Details - IBM Cloud
IBM Watson IoT Platform
oa3490.internetofthings.ibmcloud.com/dashboard/boards/cdb78080-acd5-421b-bd92-67132aaed93d
IBM Watson IoT Platform
310819106044@smartinternz.com
ID: oa3490
Temp & Hum
Add New Card
Settings
You currently have an empty board
Add New Card
1 Simulation running
Activate Windows
Go to Settings to activate Windows.
Type here to search
30°C Sunny
ENG
12:23
25-10-2022

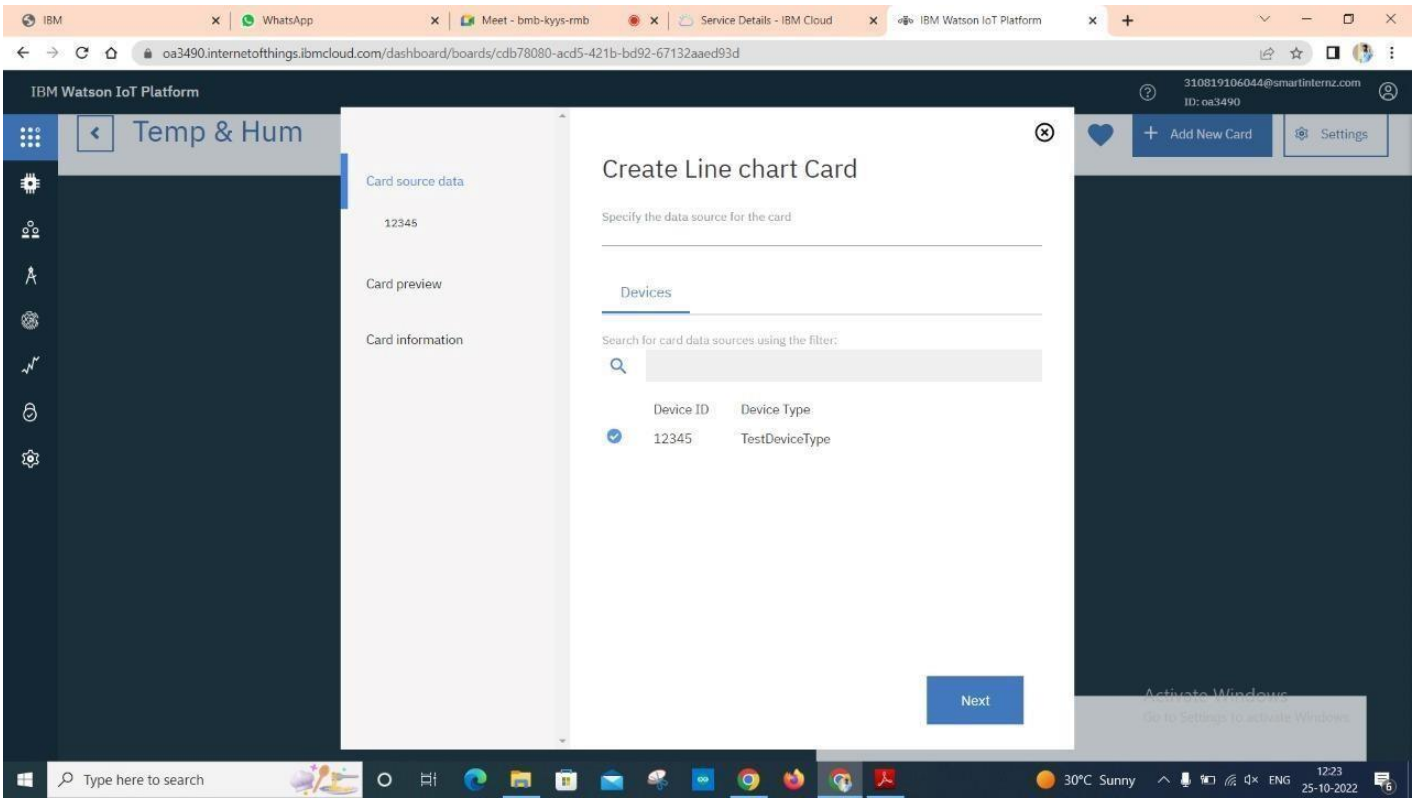
Step

Step 33: Choose the Card Type.

34: Choose the device.



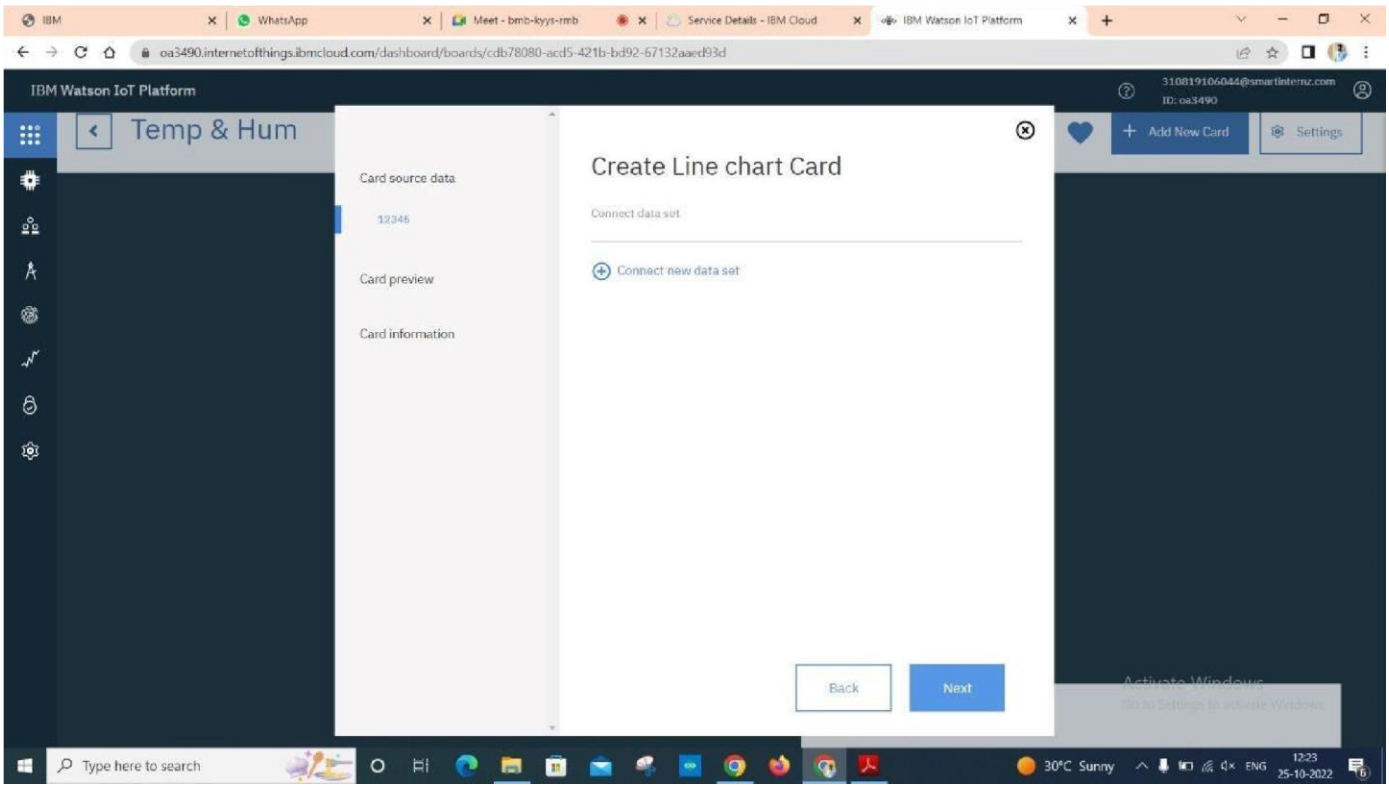
Step


IBM Watson IoT Platform
Temp & Hum
Add New Card
Settings
Create Line chart Card
Card source data
12345
Card preview
Card information
Specify the data source for the card
Devices
Search for card data sources using the filter:
Device ID
Device Type
12345
TestDeviceType
Next
Type here to search
30°C Sunny
ENG
12:23
25-10-2022

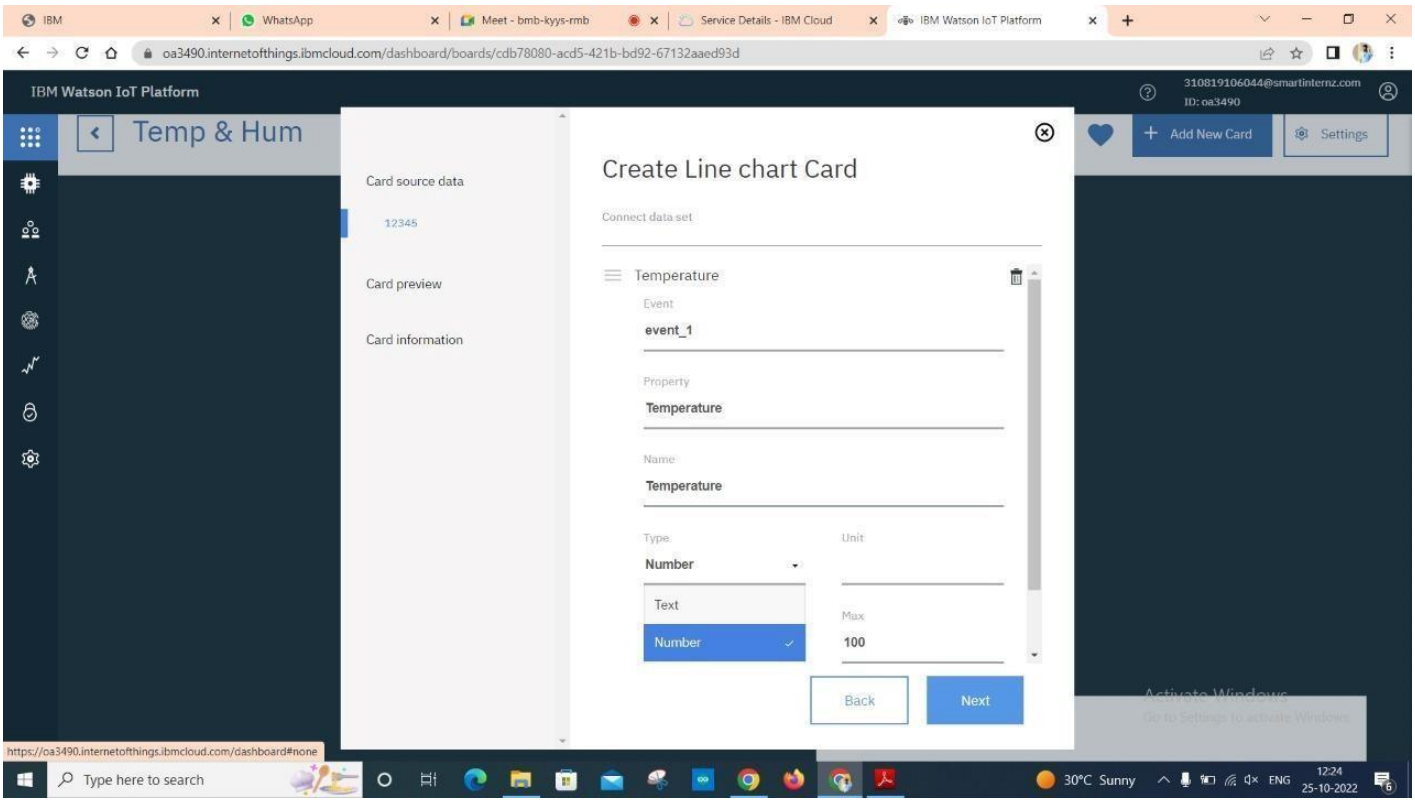
Step

Step 35: Click on Connect new data set.

36: Fill the details to get Temperature graph.



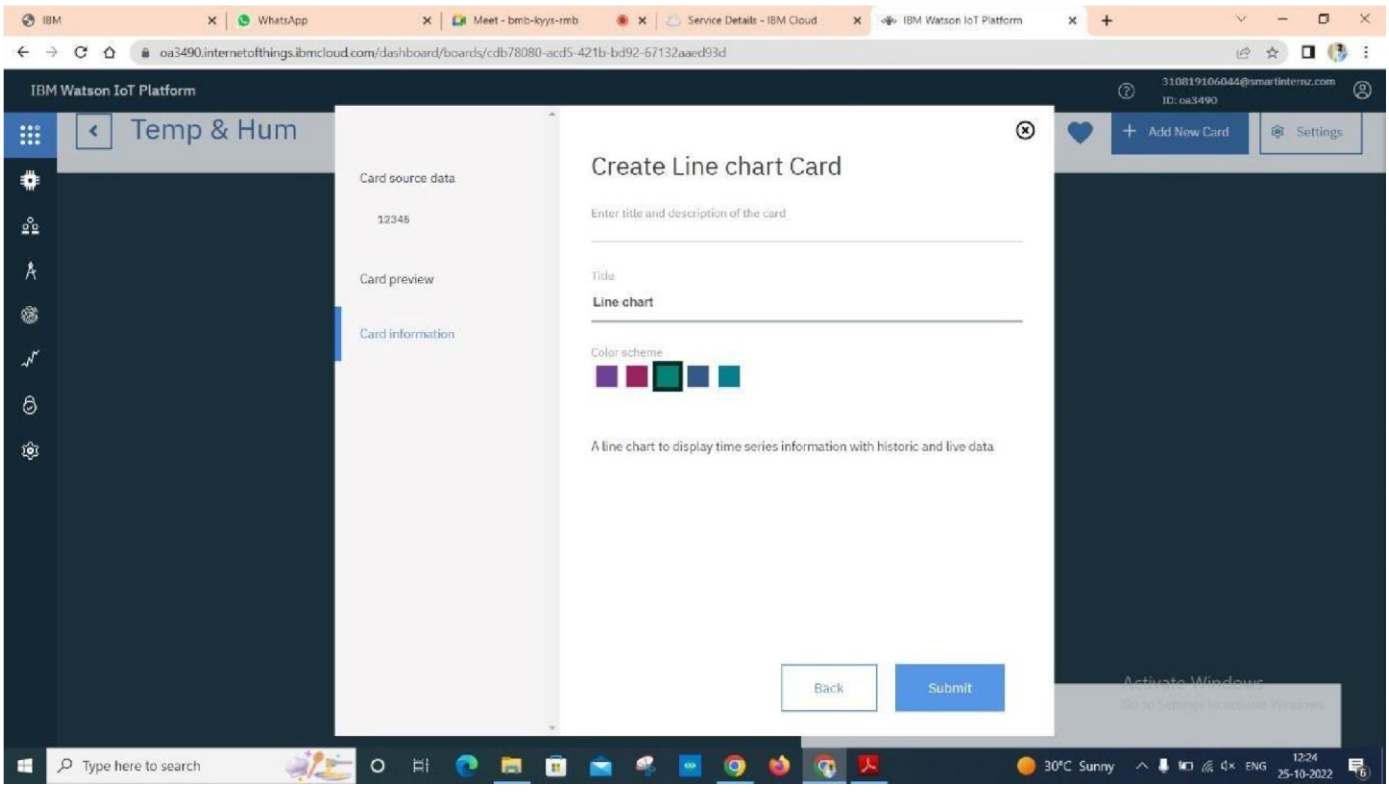
Step


IBM Watson IoT Platform
Temp & Hum
Add New Card
Settings
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
Text
Number
Max
100
Back
Next
Type here to search
30°C Sunny
ENG
12:24
25-10-2022

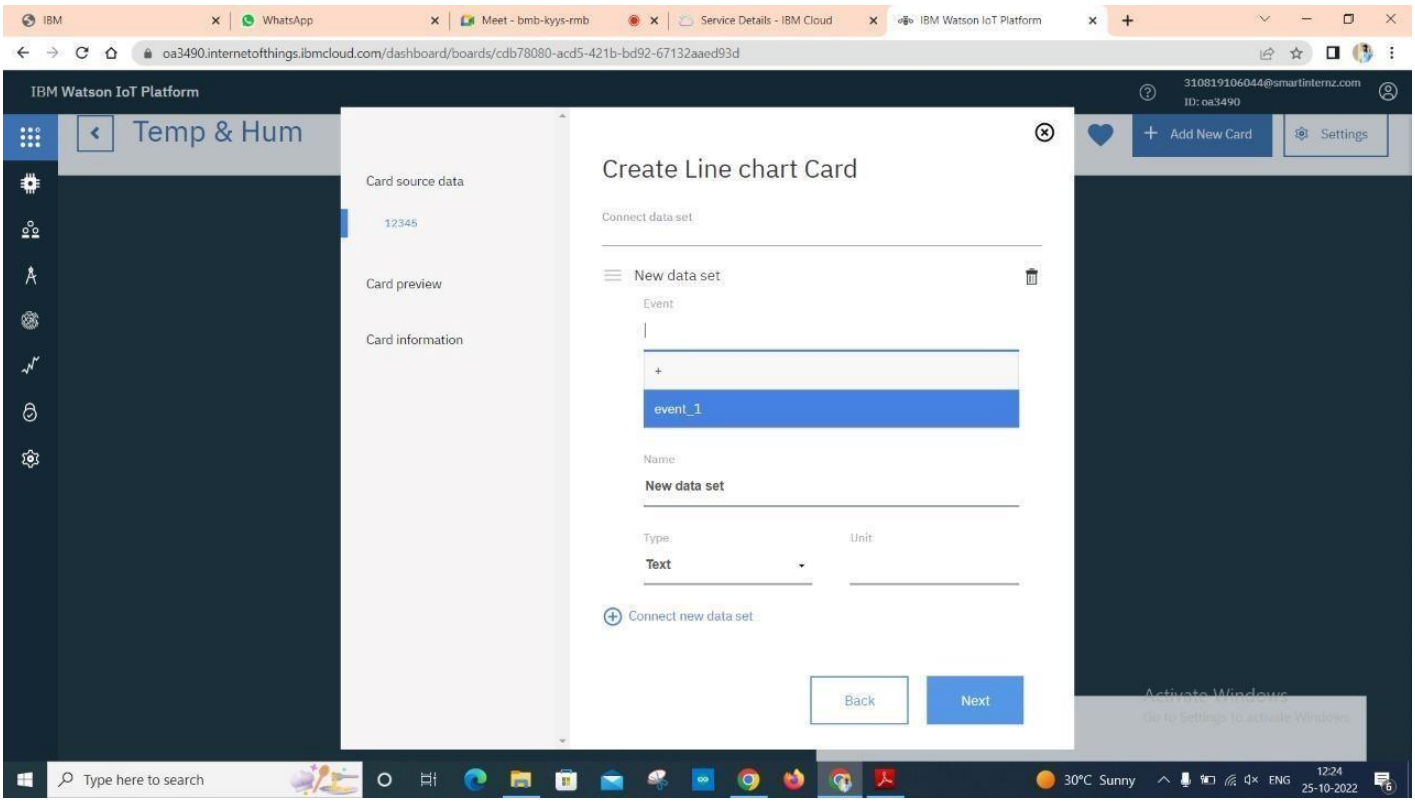
Step

Step 37: Choose the Colour.

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

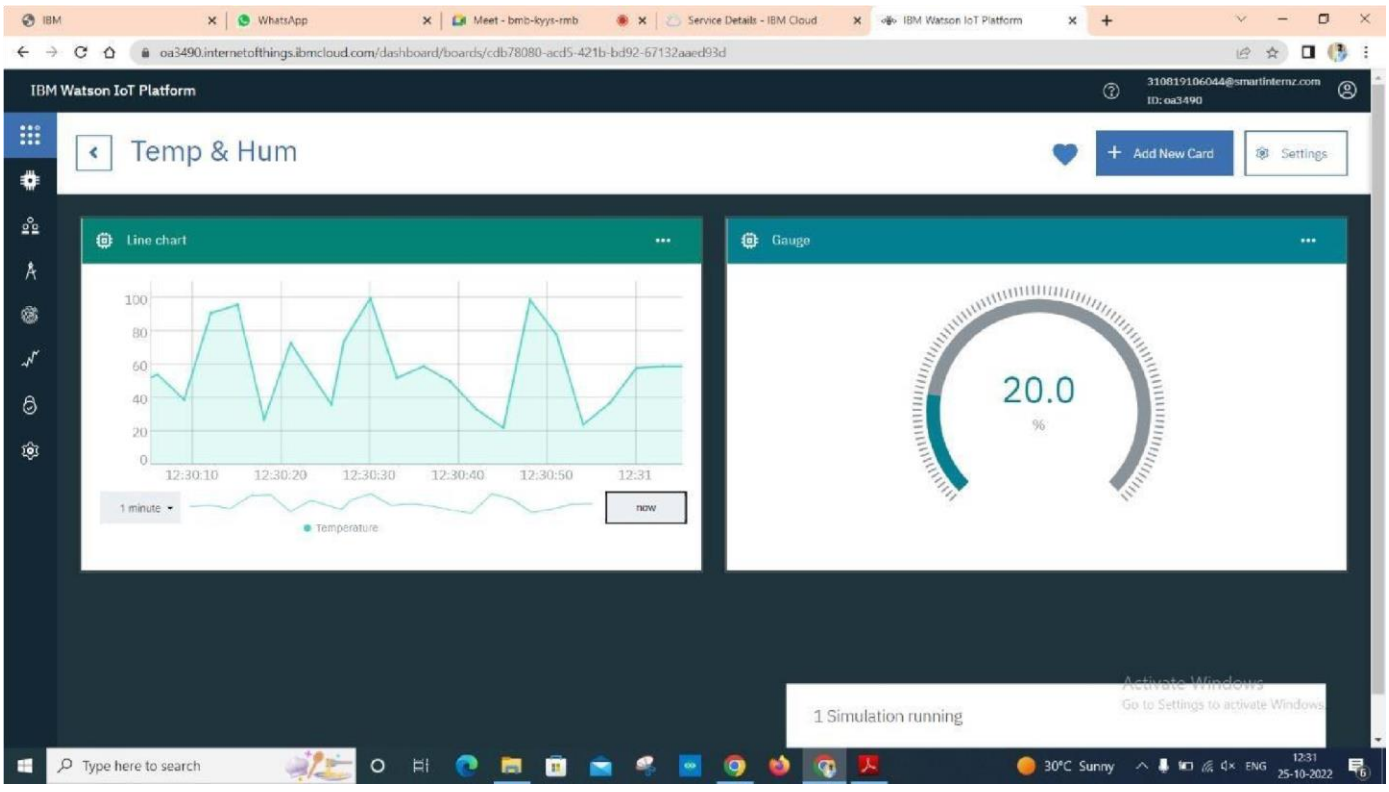


Step


IBM Watson IoT Platform
Temp & Hum
Add New Card
Settings
Card source data
12345
Card preview
Card information
Create Line chart Card
Connect data set
New data set
Event
event_1
Name
New data set
Type
Text
Unit
Connect new data set
Back
Next
Type here to search
30°C Sunny
ENG
12:24
25-10-2022

Step

Step 39: Here is the Final graph.



Result:

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