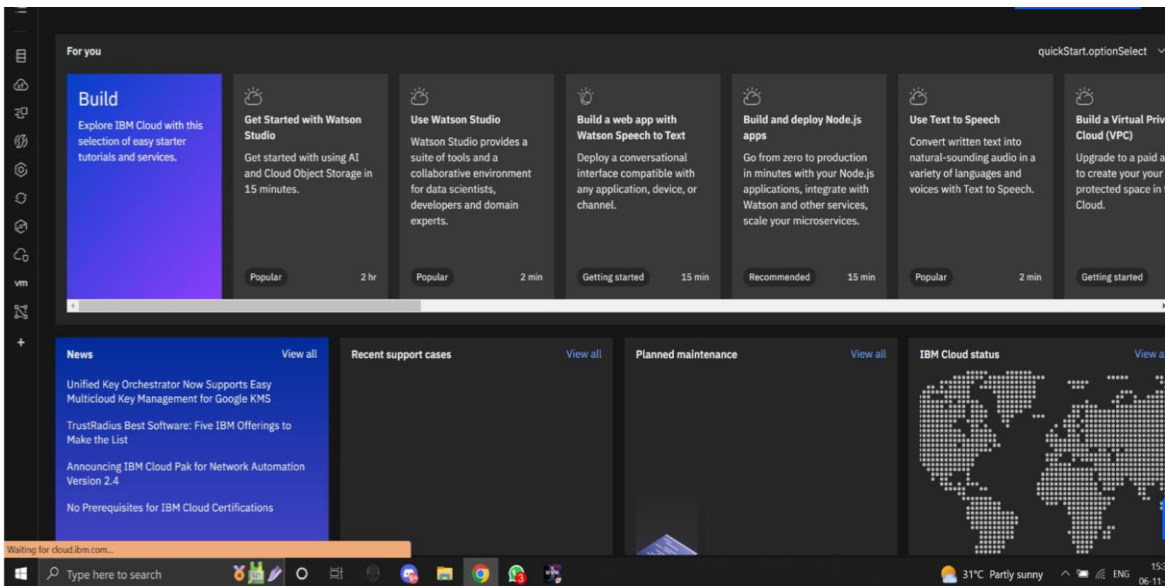


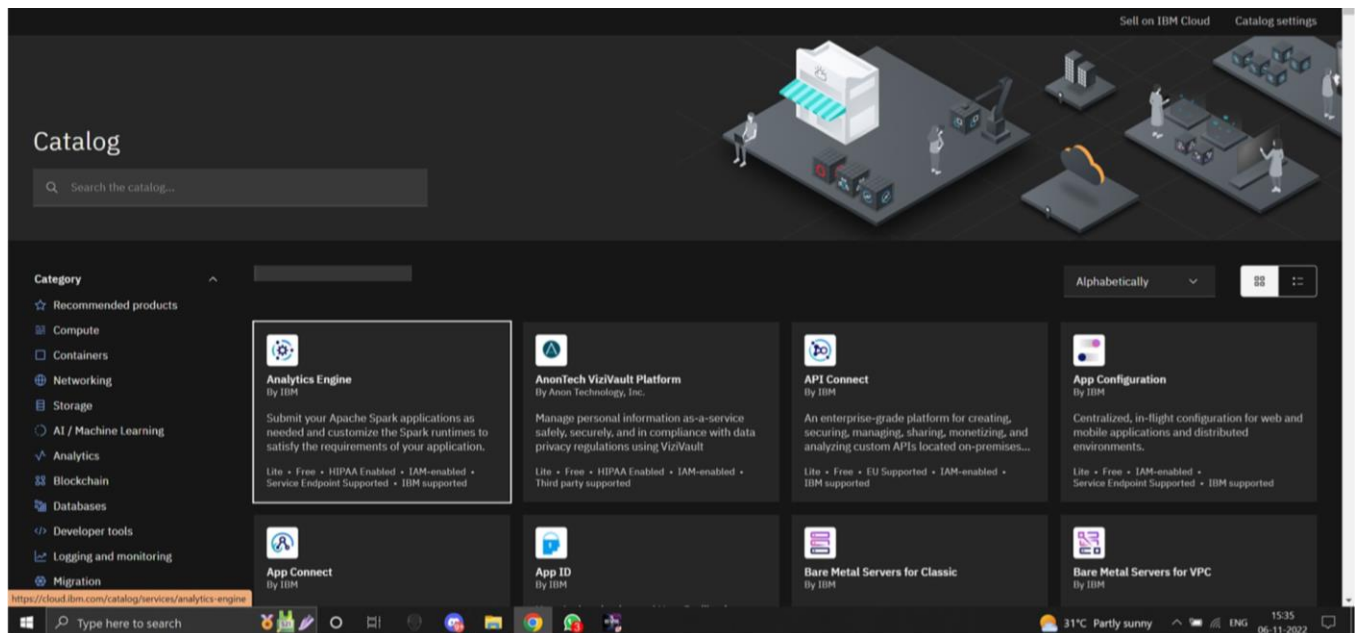
SCreate IBM Watson IoT Platform

Date	25 October 2022
Team ID	PNT2022TMID20124
Project Name	Smart Farmer - IoT Enabled Smart Farming Application

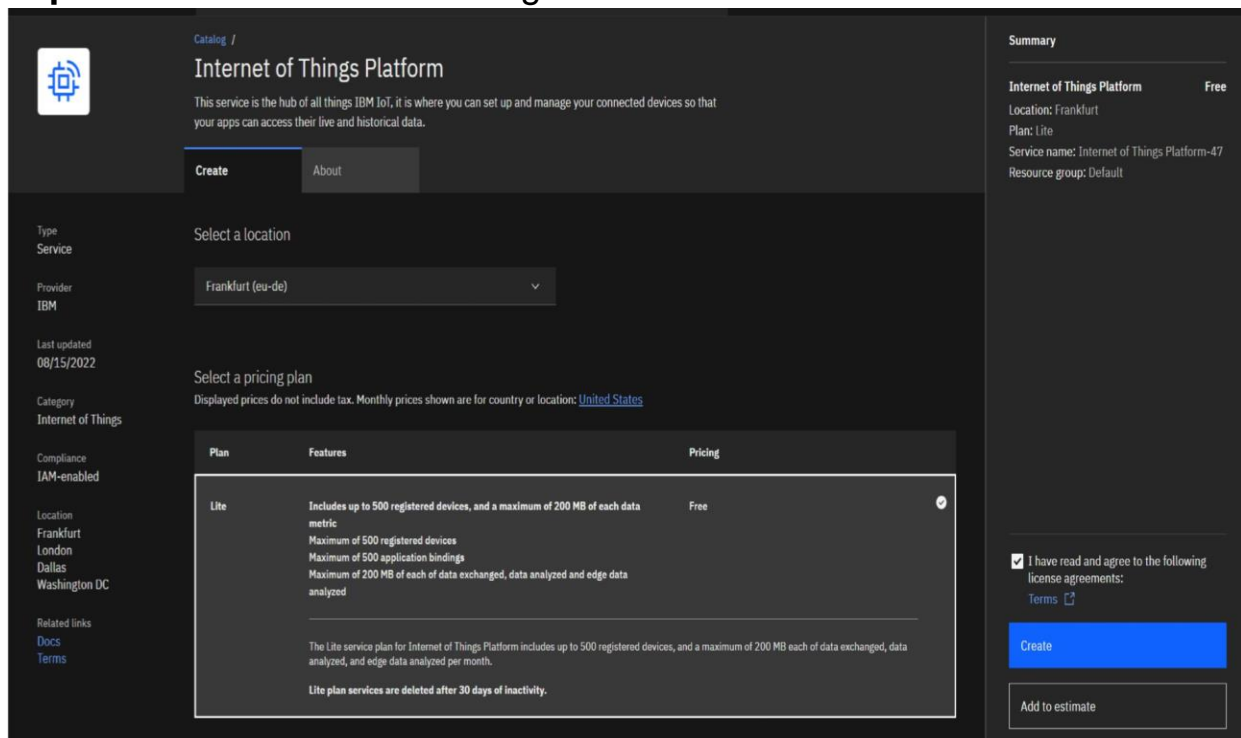
Step1 : Homepage of IBMcloud.



Step 2: Click on the catalog on the top.



Step 3: Click on Internet of Things Platform.



Step 4: Click on the launch button.

Resource list /

Internet of Things Smart Farming


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?

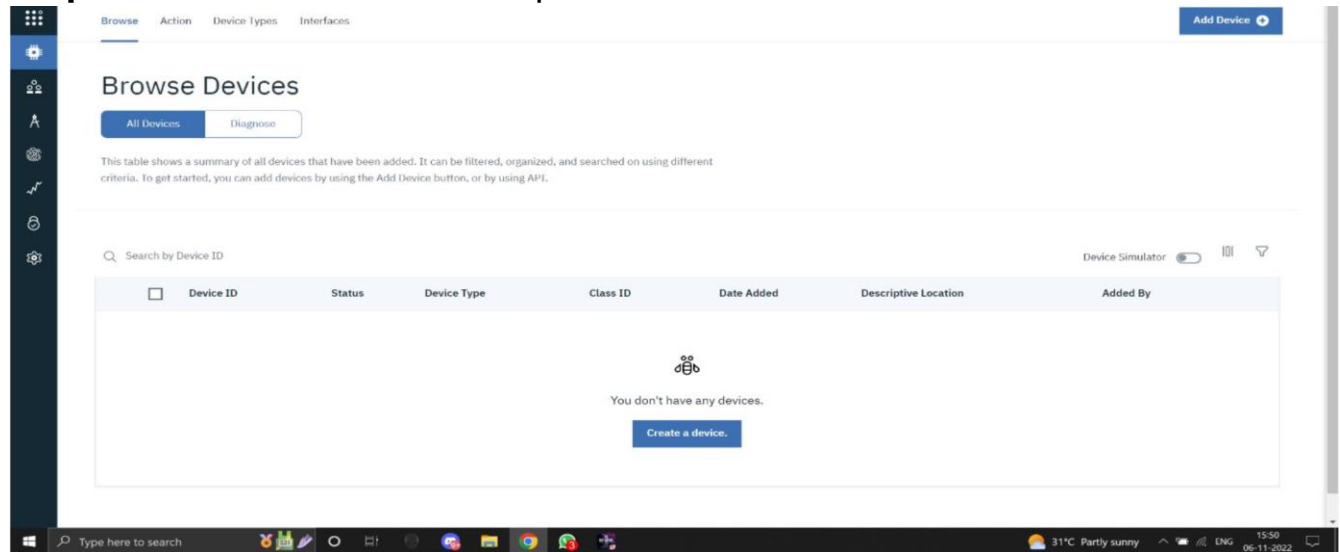
IBM Watson IoT Platform Journey

Lite	Non-Production	Production
<p>The Lite service plan provides a lightweight development environment to get you started with the connectivity capabilities of Watson IoT Platform.</p> <ul style="list-style-type: none">Free200 MB data-transfer limit500 application bindings limit500 registered devices limit	<p>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.</p> <ul style="list-style-type: none">Starts at \$500 per monthCapacity limit based on device typeOptional Analytics Service and Blockchain Service add-ons	<p>The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.</p> <ul style="list-style-type: none">Includes IBM Service & SupportPricing based on number of devices per device typeOptional Analytics Service and Blockchain Service add-ons

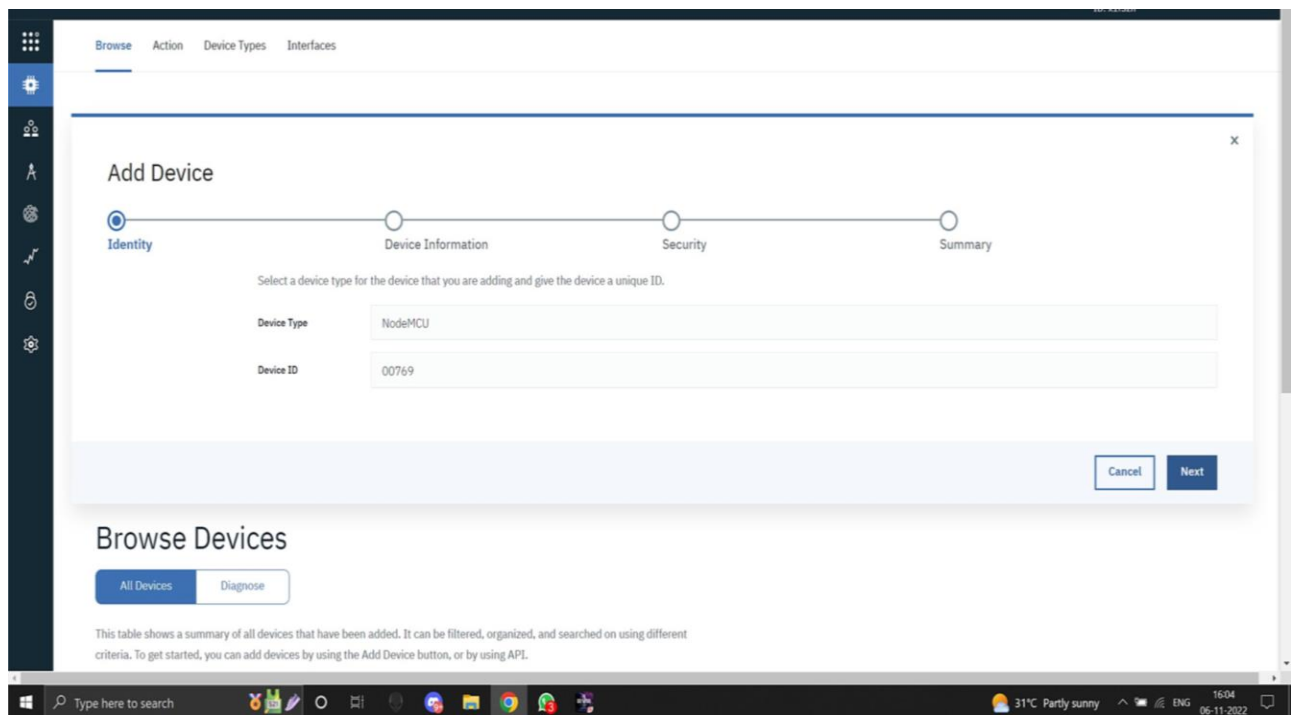
Type here to search

31°C Partly sunny 15:39 06-11-2022

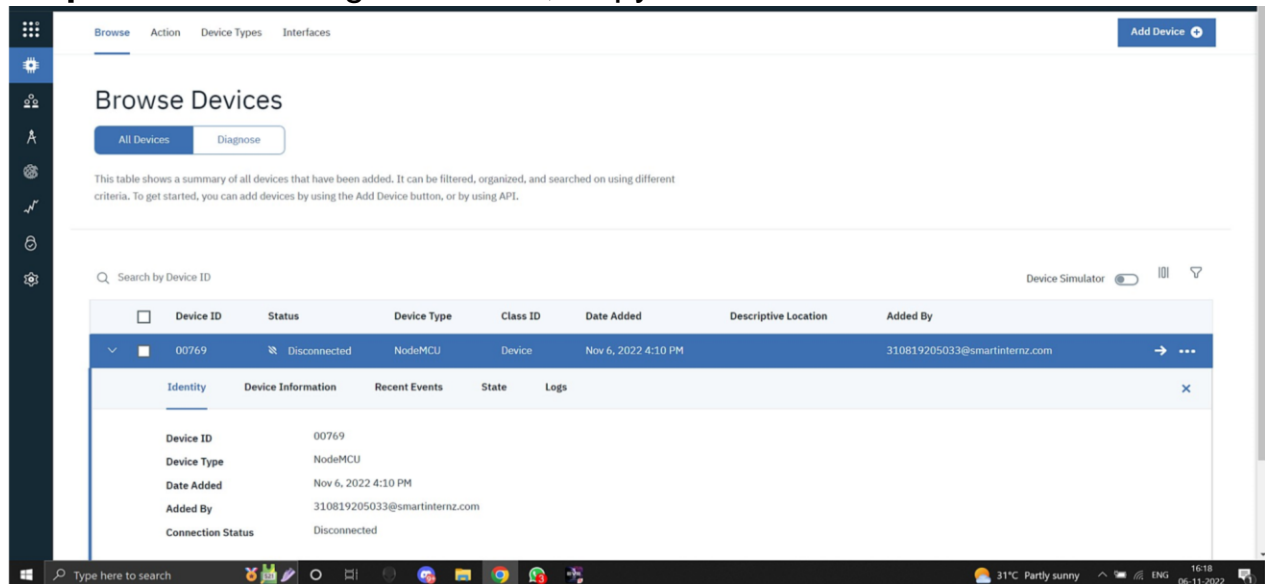
Step 5: This is the IBM Watson platform



Step 6: Click on Device Type.



Step 7: After creating the device, Copy the Device Credentials.

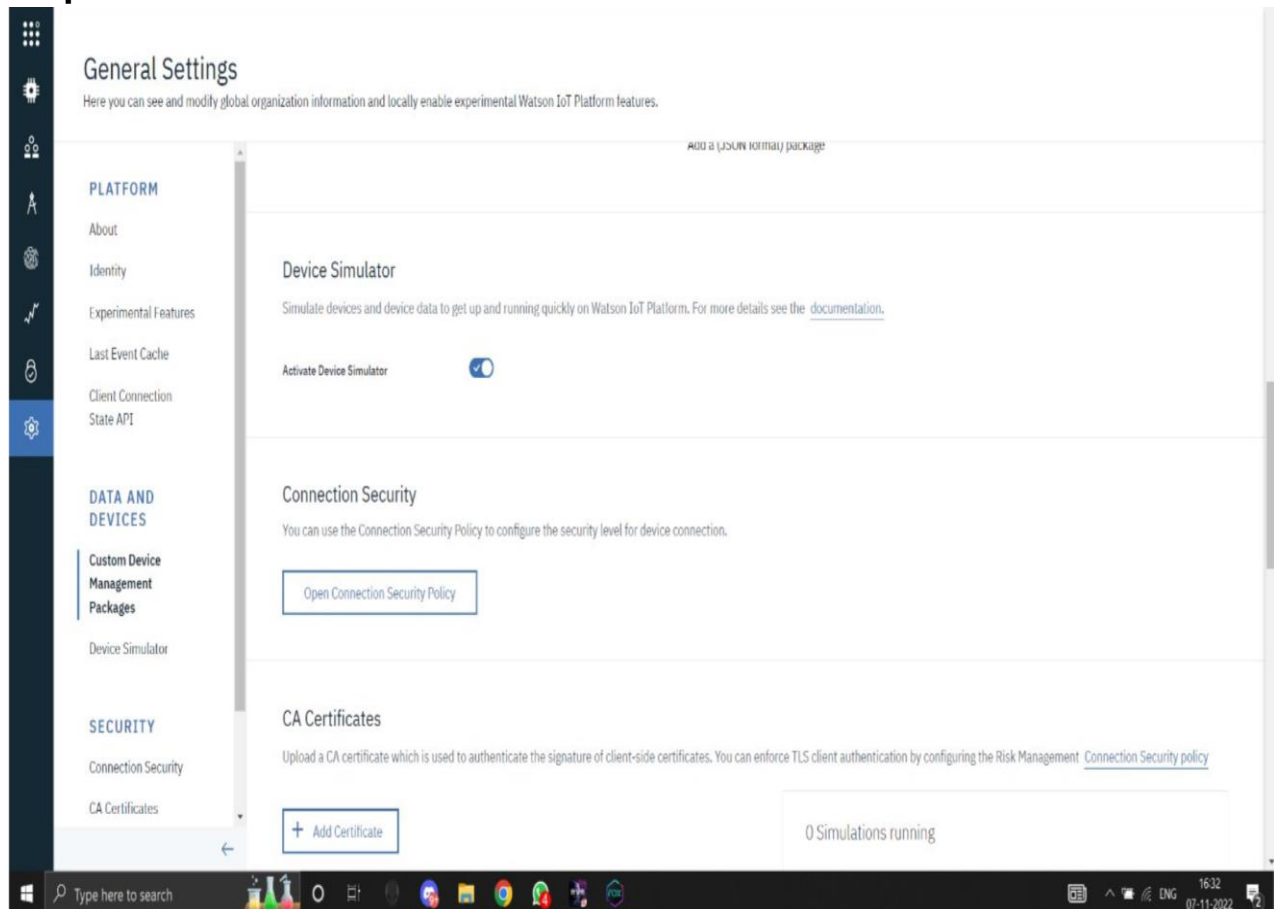


The screenshot shows the 'Browse Devices' interface. At the top, there's a navigation bar with 'Browse', 'Action', 'Device Types', and 'Interfaces'. A 'Browse Devices' title is followed by 'All Devices' and 'Diagnose' buttons. Below this, a text block explains that the table shows a summary of all devices. A search bar 'Search by Device ID' is on the right. The main table has columns: Device ID, Status, Device Type, Class ID, Date Added, Descriptive Location, and Added By. One device is listed with ID '00769', status 'Disconnected', type 'NodeMCU', and class 'Device'. A modal window is open showing details for this device: Device ID (00769), Device Type (NodeMCU), Date Added (Nov 6, 2022 4:10 PM), Added By (310819205033@smartinternz.com), and Connection Status (Disconnected).

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
00769	Disconnected	NodeMCU	Device	Nov 6, 2022 4:10 PM		310819205033@smartinternz.com

Identity	Device Information	Recent Events	State	Logs
Device ID	00769			
Device Type	NodeMCU			
Date Added	Nov 6, 2022 4:10 PM			
Added By	310819205033@smartinternz.com			
Connection Status	Disconnected			

Step 8: Then click on Device Simulator and Activate Device Simulator.



The screenshot shows the 'General Settings' page. The left sidebar has sections: PLATFORM, DATA AND DEVICES, and SECURITY. Under PLATFORM, 'Device Simulator' is selected. The main content area shows 'Device Simulator' settings. There's a description: 'Simulate devices and device data to get up and running quickly on Watson IoT Platform. For more details see the [documentation](#).' Below this is a toggle switch labeled 'Activate Device Simulator' which is currently turned on. Further down is the 'Connection Security' section with a description and an 'Open Connection Security Policy' button. At the bottom is the 'CA Certificates' section with a description and an 'Add Certificate' button. A status box at the bottom right says '0 Simulations running'.

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

- Connection Security
- CA Certificates

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](#)

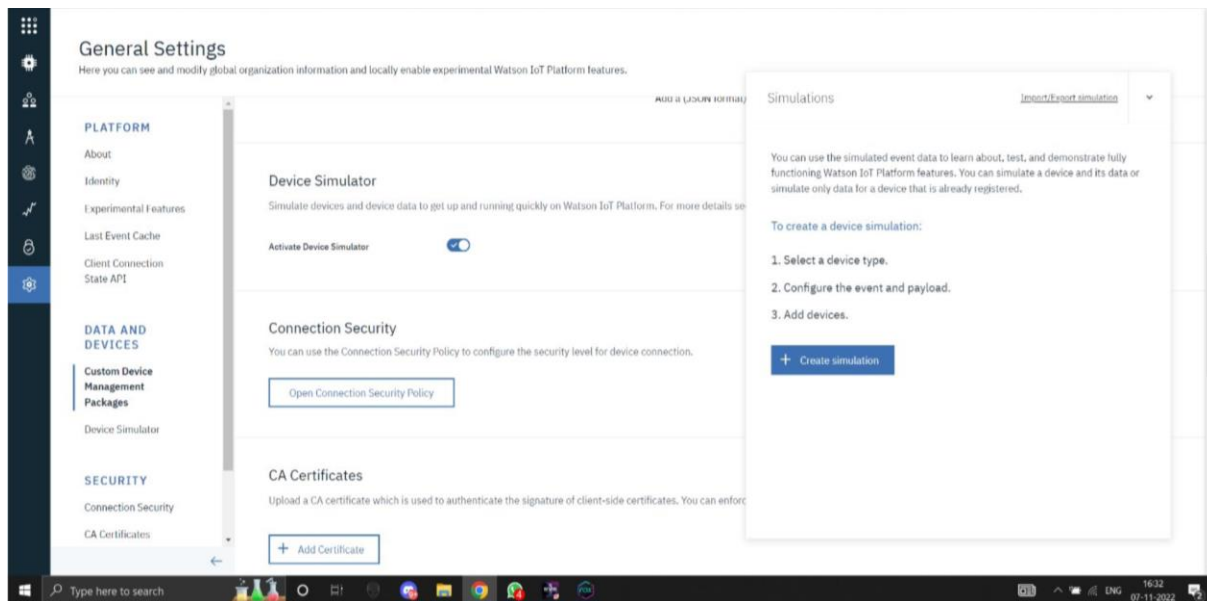
CA Certificates

Upload a CA certificate which is used to authenticate the signature of client-side certificates. You can enforce TLS client authentication by configuring the Risk Management [Connection Security policy](#)

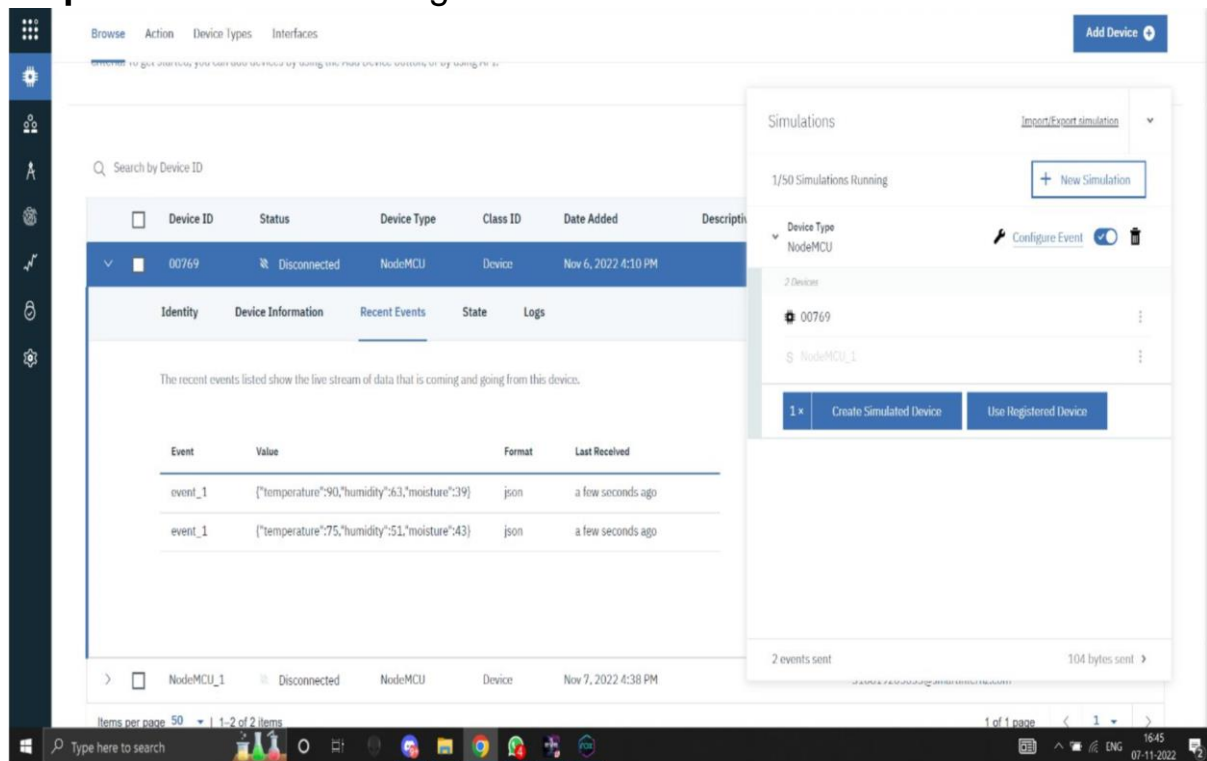
[+ Add Certificate](#)

0 Simulations running

Step 9: Click on the pop-up screen on the right side



Step 10: Click on Use Registered Device and choose the device and run it.



Step 11: Go to devices then click on devices and check the recent events whether the code is running or not.

The screenshot shows the IoT Dashboard interface. On the left, a sidebar contains navigation icons. The main area displays a table of devices. The first device, '00769', is selected, and its details are shown in a modal window. The modal includes a 'Recent Events' tab, a 'Send' button, and a 'Payload' editor. The payload editor shows a JSON object with three fields: 'temperature', 'humidity', and 'moisture', each with a 'random(0, 100)' function. The 'Send' button is highlighted.

Device ID	Status	Device Type	Class ID	Date Added	Description
00769	Disconnected	NodeMCU	Device	Nov 6, 2022 4:10 PM	
NodeMCU_1	Disconnected	NodeMCU	Device	Nov 7, 2022 4:38 PM	

Items per page: 50 | 1-2 of 2 items

Step 12: Go to Board and click on + Create New Board, fill the details and create a board.

The screenshot shows the IoT Dashboard interface. The main area displays a 'Usage Overview' card with '3 Cards' and a 'Risk and Security Overview' card with '4 Cards'. A large dashed box with a '+' sign is visible, indicating the 'Create New Board' button. The bottom right corner shows a status bar with '1 Simulation running'.

Usage Overview: 3 Cards Owned by you

Risk and Security Overview: 4 Cards Owned by you

Boards shared with you

1 Simulation running

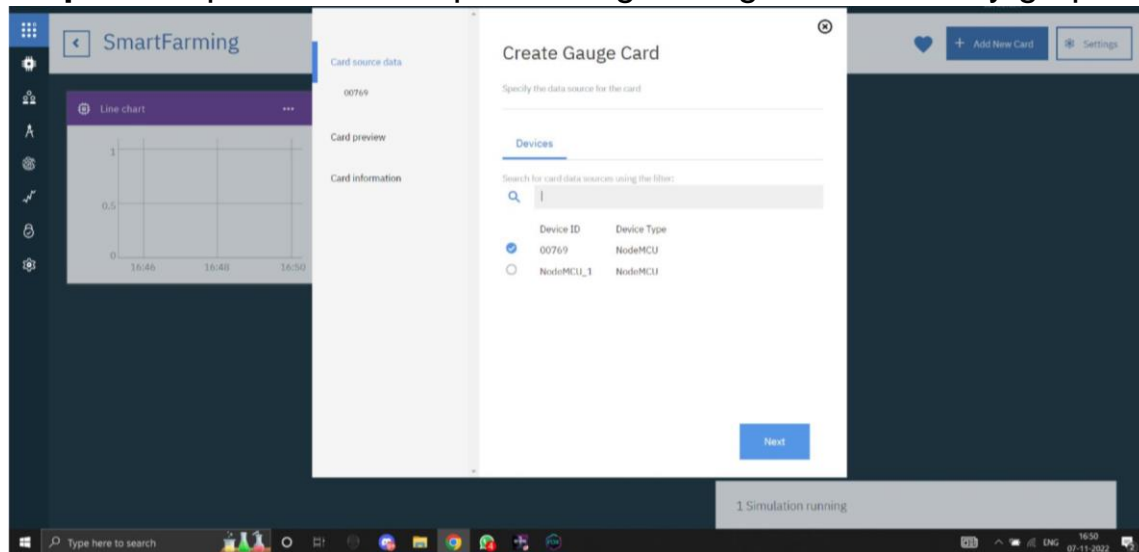
Step 13: Fill the details to get Temperature graph.

The screenshot shows the 'Create Line chart Card' form in the SmartFarming application. The left sidebar has three tabs: 'Card source data' (selected), 'Card preview', and 'Card information'. The 'Card source data' tab shows a data source ID of '00769'. The main form area is titled 'Create Line chart Card' and has a 'Connect data set' section. Below this, there are fields for 'Event' (labeled 'Event 1'), 'Property' (labeled 'temperature'), and 'Name' (labeled 'temperature'). There are also fields for 'Type' (set to 'Number') and 'Unit' (empty). At the bottom, there are 'Min' (0) and 'Max' (100) fields. 'Back' and 'Next' buttons are at the bottom right. A status bar at the bottom right says '1 Simulation running'. The Windows taskbar is visible at the bottom.

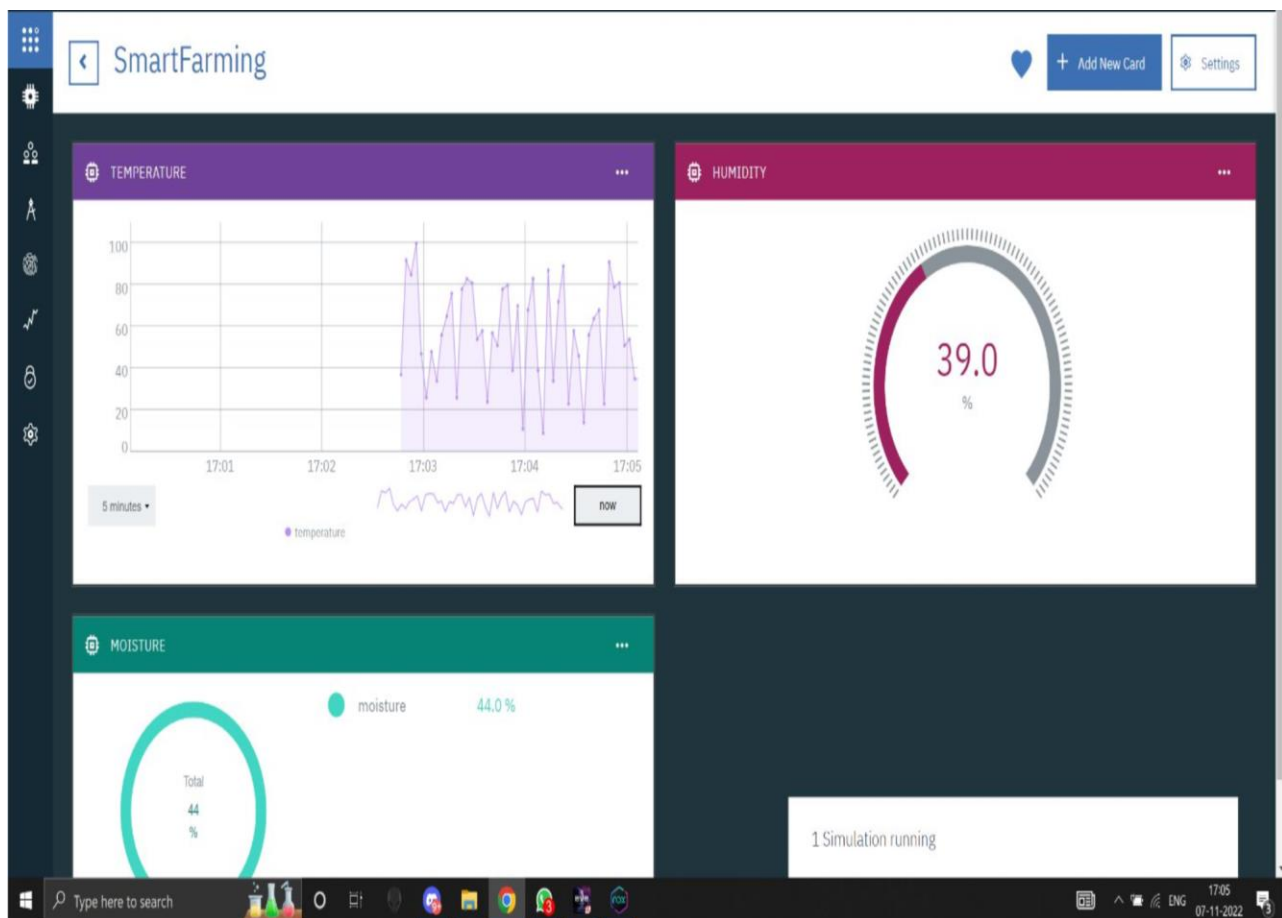
Step 14: Select the Color from the given option.

The screenshot shows the 'Create Line chart Card' form in the SmartFarming application, now at the 'Card information' tab. The left sidebar has three tabs: 'Card source data', 'Card preview', and 'Card information' (selected). The main form area is titled 'Create Line chart Card' and has a 'Enter title and description of the card' section. Below this, there are fields for 'Title' and 'Line chart'. There is a 'Color scheme' section with five color swatches: purple, red, green, blue, and teal. Below the color swatches, there is a description: 'A line chart to display time series information with historic and live data'. 'Back' and 'Submit' buttons are at the bottom right. A status bar at the bottom right says '1 Simulation running'. The Windows taskbar is visible at the bottom.

Step 15: Repeat the same process again to get the Humidity graph and M



Step 16: Here is the Final graph.



Result:

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