

# **CREATE IBM WATSON IOT PLATFORM AND DEVICE CREATE IBM WATSON IOT PLATFORM AND DEVICE**

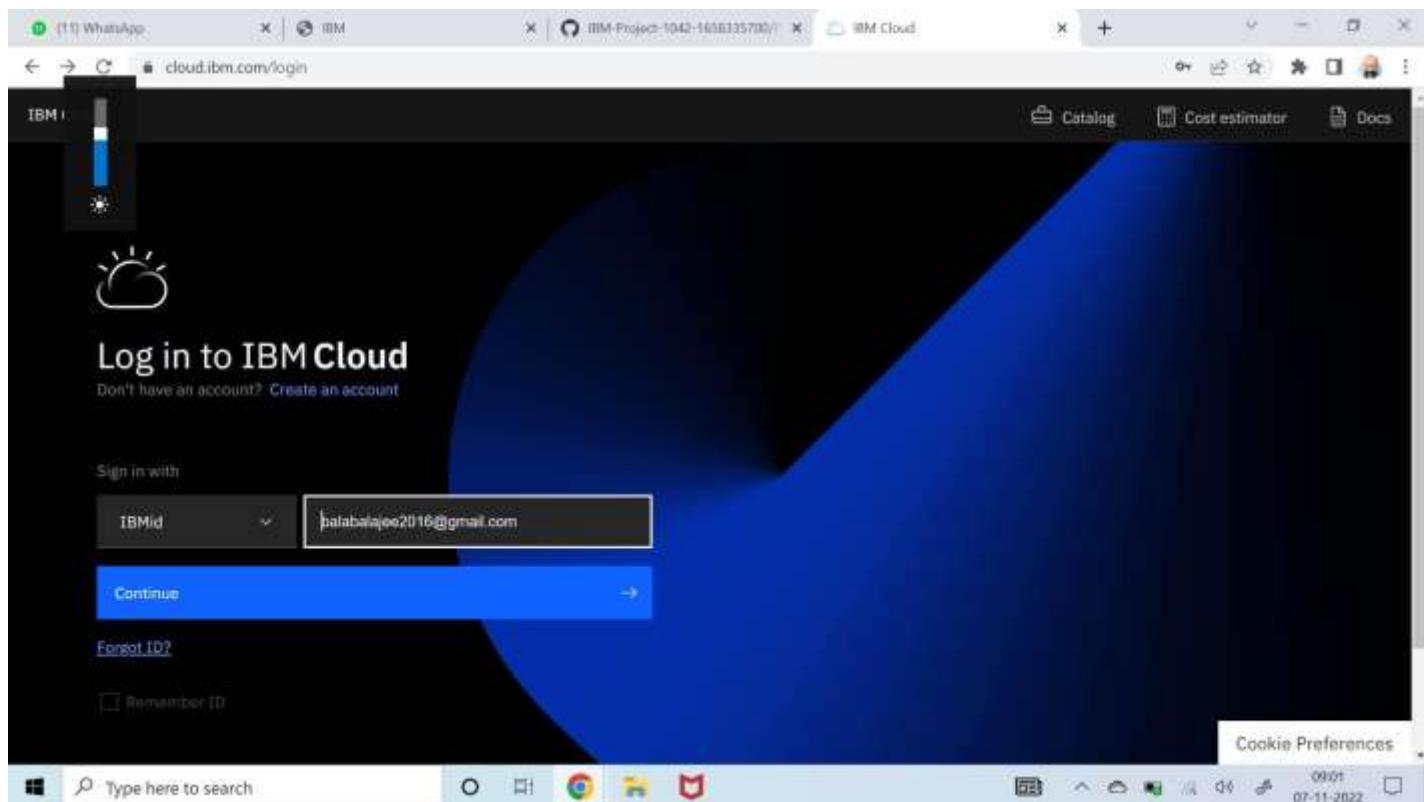
Date	9 November 2022
Team ID	PNT2022TMID53722
Project Name	Smart waste management using IOT in metropolitan cities

## **AIM:**

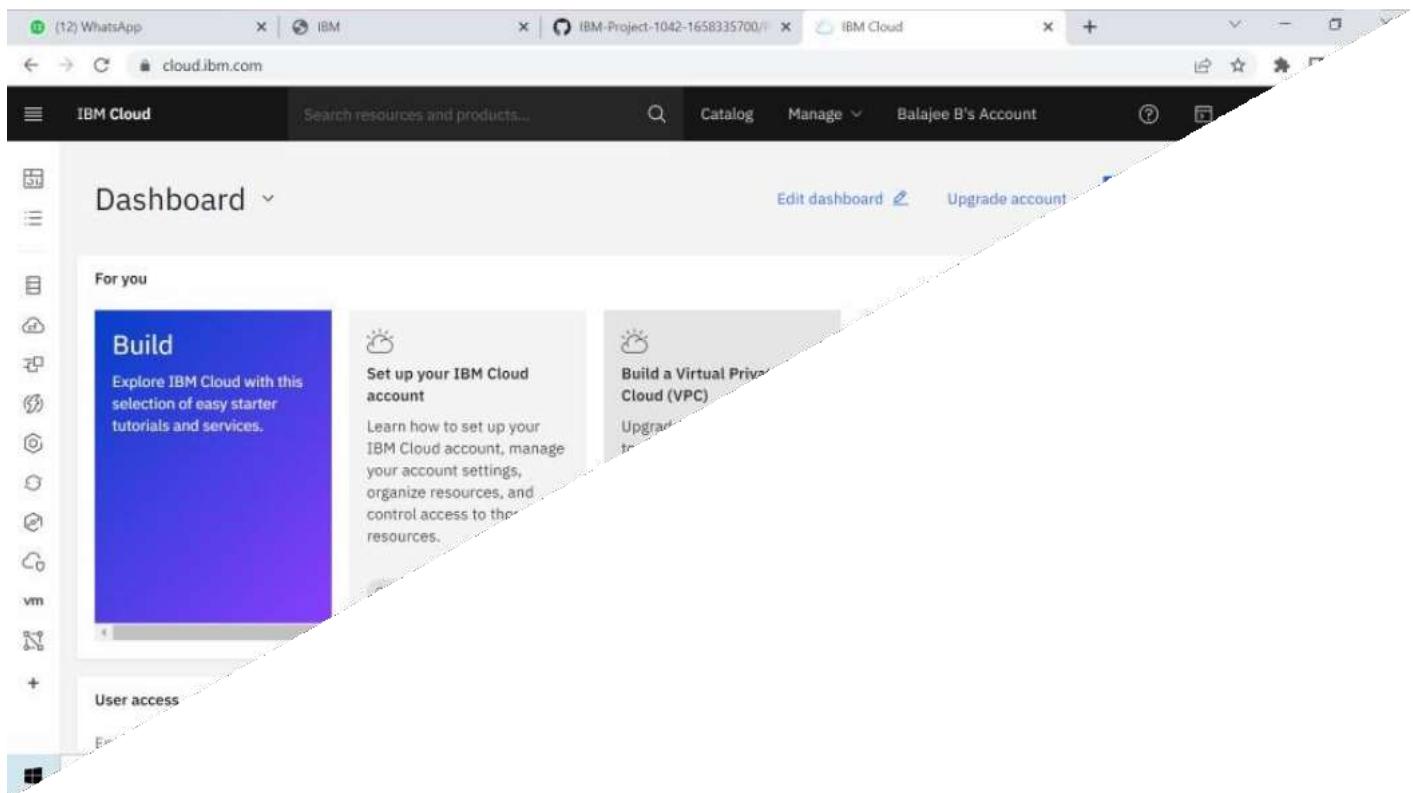
To create the IBM Watson IoT platform and device.

### **Steps to be followed**

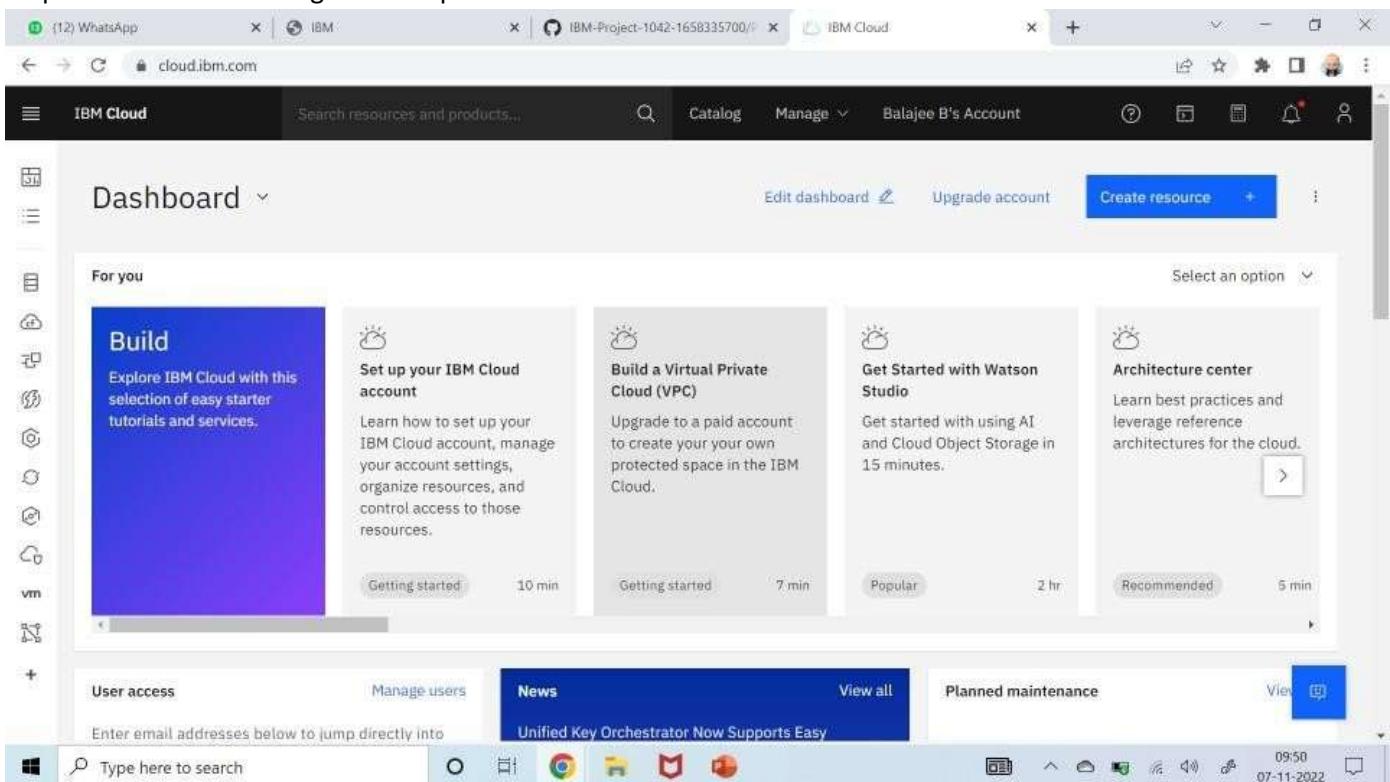
Step 1: Firstly, create an IBM cloud account with IBM id and password.



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.

The screenshot shows the IBM Cloud Catalog interface. On the left, there is a sidebar with various service categories: Containers (9), Networking (30), Storage (20), AI / Machine Learning (17), Analytics (10), Blockchain (1), Databases (28), Developer tools (25), Logging and monitoring (3), Migration (8), Integration (10), Internet of Things (1), Security (25), and Mobile (1). The 'Internet of Things' category is highlighted with a light blue background. In the main content area, there are two service cards displayed. The first card is for 'Analytics Engine' by IBM, which is described as a service for submitting Apache Spark applications. The second card is for 'AnonTech ViziVault Platform' by Anon Technology, Inc., which is described as a platform for managing personal data safely. The top navigation bar includes links for Catalog, Manage, and Balajee B's Account.

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

The screenshot shows the 'Internet of Things Platform' creation page within the IBM Cloud Catalog. The left sidebar shows the service details: Type: Service, Provider: IBM, Last updated: 08/15/2022, Category: Internet of Things, Compliance: IAM-enabled, and Location: Frankfurt (eu-de). The main content area has tabs for 'Create' and 'About', with 'Create' selected. It asks to 'Select a location' and shows 'Frankfurt (eu-de)' as the provider. Below this, it asks to 'Select a pricing plan' and displays a table comparing the 'Lite' plan with other options. The 'Lite' plan includes up to 500 registered devices, a maximum of 200 MB of each data metric, and a maximum of 500 registered devices. The price is listed as 'Free'. To the right, a summary panel shows the service name 'Internet of Things Platform', location 'Frankfurt', plan 'Lite', and resource group 'Default'. It also includes a checkbox for accepting license agreements and a large blue 'Create' button. The bottom of the screen shows the Windows taskbar with various pinned icons.

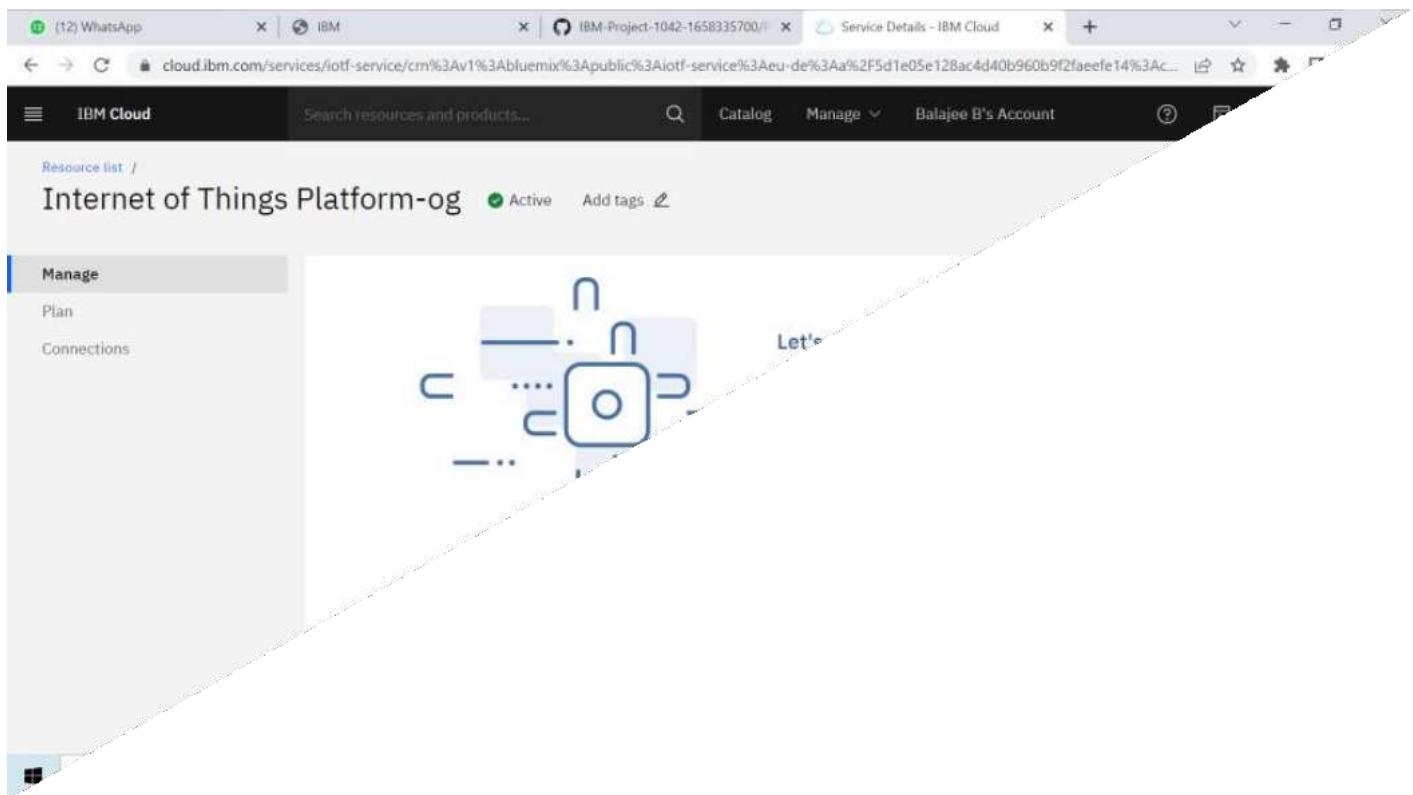
### Step 6: If already a lite is present delete it else u can't create another.

The screenshot shows the IBM Cloud Catalog interface. The main page displays the 'Internet of Things Platform' service. On the left, there's a sidebar with various filters: Type (Service), Provider (IBM), Last updated (08/15/2022), Category (Internet of Things), Compliance (IAM-enabled), and Location (Frankfurt (eu-de)). The main content area shows the service details: Type (Service), Provider (IBM), Last updated (08/15/2022), Category (Internet of Things), Compliance (IAM-enabled), and Location (Frankfurt (eu-de)). Below this, there's a section for 'Select a pricing plan' with a 'Plan' button. At the bottom of the page, there are 'Create' and 'About' buttons.

Step 7: Tick agreements and then click on create.

The screenshot shows the 'Create' step for the 'Internet of Things Platform'. The left sidebar remains the same. The main area shows the service details again. On the right side, there's a summary panel with the service name 'Internet of Things Platform', location 'Frankfurt', plan 'Lite', and resource group 'Default'. Below this, there's a checkbox labeled 'I have read and agree to the following license agreements:' followed by a 'Terms' link and a checked checkbox. At the bottom right, there are 'Create' and 'Add to estimate' buttons.

Step 8: Click on the launch button.

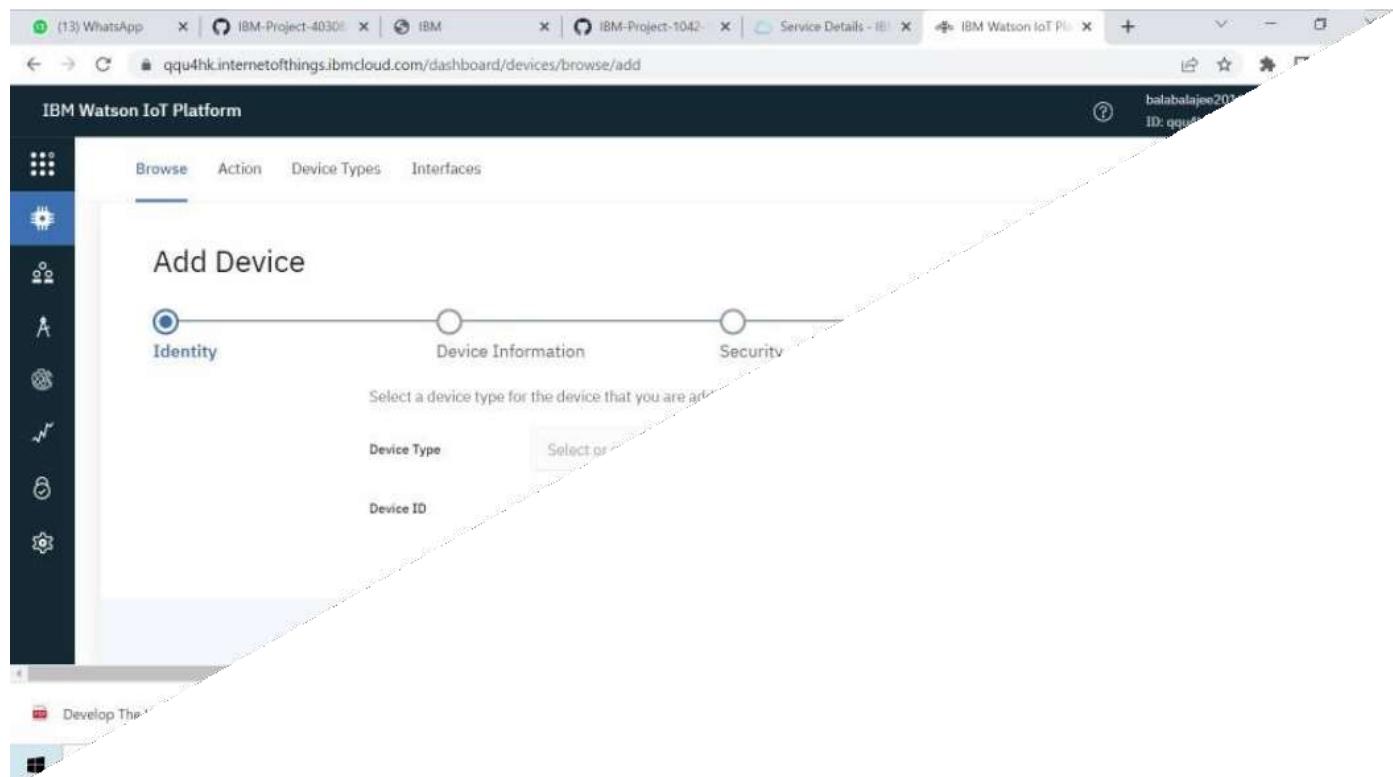


Step 9: This is the IBM Watson platform.

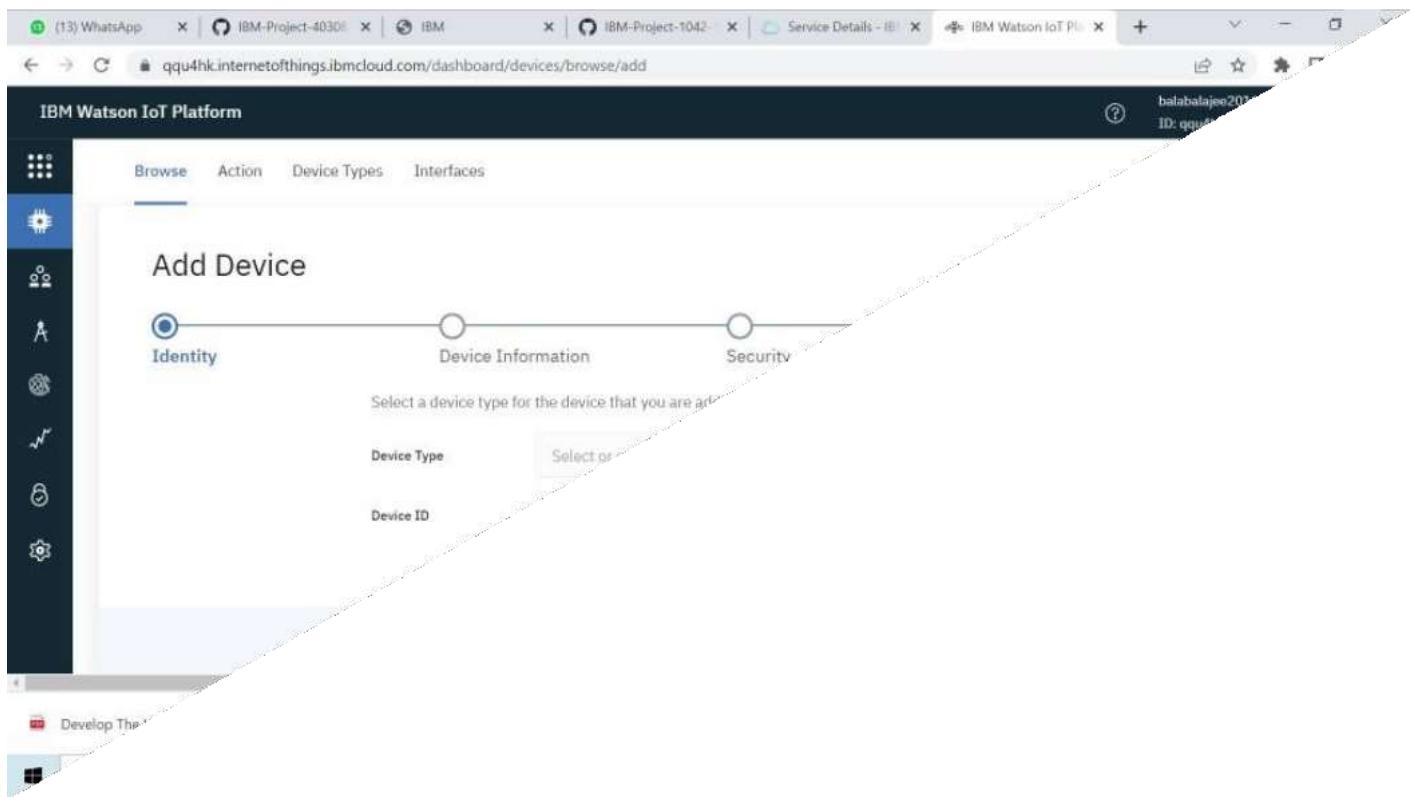
A screenshot of a web browser showing the IBM Watson IoT Platform dashboard. The URL is qqu4hk.internetofthings.ibmcloud.com/dashboard/devices/browse. The page title is "IBM Watson IoT Platform". The main content is titled "BROWSE DEVICES" and includes a search bar, a "Device Simulator" toggle, and a table with columns: Device ID, Status, Device Type, Class ID, and Date Added. The table currently shows one entry: "00000000000000000000000000000000". The browser taskbar at the bottom shows "Develop The Web...pdf", "Dashboard Nodes...pdf", and "Type here to search".

Step 10: Click on Add Device.

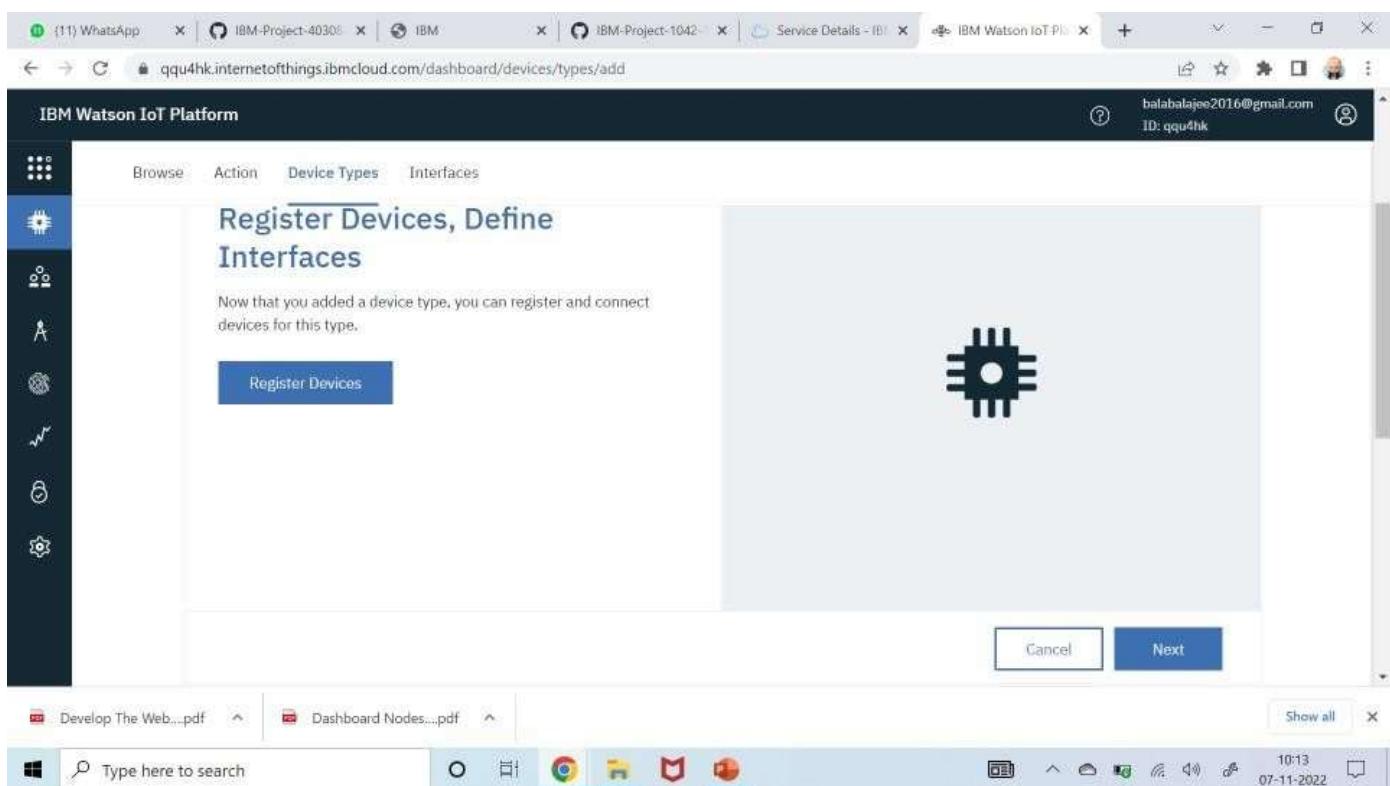
Step 11: Click on Device Type.



Step 12: Fill the details.



Step 13: Click on Register Devices.



Step 14: Give the device name which you have created and give Device ID.

The screenshot shows the IBM Watson IoT Platform dashboard. In the top navigation bar, there are several tabs: WhatsApp, IBM-Project-4030, IBM, IBM-Project-1042, Service Details, and IBM Watson IoT Plat. Below the tabs, the URL is qqu4hk.internetofthings.ibmcloud.com/dashboard/devices/browse/add?type=Fantastic-4. The main content area is titled "IBM Watson IoT Platform" and has a sub-section titled "Browse". The sub-section contains fields for "Device Type" (set to "Fantastic-4") and "Device ID" (set to "12345"). Below these fields, there is a large button labeled "Browse Devices" with two options: "All Devices" (which is highlighted in blue) and "Device Types". On the left side of the screen, there is a vertical sidebar with various icons representing different platform features.

Step 15: After giving all the data, Click on Finish.

This screenshot shows the final step of creating a device. The title bar says "Verify that the following information is correct then select Finish". Below this, it lists the device type as "Fantastic-4" and the device ID as "12345". There is a blue "View Metadata" button. Under "Security Token", it says "To be generated". At the bottom right, there are "Back" and "Finish" buttons. The background shows a "Browse Devices" section with a table header. The taskbar at the bottom includes files "Develop The Web...pdf" and "Dashboard Nodes...pdf", a search bar, and system icons.

Step 16: Go to devices then click on devices and check the recent events whether the code is running or not.

The screenshot shows the IBM Watson IoT Platform interface. At the top, there are several tabs: WhatsApp, IBM-Project-4030, IBM, IBM-Project-1042, Service Details - IBM, IBM Watson IoT Plat, and a new tab. The main content area is titled "IBM Watson IoT Platform" and shows a device detail page for "12345". The device is labeled "Disconnected" and has a name "Fantastic-4". The creation date is "Nov 7, 2022". Below the device details, there are tabs for "Identity", "Device Information", "Recent Events", "State", and "Logs". The "Recent Events" tab is selected, displaying a table with two rows of event data:

Event	Value
event_1	{"type": "Buffer"}
event_1	{"#": 1}
event_1	

At the bottom left, there is a file icon labeled "ibm.csv". On the far right, the user information "balabalajee2016@gmail.com" and "ID: qqu4hk" is visible.

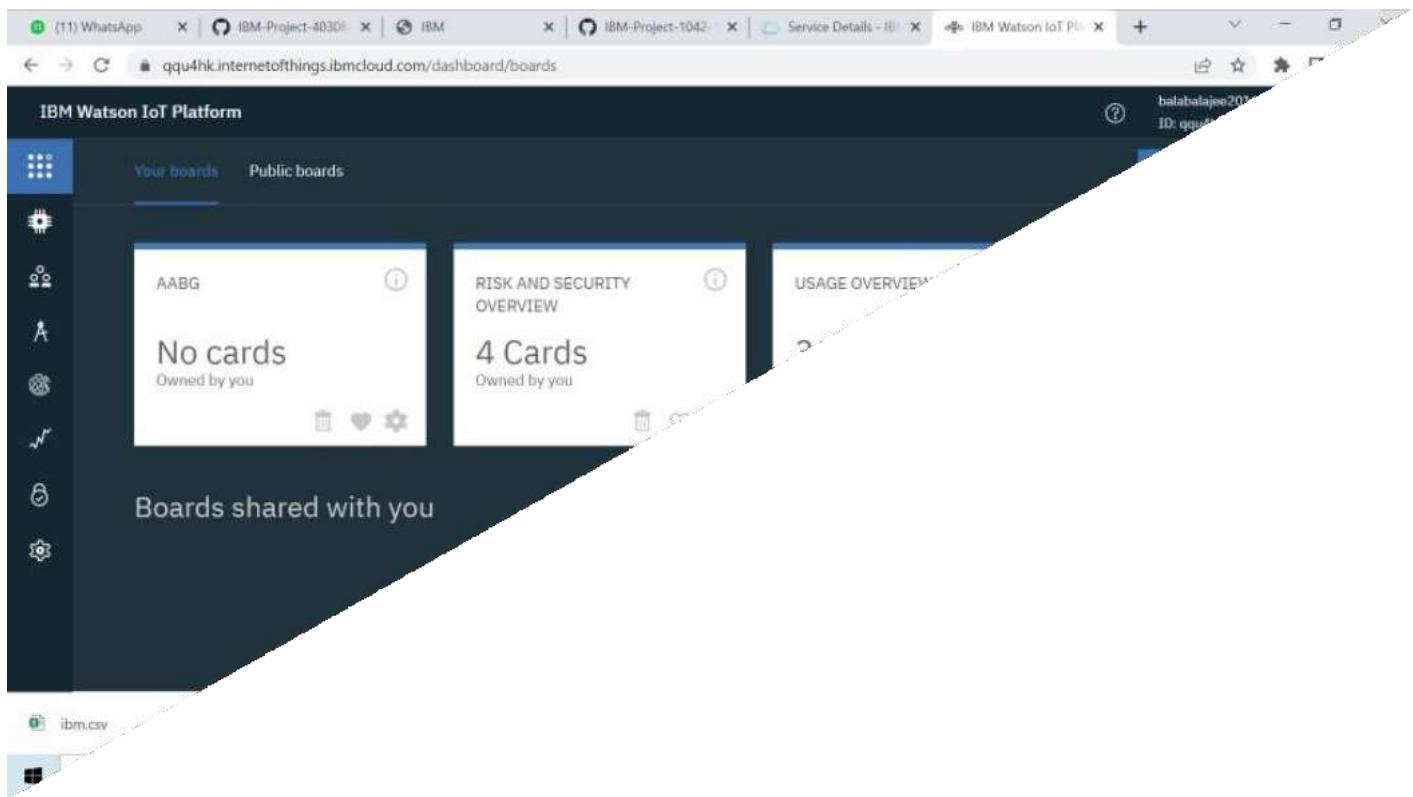
Step 17: Go to Board and click on + Create New Board, fill the details and create a board.

The screenshot shows the "Boards" dashboard of the IBM Watson IoT Platform. At the top, there are tabs for "Your boards" and "Public boards". A blue button on the right says "+ Create New Board". Below these, there are three cards:

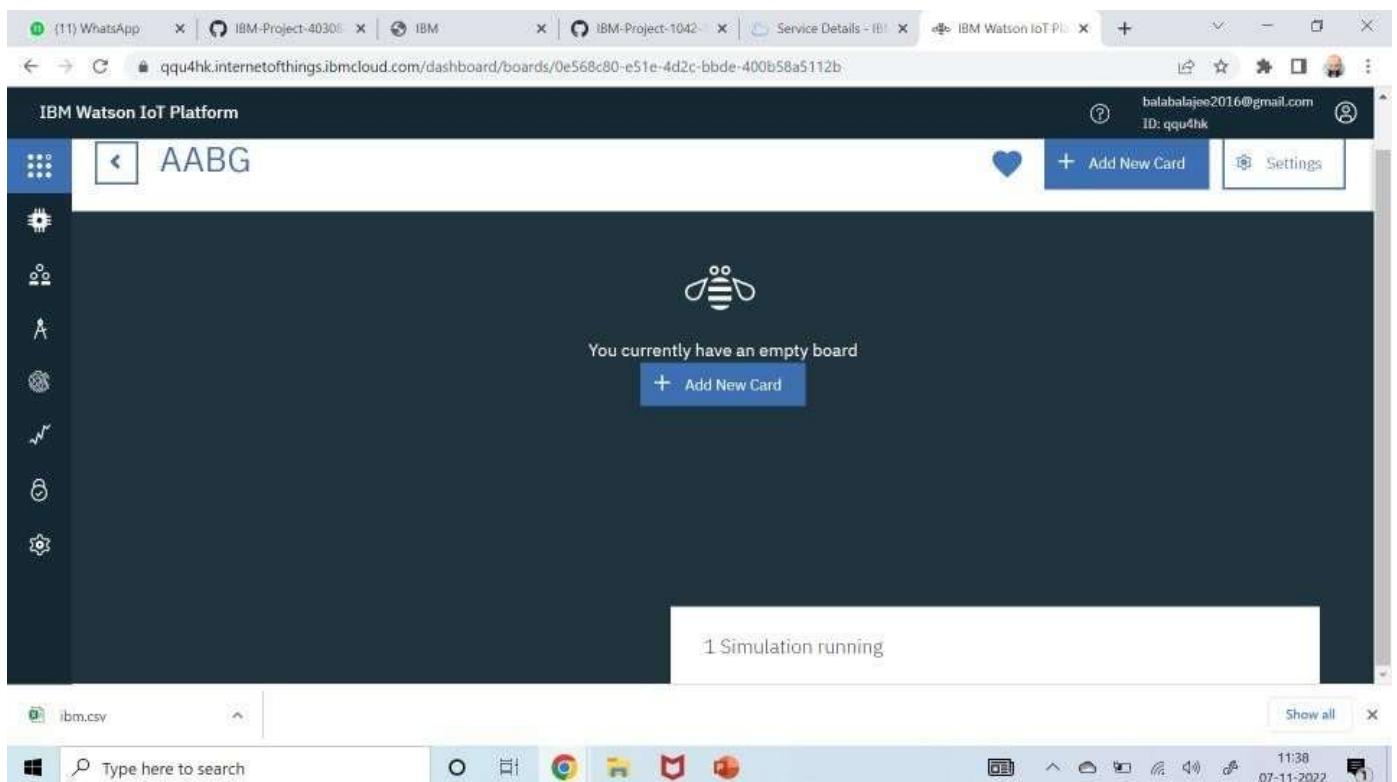
- AABG**: No cards. Owned by you. Buttons for delete, favorite, and settings.
- RISK AND SECURITY OVERVIEW**: 4 Cards. Owned by you. Buttons for delete, favorite, and settings.
- USAGE OVERVIEW**: 3 Cards. Owned by you. Buttons for delete, favorite, and settings.

On the right side, there is a large dashed box with a plus sign, indicating where a new board can be created. Below the boards, it says "Boards shared with you" and "1 Simulation running". At the bottom, there is a search bar and a taskbar with various icons.

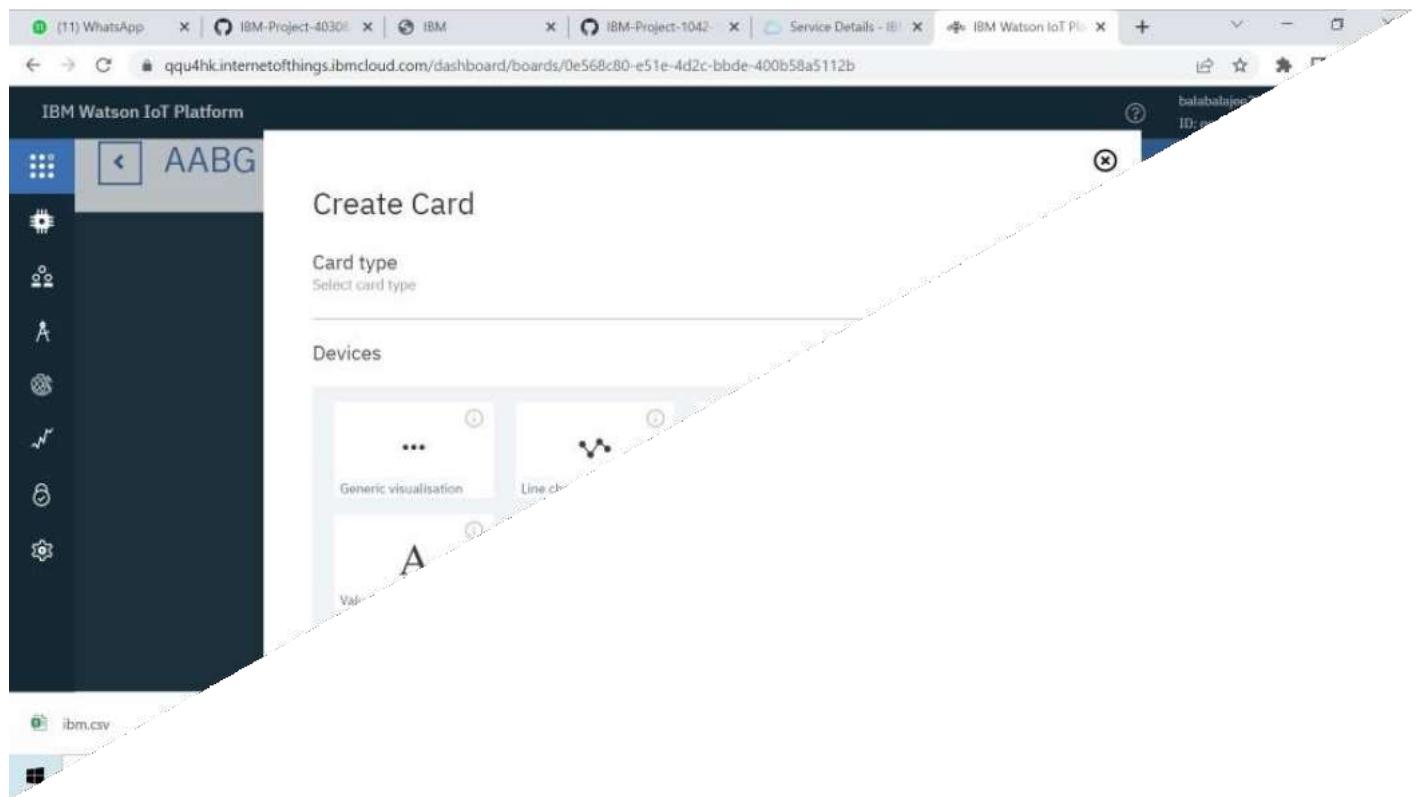
Step 18: Click on the board which is created.



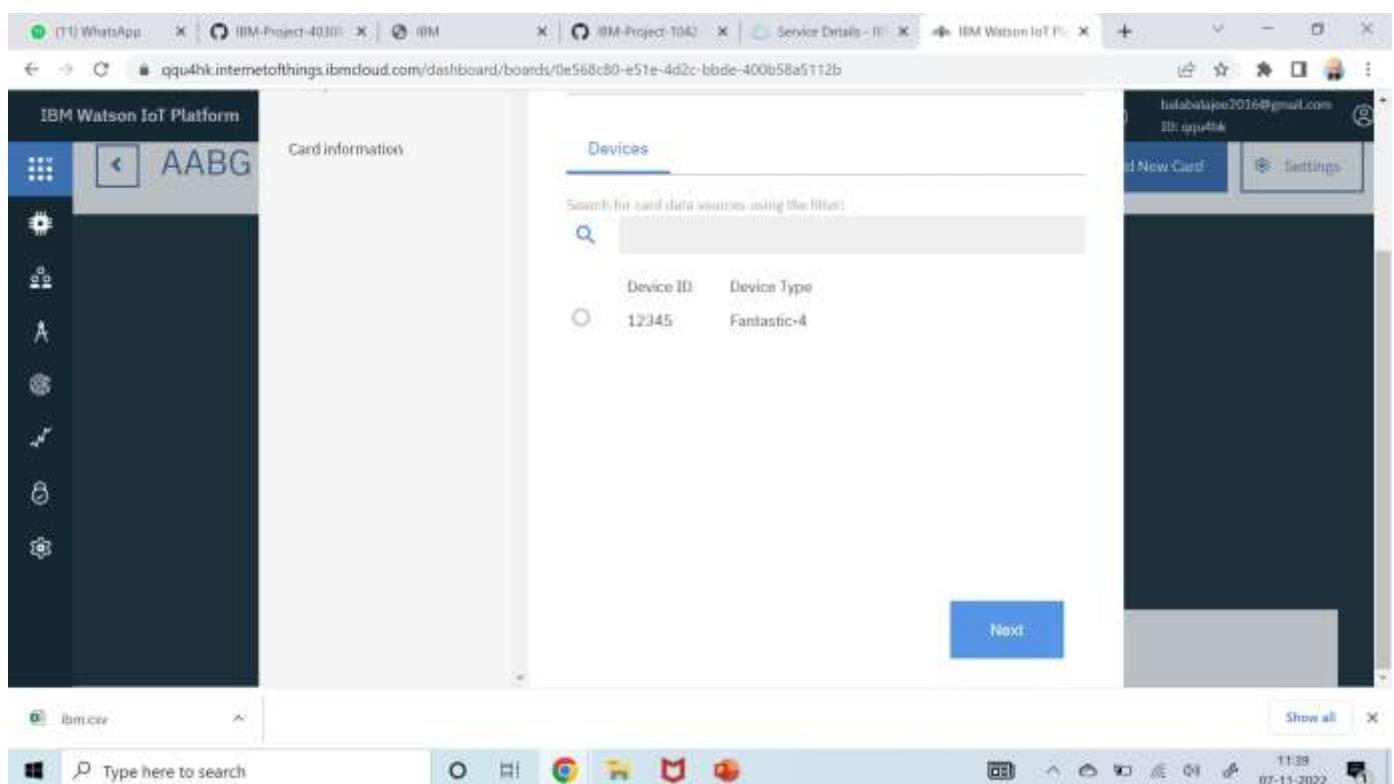
Step 19: Go Add New Card.



Step 20: Choose the Card Type.



Step 21: Choose the device.



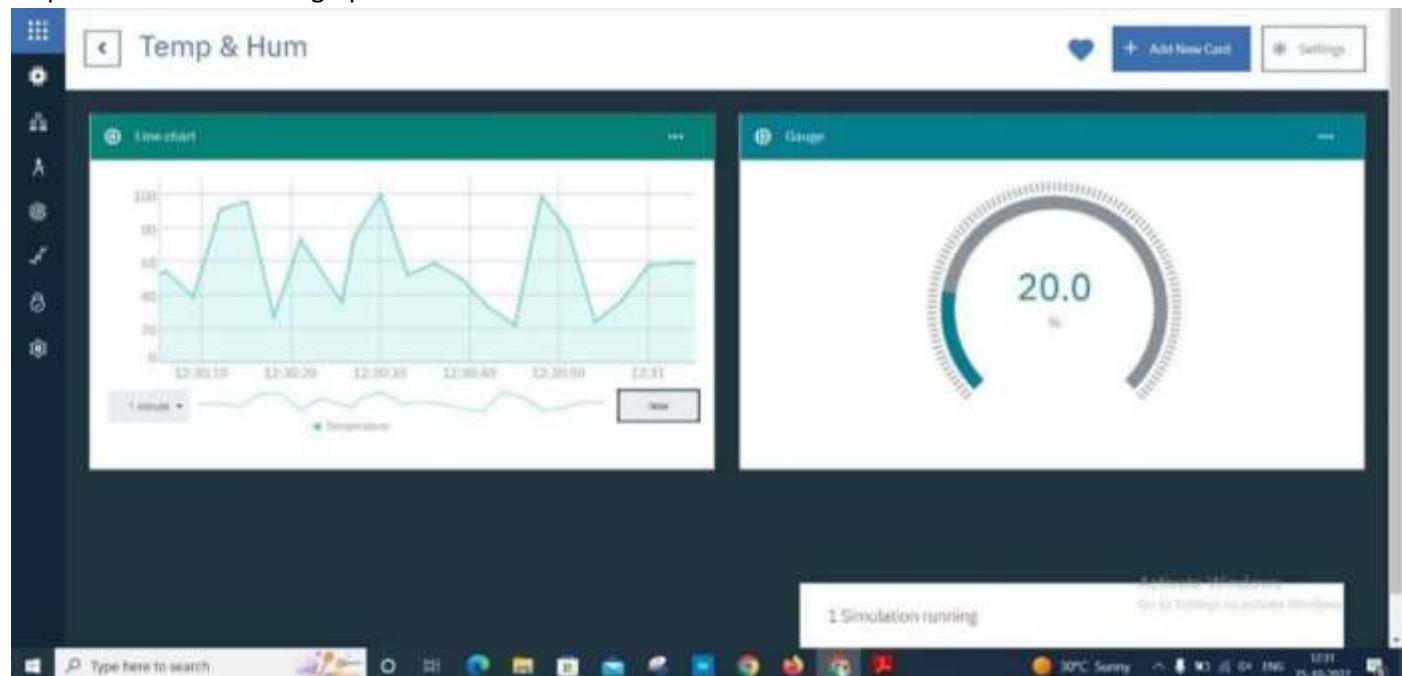
Step 22: Fill the details to get Temperature graph.

The screenshot shows a browser window with multiple tabs open. The active tab is titled 'IBM Watson IoT Platform' and displays a card configuration interface. The card has a title 'AABG' and a section titled 'Devices'. It lists one device entry: 'Device ID: 12345' and 'Device Type: Fantastic-4'. There is a search bar above the list and a 'Next' button at the bottom right. On the left, there's a sidebar with various icons. The status bar at the bottom shows 'ibm.csv' and the date '07-11-2022'.

Step 23: Repeat the same process again to get the Humidity graph.

The screenshot shows a browser window with multiple tabs open. The active tab is titled 'IBM Watson IoT Platform' and displays a line chart visualization. The chart is a 'Line chart' with a single data series. The Y-axis ranges from 0 to 1, and the X-axis shows a timestamp '11:45'. A message box at the bottom right says '1 Simulation running'. The status bar at the bottom shows 'ibm.csv' and the date '07-11-2022'.

Step 24: Here is the Final graph.



## **Result:**

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