

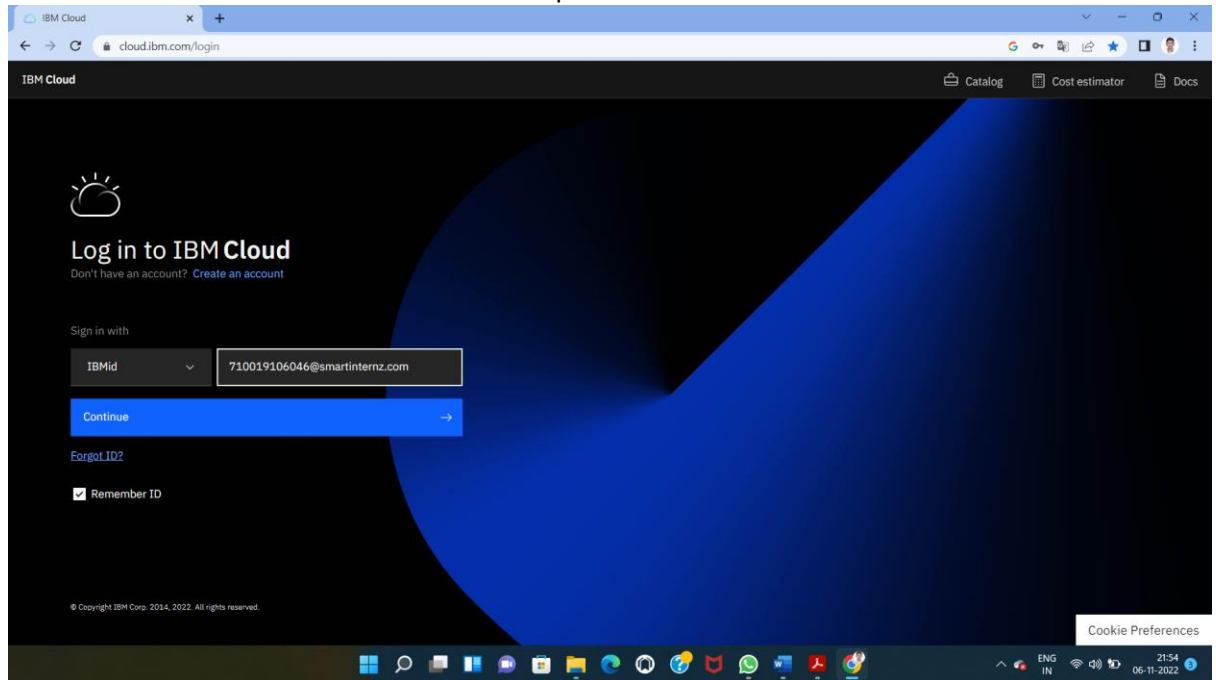
CREATE IBM WATSON IOT PLATFORM AND DEVICE

AIM:

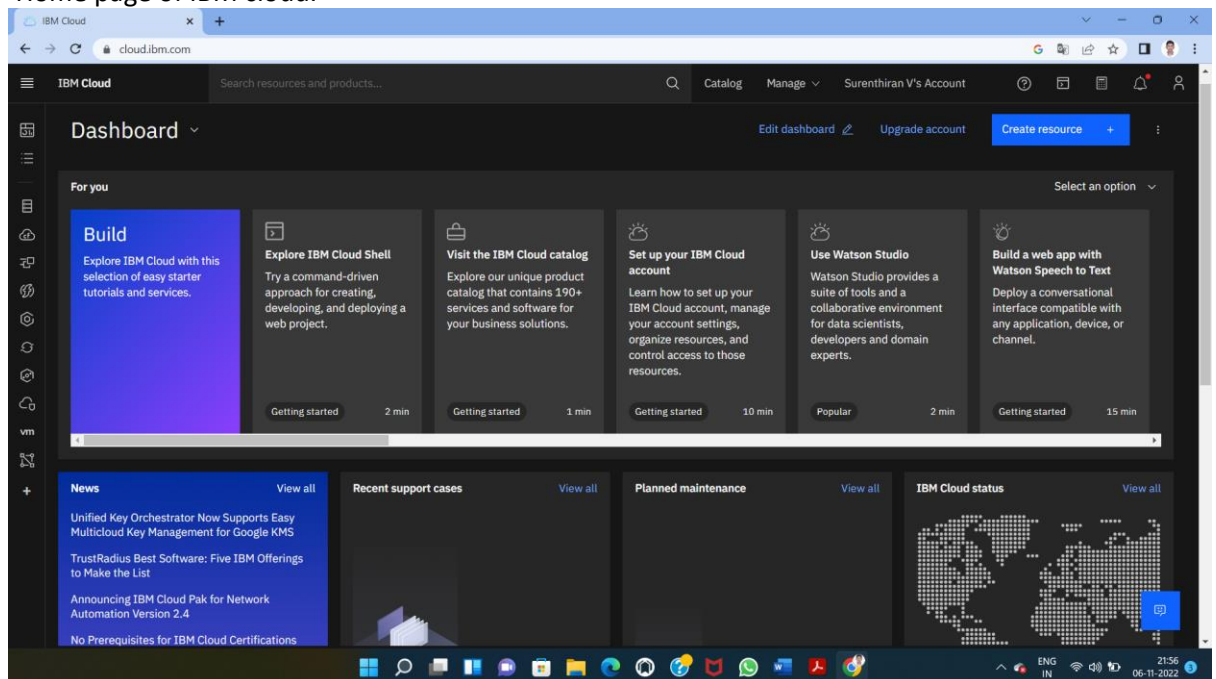
To create the IBM Watson IOT Platform and device.

STEPS:

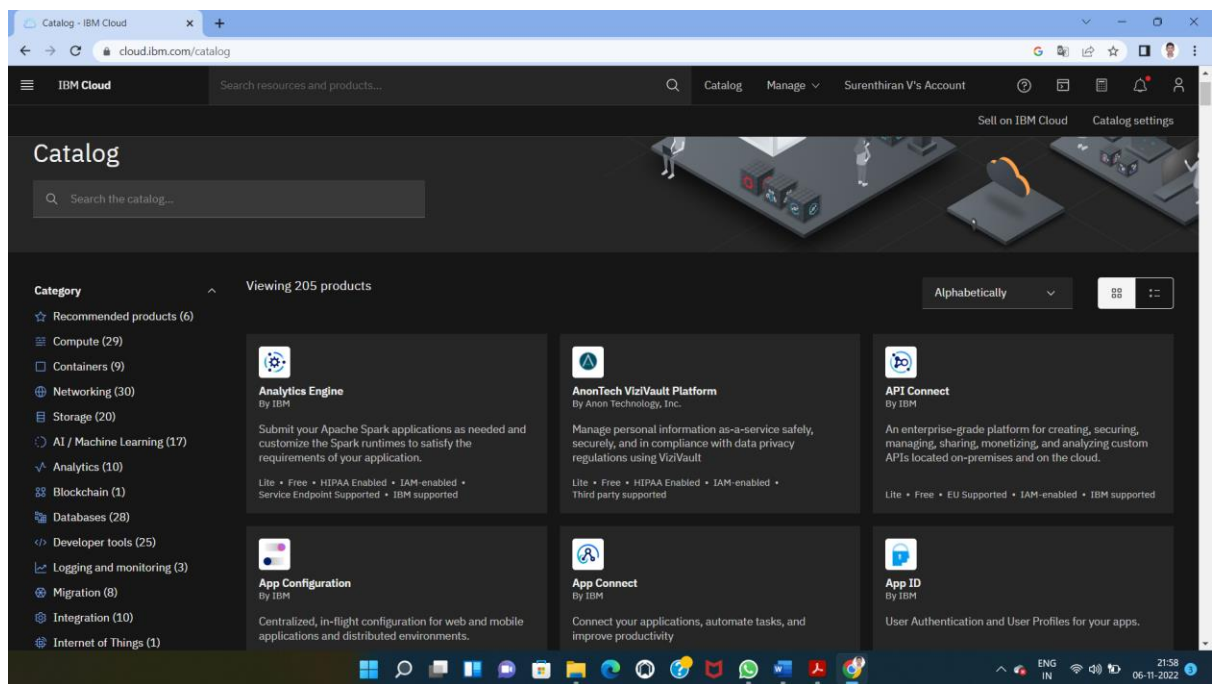
1. Create an IBM cloud account with IBM id and password.



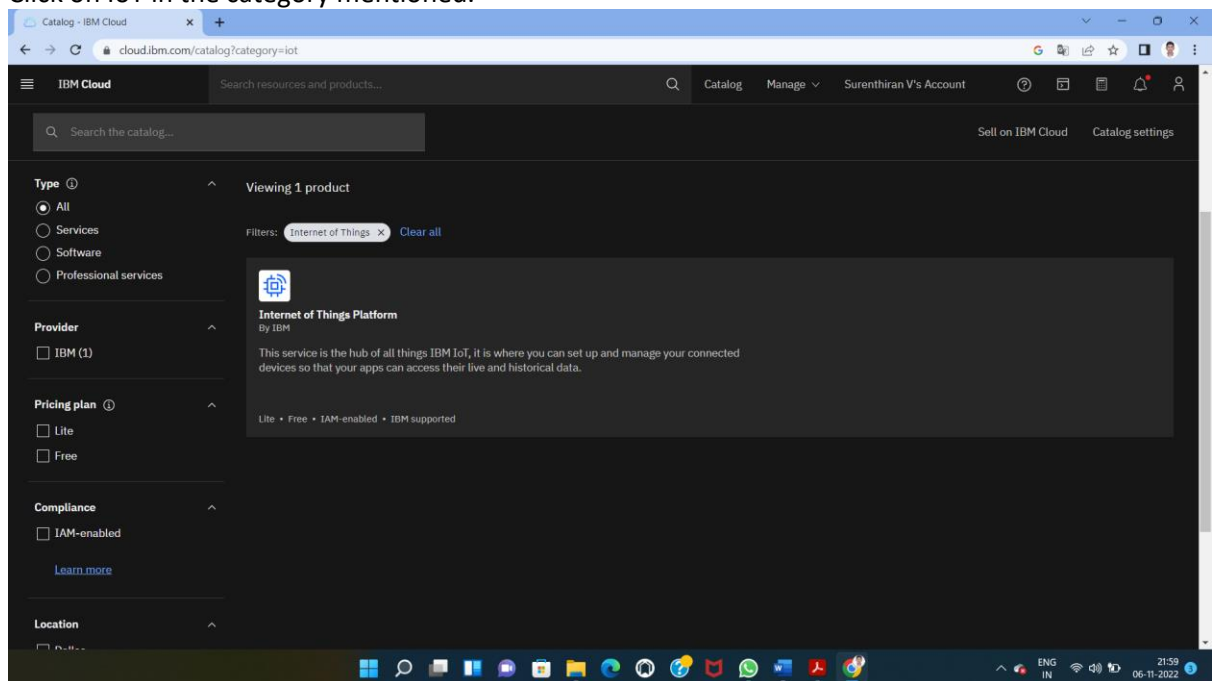
2. Home page of IBM cloud.



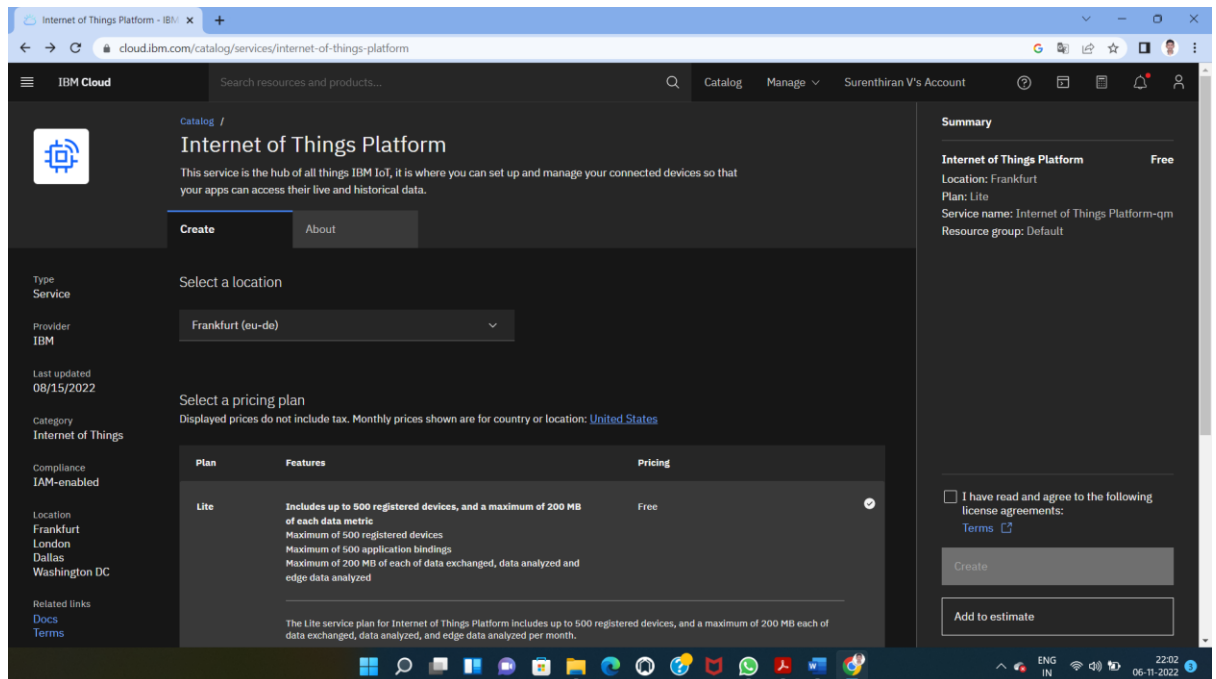
3. Click on the catalog on the top.



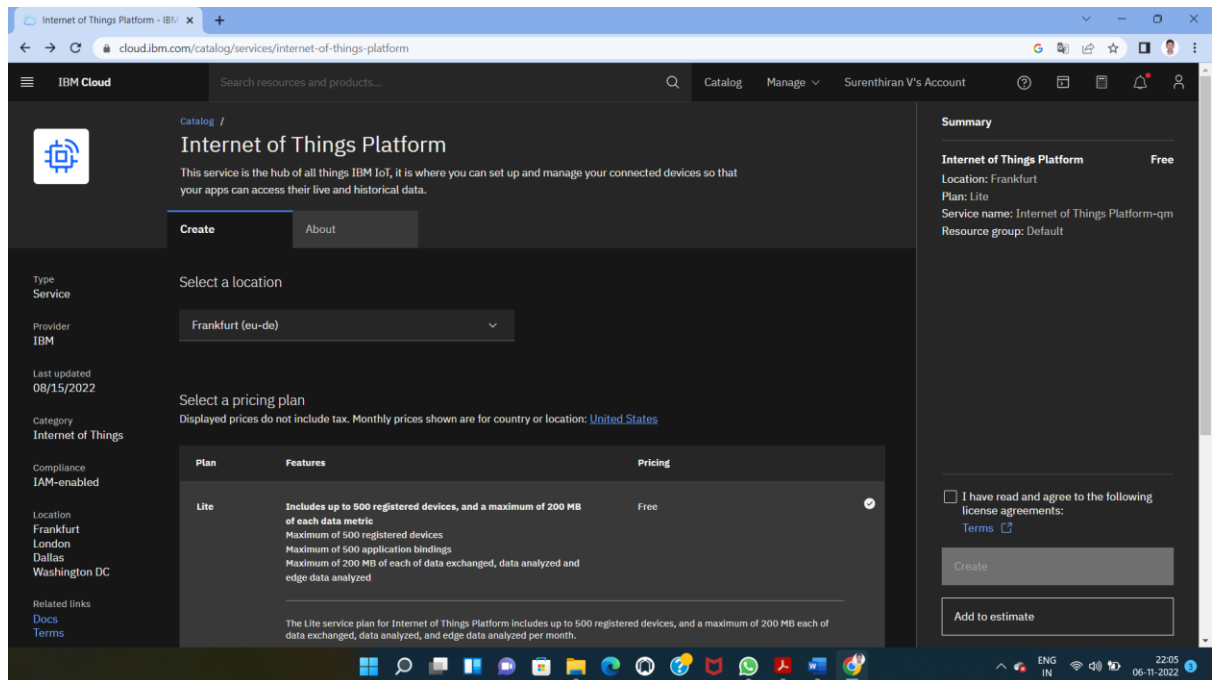
4. Click on IoT in the category mentioned.



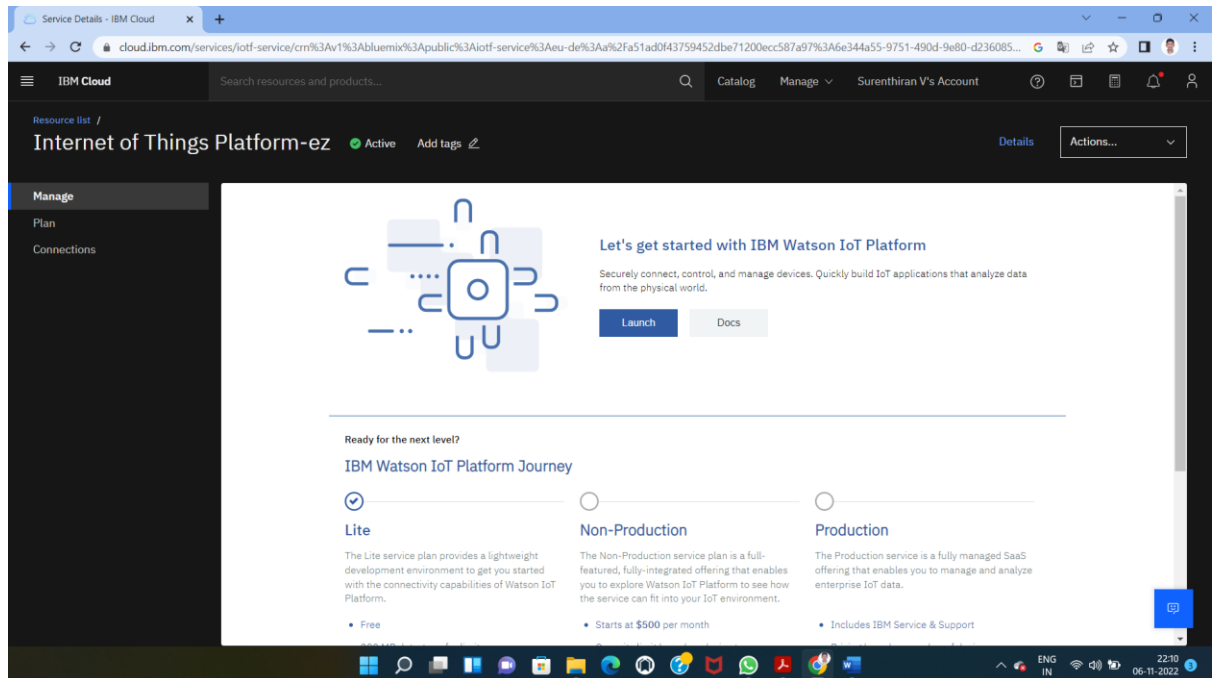
5. If already a lite is present delete it else u can't create another.



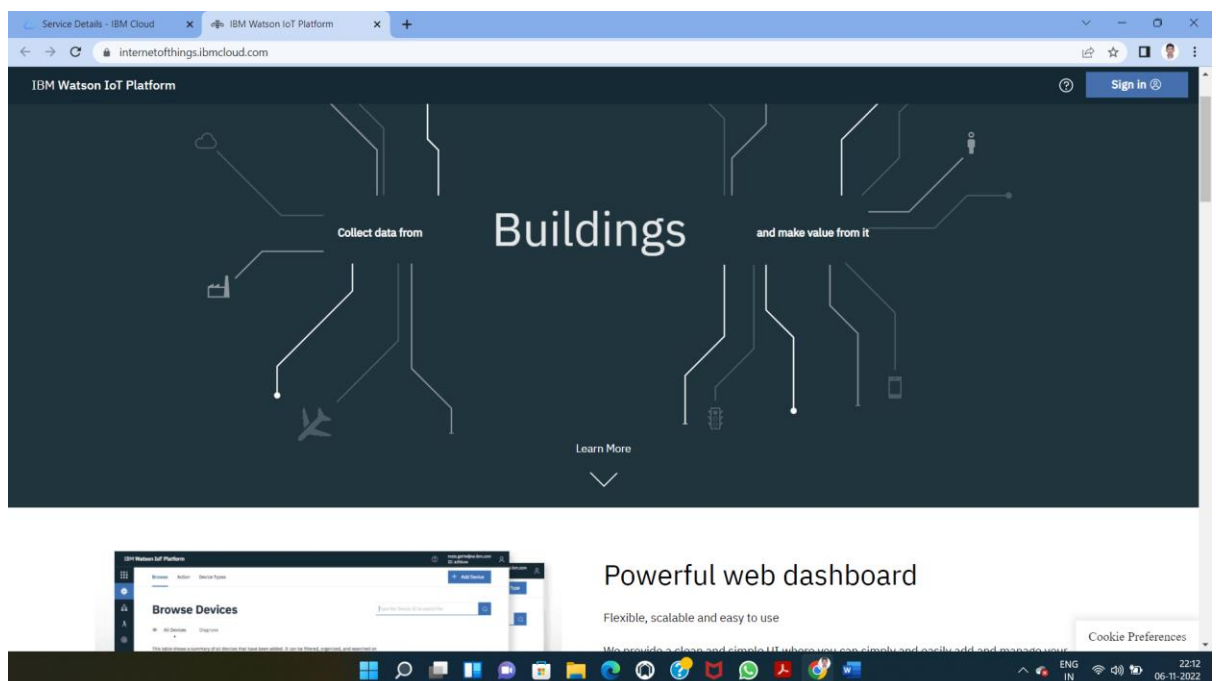
6. Enter the location and in the configure your resource type the service name and choose the plan, tick the agree with agreements and then click on create.



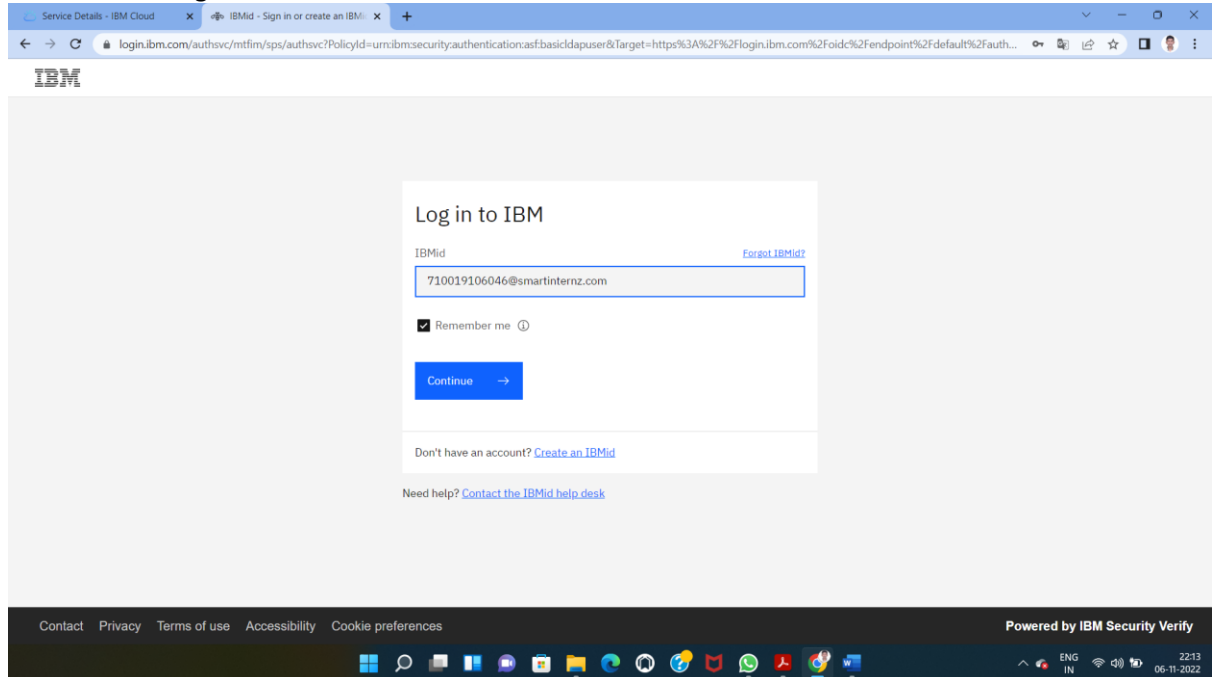
7. Internet of Things Platform Child_safety will be created, where there are different options like manage, plan, and connection (manage is for launch, Plan gives us the idea about the payment package and its upgrades, and lastly the connection is for to connect IoT with other services)



8. Clicking on the launch button in the manage tab, it will open to this.

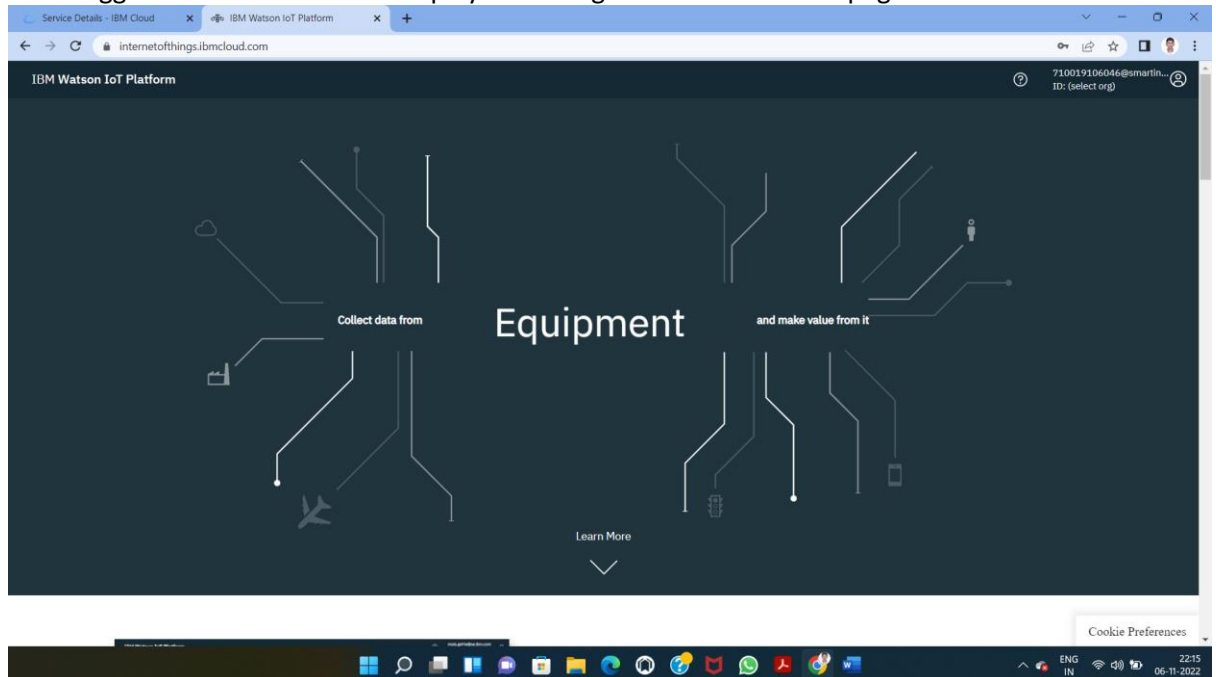


9. Enter the details to sign in to the Watson Cloud to create a device.



The screenshot shows the IBM login page in a web browser. The browser's address bar displays the URL: `login.ibm.com/authsvc/mtfm/sps/authsvc?PolicyId=urn:ibm:security:authentication:asf:basicdapuser&Target=https%3A%2F%2Flogin.ibm.com%2Foidc%2Fendpoint%2Fdefault%2Fauth...`. The page features the IBM logo at the top left. The main content area is a white box titled "Log in to IBM". Inside this box, there is a field for "IBMid" with the value "710019106046@smartintrnz.com" entered. To the right of the field is a link "Forgot IBMid?". Below the field is a checkbox labeled "Remember me" which is checked. A blue "Continue" button is positioned below the checkbox. At the bottom of the white box, there is a link "Don't have an account? Create an IBMid" and another link "Need help? Contact the IBMid help desk". The footer of the page includes links for "Contact", "Privacy", "Terms of use", "Accessibility", and "Cookie preferences", along with the text "Powered by IBM Security Verify". The Windows taskbar is visible at the bottom of the browser window.

10. Once logged in the name will be displayed and it goes back to the first page.



11. And again clicking on the launch button will open this tab, the device will help in the creation of the devices, the addition of devices, and the display of details of the devices.

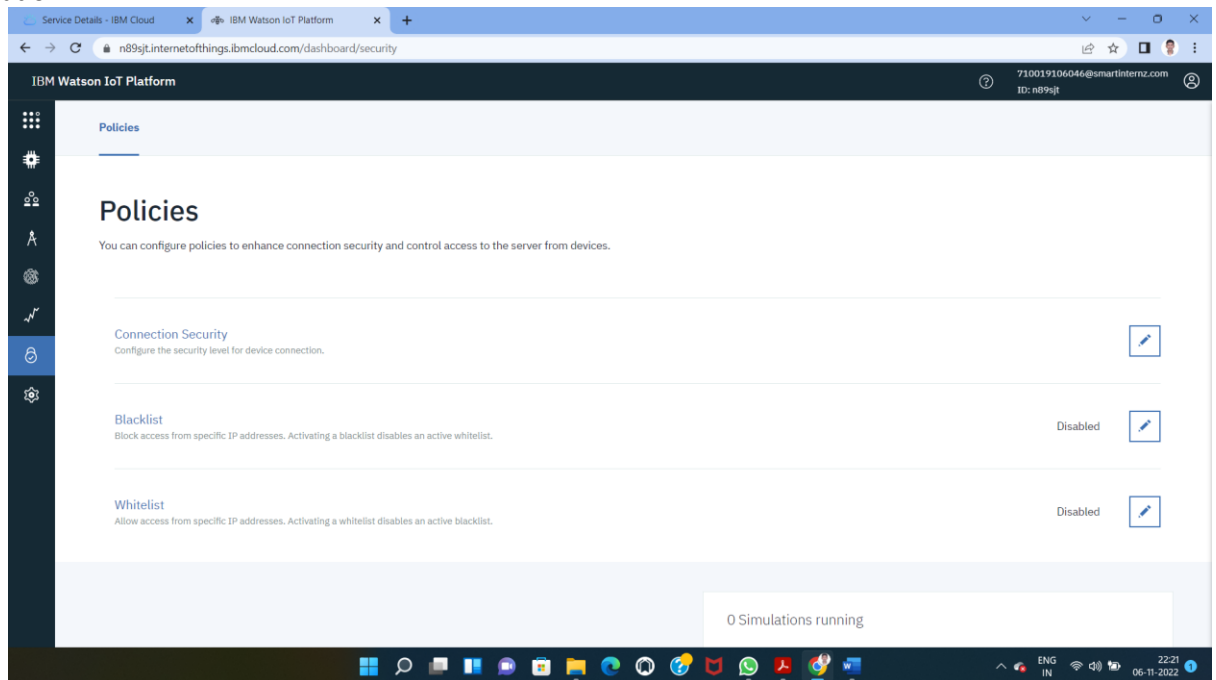
The screenshot shows the 'Browse Devices' page in the IBM Watson IoT Platform. The page has a dark sidebar with navigation icons and a top navigation bar with tabs: 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Browse' tab is active. Below the tabs, there's a 'Browse Devices' section with two buttons: 'All Devices' (selected) and 'Diagnose'. A descriptive text states: '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.' Below this is a search bar labeled 'Search by Device ID' and a 'Device Simulator' toggle switch. A table lists devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. One device is listed with ID '046', Status 'Disconnected', Device Type 'Suren', Class ID 'Device', and Date Added 'Nov 4, 2022 5:12 PM'. At the bottom, there's a status bar showing '0 Simulations running'.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
046	Disconnected	Suren	Device	Nov 4, 2022 5:12 PM	

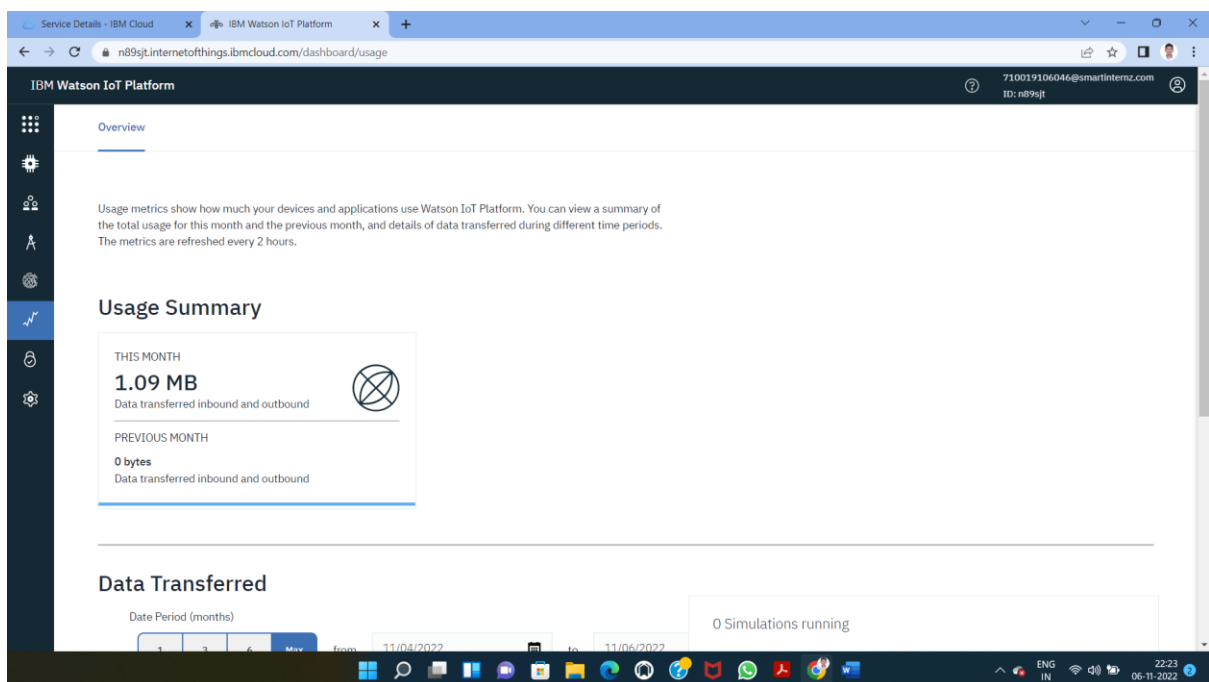
12. The setting tab is used to change the general setting if needed for the project.

The screenshot shows the 'General Settings' page in the IBM Watson IoT Platform. The page has a dark sidebar with navigation icons and a top navigation bar with tabs: 'Service Details - IBM Cloud', 'IBM Watson IoT Platform', and '+'. The 'IBM Watson IoT Platform' tab is active. Below the tabs, there's a 'General Settings' section with a sub-header 'About' and a description: 'Here you can see and modify global organization information and locally enable experimental Watson IoT Platform features.' The page is divided into three main sections: 'PLATFORM', 'DATA AND DEVICES', and 'SECURITY'. The 'PLATFORM' section is expanded, showing 'About', 'Identity', and 'Experimental Features'. The 'About' section includes 'Date Created' (11/04/2022), 'Organization Type' (Bluemix Free), and 'Geographic Location' (eu-de). The 'Identity' section includes 'Organization ID' (n89sjt) and 'Friendly Name' (n89sjt). The 'Experimental Features' section is currently empty. At the bottom, there's a status bar showing '0 Simulations running'.

13. In the security tab we can choose the type of security connection and can change according to specification.



14. Usage gives the summary of how many bytes are used between the devices and the IBM cloud.



15. The member tab is add the teams members to work in the platform.

The screenshot shows the 'Browse Members' page in the IBM Watson IoT Platform. The page has a dark sidebar with navigation icons. The main content area is titled 'Browse Members' and includes a search bar with the placeholder text 'Type the member email to search for'. Below the search bar is a table with columns: 'Email Address', 'Name', 'Role', 'Added By', 'Expires', and a trash icon. The table shows one result: a member with email '710019106046@smartinternz.com', name '710019106046@smartinter...', role 'Administrator', and 'Added By' as '-'. At the bottom right, there is a status box that says '0 Simulations running'.

<input type="checkbox"/>	Email Address ↕	Name ↕	Role ↕	Added By ↕	Expires ↕	
1 result						
<input type="checkbox"/>	710019106046@smartinternz.com	710019106046@smartinter...	Administrator	-	-	

16. This tab is used when you want to connect to some other platform and to integrate with other services.

The screenshot shows the 'Browse API Keys' page in the IBM Watson IoT Platform. The page has a dark sidebar with navigation icons. The main content area is titled 'Browse API Keys' and includes a search bar with the placeholder text 'Type the app description to search for'. Below the search bar is a table with columns: 'Key', 'Description', 'Role', 'Expires', and a trash icon. The table shows one result: a key with value 'a-n89sjt-4dzpk7ab8f', description 'API Key for the device simulator', role 'Standard Application', and 'Expires' as '-'. At the bottom right, there is a status box that says '0 Simulations running'.

<input type="checkbox"/>	Key ↕	Description ↕	Role ↕	Expires ↕	
1 result					
<input type="checkbox"/>	a-n89sjt-4dzpk7ab8f	API Key for the device simulator	Standard Application	-	

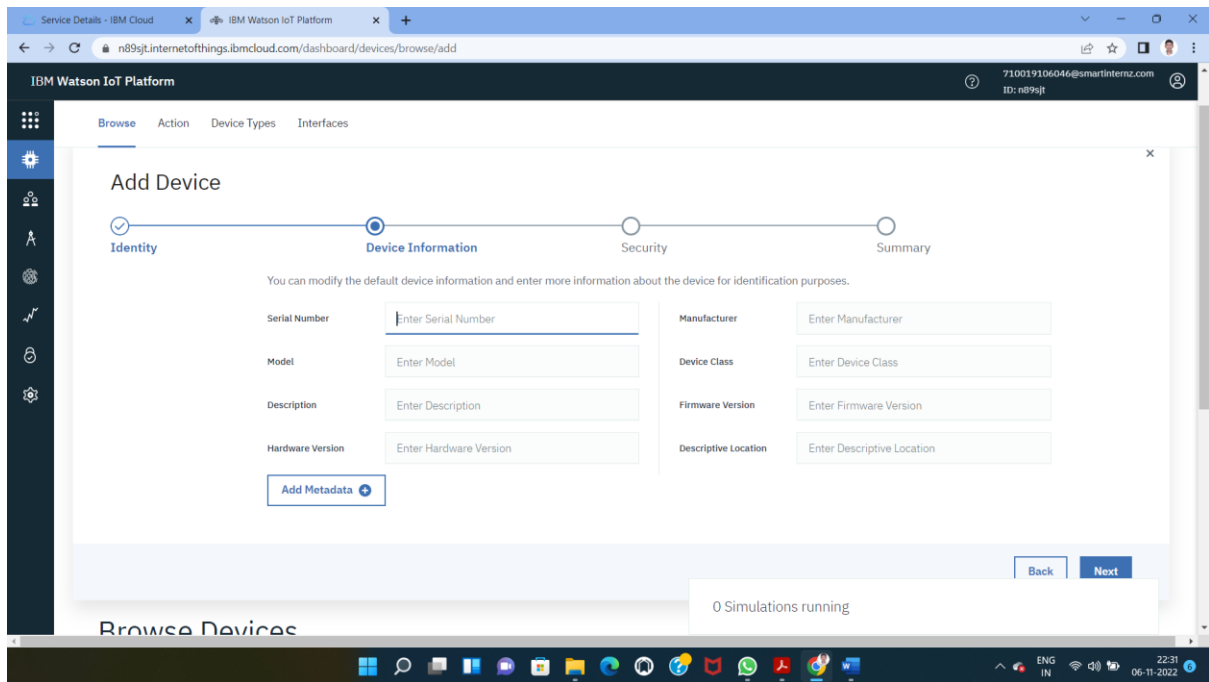
17. Click on the device tab and click on the add device button, then give the device type and device id and click next.

The image displays two sequential screenshots of the IBM Watson IoT Platform interface, specifically the 'Add Device' wizard. The browser address bar shows the URL: `n89jtlinternetofthings.ibmcloud.com/dashboard/devices/browse/add`.

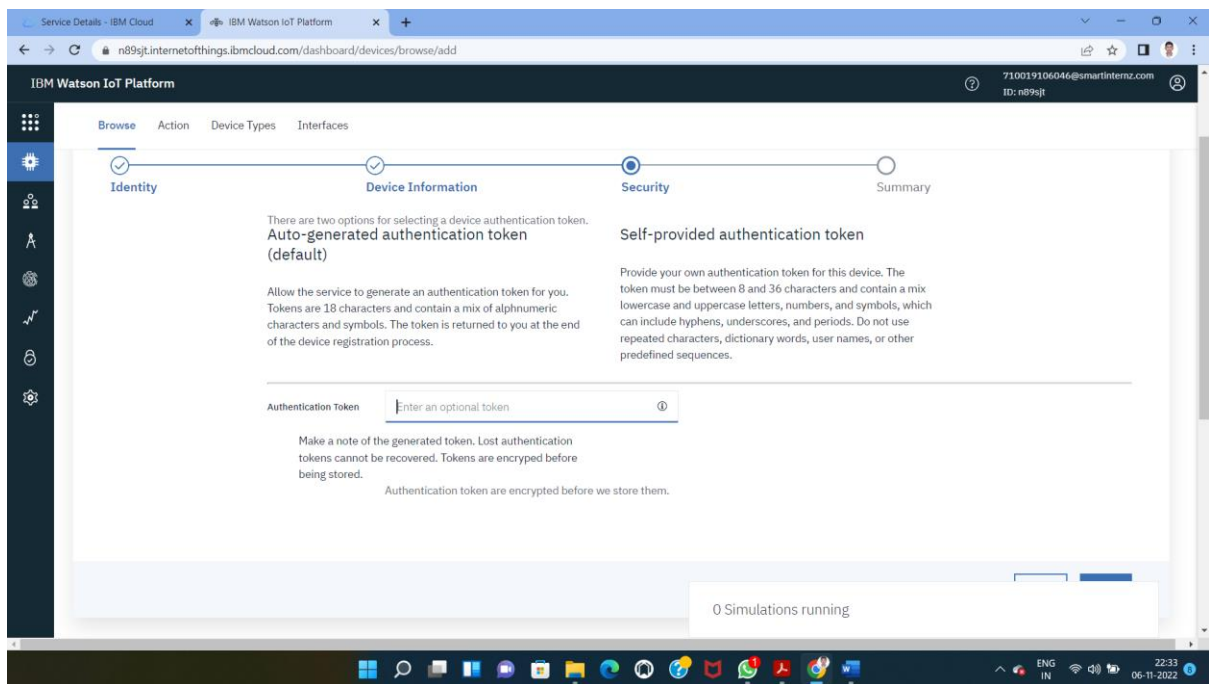
Top Screenshot: The 'Add Device' modal is open, showing a progress bar with four steps: Identity (selected), Device Information, Security, and Summary. Below the progress bar, a message states: 'Select a device type for the device that you are adding and give the device a unique ID.' There are two input fields: 'Device Type' with a placeholder 'Select or create a device type...' and 'Device ID' with a placeholder 'Enter Device ID'. At the bottom right of the modal are 'Cancel' and 'Next' buttons. Below the modal, the 'Browse Devices' section is visible, showing 'All Devices' and 'Diagnose' buttons, and a status '0 Simulations running'.

Bottom Screenshot: This screenshot shows the same 'Add Device' modal, but the 'Device Type' field now contains the text 'Suren' and the 'Device ID' field contains the text '4d'. The 'Next' button is still visible at the bottom right of the modal.

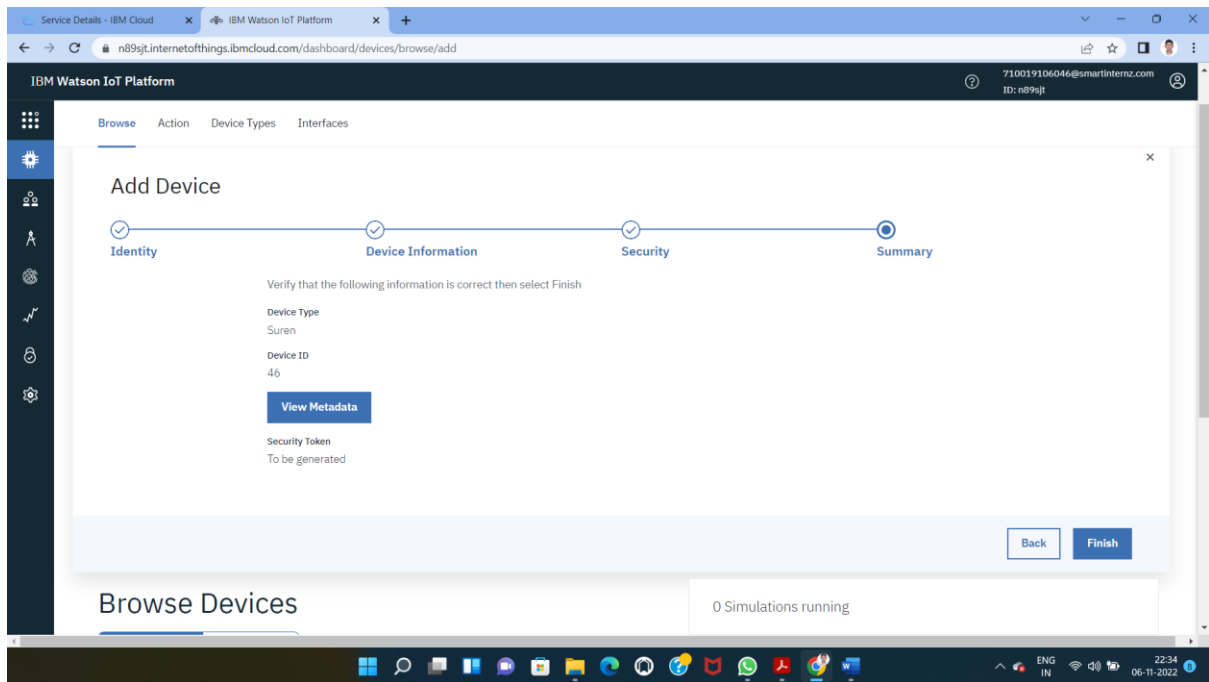
18. This page to enter extra details and of the hardware.



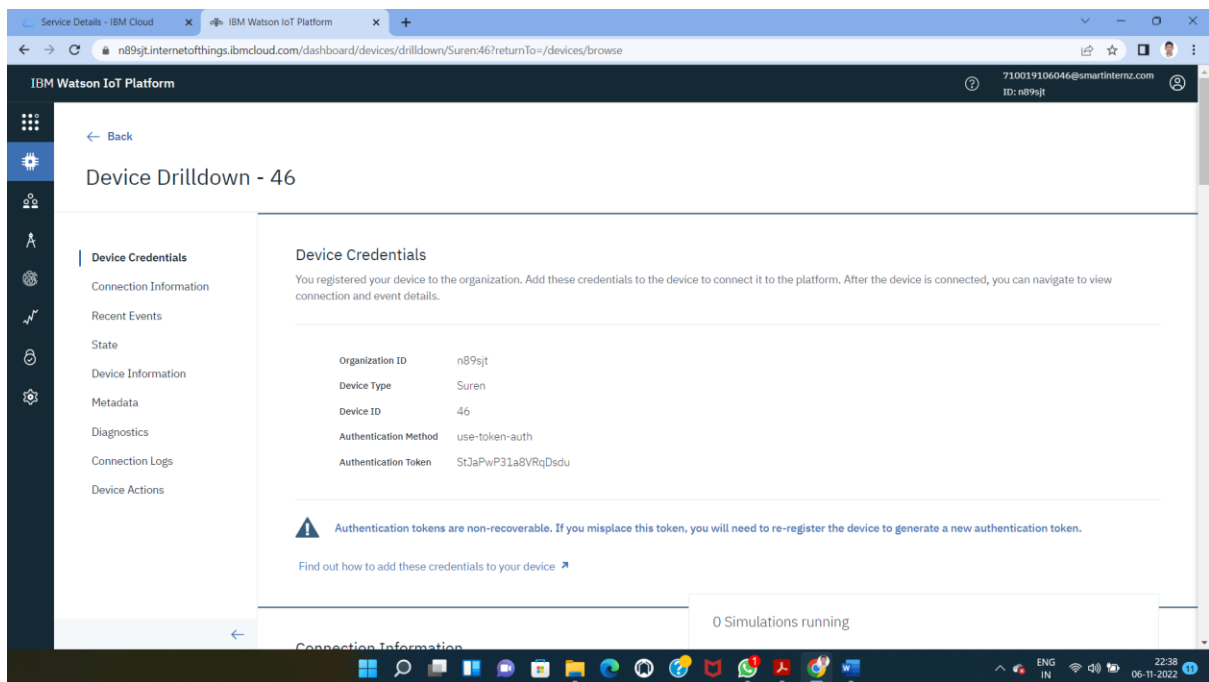
19. Clicking next it goes to the security where we do authentication token id.



20. Clicking on next it goes to the summary of the device then click finish.



21. The device credentials will be displayed with all the details.



22. Save the details of the device as the authentication tokens are non-recoverable and if misplaced then we have to create a new one.

The screenshot shows the IBM Watson IoT Platform interface. The main panel displays 'Device Drilldown - 46' with a sidebar on the left containing links like 'Device Credentials', 'Connection Information', 'Recent Events', 'State', 'Device Information', 'Metadata', 'Diagnostics', 'Connection Logs', and 'Device Actions'. The 'Device Credentials' section is active, showing a table of credentials:

Organization ID	n89sjt
Device Type	Suren
Device ID	46
Authentication Method	use-token-auth
Authentication Token	StJaPwP31a8VRqDsdu

Below the table, a warning message states: 'Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to generate a new authentication token.' A Notepad window is open in the foreground, displaying the same credentials:

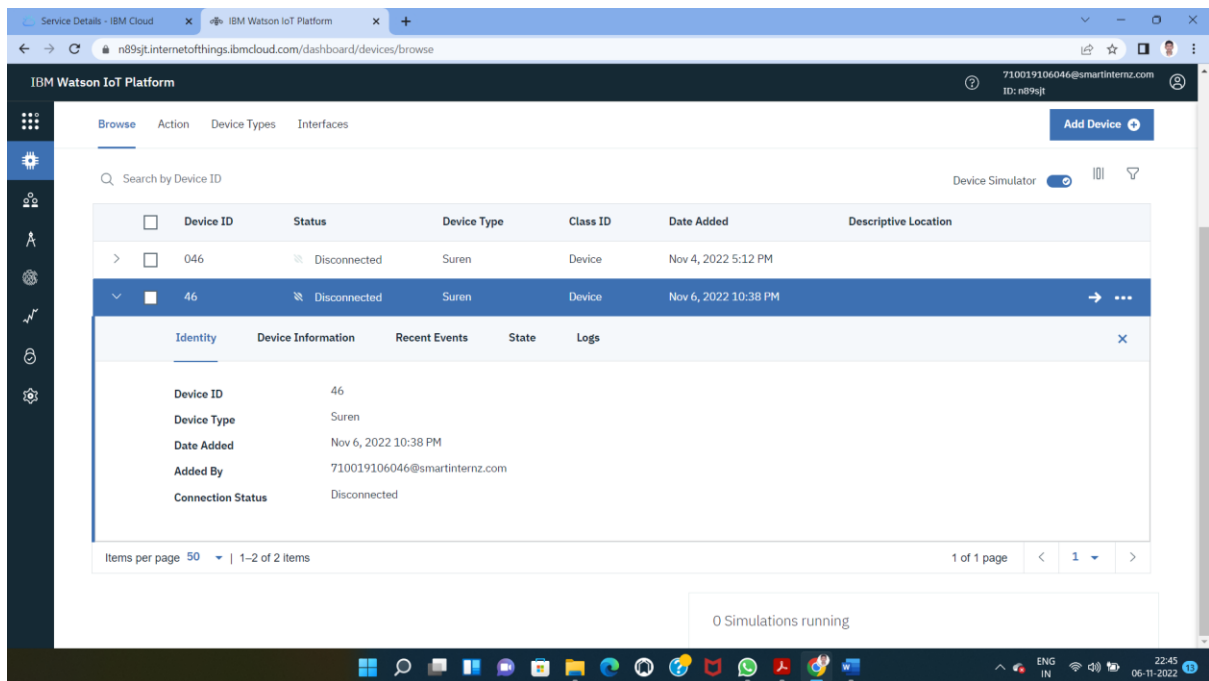
```
Organization ID
n89sjt
Device Type
Suren
Device ID
46
Authentication Method
use-token-auth
Authentication Token
StJaPwP31a8VRqDsdu
```

23. Clicking on the device tab we can now see the added device. Clicking on it will display the other details. It has different tabs like Identity, Device Information, State and login.

The screenshot shows the 'Browse Devices' page in the IBM Watson IoT Platform. The page has a sidebar on the left with links like 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Browse' tab is active, showing a table of devices:

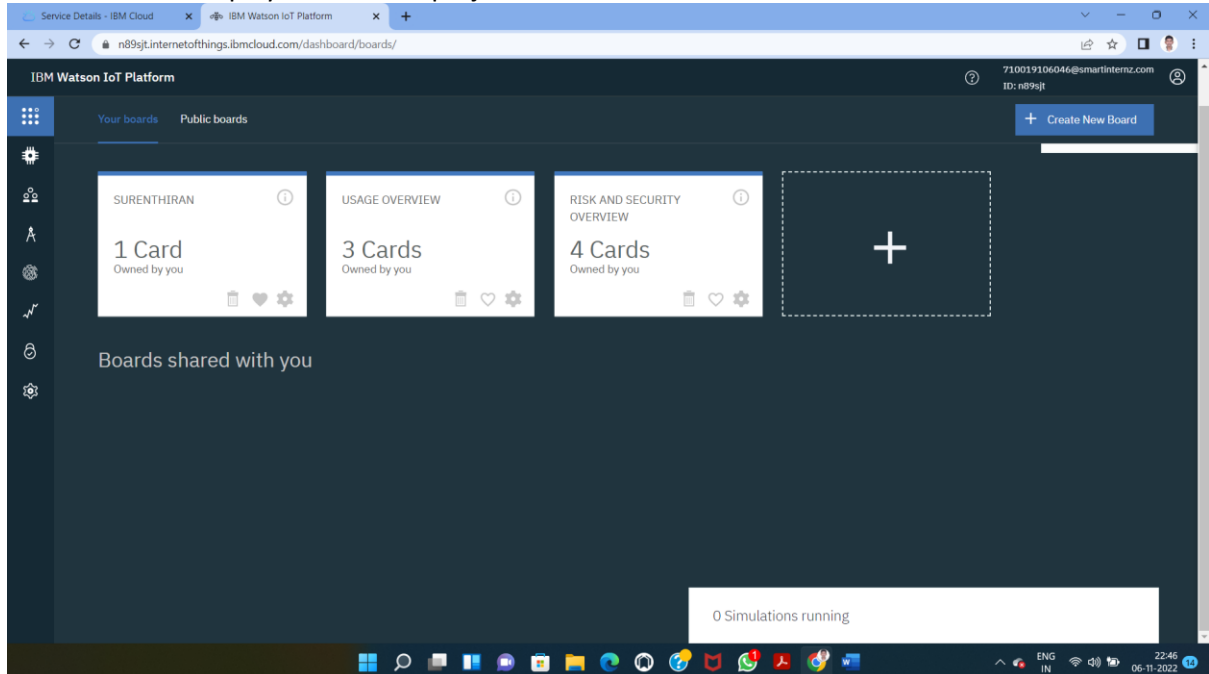
Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
046	Disconnected	Suren	Device	Nov 4, 2022 5:12 PM	
46	Disconnected	Suren	Device	Nov 6, 2022 10:38 PM	

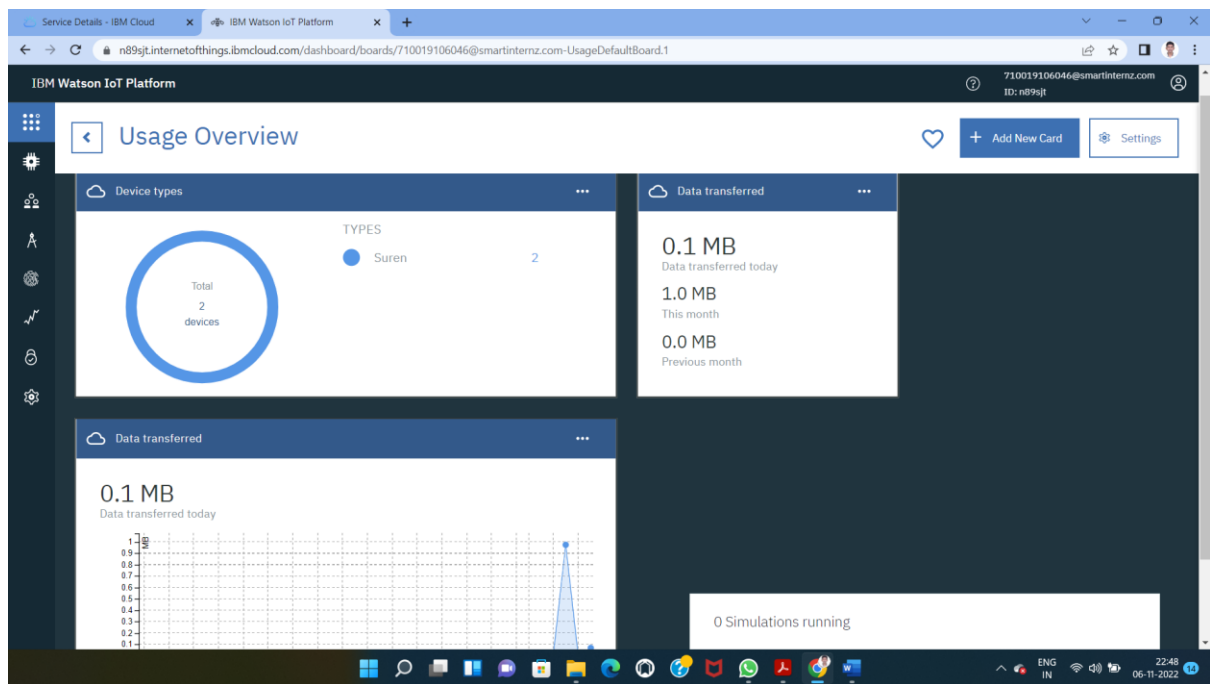
Below the table, there is a search bar and a 'Device Simulator' toggle. The page also shows '0 Simulations running' at the bottom.



In a similar way, we can create n number of devices with a 50 per page limit as per the requirement of our project.

The Boards will display card for the project.





RESULT:

An IBM Watson cloud for IoT and a device is create