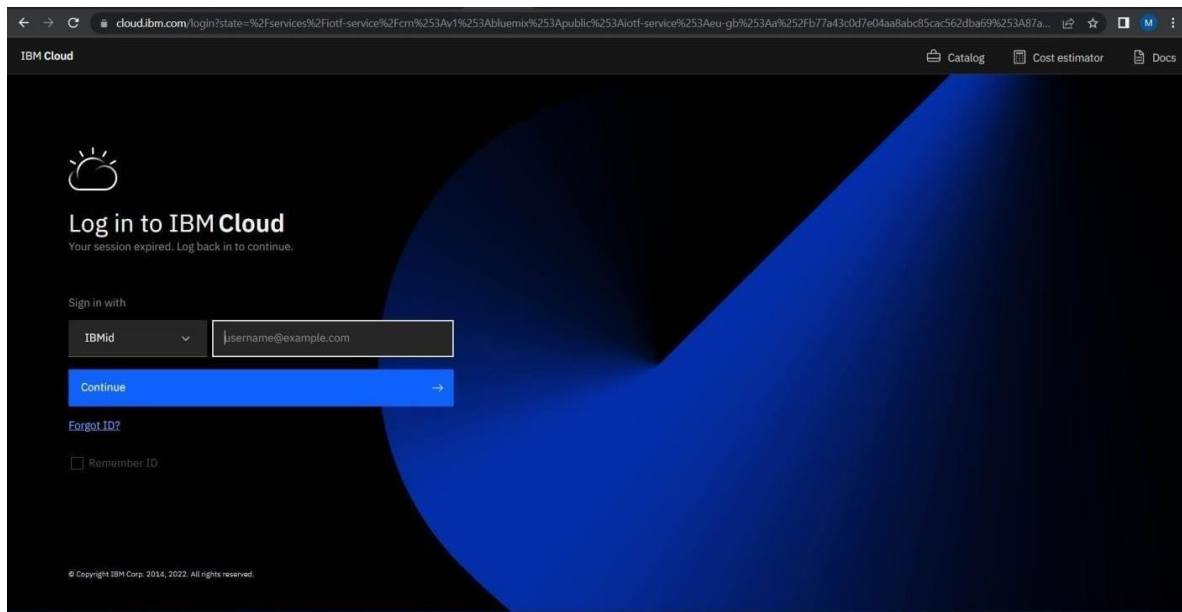


CREATE IBM WATSON IOT PLATFORM AND DEVICE

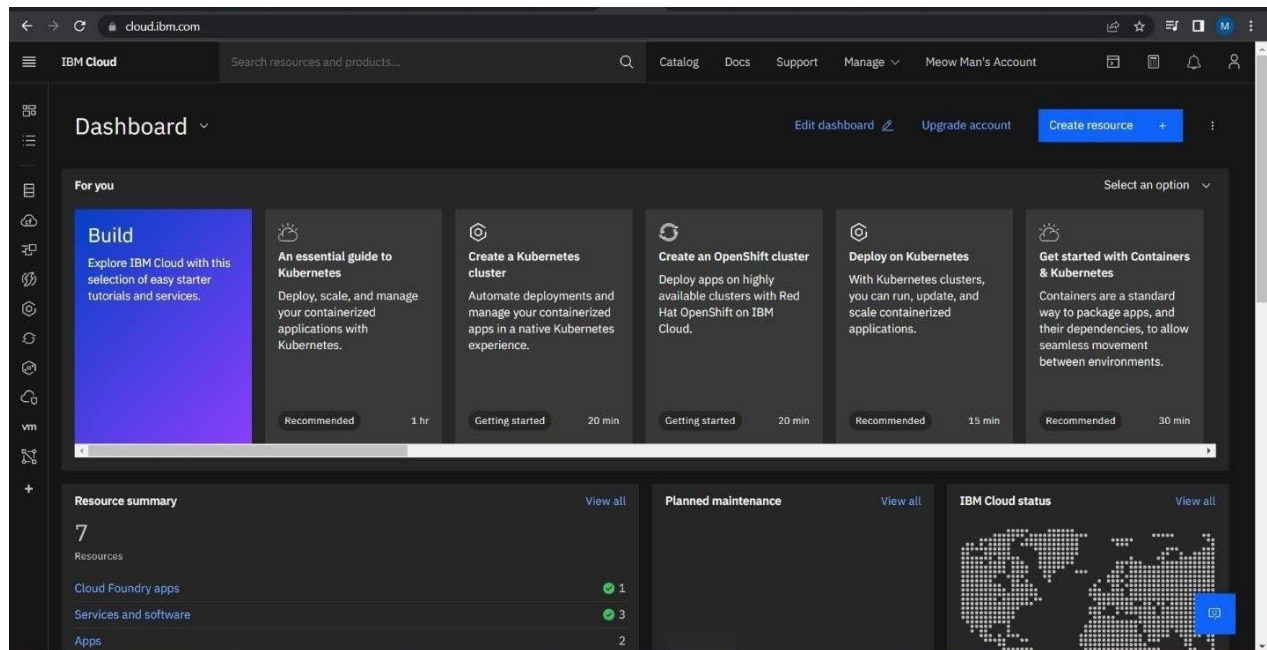
Team ID	PNT2022TMID11653
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

STEPS:

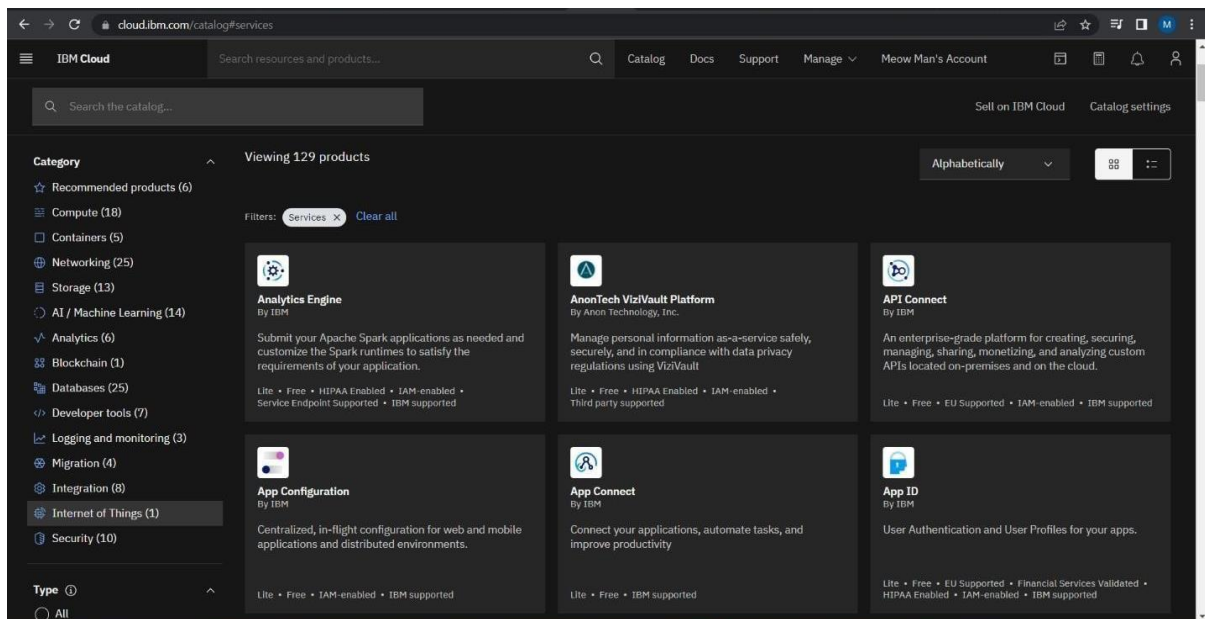
1. Firstly create an IBM cloud account with IBMid and password



2. Home page of IBM cloud



3. Click on the catalog on the top



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

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The page is divided into several sections: a left sidebar with navigation links, a main content area with a table of plans, and a right sidebar with a summary and configuration options.

Plan Table:

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

Configure your resource:

Service name:

Select a resource group:

Tags:

Access management tags:

Summary:

Internet of Things Platform **Free**

Location: London
Plan: Lite
Service name: Internet of Things Platform-bb
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](#)

5. 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

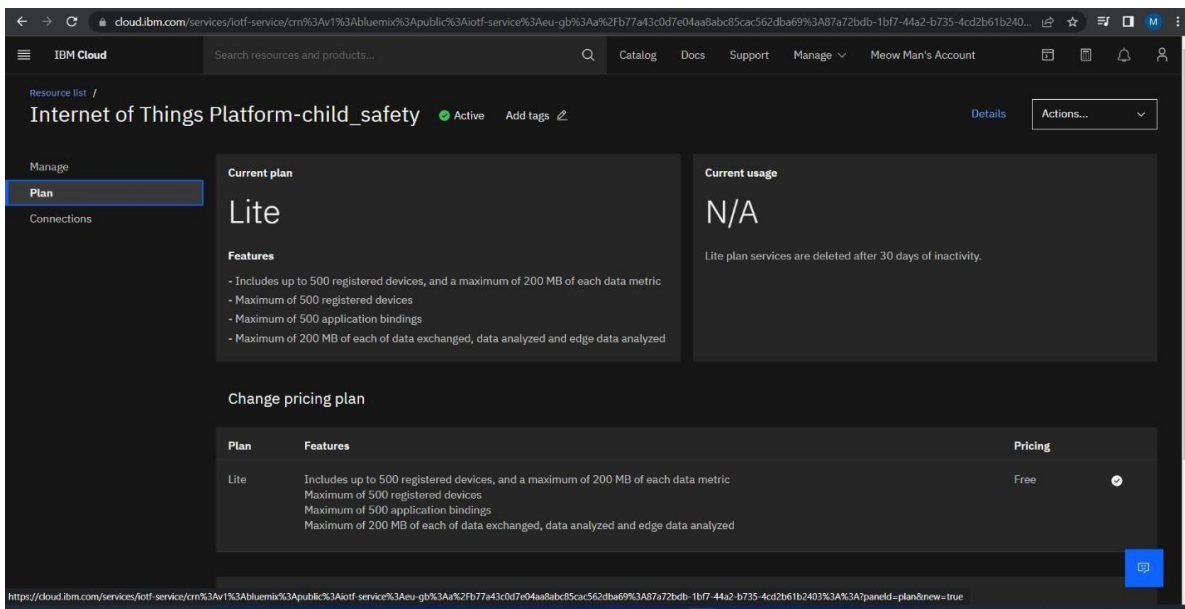
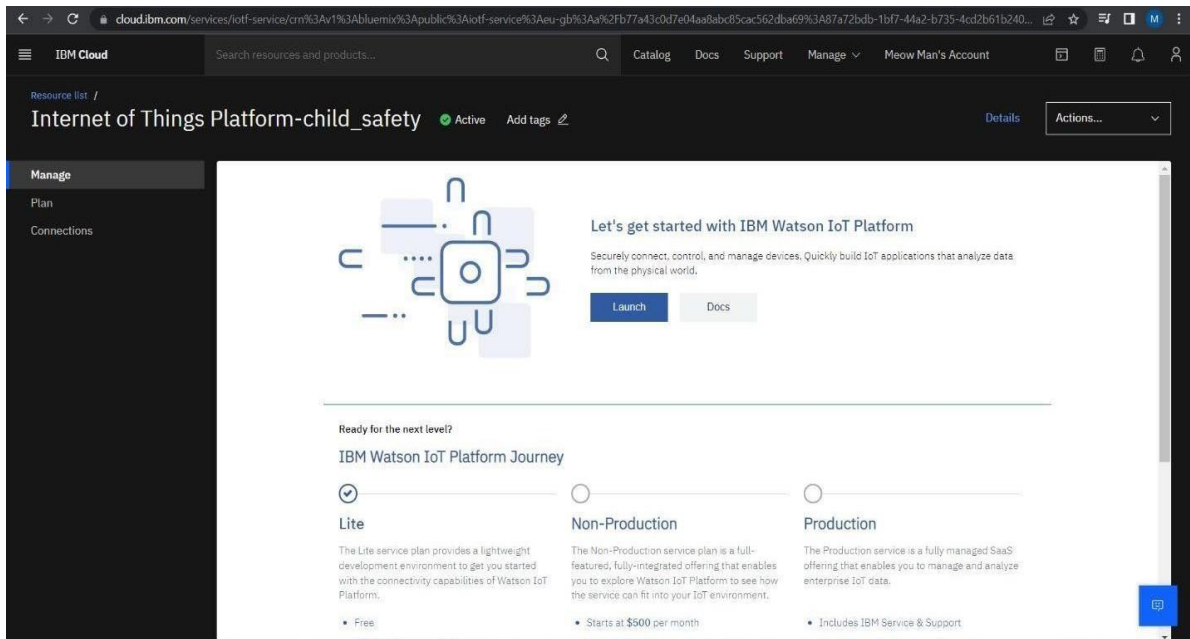
The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The 'Create' tab is active, displaying a 'Select a location' dropdown menu with 'Dallas (us-south)' selected. Below this is a 'Select a pricing plan' section with a table of available plans.

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

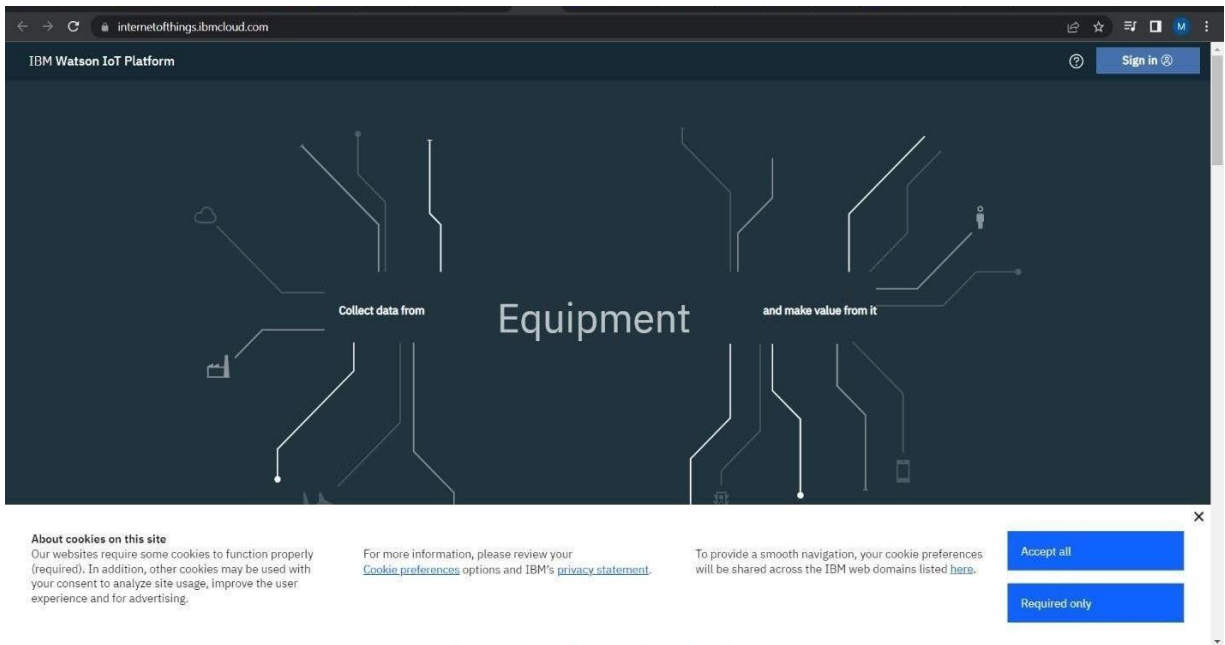
On the right side, a 'Summary' panel shows the service details: 'Internet of Things Platform', 'Free', 'Location: Dallas', 'Plan: Lite', 'Service name: Internet of Things Platform-2w', and 'Resource group: Default'. A warning message states: 'Existing Lite plan instance. You can have only 1 Lite plan 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.' At the bottom, there is a checkbox for 'I have read and agree to the following license agreements:' and a 'Create' button.

The screenshot shows the same IBM Cloud catalog page, but now the 'Configure your resource' section is visible. The 'Service name' field is filled with 'Internet of Things Platform-child_safety'. The 'Select a resource group' dropdown shows 'Default'. The 'Tags' field is empty, and the 'Access management tags' field is also empty. The 'Summary' panel on the right is updated to show 'Location: London', 'Plan: Lite', 'Service name: Internet of Things Platform-child_safety', and 'Resource group: Default'. The 'Create' button is now blue, indicating it is ready to be clicked.

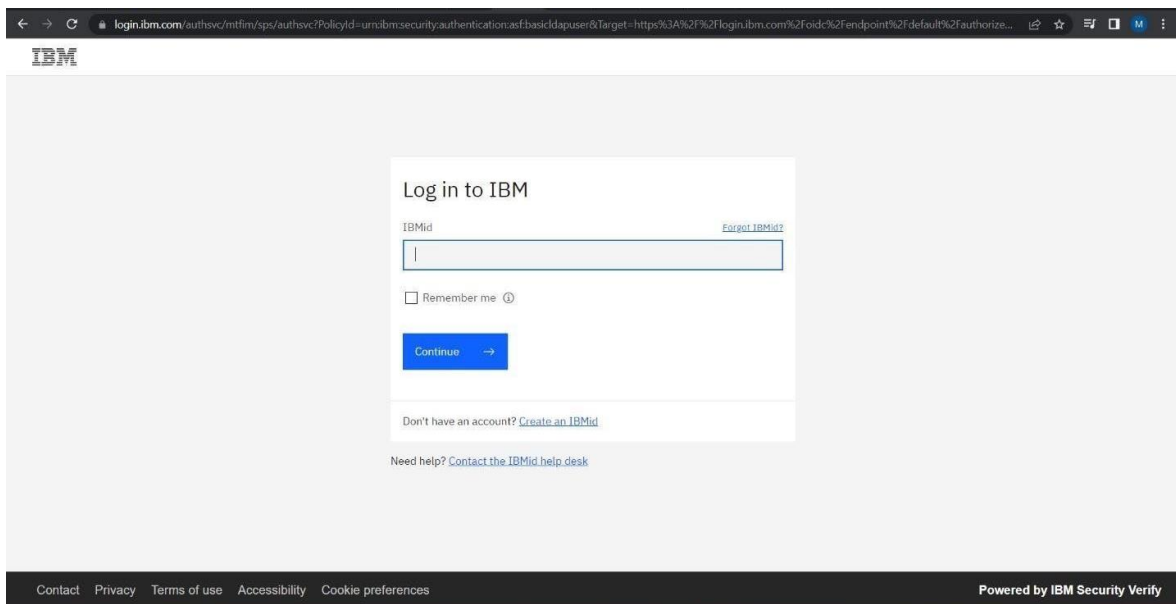
6. Internet of Things Platform Child_safety will be created, where there are different options like manage, plan, and connection (manage is for launch, Plan gives us the idea about the payment package and its upgrades, and lastly the connection is for to connect IoT with other services)



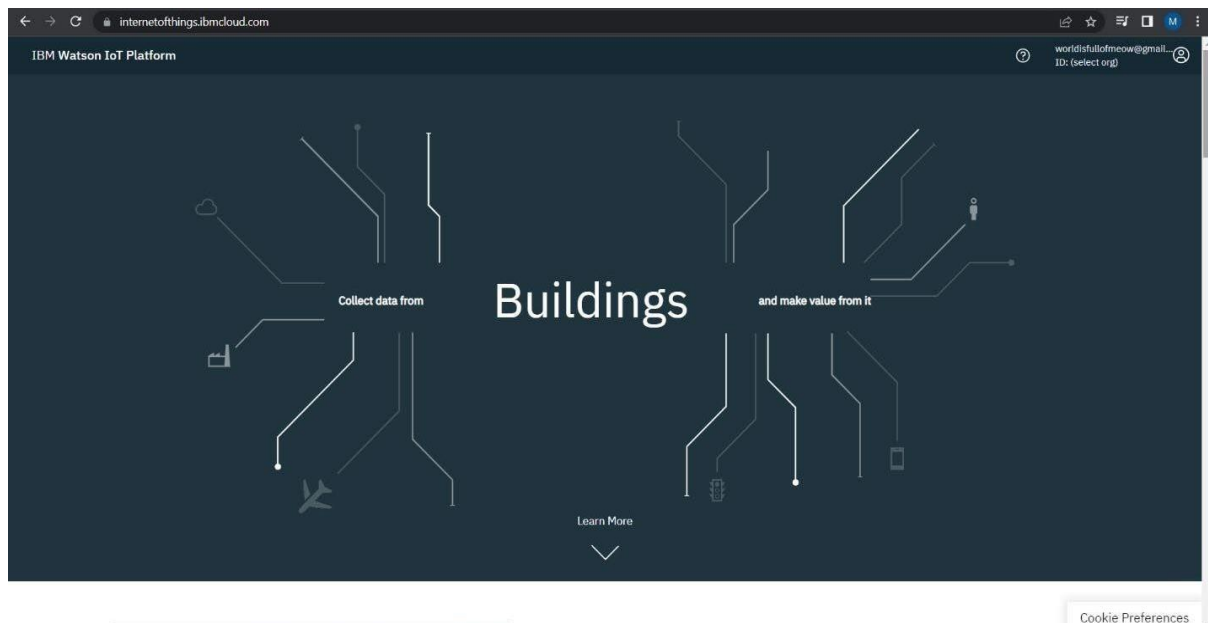
7. Clicking on the launch button in the manage tab, it will open to this



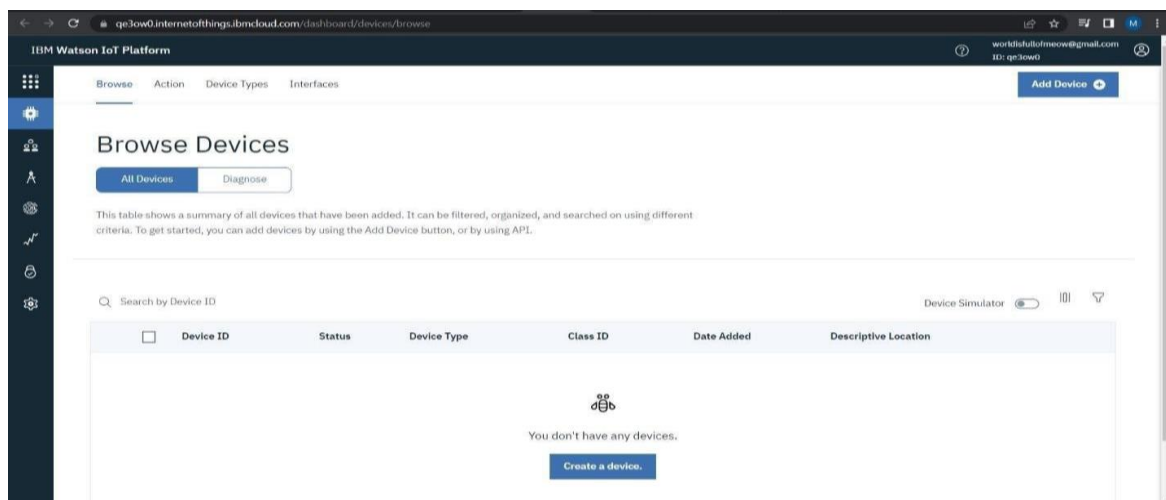
8. Enter the details to sign in to the Watson Cloud to create a device



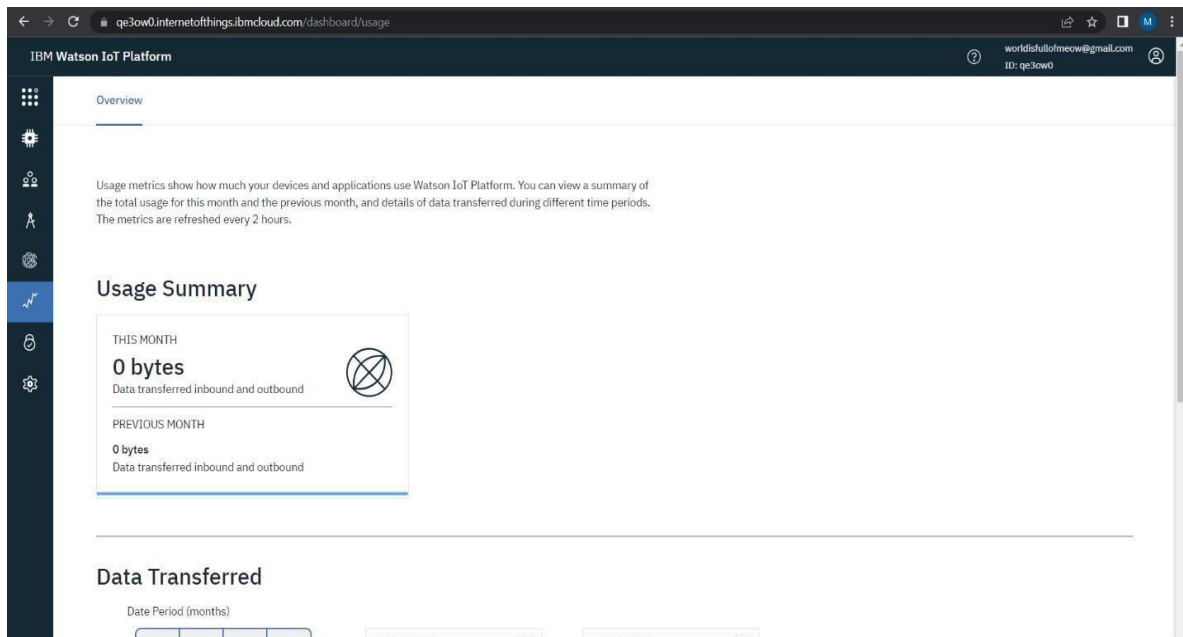
9. Once logged in the name will be displayed and it goes back to the first page



10. 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



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



12. 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 title is 'Browse Members'. Below the title, there is a search bar with the placeholder text 'Type the member email to search for'. Below the search bar, there is a table with columns: Email Address, Name, Role, Added By, Expires, and a delete icon. The table shows one result for the user 'worldisfulofmeow@gmail.com' with the role 'Administrator'. The page includes a sidebar with navigation icons and a top header with the user's email and ID.

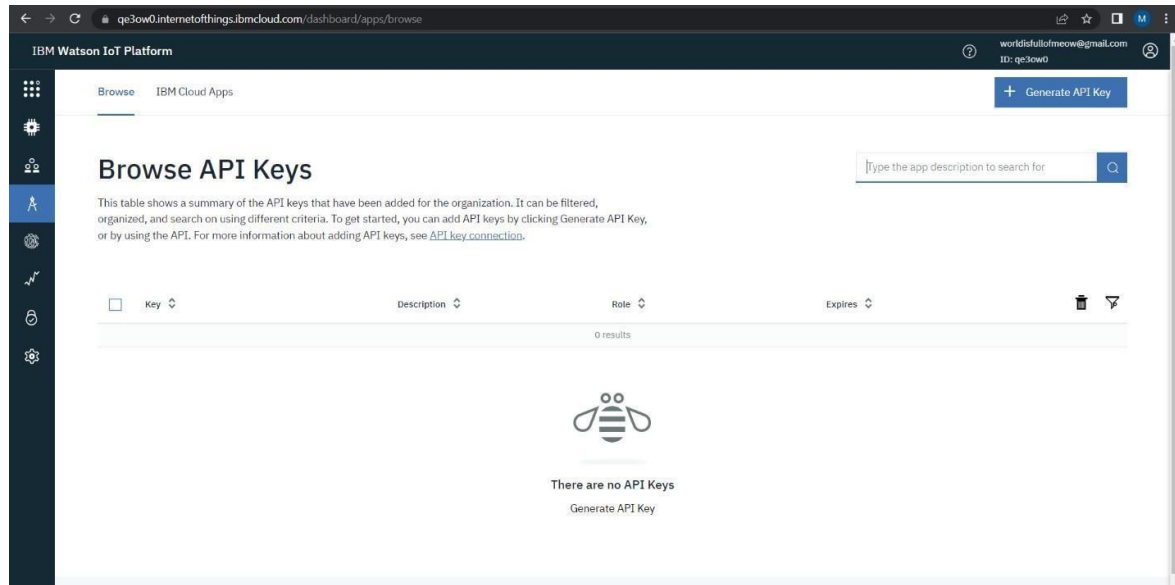
Browse Members

Type the member email to search for

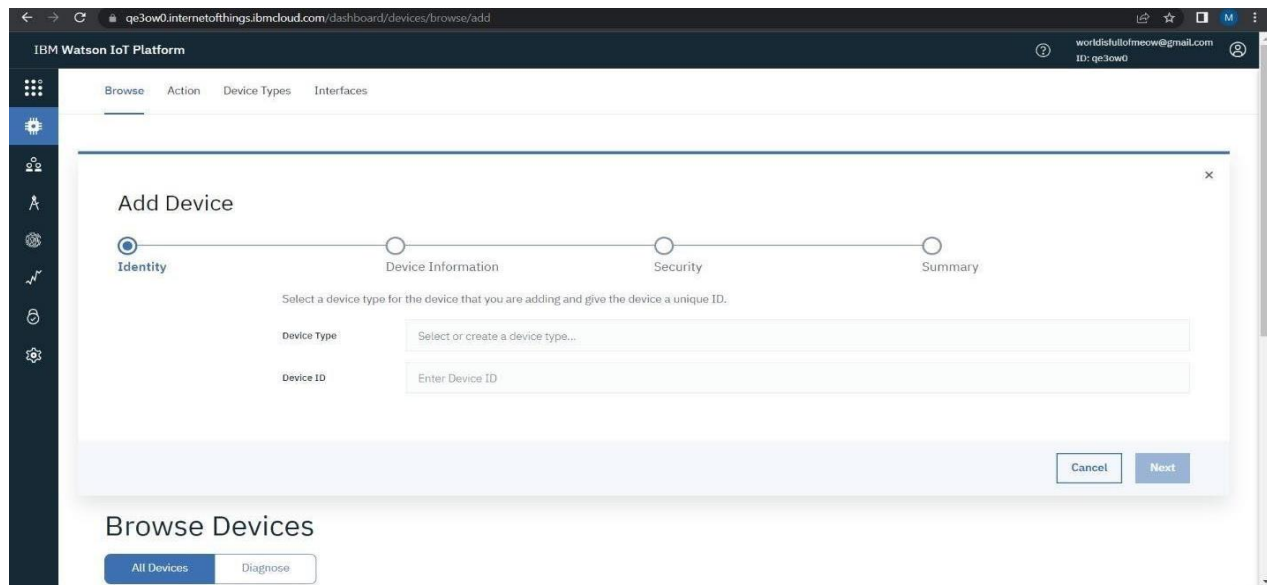
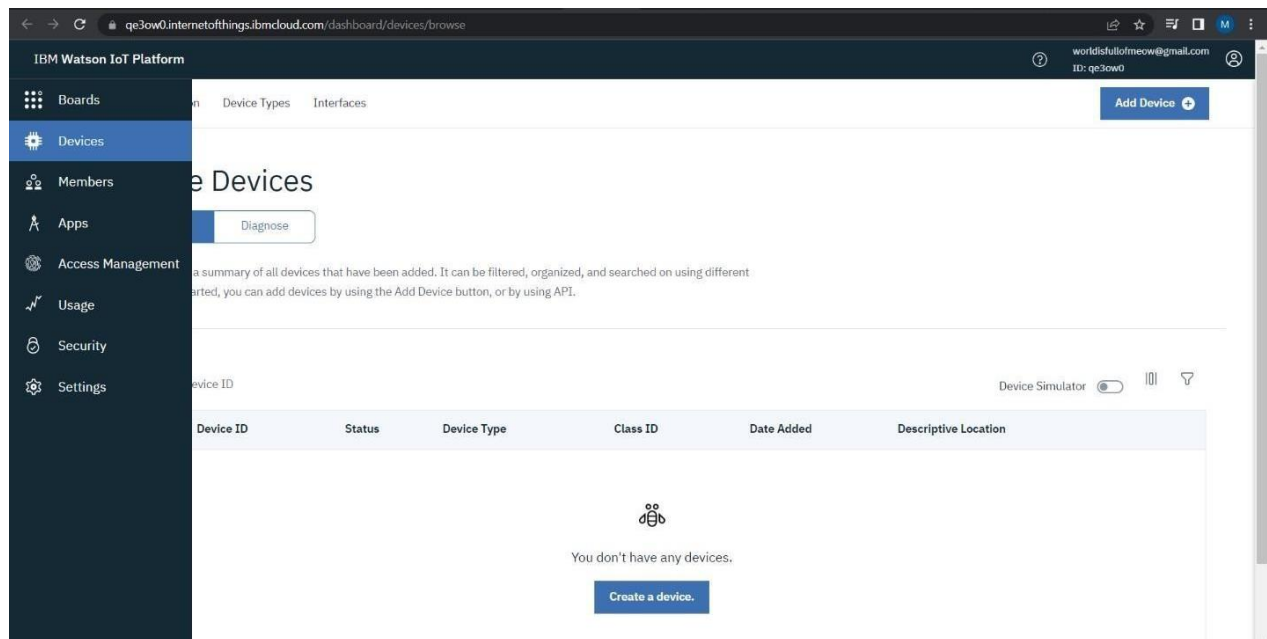
This table shows a summary of the members of the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add members by clicking Add Members, or by using the API. For more information about members, see [Managing user access](#).

<input type="checkbox"/>	Email Address	Name	Role	Added By	Expires	
1 result						
<input type="checkbox"/>	worldisfulofmeow@gmail.com	worldisfulofmeow@gmail.com	Administrator	-	-	

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



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



← → ↻ qe3ow0.internetofthings.ibmcloud.com/dashboard/devices/browse/add IBM Watson IoT Platform worldisfullofmeow@gmail.com ID: qe3ow0

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: Nodemcu

Device ID: 199795

Cancel Next

Browse Devices

All Devices Diagnose

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

← → ↻ qe3ow0.internetofthings.ibmcloud.com/dashboard/devices/browse/add IBM Watson IoT Platform worldisfullofmeow@gmail.com ID: qe3ow0

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

You can modify the default device information and enter more information about the device for identification purposes.

Serial Number	Enter Serial Number	Manufacturer	Enter Manufacturer
Model	Enter Model	Device Class	Enter Device Class
Description	Enter Description	Firmware Version	Enter Firmware Version
Hardware Version	Enter Hardware Version	Descriptive Location	Enter Descriptive Location

Add Metadata

Back Next

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

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform. The 'Security' step is active, showing two options for selecting an authentication token: 'Auto-generated authentication token (default)' and 'Self-provided authentication token'. The 'Auto-generated' option is selected, and a text box displays the generated token: '1997199520012005'. Below the token, a note states: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored. Authentication token are encrypted before we store them.'

IBM Watson IoT Platform

worldisfullofmeow@gmail.com
ID: qe3ow0

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

There are two options for selecting a device authentication token.

Auto-generated authentication token (default)

Allow the service to generate an authentication token for you. Tokens are 18 characters and contain a mix of alphanumeric characters and symbols. The token is returned to you at the end of the device registration process.

Authentication Token: 1997199520012005

Self-provided authentication token

Provide your own authentication token for this device. The token must be between 8 and 36 characters and contain a mix of lowercase and uppercase letters, numbers, and symbols, which can include hyphens, underscores, and periods. Do not use repeated characters, dictionary words, user names, or other predefined sequences.

Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored. Authentication token are encrypted before we store them.

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

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform, now at the 'Summary' step. It displays the device information: 'Device Type: NodeMCU', 'Device ID: 199795', and 'Security Token: 1997199520012005'. A 'View Metadata' button is visible next to the device ID. At the bottom right, there are 'Back' and 'Finish' buttons.

IBM Watson IoT Platform

worldisfullofmeow@gmail.com
ID: qe3ow0

Browse Action Device Types Interfaces

Add Device

Identity Device Information Security Summary

Verify that the following information is correct then select Finish

Device Type: NodeMCU

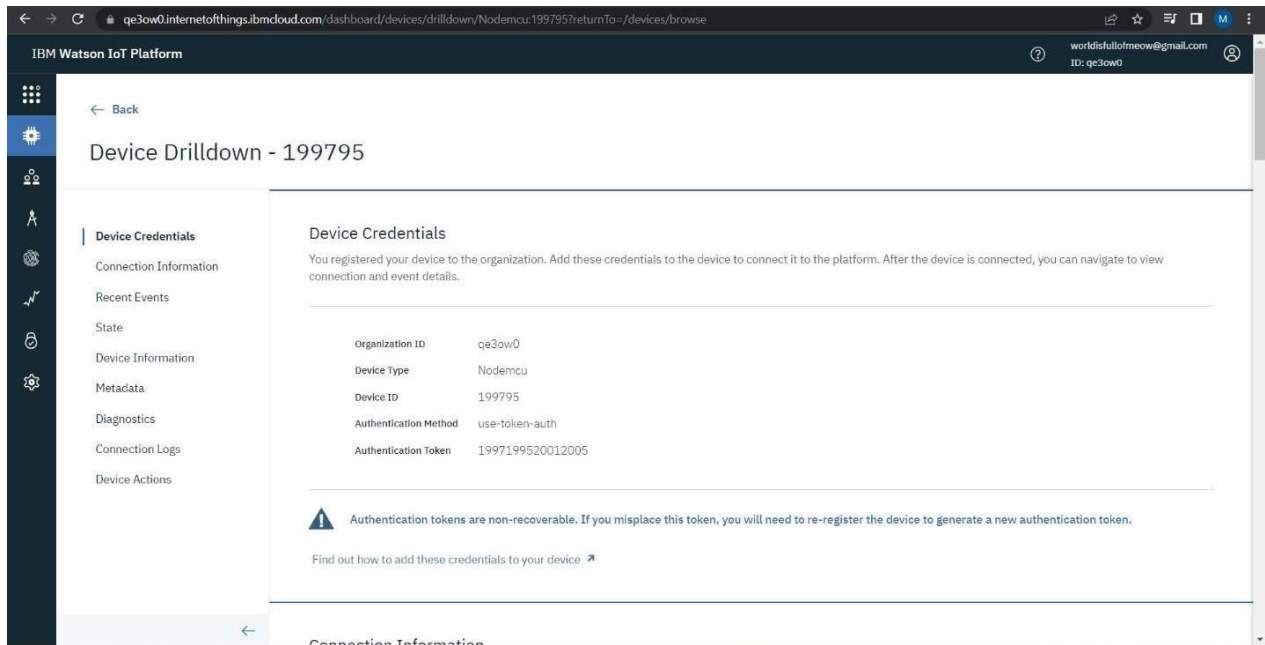
Device ID: 199795

View Metadata

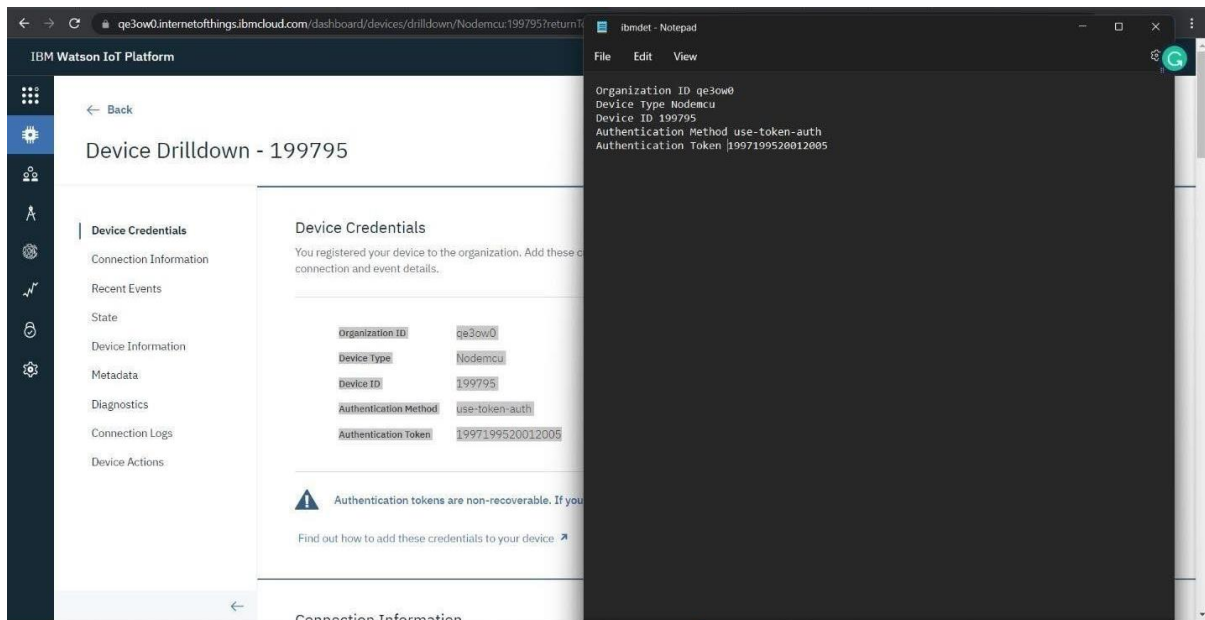
Security Token: 1997199520012005

Back Finish

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



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



20. Clicking on the device tab we can now see the added device. Clicking on it will display the other details.

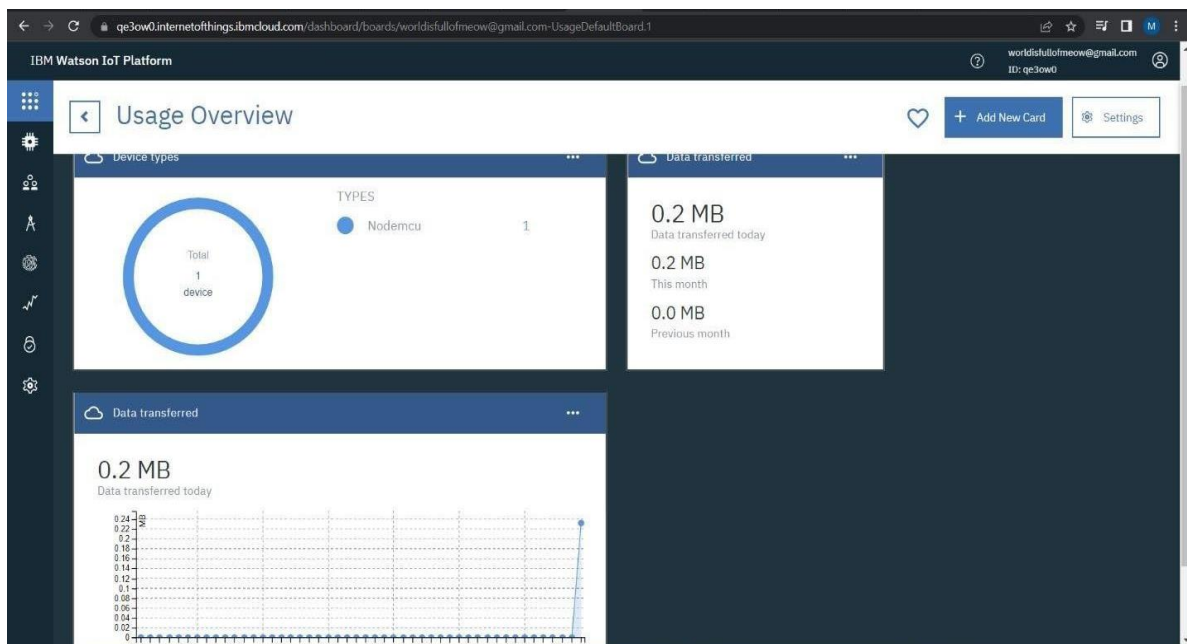
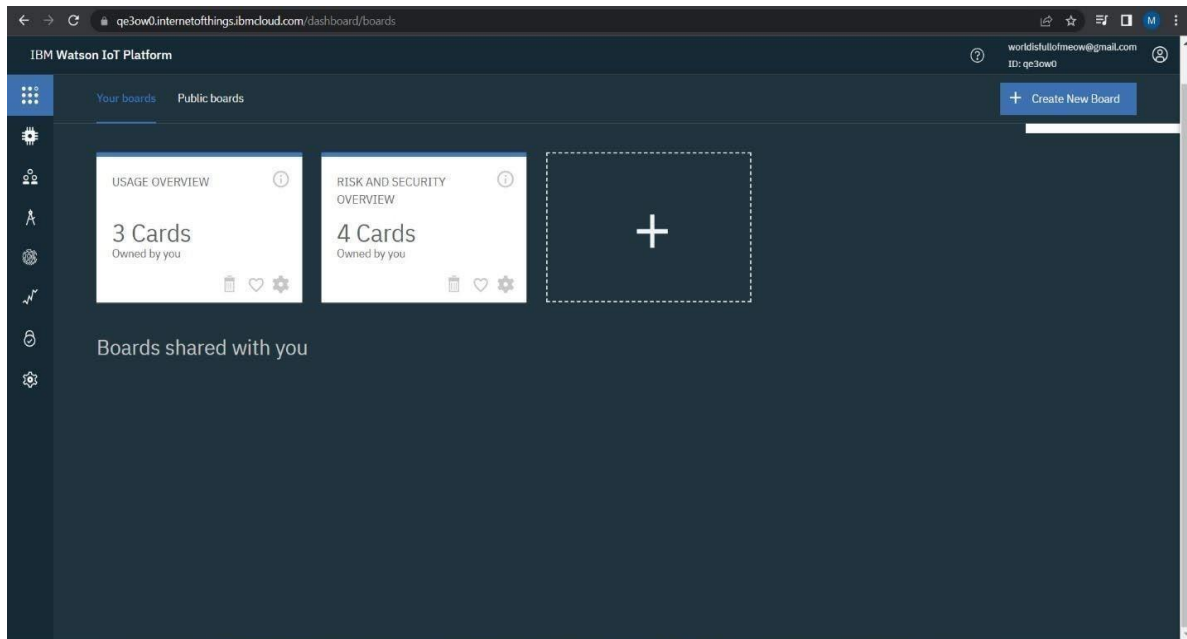
It has different tabs like Identity, Device Information, State and login.

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. A table lists devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The first device listed is '199795', which is 'Disconnected' and of type 'Nodemcu'. Below the table, a detailed view for the selected device is shown, featuring tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is active, displaying a message: 'The recent events listed show the live stream of data that is coming and going from this device.' Below this message is a table with columns: Event, Value, Format, and Last Received. The bottom of the screen shows a loading icon and the text 'Waiting for device events...'.

This screenshot is identical to the one above, showing the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. A table lists devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The first device listed is '199795', which is 'Disconnected' and of type 'Nodemcu'. Below the table, a detailed view for the selected device is shown, featuring tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is active, displaying a message: 'The recent events listed show the live stream of data that is coming and going from this device.' Below this message is a table with columns: Event, Value, Format, and Last Received. The bottom of the screen shows a loading icon and the text 'Waiting for device events...'.

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

21. The Boards will display card for the project.



RESULT:

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

