

TEAM ID :PNT2022TMID30354

CREATE IBM WATSON IOT PLATFORM AND DEVICE

AIM:

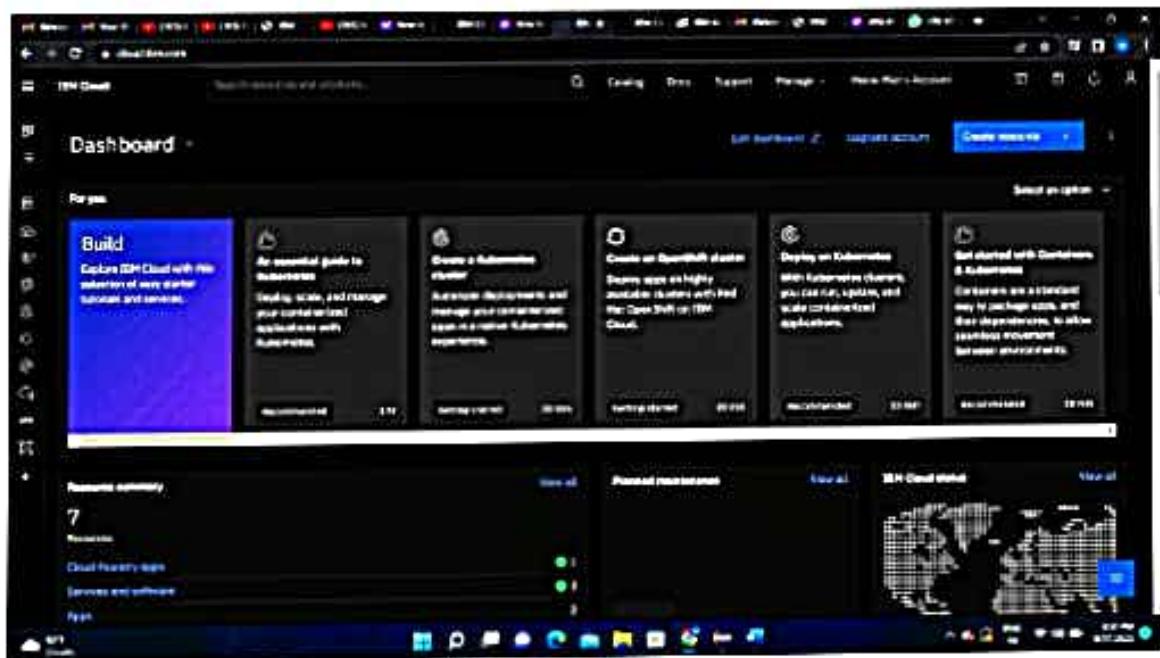
To create the IBM Watson IoT platform and device.

STEPS:

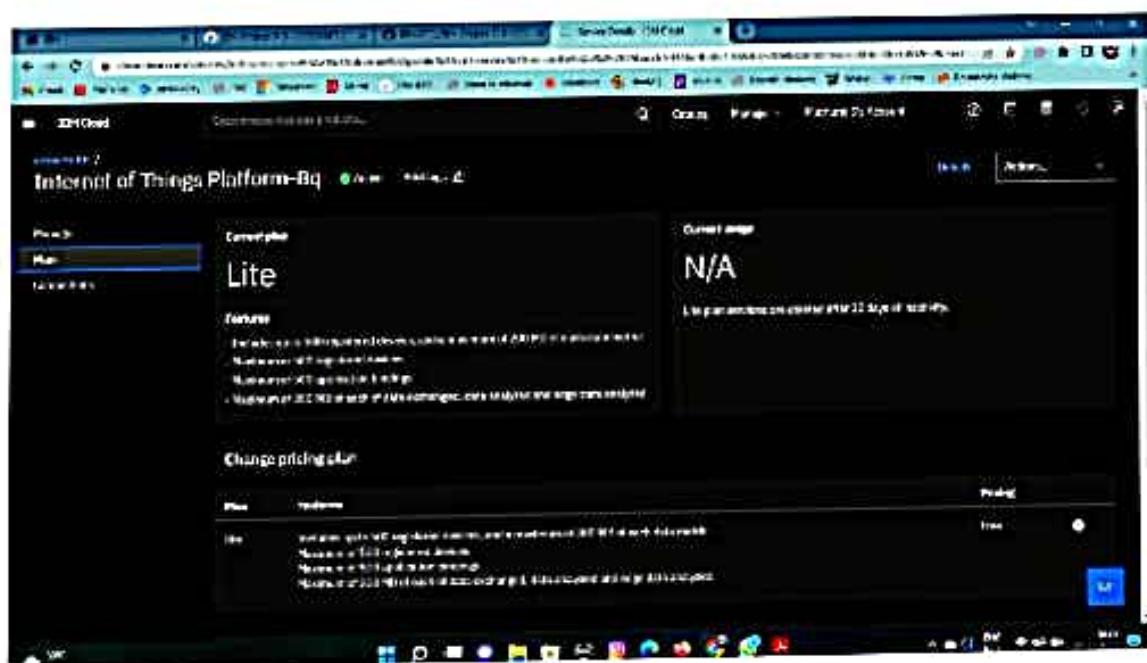
1. Firstly create an IBM cloud account with IBM id and a password.



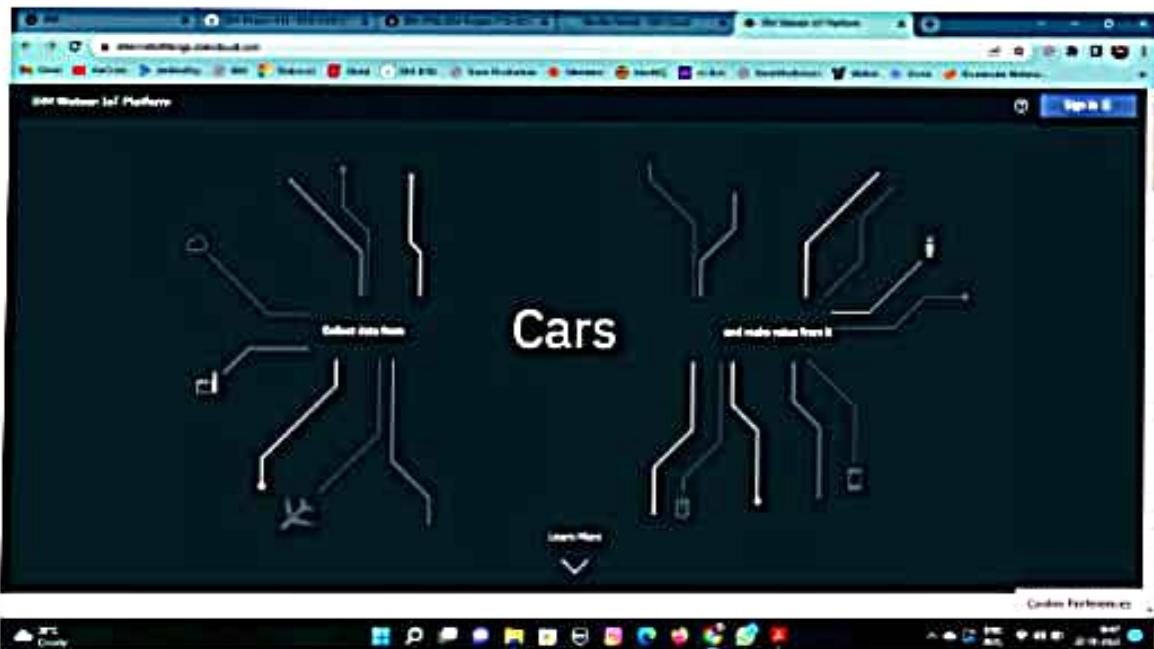
2. Homepage of IBM cloud.



3. Internet of Things Platform Child_safety will be created, where there are different options like manage, plan, and connection.

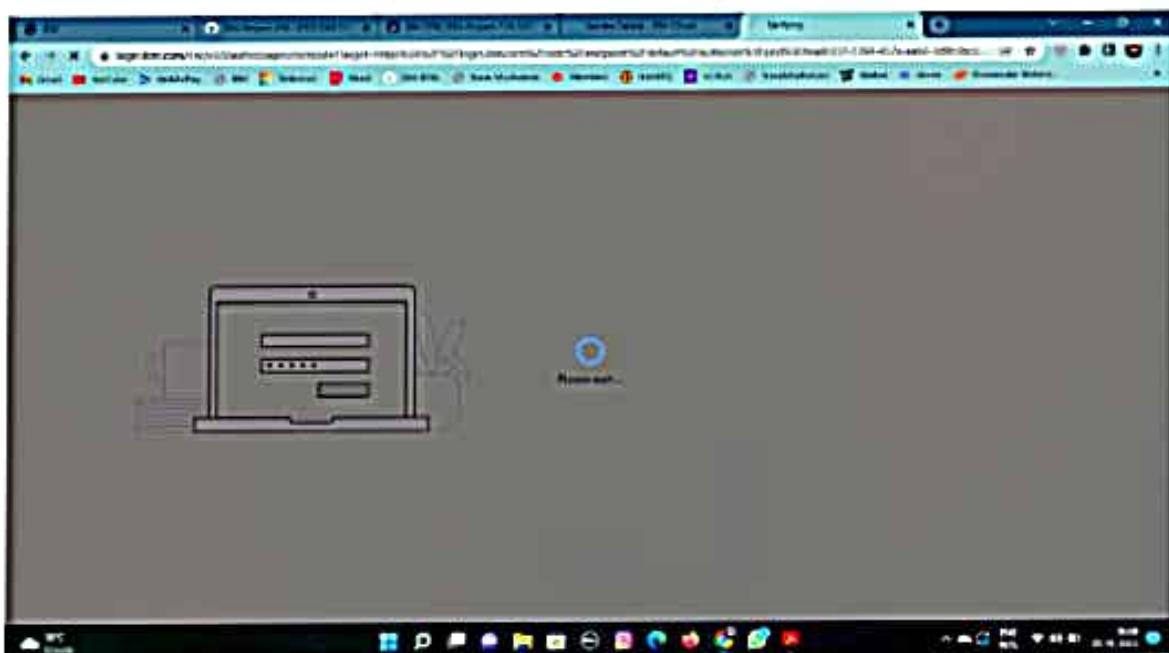


4. Clicking on the launch button in the manage tab, it will open to this.

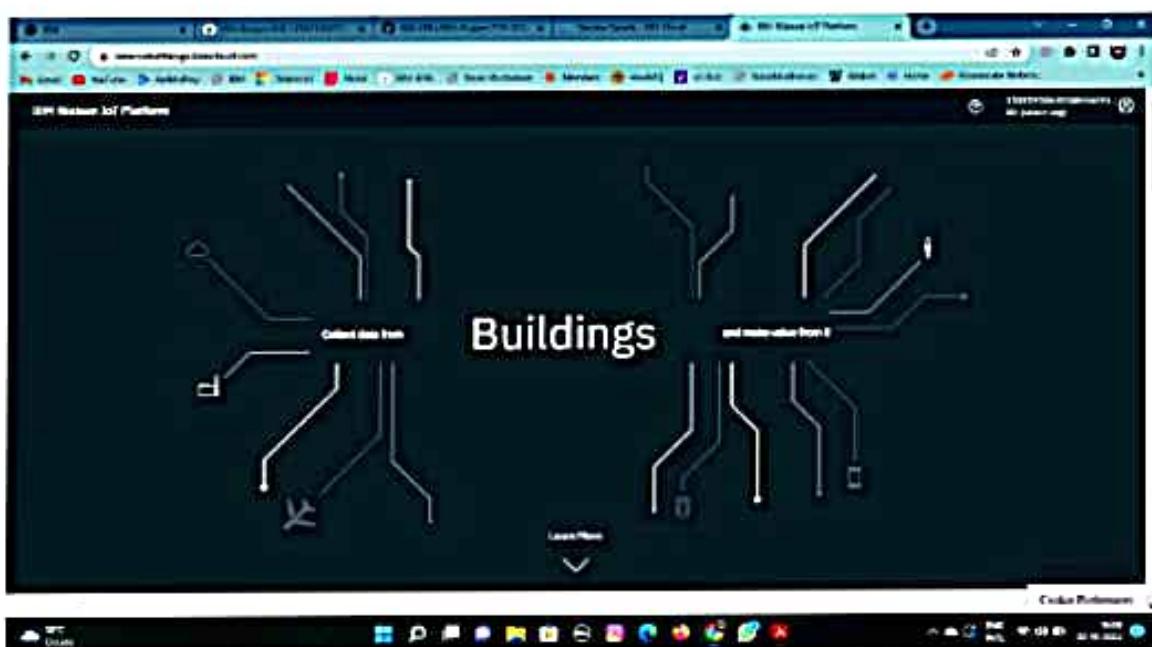


5. Enter the details to sign into the Watson Cloud to create a device.

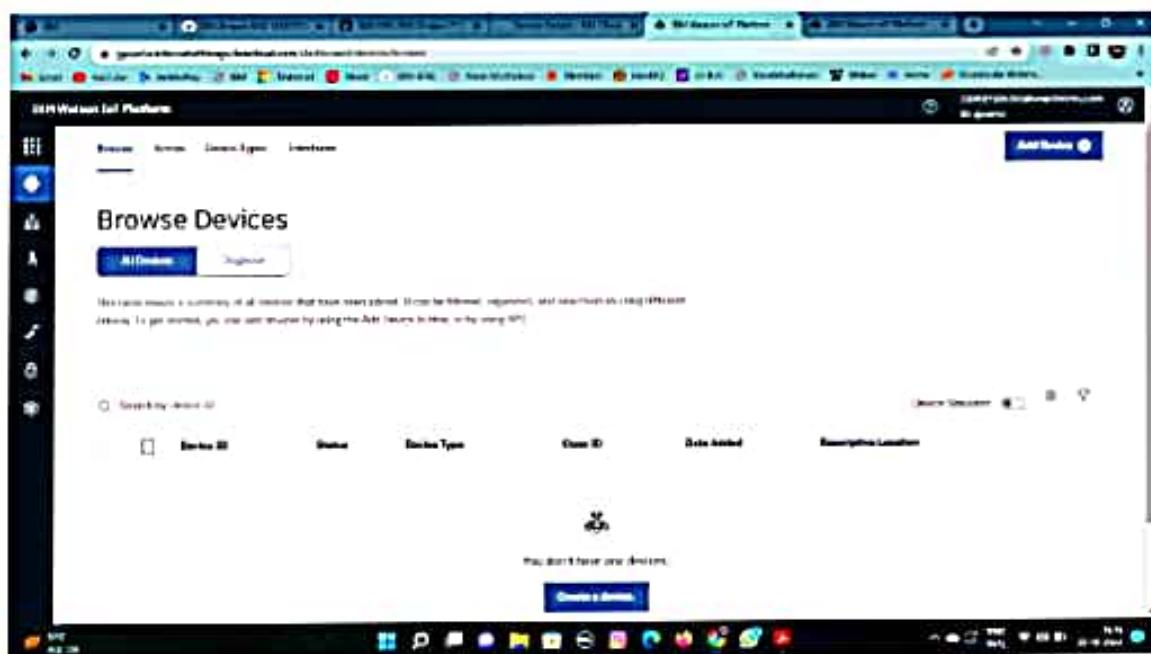




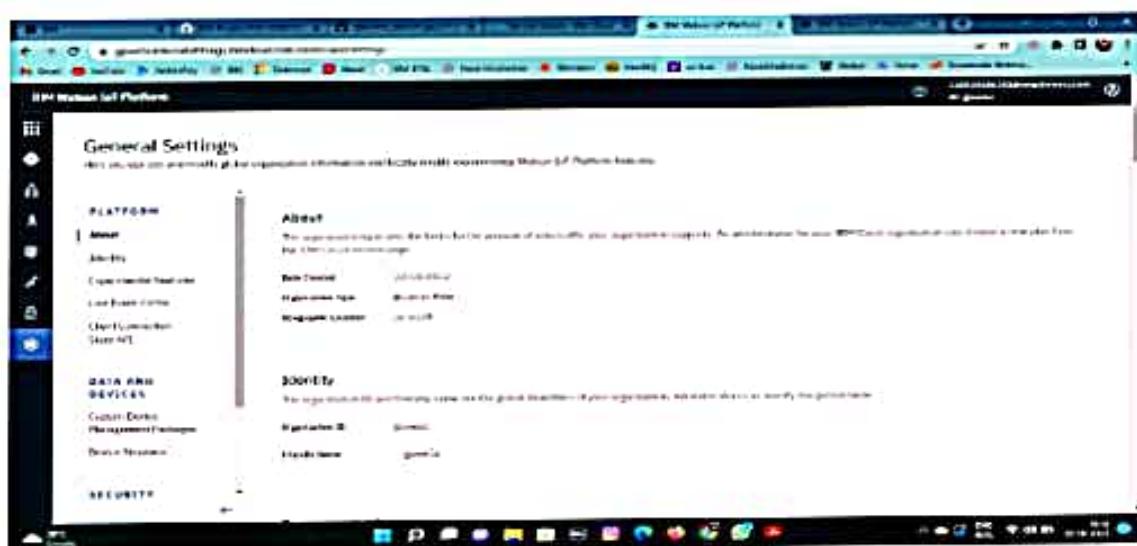
6. Once logged in the name will be displayed and it goes back to the first page.



7. 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.



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



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

The screenshot shows the 'Policies' section of the IBM Watson IoT Platform. It lists three policies:

- Connection Security**: Describes how to connect to the device over a secure connection.
- Restricted**: Describes access from specific IP addresses. It includes a note about supporting multiple connections.
- WiFi Direct**: Describes how to connect to the device via WiFi Direct. It includes a note about supporting multiple connections.

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

The screenshot shows the 'Usage' section of the IBM Watson IoT Platform. It displays usage statistics:

- Usage Summary**: Shows 0 bytes transferred between the device and the cloud. A note indicates that data transferred off-cloud and uploaded is not included.
- Data Transferred**: Shows 0 bytes transferred off-cloud and uploaded.

11. The member tab is add the team's members to work in the platform.

The screenshot shows the 'Browse Members' section of the IBM Watson IoT Platform. At the top, there is a search bar with the placeholder 'Type the member name to search for...'. Below the search bar is a table with columns: 'Email address', 'Name', 'Role', and 'Actions'. A single row is visible in the table, showing '11001010@ibm.com', 'IBM Watson IoT Platform', 'Administrator', and a set of three small icons for more actions. On the left side of the page, there is a sidebar with various navigation icons and a 'Browse' tab selected. At the bottom right of the page, there is a blue button labeled '+ Add Member'.

12. 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' section of the IBM Watson IoT Platform. At the top, there is a search bar with the placeholder 'Type the API description or service API...'. Below the search bar is a table with columns: 'Key', 'Identifier', 'Role', and 'Actions'. The table is currently empty, showing only a header row. In the center of the page, there is a large icon of a bee with two circles above it. Below the icon, the text 'There are no API Keys' is displayed, followed by a blue 'Generate API Key' button.

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

The screenshot shows the 'Browse Devices' page of the IBM WebSphere IoT Platform. At the top, there are tabs for 'Browse', 'Actions', 'Device Types', and 'Instances'. A blue 'Add Device' button is located in the top right corner. The main area is titled 'Browse Devices' with sub-titles 'All Devices' and 'Devices'. Below this is a note: 'This table shows a summary of all devices that have been added to Cloud Foundry, registered, and assigned to using different strategy. To get started, you can add devices by using the Add Device button, or by using API.' A table follows, showing one device entry:

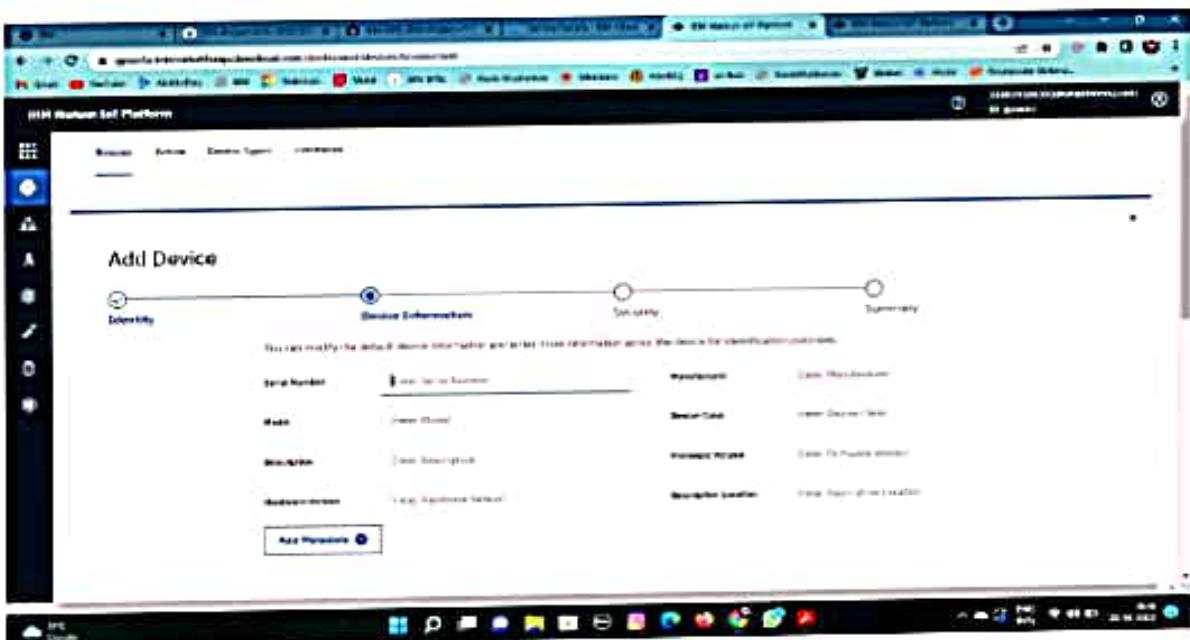
	Device ID	Status	Device Type	Cloud ID	Date Added	Descriptive Location
<input type="checkbox"/>	199795	Disconnected	Beamer	Device	32-Oct-2012 20:29	

At the bottom of the table, it says 'Items per page: 50' and '1-1 of 1 item'. On the right, there are buttons for 'First page', 'Previous', 'Next', and 'Last page'. The bottom of the screen shows the Windows taskbar with various icons.

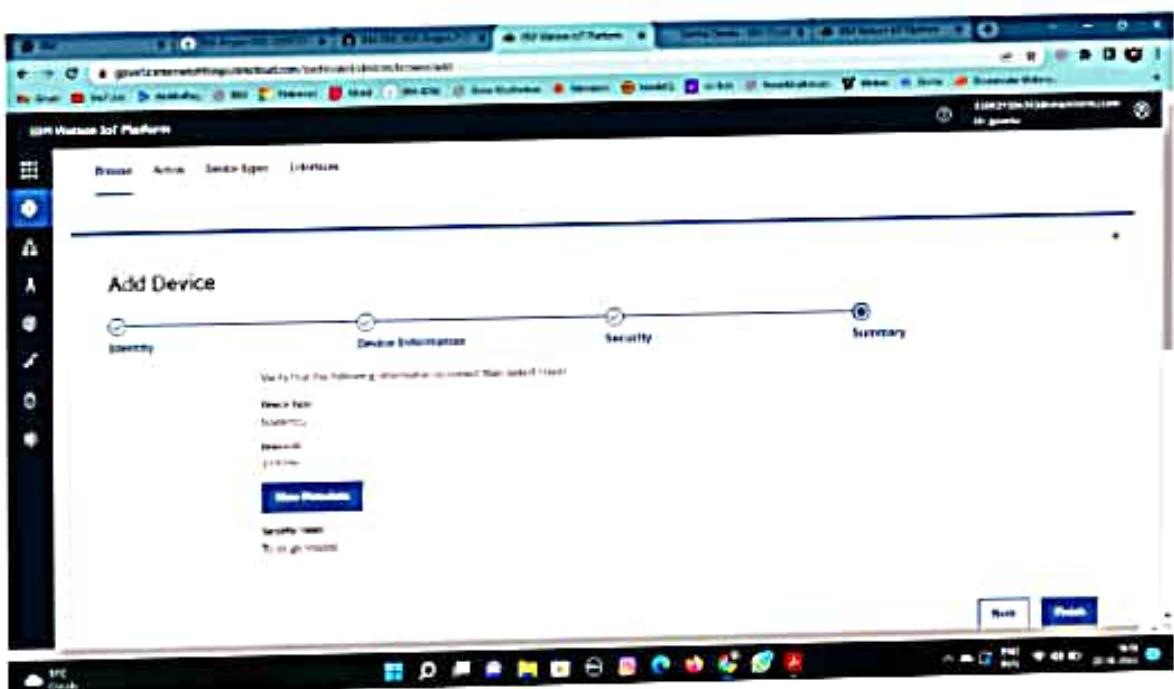
The screenshot shows the 'Add Device' wizard, Step 1: Identify. The title bar says 'Add Device' and the sub-title is 'Identify'. There are four circular progress indicators at the top. Below them is a note: 'Enter a device type for the device that you are adding, and give the device a unique ID.' There are two input fields: 'Device ID' with the value '199795' and 'Device Type' with the value 'Beamer'. At the bottom right are 'Cancel' and 'Next' buttons.

Below this, the 'Browse Devices' page is partially visible, showing the same device entry as the previous screenshot.

14. This page to enter extra details of the hardware.



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



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

The screenshot shows a web browser window for the IBM Watson IoT Platform. The URL is <https://iot.ng.bluemix.net/api/v1/devices/199795>. The page title is "Device Drilldown - 199795". On the left, there's a sidebar with icons for Device Credentials, Connected Applications, Remote Device, More, Device Information, Properties, Diagnostics, Connectivity Log, and Device Services. The main content area is titled "Device Credentials" and contains the following information:

Attribute	Value
Deployment ID	gw001
Device Type	raspberrypi
Device ID	gw001
Communication Method	MQTT over WiFi
Authorisation Token	0e310a00-0001-4001-a001-0e310a000001

Below this, there's a warning message: "Authentication tokens are non-renewable. If you lose this token, you will need to re-impose the device to generate a new authentication token." At the bottom, it says "Please add device and token under Data in your device".

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

The screenshot shows a web browser window for the IBM Watson IoT Platform. The URL is <https://iot.ng.bluemix.net/api/v1/devices/199795/apikeys>. The page title is "Browse API Keys". The sidebar on the left has an icon for API Keys. The main content area is titled "Browse API Keys" and contains the following text: "This table shows a summary of the API keys that have been added for this organization. It can be filtered by name, description, and expiration using filters on the right. To get started, you can add an API key by clicking Generate API Key or by using the API. For more information about adding API keys, see API Keys Overview." Below this, there's a table with columns: Name, Description, Expiry, and Actions. A single row is shown with the value "There are no API Keys". At the top right, there's a "Generate API Key" button.

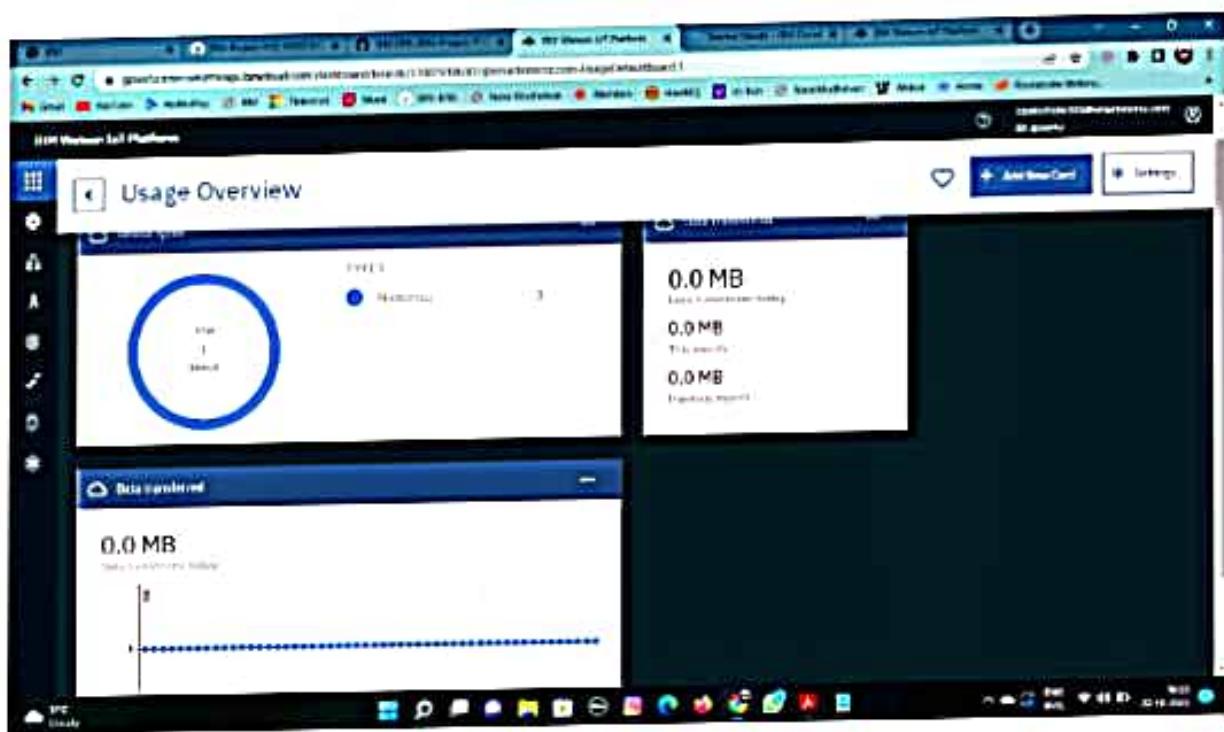
The screenshot shows the IBM Watson IoT Platform Device Explorer interface. At the top, there are tabs for 'Browse' (selected), 'Admin', 'Device Types', and 'Interfaces'. A search bar is present above a table. The table has columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Locator. One row is visible in the table, showing:

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Locator
29979	Not Connected	Node.js	Device	22 Nov 2012 21:29	

Below the table, there are buttons for 'Search', 'Reset', 'Recent Devices', 'Show', and 'Logs'. At the bottom, there are pagination controls: 'Items per page: 50', '1-1 of 1 item', and '1 of 1 page'.

18.TheBoardswilldisplaycardforthe project.

The screenshot shows a Trello board titled 'Project Board'. The board has two lists: '4 Cards' and '3 Cards'. The '4 Cards' list contains one card with the text 'Create WiFi AP'. The '3 Cards' list contains one card with the text 'Create Node.js App'. Below the lists is a large empty box with a plus sign in the center, used for adding new cards. The board is titled 'Project Board' and has a subtitle 'Last updated 1 min ago'. There is also a section titled 'Boards shared with you'.



RESULT:
An IBM Watson cloud for IoT device is created.