

# SPRINT-1

Date	06 November 2022
Team ID	PNT2022TMID10541
Project Name	Real Time River Water Quality Monitoring And Control System
Maximum Marks	20 marks

## Step-1: Creating IBM Cloud and Using its Service.

The screenshot displays the IBM Cloud dashboard interface. At the top, there's a navigation bar with the IBM Cloud logo, a search bar, and links to 'Catalog', 'Manage', and a user profile. The main content area is titled 'Dashboard' and features a 'For you' section with several recommended services and tutorials. These include 'Build' (a collection of easy starter tutorials), 'Build a web app with Watson Speech to Text' (15 min), 'Build a Virtual Private Cloud (VPC)' (7 min), 'Get Started with Watson Studio' (2 hr), 'Get Started with the CLI' (10 min), and 'IBM Cloud Migration Services' (5 min). Below this, there's a 'News' section with articles like 'WebSphere Application Server Support Restatement' and 'IBM Adds Lifecycle Services to Enterprise Networking and Deepens Strategic Partnership with Cisco'. To the right of the news are sections for 'Recent support cases', 'Planned maintenance', and 'IBM Cloud status'. The bottom of the dashboard shows a Windows taskbar with various application icons and system tray information including the date and time (19:23, 13-11-2022).

## Step-2: Configure the IBM cloud service and creating IOT platform

The screenshot shows the IBM Cloud catalog page for the Internet of Things Platform. The page is titled "Internet of Things Platform" and includes a description: "This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data." The page is divided into two tabs: "Create" and "About". The "Create" tab is active, showing a "Select a location" dropdown menu with "Frankfurt (eu-de)" selected. Below this is a "Select a pricing plan" section with a table of plans. The table has three columns: "Plan", "Features", and "Pricing". The "Lite" plan is selected, showing features like "Includes up to 500 registered devices, and a maximum of 200 MB of each data metric" and "Maximum of 500 registered devices". The pricing is "Free". On the right side, there is a "Summary" panel showing the service name, location, plan, and resource group. At the bottom, there is a "Create" button and an "Add to estimate" button. The page also includes a sidebar with navigation links like "Type", "Service", "Provider", "Last updated", "Category", "Compliance", "Location", and "Related links".

IBM Cloud

Internet of Things Platform - IBM

cloud.ibm.com/catalog/services/internet-of-things-platform

IBM Cloud

Search resources and products...

Catalog Manage Sigireddy Uday Kiran's ...

Catalog /

### Internet of Things Platform

This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.

**Create** About

Type  
Service

Provider  
IBM

Last updated  
08/15/2022

Category  
Internet of Things

Compliance  
IAM-enabled

Location  
Frankfurt  
London  
Dallas  
Washington DC

Related links  
[Docs](#)  
[Terms](#)

Select a location

Frankfurt (eu-de)

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

Plan	Features	Pricing
Lite	<b>Includes up to 500 registered devices, and a maximum of 200 MB of each data metric</b> 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

The Lite service plan for Internet of Things Platform includes up to 500 registered devices, and a maximum of 200 MB each of data exchanged, data analyzed, and edge data analyzed per month.

**Summary**

**Internet of Things Platform** Free

Location: Frankfurt  
Plan: Lite  
Service name: Internet of Things Platform-1c  
Resource group: Default

☐ I have read and agree to the following license agreements:  
[Terms](#)

Create

Add to estimate

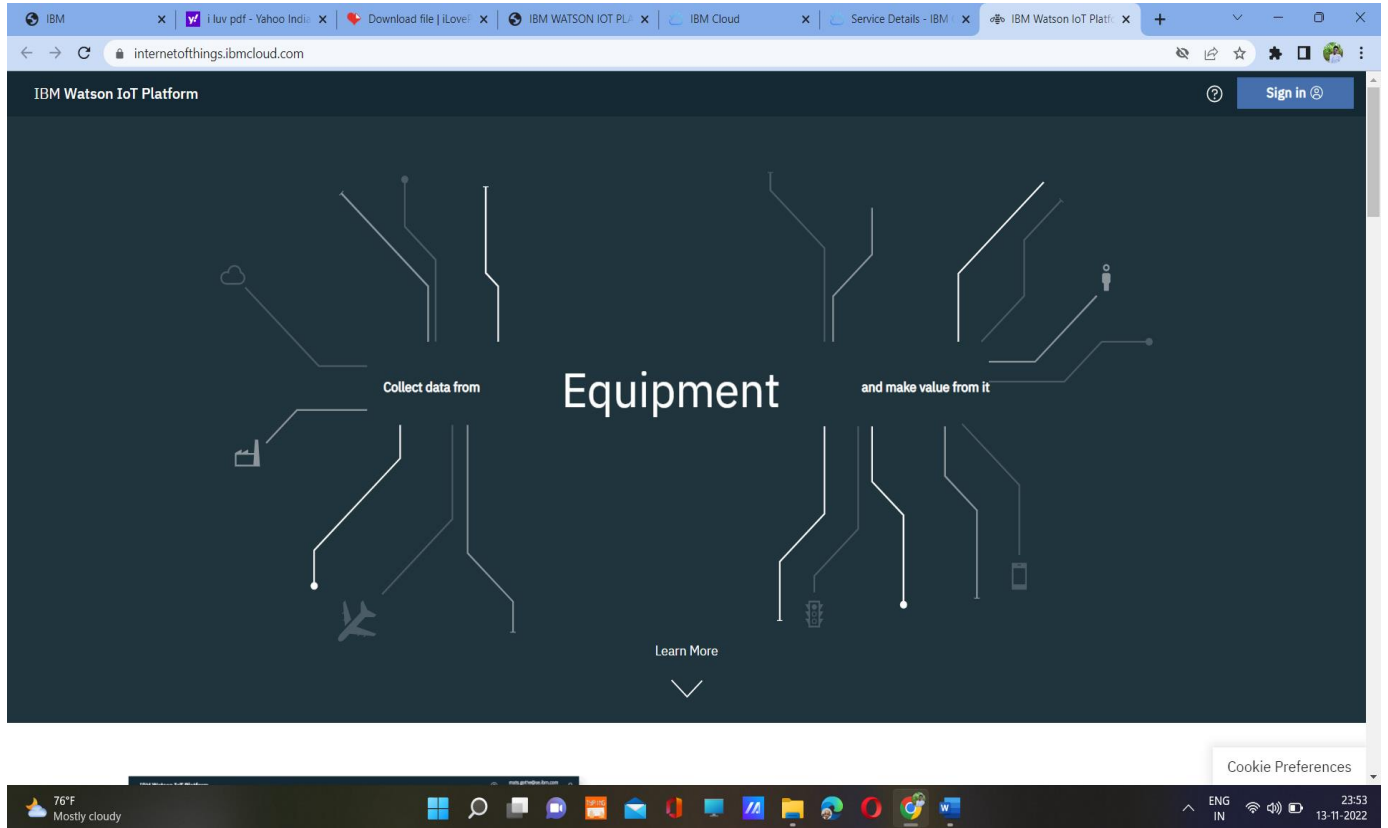
77°F Mostly cloudy

ENG IN 22:54 13-11-2022

Step-3: IBM Watson IOT platform acts as the mediator to connect the web application to IOT devices, hence launching IBM Watson IOT platform.

The screenshot displays the IBM Cloud console interface for the 'Internet of Things Platform-yd' resource. The browser's address bar shows the URL: `cloud.ibm.com/services/iotf-service/crm%3Av1%3Abluemix%3Apublic%3Aiotf-service%3Aeu-de%3Aa%2F1df3e9e1fd7c461eb260eafe51b97ef9%3Aaee481b5-75ee-4d39-ba72-a50150de...`. The console header includes the IBM Cloud logo, a search bar, and navigation links for 'Catalog', 'Manage', and the user 'Sigireddy Uday Kiran's ...'. The main content area features a 'Manage' sidebar with 'Plan' and 'Connections' options. The central panel displays a large blue icon representing IoT connectivity, followed by the heading 'Let's get started with IBM Watson IoT Platform' and a subtext: 'Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.' Below this, there are 'Launch' and 'Docs' buttons. A section titled 'Ready for the next level?' introduces the 'IBM Watson IoT Platform Journey' with three stages: 'Lite' (checked), 'Non-Production', and 'Production'. Each stage has a brief description of its capabilities. The bottom of the screen shows a Windows taskbar with various application icons, a weather widget indicating 76°F and 'Mostly cloudy', and system information including 'ENG IN', signal strength, and the date '23-51 13-11-2022'.

Step-4: IBM Watson IOT platform is created



Step-5: In order to connect the IOT device to the IBM cloud ,create device in the IBM Watson IOT Platform and get the device credentials.

IBM Watson IoT Platform

720819106094@smartinternz.com  
ID: b8z8q7

Browse Action Device Types Interfaces

Back Next

## Browse Devices

All Devices Diagnose

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.

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
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You don't have any devices.

IBM WATSON IO....docx

76°F Mostly cloudy

ENG IN 00:03 14-11-2022

Step-6: Connect the device and start simulating.

The screenshot shows the IBM Watson IoT Platform interface. The main page is titled "Device Drilldown - monitorsensor1". On the left, there is a sidebar with navigation options: Connection Information, Recent Events, State, Device Information, Metadata, Diagnostics, Connection Logs, and Device Actions. The "Recent Events" section is active, showing a table of events.

Event	Value
event_1	{"Temperature":20,"pH":35,"Turbidity":10}
event_1	{"Temperature":7,"pH":74,"Turbidity":10}
event_1	{"Temperature":15,"pH":24,"Turbidity":10}
event_1	{"Temperature":40,"pH":60,"Turbidity":10}
event_1	{"Temperature":39,"pH":16,"Turbidity":10}

Below the table, there is a "State" section. A modal window is open on the right, titled "Device Type: riverwatermonitor1". It contains the following fields:

- Event type name: event\_1
- Schedule: 20 Every Minute
- Payload: 

```
{
  "Temperature": random(0, 100),
  "pH": random(0, 100),
  "Turbidity": random(0, 100)
}
```
- Buttons: Send, Upload a CSV file, Cancel, Save

## SIMULATION:

The simulation shows the Temperature, pH and Turbidity value.

The screenshot displays the IBM Watson IoT Platform interface. The top header shows 'IBM Watson IoT Platform' and 'ID: w1nouz'. The left sidebar contains navigation icons for various functions. The main content area is titled 'Device Drilldown - monitorsensor1' and features a 'Recent Events' section. This section includes a table with five rows of event data, each containing an event ID, a JSON string of sensor readings, the format (json), and the time received. A status box at the bottom right indicates '1 Simulation running'.

← Back

### Device Drilldown - monitorsensor1

Connection Information

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"Temperature":9,"pH":19,"Turbidity":84}	json	a few seconds ago
event_1	{"Temperature":70,"pH":49,"Turbidity":9}	json	a few seconds ago
event_1	{"Temperature":16,"pH":30,"Turbidity":25}	json	a few seconds ago
event_1	{"Temperature":8,"pH":1,"Turbidity":13}	json	a few seconds ago
event_1	{"Temperature":49,"pH":57,"Turbidity":75}	json	a few seconds ago

1 Simulation running