

Date	29 October 2022
Team ID	PNT2022TMID18625
Project Name	Smart solutions for railways
Maximum Marks	20 marks

Step-1: Creating IBM Cloud

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 for Catalog, Manage, and Vishnu M's Account. The main section is titled 'Dashboard' and features a 'For you' section with several recommended resources:

- Build**: Explore IBM Cloud with this selection of easy starter tutorials and services. (Recommended, 5 min)
- Architecture center**: Learn best practices and leverage reference architectures for the cloud. (Getting started, 15 min)
- Build a web app with Watson Speech to Text**: Deploy a conversational interface compatible with any application, device, or channel. (Popular, 2 hr)
- Get Started with Watson Studio**: Get started with using AI and Cloud Object Storage in 15 minutes. (Getting started, 7 min)
- Build a Virtual Private Cloud (VPC)**: Upgrade to a paid account to create your own protected space in the IBM Cloud. (Recommended, 2 min)
- IBM Watson Knowledge Catalog**: Help your data citizens easily find, prepare, understand and use the data they need through an enterprise data catalog & governance platform. (Recommended, 5 min)
- Learn about IAM Roles**: Learn about roles in IBM Cloud and how they control access. (Recommended, 5 min)

Below the 'For you' section, there are four main panels:

- News**: View all. Includes articles like 'WebSphere Application Server Support Restatement', 'IBM Adds Lifecycle Services to Enterprise Networking and Deepens Strategic Partnership with Cisco', and 'All About IBM Storage's Price and Supply Guarantee'.
- Recent support cases**: View all. Includes a summary of support cases and a link to learn more about how to get support.
- Planned maintenance**: View all. Includes a 'Clear skies!' message and a link to view scheduled maintenance events.
- IBM Cloud status**: View all. Shows a world map with a green dot indicating 'No issues'.


On the right side, there's a user profile section for 'Vishnu M' with links for Profile, Log in to CLI and API, Privacy, Change theme, and Log out.

Step-2: Using IBM CLOUD services

services

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[Sell on IBM Cloud](#) [Catalog settings](#)




IBM Cloud Monitoring

By IBM

Offers visibility into the performance and health of your infrastructure and apps, with in-depth troubleshooting and alerting.

Lite • Free • EU Supported • IAM-enabled • IBM supported




IBM Cognos Dashboard Embedded

By IBM

Build and deliver visually stunning dashboards that accelerate your journey to a data driven business.

Lite • Free • IAM-enabled • IBM supported




IBM Log Analysis

By IBM

IBM Log Analysis provides log collection and log search for IBM Cloud. Define alerts and design custom views to monitor application and system logs.

Lite • Free • EU Supported • IAM-enabled • IBM supported




IBM Match 360 with Watson

By IBM

IBM Match 360 with Watson (Match 360) improves trust in AI pipelines by identifying duplicate records and providing reliable data about your customers, supplier...

Lite • Free • IAM-enabled • IBM supported




Informix

By IBM

IBM Informix on Cloud helps businesses gain a trusted view of data in a hybrid computing environment.

IBM supported




Internet of Things Platform

By IBM


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.

Lite • Free • IAM-enabled • IBM supported




Internet Services

By IBM



IPSec VPN

By IBM




Key Protect

By IBM

<https://cloud.ibm.com>

Step-3: Configure the IBM CLOUD service and creating IOT platform



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

London (eu-gb) ▾

Select a pricing plan

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

Plan	Features	Pricing
Lite	<div>Includes up to 500 registered devices, and a maximum of 200 MB of each data metric</div> <div>Maximum of 500 registered devices</div> <div>Maximum of 500 application bindings</div> <div>Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed</div>	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: London

Plan: Lite

Service name: Internet of Things Platform-ty

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](#)

Create

Add to estimate

Step4:IBM Watson IOT platform acts as the mediator to connect the web application to IOT devices,hence launching IBM Watson IOT platform.

Resource list /

Internet of Things Platform-ma


Active Add tags

Details Actions...

Manage

Plan

Connections



Let's get started with IBM Watson IoT Platform

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

Launch Docs

Ready for the next level?

IBM Watson IoT Platform Journey

✓

Lite

The Lite service plan provides a lightweight development environment to get you started with the connectivity capabilities of Watson IoT Platform.

○

Non-Production

The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.

○

Production

The Production service is a fully-managed, enterprise offering that enables you to manage and analyze enterprise IoT data.

Activate Windows

Step 5: IBM Watson IOT platform is created



Collect data from



and make value from it



Equipment

[Learn More](#)



Step 6: In order to connect the IOT device to the IBM cloud,create device in the IBM Watson IOT Platform and get the device credentials.

The screenshot displays the 'Device Drilldown' interface for a device named 'MKSJ16'. On the left is a dark sidebar with various icons. The main content area is divided into two sections: 'Connection Information' and 'Recent Events'.

Connection Information

Basic connection information about this device.

Device ID	MKSJ16
Device Type	b11m3edevicetype
Date Added	Nov 3, 2022 12:42 PM
Added By	monishkumarts@student.autmdu.in
Connection Status	Disconnected

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	["available seats":76,"longitude":-95,"latitude":...	json	

1 Simulation running

Step-7:Connect the device and start simulating.

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← Back

Device Drilldown - MKSJ16

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

Recent Events

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

Event	Value	Format
event_1	{"available seats":60,"longitude":-14,"latitude":...	json
event_1	{"available seats":8,"longitude":-178,"latitude":...	json
event_1	{"available seats":45,"longitude":-34,"latitude":...	json
event_1	{"available seats":47,"longitude":-111,"latitude":...	json
event_1	{"available seats":17,"longitude":21,"latitude":-...	json

State

This table shows a list of data points that are reported by this device.

Device Type: b11m3edevicetype

Events 1

New event type +

Event type name event_1

Send

Schedule

20 Every Minute

Payload

Specify the event payload in the editor window or by uploading a CSV file.

0 {

1 "available seats": random(0, 100)

2 "longitude": random(-180, 180)

3 "latitude": random(-90, 90)

4 }

5

Upload a CSV file

Cancel Save

SIMULATION:

The simulation shows the available seats , longitude and latitude



Device Drilldown - MKSJ16

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

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	{"available seats":6,"longitude":-37,"latitude":-...	json	a few seconds ago
event_1	{"available seats":72,"longitude":123,"latitude":...	json	a few seconds ago
event_1	{"available seats":66,"longitude":-60,"latitude":...	json	a few seconds ago
event_1	{"available seats":15,"longitude":-138,"latitude"...	json	a few seconds ago
event_1	{"available seats":105,"longitude":24,"latitude":...	json	a few seconds ago

State

This table shows a list of data points that are reported by this device.

1 Simulation running