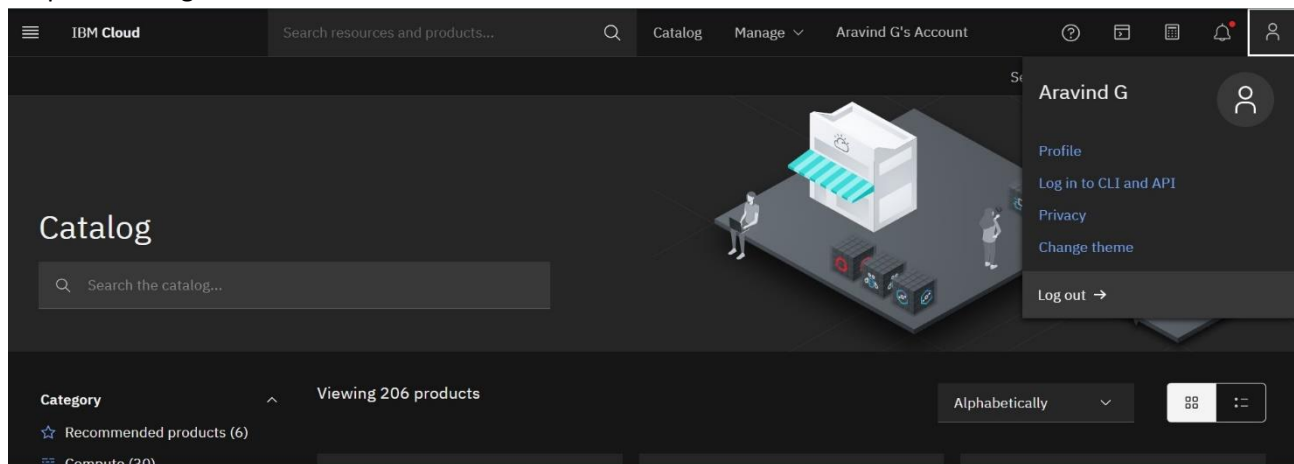


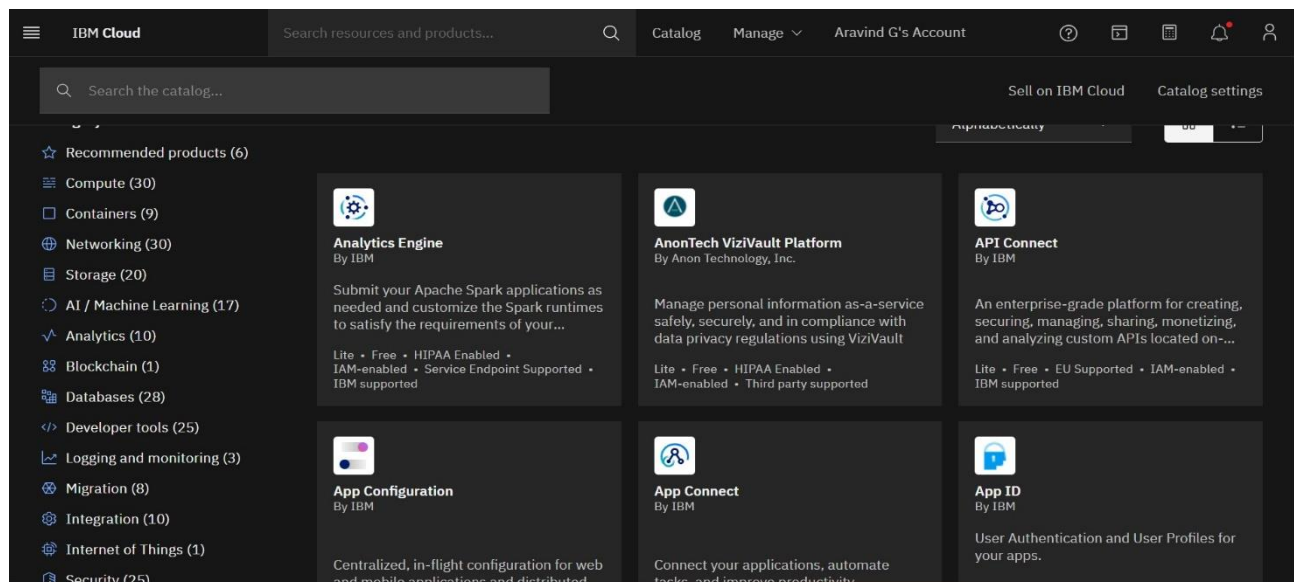
SPRINT-1

Date	29 October 2022
Team ID	PNT2022TMID00940
Project Name	Smart solutions for railways
Maximum Marks	20 marks

Step-1:Creating IBM Cloud



Step-2:Using IBM CLOUD services



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

The screenshot shows the IBM Cloud 'Internet of Things Platform' creation interface. The top navigation bar includes the IBM Cloud logo, a search bar, and links for Catalog, Manage, and the user's account (Aravind G's Account). The main content area is divided into a left sidebar with service details and a main configuration area. The sidebar lists the service type, provider (IBM), last updated date (08/15/2022), category (Internet of Things), compliance (IAM-enabled), and location. The main configuration area has tabs for 'Create' and 'About'. Under 'Create', there are sections for 'Select a location' (London (eu-gb)) and 'Select a pricing plan' (Lite). A table lists the pricing plans: Lite (Free), Standard (Free), and Enterprise (Free). The 'Lite' plan is selected. A 'Summary' panel on the right shows the service name, location, plan, and a 'Create' button. A checkbox for 'I have read and agree to the following license agreements' is also present.

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

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	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric	Free
Standard	Includes up to 1,000 registered devices, and a maximum of 400 MB of each data metric	Free
Enterprise	Includes up to 5,000 registered devices, and a maximum of 2,000 MB of each data metric	Free

Summary

Internet of Things Platform Free

Location: London

Plan: Lite

Service name: Internet of Things Platform-mi

Resource group: Default

☐ 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 IBM Watson IOT platform.

The screenshot shows the IBM Watson IoT Platform management interface. The top navigation bar includes the 'Resource list' link, the service name 'Internet of Things Platform-ma', and a status indicator 'Active'. The main content area is divided into a left sidebar with 'Manage' (Plan, Connections) and a main configuration area. The main configuration area has a 'Launch' button and a 'Docs' button. Below this, there is a section titled 'Ready for the next level?' with a progress bar showing the 'IBM Watson IoT Platform Journey' with three stages: Lite (selected), Non-Production, and Production. The 'Lite' stage is described as a lightweight development environment. The 'Non-Production' stage is described as a full-featured, fully-integrated offering. The 'Production' stage is described as a fully managed service. An 'Activate Windows' watermark is visible in the bottom right corner.

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

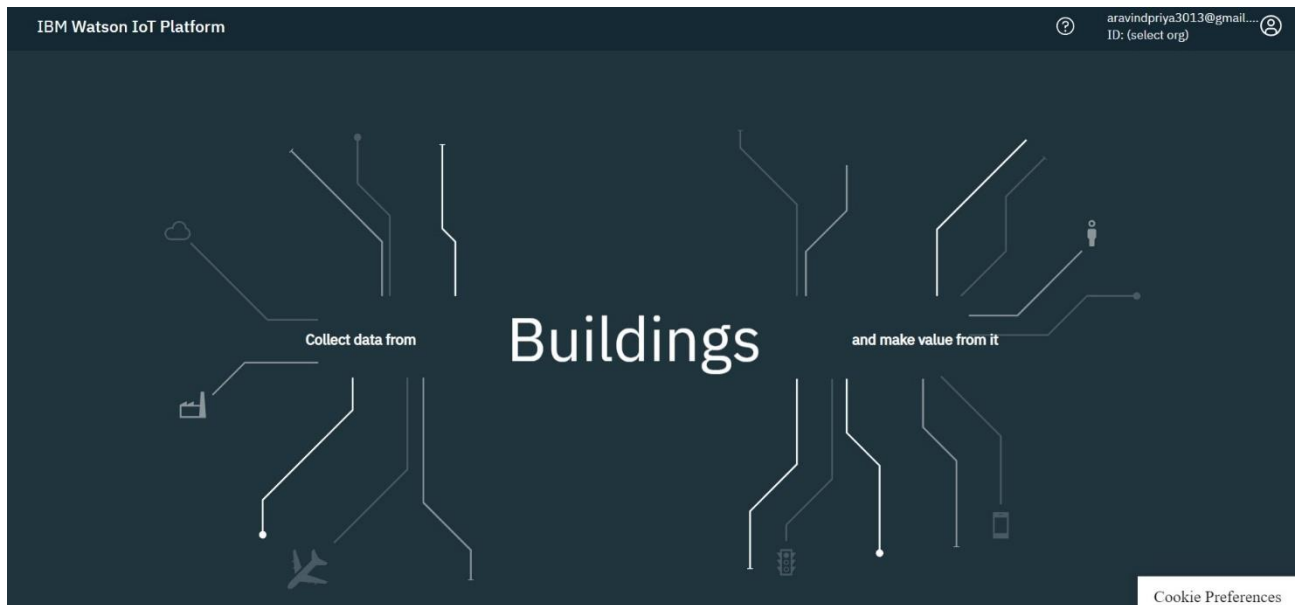
The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.

☐ Production

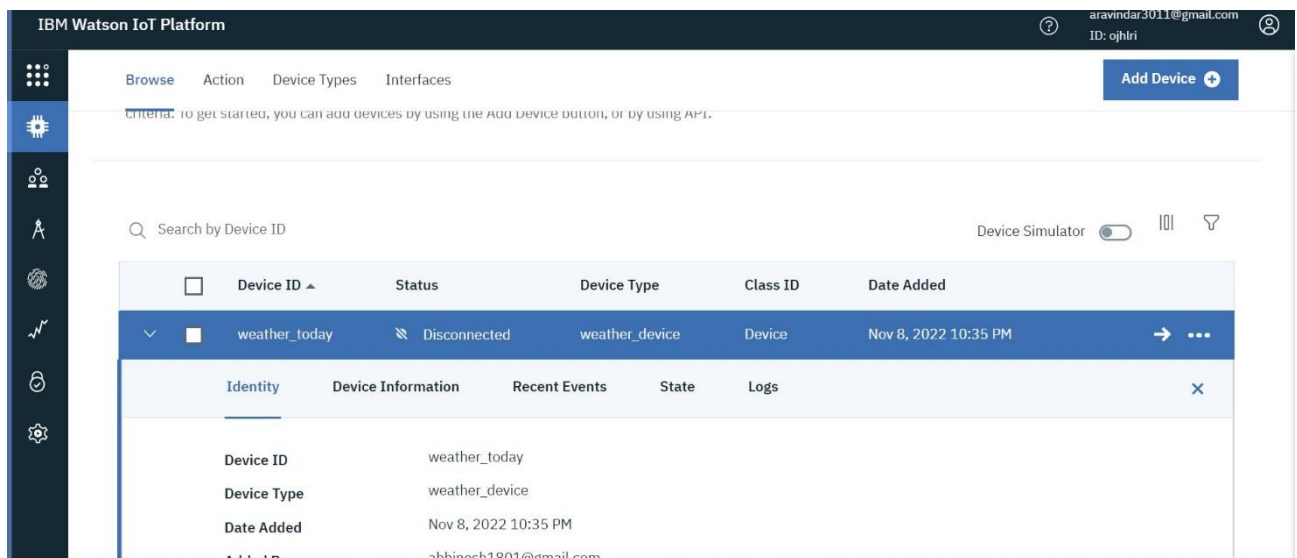
The Production service is a fully managed service offering that enables you to manage and analyze enterprise IoT data.

Activate Windows

Step 5: IBM Watson IoT platform is created



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.



Step-7:

Connect the device and start simulating.

The screenshot displays the IBM Watson IoT Platform interface. On the left, a dark sidebar contains navigation icons. The main content area has a top navigation bar with 'Browse', 'Action', 'Device Types', and 'Interfaces'. Below this, a search bar is labeled 'Search by Device ID'. A table lists three devices, all with a status of 'Disconnected':

	Device ID	Status	Device Type
>	12345	Disconnected	GPS
>	ESP32_Project	Disconnected	ESP_32
>	weather_today	Disconnected	weather

At the bottom of the table, it says 'Items per page 50 | 1-3 of 3 items'. A modal window is open on the right, titled 'Device Type: GPS'. It has a 'Send' button and a trash icon. The 'Event type name' is 'event_1'. The 'Schedule' is set to '20' and 'Every Minute'. The 'Payload' section contains a JSON object:

```
{
  "available seats": random(0, 100),
  "latitude": random(-90, 90),
  "longitude": random(-180, 180)
}
```

There is an 'Upload a CSV file' button at the bottom of the modal.

SIMULATION:

The simulation shows the latitude,longitude and seats availability of train.

The screenshot displays the IBM Watson IoT Platform interface. At the top, the header shows the user's email (aravindar3011@gmail.com) and ID (ojhri). The main navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains various icons for navigation. The main content area features a search bar labeled 'Search by Device ID' and a 'Device Simulator' toggle switch. Below this is a table listing simulated devices:

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added
> <input type="checkbox"/>	12345	Disconnected	GPS	Device	Nov 9, 2022 8:04 PM
> <input type="checkbox"/>	ESP32_Project	Disconnected	ESP_32	Device	Nov 9, 2022 9:52 AM
> <input type="checkbox"/>	weather_today	Disconnected	weather_device	Device	Nov 8, 2022 10:35 PM

Below the table, it indicates 'Items per page 50' and '1-3 of 3 items'. At the bottom right, it shows '1 of 1 page' with navigation arrows. A status box at the bottom center states '1 Simulation running'.

The screenshot shows the IBM Watson IoT Platform interface with an 'Event Payload' modal open. The modal displays the following information:

- Event Name:** status
- Time Received:** Nov 10, 2022 12:13 PM
- Event Payload (JSON):**

```
1 | {
2 |   "name": "Train1",
3 |   "lat": 17.6387448,
4 |   "lon": 78.4754336
5 | }
```

The background shows a list of events with columns for 'Identity', 'The recent events', and 'Event'. The 'Event' column lists several 'status' entries.

