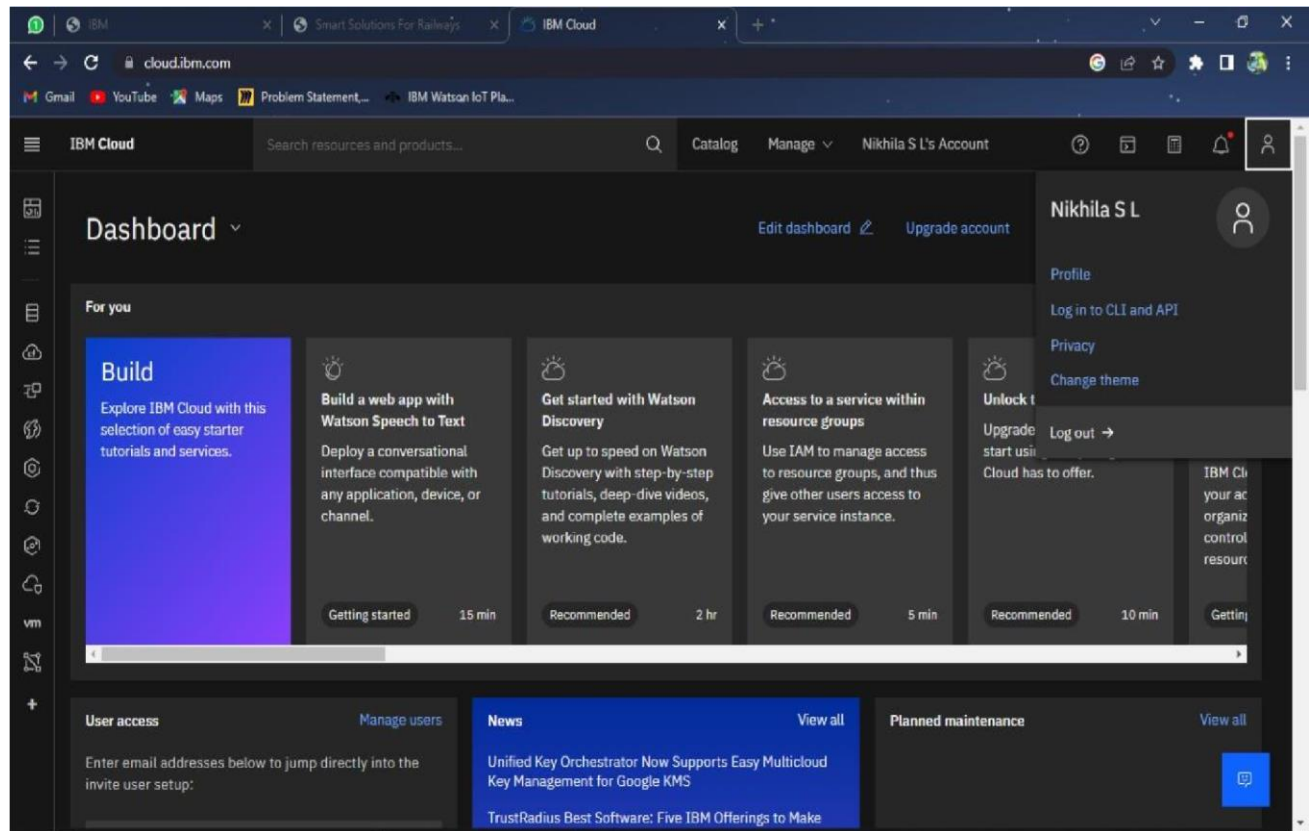


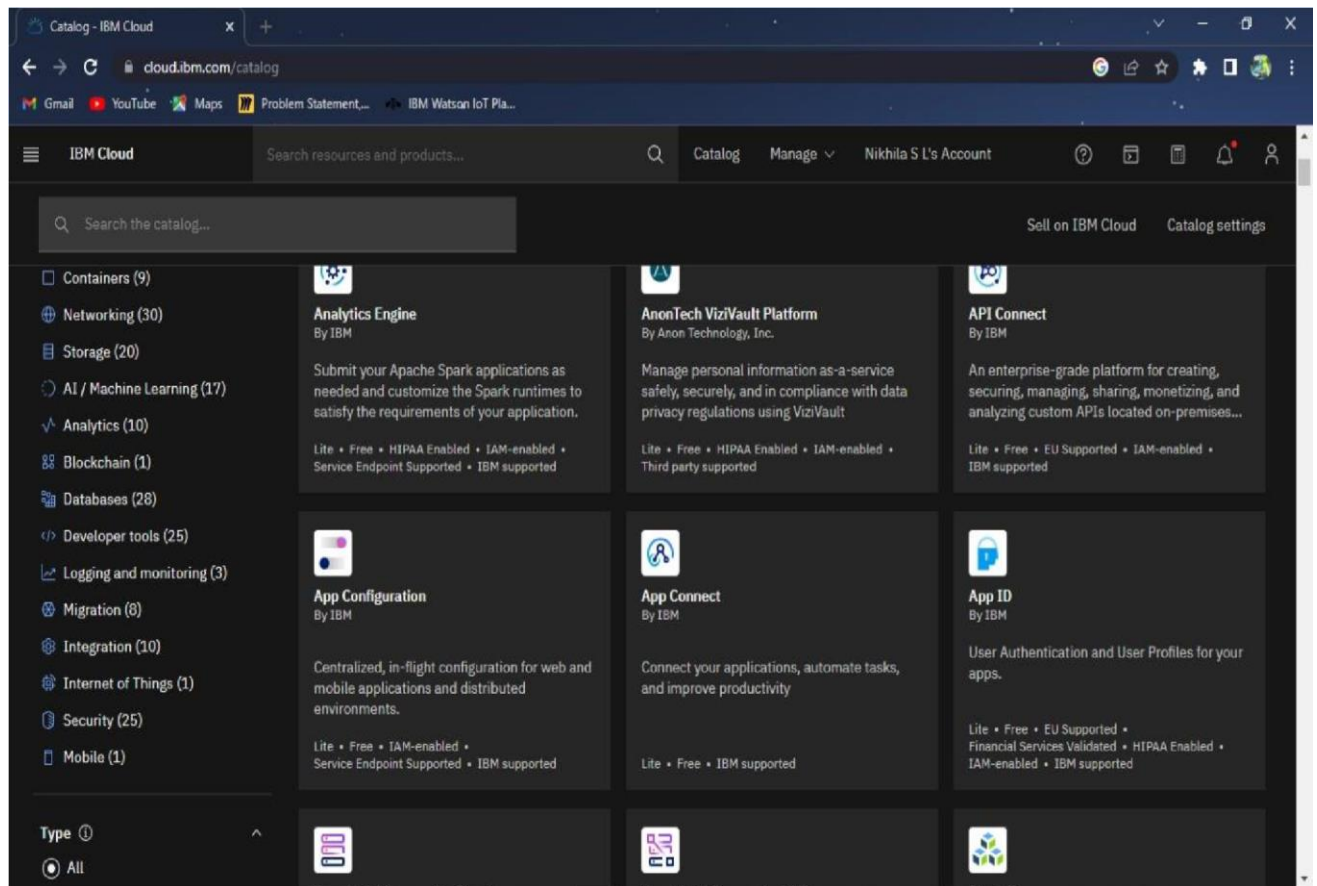
IBM WATSON PLATFORM IOT AND DEVICE

TEAM ID	PNT2022TMID30896
PROJECT NAME	Smart Solution For Railways

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 catalog page for the Internet of Things Platform. The page is in a dark theme. At the top, there's a navigation bar with the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user's account (Nikhila S L's Account). The main content area is divided into two columns. The left column contains a sidebar with filters for Type (Service), Provider (IBM), Last updated (08/15/2022), Category (Internet of Things), Compliance (IAM-enabled), and Location (Frankfurt, London, Dallas, Washington DC). The right column displays the service details for the Internet of Things Platform. It includes a 'Create' button and an 'About' tab. Below the 'Create' button, there's a 'Select a location' dropdown menu set to 'Frankfurt (eu-de)'. Underneath, there's a 'Select a pricing plan' section with a table showing the 'Lite' plan. The table has columns for Plan, Features, and Pricing. The 'Lite' plan is highlighted with a checkmark. To the right of the table, there's a 'Summary' section showing the service name, location, plan, and resource group. A warning message is displayed in a yellow box, stating that only one Lite plan instance can be created per resource group. At the bottom right, there's a checkbox for 'I have read and agree to the following license agreements:' and a 'Create' button.

Internet of Things Platform - IBM x

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

IBM Cloud Search resources and products...

Catalog Manage Nikhila S L's Account

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

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	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

Summary

Internet of Things Platform Free

Location: Frankfurt

Plan: Lite

Service name: Internet of Things Platform

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

STEP 4 : IBM WATSON IOT PLATFORM ACTS AS THE MEDIATOR TO CONNECT THE WEB APPLICATION TO IOT DEVICES L, HENCE LAUNCHING IBM WATSON IOT PLATFORM.

The screenshot displays the IBM Cloud console interface. The top navigation bar includes the IBM Cloud logo, a search bar, and links for Catalog, Manage, and the user account (Nikhila S L's Account). The main content area shows the 'Internet of Things Platform-xz' resource, which is active. A sidebar on the left contains links for Manage, Plan, and Connections. The central panel features a large graphic of a central node connected to various devices, with the text 'Let's get started with IBM Watson IoT Platform' and a description: '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. Further down, a section titled 'Ready for the next level?' shows the 'IBM Watson IoT Platform Journey' with three stages: Lite (checked), Non-Production, and Production. Each stage has a brief description of the service plan.

IBM Cloud

Search resources and products...

Catalog Manage Nikhila S L's Account

Resource list /

Internet of Things Platform-xz 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

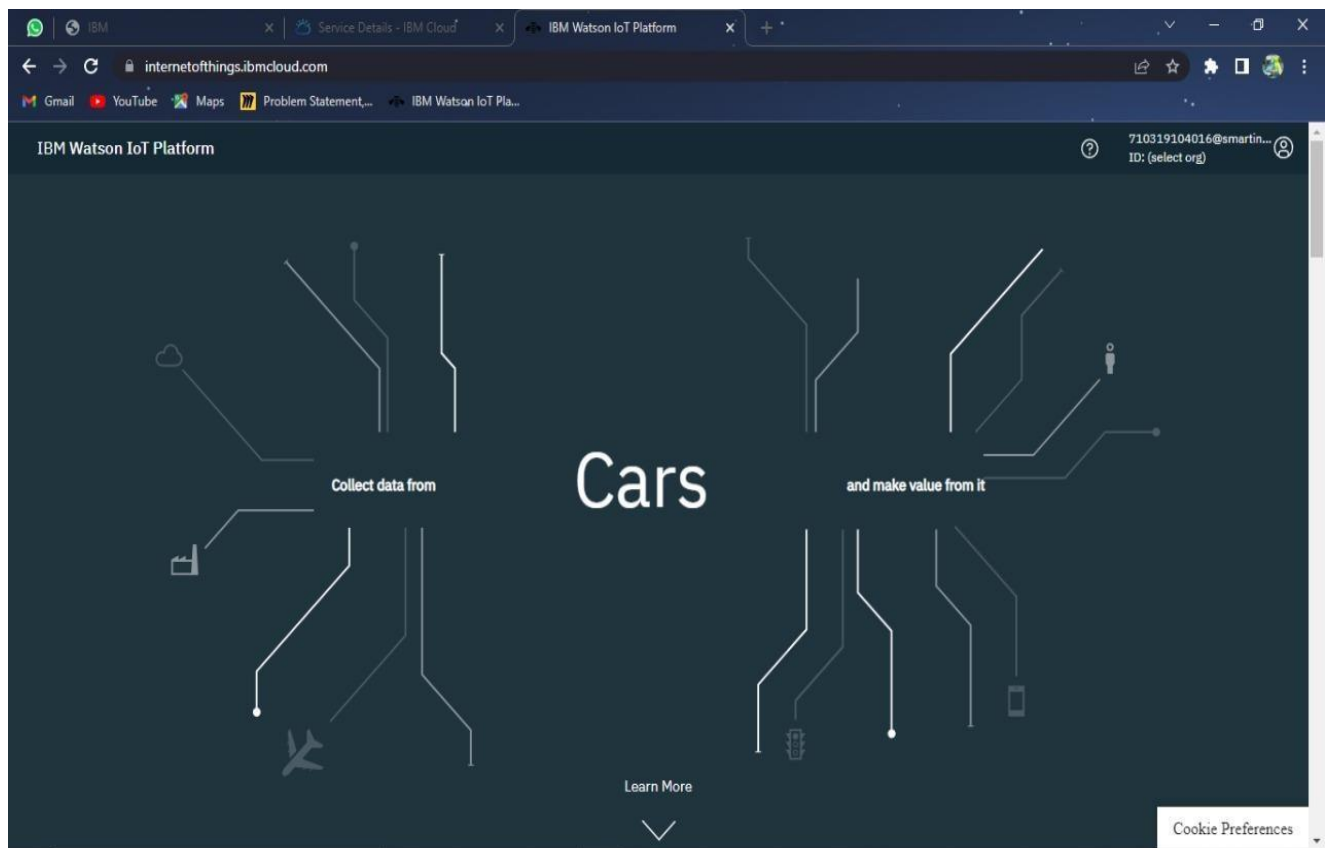
○ Non-Production

The Non-Production service plan is a full-featured, fully-integrated offering that enables

○ Production

The Production service is a fully managed SaaS offering that enables you to manage and analyze

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.

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar labeled 'Search by Device ID' is present. A table lists devices, with one device named 'json' shown in detail. The device's status is 'Disconnected', and it was added on '14 Nov 2022 9:07 PM'. The 'Device Information' tab is active, showing details such as Device ID, Device Type, Date Added, Added By, and Connection Status.

Device ID	Status	Device Type	Class ID	Date Added
json	Disconnected	Test_1	Device	14 Nov 2022 9:07 PM

Identity	Device Information	Recent Events	State	Logs
Device ID	json			
Device Type	Test_1			
Date Added	14 Nov 2022 9:07 PM			
Added By	nikhilasisva5@gmail.com			
Connection Status	Disconnected			

STEP 7: CONNECT THE DEVICE AND START SIMULATING.

The screenshot displays the IBM Watson IoT Platform interface. The main panel shows a list of devices, with 'Test_1' selected. The device status is 'Disconnected' and its type is 'demo_123'. The 'Recent Events' tab is active, showing a table of events.

Event	Value
event_2	{"randomNumber":95,"sampleObject":{"xcord":...
event_2	{"randomNumber":43,"sampleObject":{"xcord":...
event_2	{"randomNumber":53,"sampleObject":{"xcord":...
event_2	{"randomNumber":74,"sampleObject":{"xcord":...

An overlay window titled 'Device Type: demo_123' is open, showing the configuration for 'event_2'. The 'Events' tab is selected, and the 'Schedule' is set to 'Every Minute'. The 'Payload' is defined as a JSON object:

```
{
  "randomNumber": random(0, 100),
  "sampleObject": {
    "xcord": 32.514,
    "ycord": 151.521
  }
}
```

The 'Send' button is visible, and the 'Save' button is at the bottom right of the overlay.

SIMULATION:

**THE SIMULATION SHOWS THE AVAILABLE SEATS,
LONGITUDE AND LATITUDE.**

IBM Cloud Service Details - IBM Cloud IBM Watson IoT Platform

sfk2sq.internetofthings.ibmcloud.com/dashboard/devices/browse

Gmail YouTube Maps

IBM Watson IoT Platform 710319104021@smartinternz.com ID: sfk2sq

Browse Action Device Types Interfaces Add Device

Identity Device Information Recent Events State Logs

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	{"randomNumber":78}	json	a few seconds ago
event_1	{"randomNumber":5}	json	a minute ago
event_1	{"randomNumber":24}	json	a minute ago
event_1	{"randomNumber":59}	json	2 minutes ago

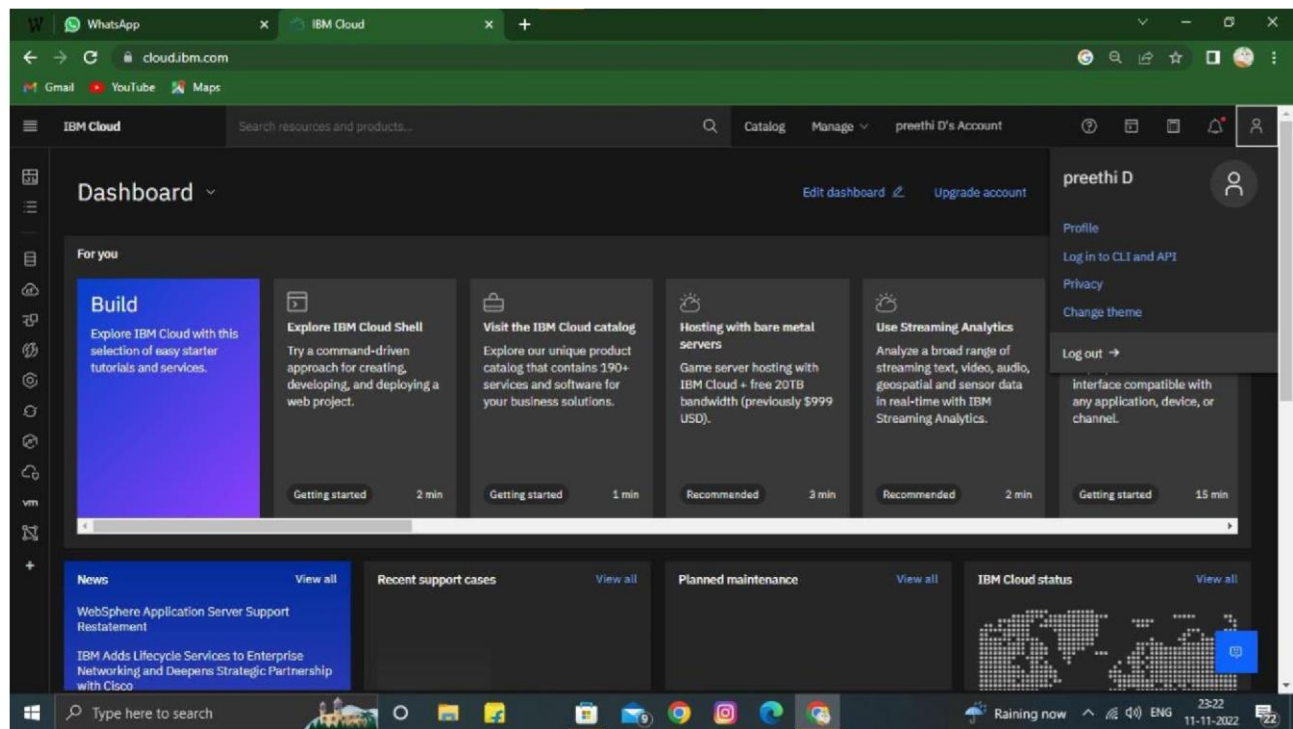
Items per page 50 | 1-1 of 1 item

1 Simulation running

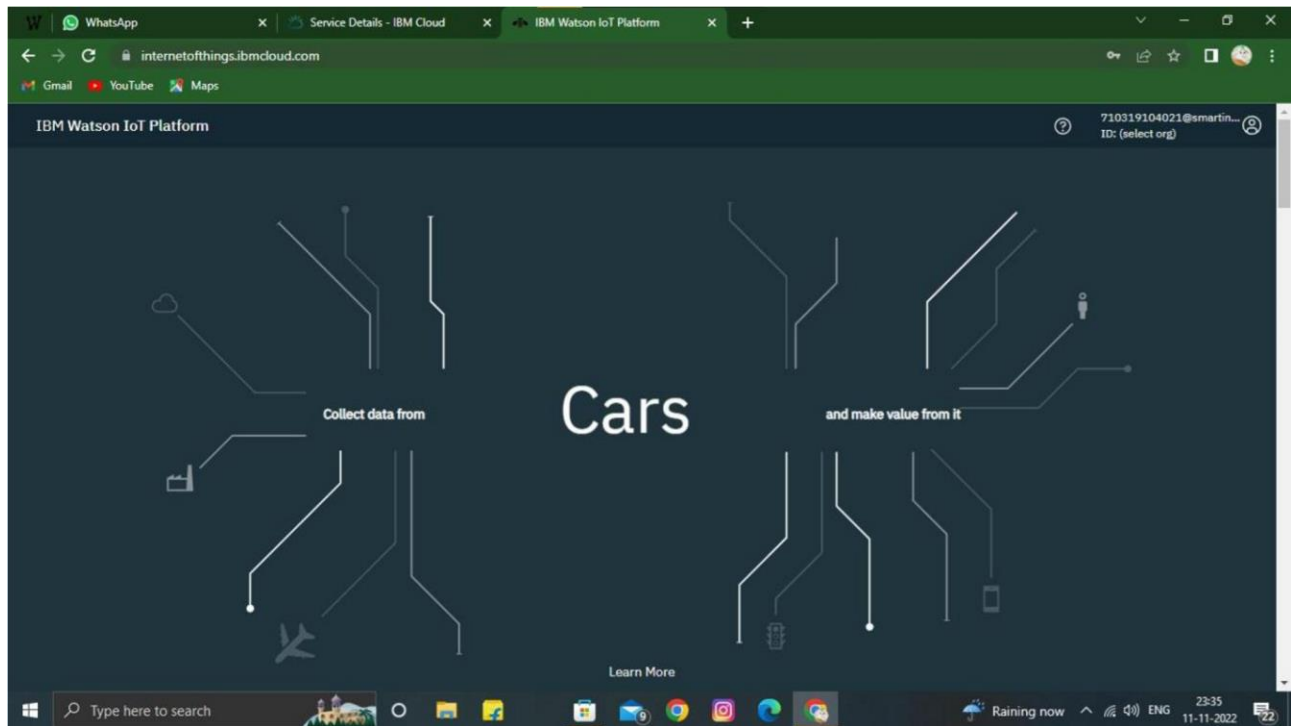
Type here to search 22°C Cloudy 04:46 11-11-2022

Preethiha. D (Team member 1)

CREATING IBM Cloud:

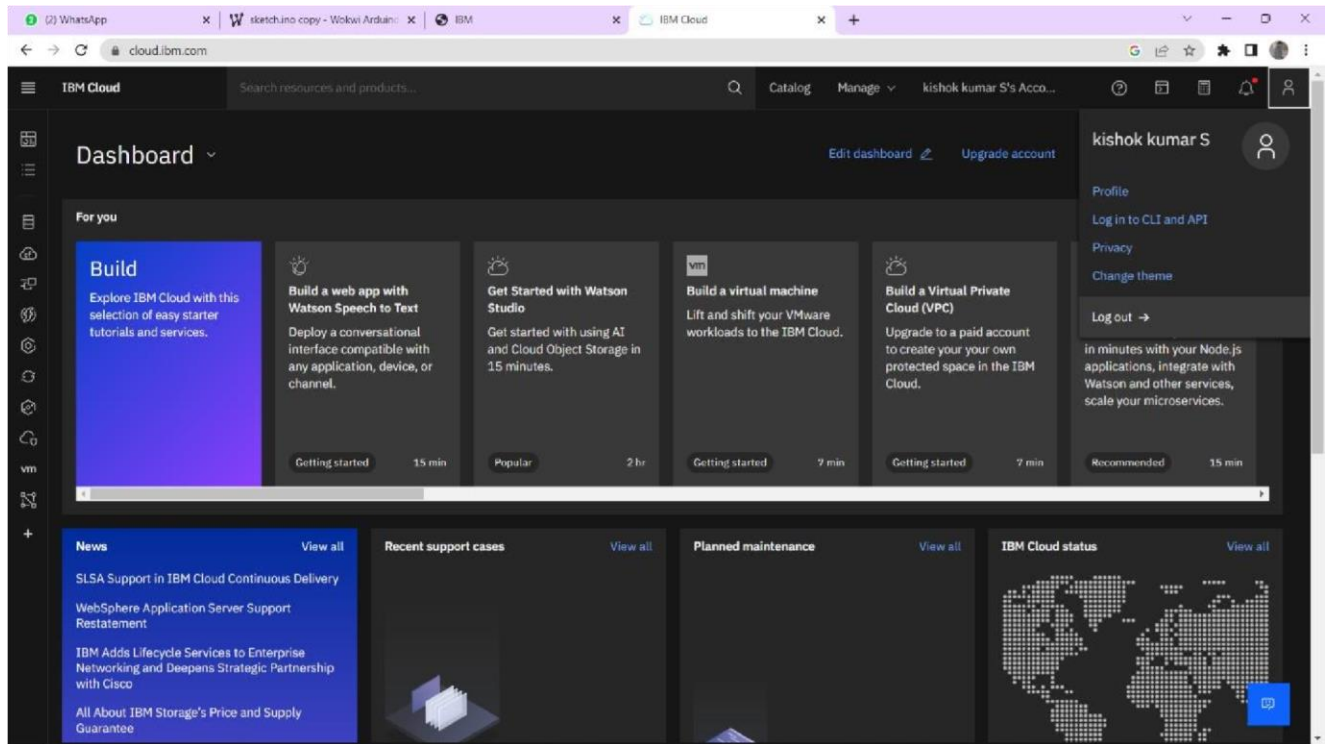


IBM WATSON IOT PLATFORM IS CREATED:



Kishok kumar. S(Team member 2)

CREATING IBM Cloud:



IBM WATSON IOT PLATFORM IS CREATED:

Browser tabs: (1) WhatsApp, sketchuno copy - Wokwi Arduino, IBM, Service Details - IBM Cloud, IBM Watson IoT Platform

Address bar: internetofthings.ibmcloud.com

IBM Watson IoT Platform

710319104013@martin...
ID: (select org)

ok6700 (ID ok6700)
Bluemix Free

Sign out

Collect data from

Equipment

and make value from it

Learn More

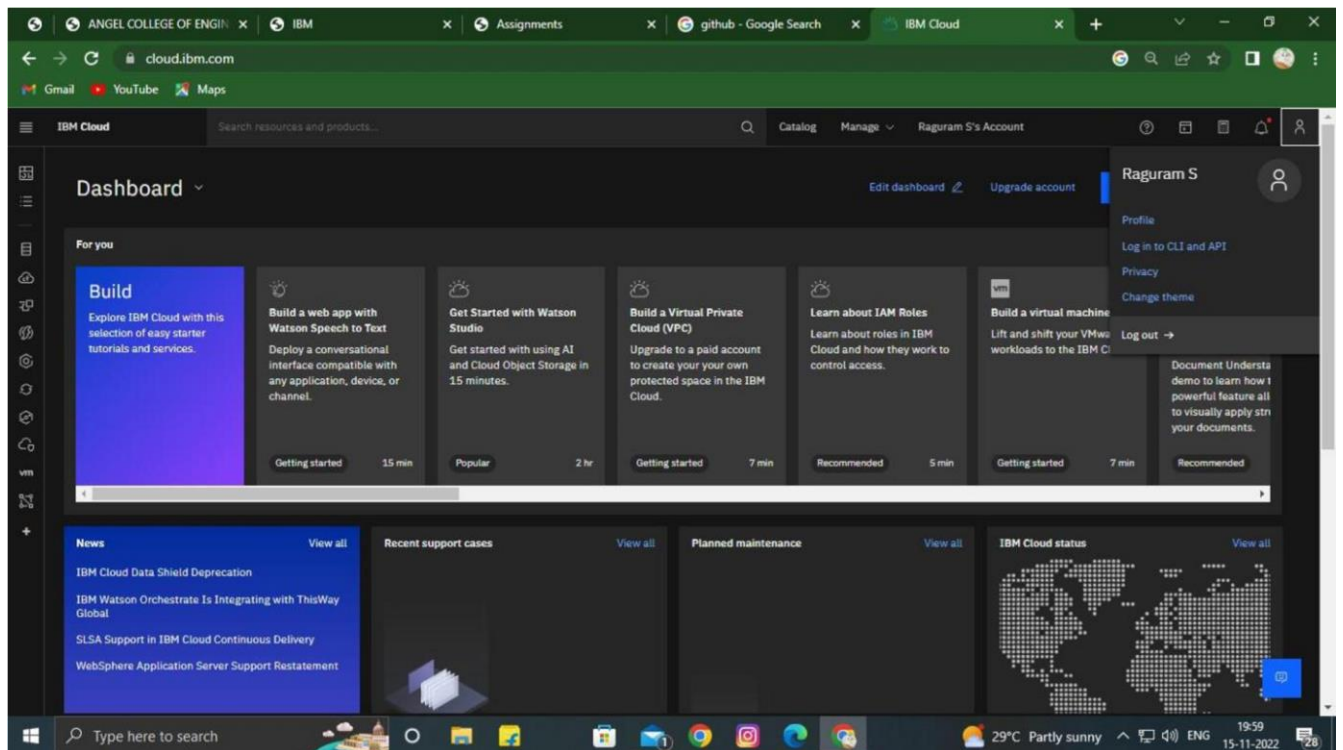
Powerful web dashboard

Cookie Preferences

https://ok6700.internetofthings.ibmcloud.com/dashboard/

Raguram. S(Team member 3)

CREATING IBM Cloud:



IBM WATSON IOT PLATFORM IS CREATED:

ANGEL COLLEGE OF IBM Assignments github - Google Search Service Details - IBM IBM Watson IoT Platform

internetofthings.ibmcloud.com

Gmail YouTube Maps

IBM Watson IoT Platform Sign in

Things

Collect data from and make value from it

Learn More

Type here to search

29°C Partly sunny 20:04 15-11-2022 ENG