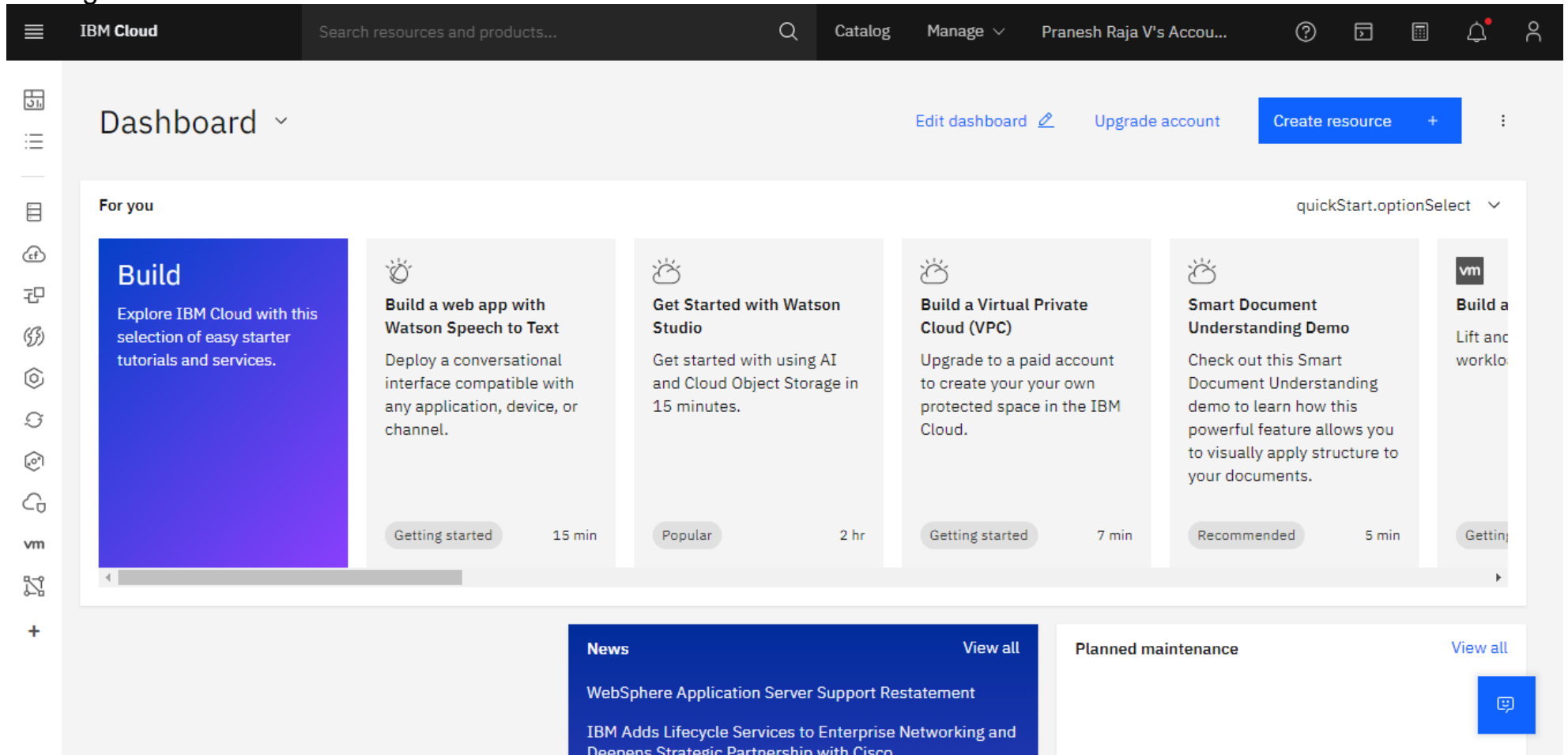


## Create and Configure IBM Cloud Services

Team ID	PNT2022TMID14367
Project Name	SmartFarmer – IoT Enabled Smart Farming Application

### Create The IBM Watson IoT Platform And A Device

#### 1. Log in to IBM Cloud



The screenshot shows the IBM Cloud Dashboard interface. At the top, there is a dark navigation bar with the IBM Cloud logo, a search bar, and links for Catalog, Manage, and the user's account (Pranesh Raja V's Accou...). Below this is a light gray header with the word "Dashboard" and a dropdown arrow, along with links for "Edit dashboard", "Upgrade account", and a prominent blue "Create resource" button. The main content area is titled "For you" and features a horizontal scrollable list of quickstart guides. The first guide, "Build", is highlighted with a blue background and describes exploring IBM Cloud with easy starter tutorials. Other guides include "Build a web app with Watson Speech to Text", "Get Started with Watson Studio", "Build a Virtual Private Cloud (VPC)", and "Smart Document Understanding Demo". Each guide includes a brief description, a "Getting started" button, and a time estimate. At the bottom, there are sections for "News" (with a "View all" link) and "Planned maintenance" (also with a "View all" link). A small chat icon is visible in the bottom right corner.

IBM Cloud Search resources and products... Catalog Manage Pranesh Raja V's Accou... ? ? ? ? ? ?

Dashboard ▾ Edit dashboard Upgrade account Create resource +

For you quickStart.optionSelect ▾

**Build**  
Explore IBM Cloud with this selection of easy starter tutorials and services.

**Build a web app with Watson Speech to Text**  
Deploy a conversational interface compatible with any application, device, or channel.  
Getting started 15 min

**Get Started with Watson Studio**  
Get started with using AI and Cloud Object Storage in 15 minutes.  
Popular 2 hr

**Build a Virtual Private Cloud (VPC)**  
Upgrade to a paid account to create your own protected space in the IBM Cloud.  
Getting started 7 min

**Smart Document Understanding Demo**  
Check out this Smart Document Understanding demo to learn how this powerful feature allows you to visually apply structure to your documents.  
Recommended 5 min

**Build a...**  
Lift and worklo...  
Getting...

**News** View all  
WebSphere Application Server Support Restatement  
IBM Adds Lifecycle Services to Enterprise Networking and Deepens Strategic Partnership with Cisco

**Planned maintenance** View all

## 2. Click catalog where you find the services and select Internet of Things

IBM Cloud

Search resources and products...

Q

Catalog

Manage

Pranesh Raja V's Accou...

?

Sell on IBM Cloud

Catalog settings

# Catalog

Q Search the catalog...

Internet of Things X

Internet of Things

Alphabetically

Type ⓘ

^

☐ All

☒ Services

☐ Software

☐ Professional services

Provider

^

☐ IBM (1)

Viewing 1 product

Filters: Internet of Things X Services X Clear all



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.

### 3. Click create and launch

IBM Cloud

Search resources and products...

Q

Catalog

Manage

Pranesh Raja V's Accou...

?

Resource list /

Internet of Things Platform-dd Active Add tags

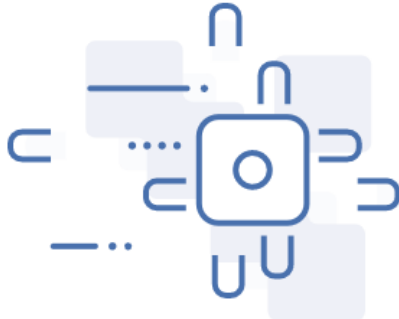
Details

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

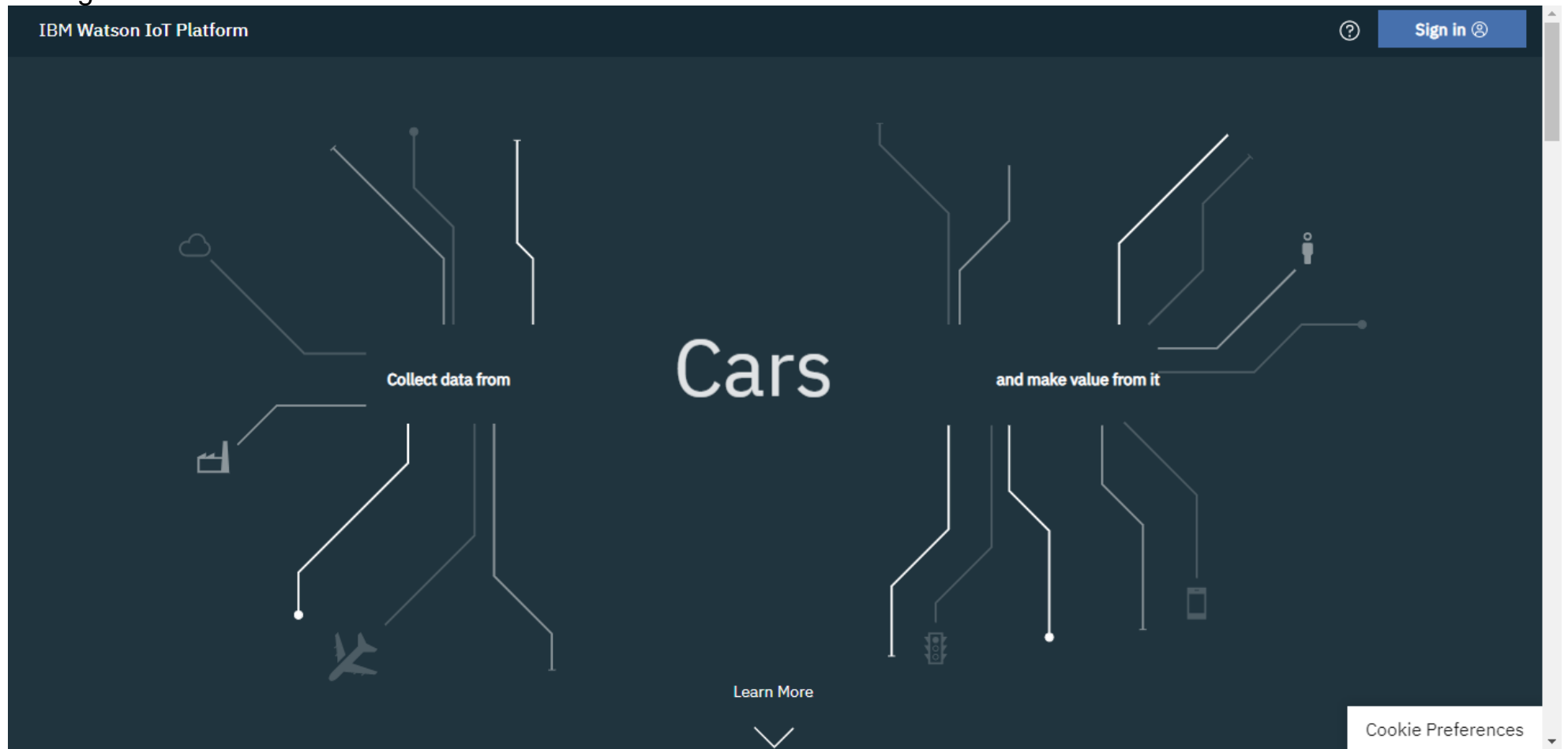
Non-Production

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

#### 4. Sign in to IBM Watson Platform



## 5. A tab appears to add devices

IBM Watson IoT Platform

711319ec081@smartinternz.com  
ID: x93v8c

Browse

Action

Device Types

Interfaces

Add Device +

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 ☐

|||

Y

	Device ID	Status	Device Type	Class ID	Date Added
>	12345	Disconnected	NodeMCU	Device	Nov 14, 2022 11:16 AM

Items per page 50 | 1-1 of 1 item

1 of 1 page < 1 >

## 6. Device type and ID is entered

IBM Watson IoT Platform

?

711319ec081@smartinternz.com  
ID: x93v8c

Browse

Action

Device Types

Interfaces

Add Device

Identity

Device Information

Security

Summary

Select a device type for the device that you are adding and give the device a unique ID.

Device Type

Select or create a device type...

Device ID

Enter Device ID

Cancel

Next

## 7. Additional information about the device is added

IBM Watson IoT Platform

711319ec081@smartinternz.com  
ID: x93v8c

Browse

Action

Device Types

Interfaces

Add Device

Identity

Device Information

Security

Summary

You can modify the default device information and enter more information about the device for identification purposes.

Serial Number

Enter Serial Number

Model

Enter Model

Description

Enter Description

Hardware Version

Enter Hardware Version

Manufacturer

Enter Manufacturer

Device Class

Enter Device Class

Firmware Version

Enter Firmware Version

Descriptive Location

Enter Descriptive Location

Add Metadata +

## 8. An authentication token is created for security

IBM Watson IoT Platform

711319ec081@smartinternz.com  
ID: x93v8c

Browse

Action

Device Types

Interfaces

Add Device

Identity

Device Information

Security

Summary

There are two options for selecting a device authentication token.

Auto-generated authentication token  
(default)

Allow the service to generate an authentication token for you. Tokens are 18 characters and contain a mix of alphanumeric characters and symbols. The token is returned to you at the end of the device registration process.

Self-provided authentication token

Provide your own authentication token for this device. The token must be between 8 and 36 characters and contain a mix of lowercase and uppercase letters, numbers, and symbols, which can include hyphens, underscores, and periods. Do not use repeated characters, dictionary words, user names, or other predefined sequences.

Authentication Token

12345678

Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.

Authentication token are encrypted before we store them.



## 9. The overall device information is viewed

The screenshot displays the IBM Watson IoT Platform interface. At the top, the header shows the platform name and user information. A sidebar on the left contains navigation icons. The main content area features a 'Browse' tab and a 'Add Device' modal window. The modal window has a progress bar with four steps: Identity, Device Information, Security, and Summary. The 'Device Information' step is currently active, showing fields for Device Type (NodeMCU), Device ID (12345678), and Security Token (12345678). A 'View Metadata' button is visible below the Device ID field.

IBM Watson IoT Platform

711319ec081@smartinternz.com  
ID: x93v8c

Browse Action Device Types Interfaces

### Add Device

Identity Device Information Security Summary

Verify that the following information is correct then select Finish

Device Type  
NodeMCU

Device ID  
12345678

[View Metadata](#)

Security Token  
12345678

## 10. IBM Watson IoT Platform is created and a device is added

The screenshot shows the IBM Watson IoT Platform interface. The top header bar is dark blue with the text "IBM Watson IoT Platform" on the left, a help icon and user information "711319ec081@smartinternz.com ID: x93v8c" on the right, and a user profile icon. A dark blue sidebar on the left contains several icons, with the "Device Drilldown" icon (a gear with a plus sign) highlighted. The main content area has a white background. At the top of this area is a "Back" link with a left arrow. Below it is the title "Device Drilldown - 12345". A left sidebar within the main area lists navigation options: "Device Credentials" (highlighted with a vertical bar), "Connection Information", "Recent Events", "State", "Device Information", "Metadata", "Diagnostics", "Connection Logs", and "Device Actions". The "Device Credentials" section is expanded, showing a title "Device Credentials" and a paragraph: "You registered your device to the organization. Add these credentials to the device to connect it to the platform. After the device is connected, you can navigate to view connection and event details." Below this is a table with the following data:

Organization ID	x93v8c
Device Type	NodeMCU
Device ID	12345
Authentication Method	use-token-auth
Authentication Token	12345678

Below the table is a warning icon (a triangle with an exclamation mark) and a message: "Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the device to generate a new authentication token." At the bottom of the main content area is a link: "Find out how to add these credentials to your device" with an external link icon.