

SPRINT - 1

Date	13 November 2022
Project Name	Smart Farmer - IoT Enabled Smart Farming Application
TEAM ID	PNT2022TMID15139

AIM OF THE PROJECT:

For the increasing population growth and for the demanding food supply needs, the normal provisioning systems with existing methodologies seems to be unworthy and requires and advanced facilitations with optimal usage of water resources (irrigational resources). Hence a smart monitoring system of the farmland conditions and other subsidies may help us for a better productivity.

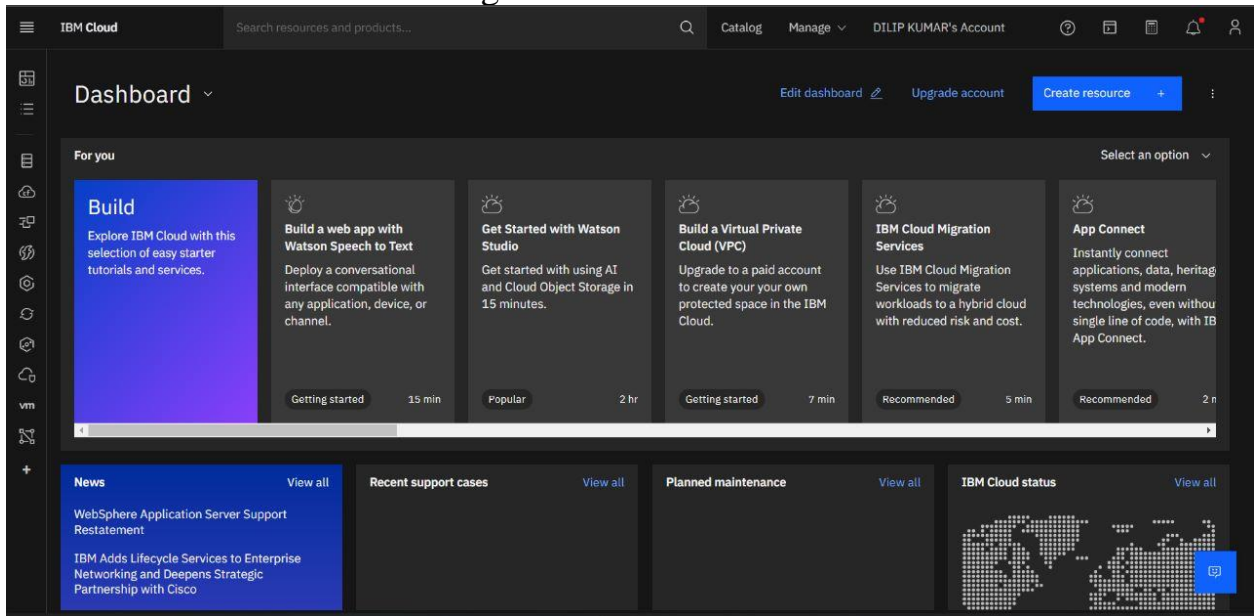
This could be made possible by sensing the physical parameters such as temperature, moisture and other soil parameters periodically and transferring over a user interface application could helps us to analyse the better situations of crop conditions.

SEQUENCE OF PROCESS:

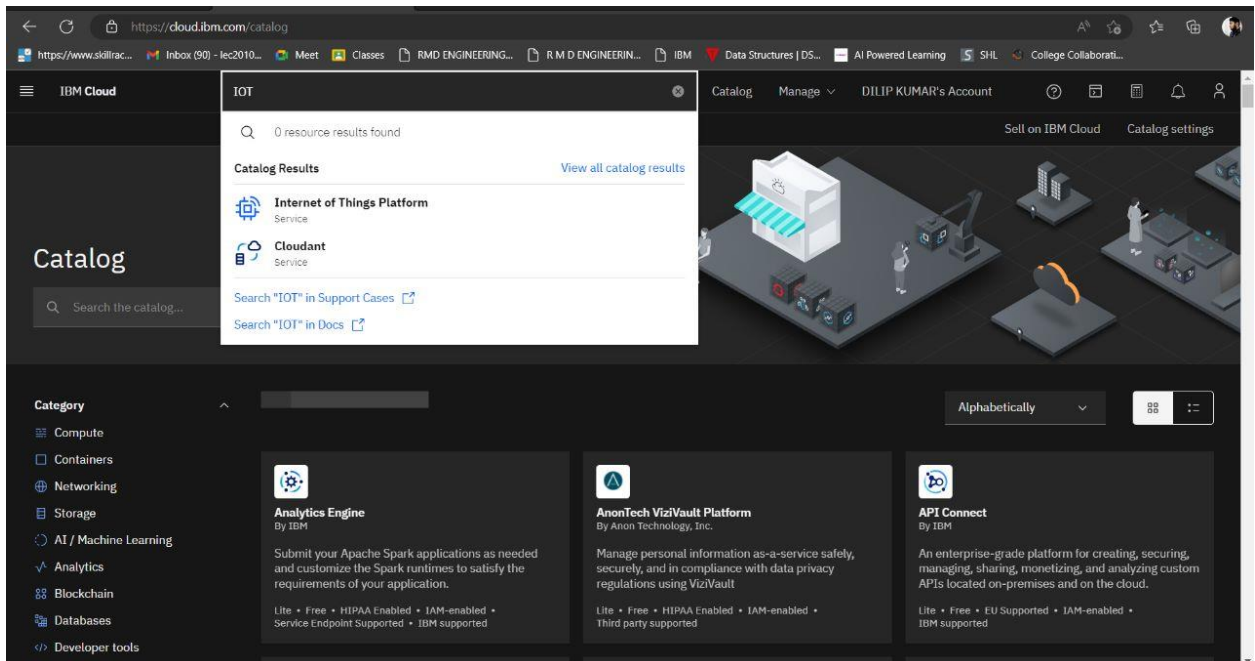
Creating IBM Watson in IoT Platform:

- Go to IBM Cloud
- Click Catalog on top of the IBM Cloud and search IoT
- To create device, in the home page of IBM cloud click on the catalog on the top and click on IoT platform
- Click on launch button, then the IBM Watson platform will be displayed and Click on create device to create.
- After activating device simulator and check whether the code is running.
- Go to board and create a new board by filling the details
- Fill the detail to get temperature graph, select the color from the option and repeat the same process to get the humidity graph, we get the final graph.
- Finally an IBM Watson cloud for IoT and a device is created successfully.

Creating an account in IBM Cloud



Creation of IoT Platform



Launching of IoT Platform

The screenshot shows the IBM Cloud IoT Platform launch page. The top navigation bar includes the IBM Cloud logo, a search bar, and links for Catalog, Manage, and the user's account (DILIP KUMAR's Account). The main header displays 'Internet of Things Platform-g9' with an 'Active' status and an 'Add tags' link. A left sidebar contains links for 'Manage', 'Plan', and 'Connections'. The main content area features a large graphic of a central node connected to several peripheral nodes. To the right of the graphic, the text reads 'Let's get started with IBM Watson IoT Platform' followed by a description: 'Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.' Below this is a 'Launch' button and a 'Docs' link. Further down, a section titled 'Ready for the next level?' introduces the 'IBM Watson IoT Platform Journey'. This section contains three progress indicators: 'Lite' (checked), 'Non-Production' (unchecked), and 'Production' (unchecked). Each indicator has a brief description of the service plan. The 'Lite' plan is described as a lightweight development environment. The 'Non-Production' plan is a full-featured, fully-integrated offering. The 'Production' plan is a fully managed SaaS offering for enterprise IoT data.

Creating Simulation for Smartfarm

The screenshot displays the configuration interface for creating a simulation for a 'smartfarm' device. The top section shows the device type 'smartfarm'. Below this, there is a tab for 'Events' with a count of '1'. A 'New event type +' button is located to the right. The main configuration area is divided into three sections: 'Event type name', 'Schedule', and 'Payload'. The 'Event type name' section contains a text input field with the value 'event_1' and a 'Send' button. The 'Schedule' section has a numeric input field set to '20' and a dropdown menu set to 'Every Minute'. The 'Payload' section includes a text area for specifying the event payload, with a link to 'Specify the event payload in the editor window or by uploading a CSV file.' The payload is shown as a JSON object:

```
{ 0: { 1: "temperature": random(10, 50), 2: "humidity": random(0, 100) 3: } 4: }
```

. Below the text area is an 'Upload a CSV file' button. At the bottom of the interface are 'Cancel' and 'Save' buttons.

Security settings

IBM Watson IoT Platform

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ID: 3podkf

← Back

Close

Save

custom rules for specific devices.

Default Rule

Define the default connection security level to use for all device types that do not have custom rules defined.

Scope	Security Level	# of Devices
Default	TLS Optional	0 devices

Custom Rules

You can define custom connection rules for specific device types. Custom rules overwrite the default rule for the specified device types.

Add Custom Rule

1 Simulation running

Device Configuration

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Browse

Action

Device Types

Interfaces

Add Device

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
PNT2022TMD15139	Connected	smartfarm	Device	Nov 12, 2022 10:20 AM	

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
status	{"temperature":70,"humidity":62}	json	a few seconds ago
event_1	{"temperature":30,"humidity":67}	json	a few seconds ago
status	{"temperature":123,"humidity":15}	json	a few seconds ago
status	{"temperature":78,"humidity":20}	json	a few seconds ago
event_1	{"temperature":14,"humidity":75}	json	a fe

1 Simulation running

Monitoring temperature and humidity

