

Date	29 October 2022
Team ID	PNT2022TMID47454
Project Name	SMART FARMER-IOT ENABLED SMART FARMING APPLICATION
Maximum Marks	20 marks

## US -1 : create the IBM Cloud services which are being used in this project

The screenshot displays the IBM Cloud dashboard for user KAVINKUMAR K. The interface includes a top navigation bar with the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user's account. A sidebar on the left contains icons for various services like Cloud Foundry, Kubernetes, and VM. The main content area is titled 'Dashboard' and features a 'For you' section with several recommended actions:

- Build**: Explore IBM Cloud with this selection of easy starter tutorials and services.
- Create a custom dashboard**: Create a shareable dashboard that you can customize with widgets, scope, and your own layout. (Getting started: 3 min)
- Explore IBM Cloud Shell**: Try a command-driven approach for creating, developing, and deploying a web project. (Getting started: 2 min)
- Build cloud-native apps using IBM Cloud Object Storage**: Build integrated apps using compute runtimes and microservices and use IBM Cloud® Object Storage services for data storage. (Getting started: 10 min)
- Visit the catalog**: Explore the catalog to find services and software for your business solutions. (Getting started: 1 min)

On the right side, a user profile dropdown menu is open, showing options: Profile, Log in to CLI and API, Privacy, Change theme, and Log out →. At the bottom, there are sections for 'User access' (with a 'Manage users' link), 'News' (announcing IBM Cloud Pak for Network Automation Version 2.4), and 'Planned maintenance'.

**US – 2 : Configure the IBM Cloud services which are being used in completing this project.**

IBM Cloud

Search resources and products...

Catalog Manage KAVINKUMAR K's Acco...

Resource list

Create resource +

Name	Group	Location	Product	Status	Tags
Filter by name or IP address...	Filter by group or org...	Filter...	Filter...	Filter...	Filter...
Compute (0)					
Containers (0)					
Networking (0)					
Storage (0)					
AI / Machine Learning (0)					
Analytics (0)					
Blockchain (0)					
Databases (0)					
Developer tools (0)					
Logging and monitoring (0)					
Migration (0)					

Activate Windows  
Go to Settings to activate Windows.

**US – 3 : IBM Watson IoT platform acts as the mediator to connect the web application to IoT devices , so create the IBM Watson IoT platform.**

IBM Cloud

Search resources and products...

Q

Catalog

Manage

KAVINKUMAR K's Acco...

?

[Resource list](#) /

Internet of Things Platform-kg ✓ 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

✓

<https://cloud.ibm.com>

Activate Windows

**US – 4 : In order to connect the IoT device to the IBM Cloud ,create a device in the IBM Watson IoT platform and get the device credentials.**

IBM Watson IoT Platform

910019106019@smartinternz.com  
ID: mz86ec

Browse Action Device Types Interfaces

## Add Device

Identity Device Information Security Summary

Verify that the following information is correct then select Finish

Device Type  
smartfarming

Device ID  
12345

[View Metadata](#)

Security Token  
To be generated

Activate Windows

Device Credentials Information:

IBM Watson IoT Platform

910019106019@smartinternz.com  
ID: mz86ec

← Back

Device Drilldown - 12345

Device Credentials

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Credentials

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.

Organization ID	mz86ec
Device Type	smartfarming
Device ID	12345
Authentication Method	use-token-auth
Authentication Token	B5F45DKnoacJGW66&V

Activate Windows

The screenshot shows the IBM Watson IoT Platform interface. On the left, a sidebar contains navigation icons. The main area is titled 'Device Type: smartfarming'. Below this, there's a 'Browse' tab and a 'Device Types' tab. A device with ID '12345' is shown as 'Connected'. The 'Identity' tab is selected, displaying details: Device ID (12345), Device Type (smartfarming), Date Added (31 Oct 2022 23:08), Added By (910019106019@smartinternz.com), and Connection Status (Connected). To the right, a 'New event type' modal is open. It shows 'Event type name' as 'event\_1'. The 'Schedule' is set to '20' and 'Every Minute'. The 'Payload' is a JSON object: 

```
{
  "soilmoisture": random(0, 100),
  "humidity": random(0, 100),
  "temperature": random(0, 100)
}
```

. At the bottom right, there's an 'Activate Windows' watermark.

## Output:

The screenshot shows the IBM Watson IoT Platform interface. The top bar displays the user ID '910019106019@smartinternz.com' and the device ID 'mz86ec'. The 'Browse' tab is selected. A table shows the output of the event simulation:

Event	Value	Format	Last Received
event_1	{"soilmoisture":24,"humidity":3,"temperature":90}	json	a few seconds ago
event_1	{"soilmoisture":32,"humidity":94,"temperature":...	json	a few seconds ago
event_1	{"soilmoisture":72,"humidity":33,"temperature":...	json	a few seconds ago
event_1	{"soilmoisture":14,"humidity":47,"temperature":...	json	a few seconds ago
event_1	{"soilmoisture":38,"humidity":40,"temperature":...	json	a few seconds ago

At the bottom, it shows 'Items per page 50' and '1 Simulation running'. An 'Activate Windows' watermark is visible at the bottom right.