

Date	21 October 2022
Team ID	PNT2022TMID21901
Project Name	Project – Smart Farmer- IoT based Smart Farming Application
Maximum Marks	8 Marks

Sprint-2:

Creating device in the IBM Watson IoT platform, workflow for IoT scenarios using Node-Red

The image displays two screenshots of the IBM Cloud and IBM Watson IoT Platform interfaces, showing the process of creating and managing IoT devices.

Top Screenshot: IBM Cloud Dashboard

The top screenshot shows the IBM Cloud dashboard. The main section is titled "For you" and contains several quickstart options:

- Build**: Explore IBM Cloud with this selection of easy starter tutorials and services.
- Create and deploy an application**: Browse our starter kits, and then select one to jump start the process to create and deploy your app. (Getting started, 5 min)
- 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)
- Get Started with the CLI**: Install the IBM Cloud™ developer tools, which include the latest IBM Cloud CLI, verify the installation, and configure the environment. (Recommended, 10 min)
- Build a Cloud (IaaS)**: Upgrade to create a new instance. (Getting started, 10 min)

Bottom Screenshot: IBM Watson IoT Platform Dashboard

The bottom screenshot shows the IBM Watson IoT Platform dashboard. The main section is titled "Browse Devices" and contains a table of devices:

Device ID	Status	Device Type	Class ID	Date Added
123	Disconnected	openAPI	Device	13 Nov 2022 23:01
12345	Disconnected	abcd	Device	14 Nov 2022 02:29

The dashboard also includes a search bar for "Search by Device ID" and a "Device Simulator" toggle.

WhatsApp x (no subject) x IBM x IBM-EPBL x Google Ke x Smart-Agr x IBM-Proje x IBM Cloud x IBM Wat x +

v1srgz.internetofthings.ibmcloud.com/dashboard/boards/janane075@gmail.com-UsageDefaultBoard.1

IBM Watson IoT Platform janane075@gmail.com ID: v1srgz

Usage Overview

+ Add New Card Settings

Total 2 devices

8.6 MB This month
0.0 MB Previous month

Data transferred

0.0 MB Data transferred today

Node-RED

Flow 1 Flow 2

debug

filter nodes

common

- inject
- debug
- complete
- catch
- status
- link in
- link call
- link out
- comment

function

function

temperature

objectTemp

humidity

function

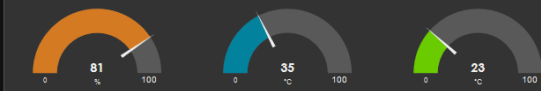
msg.payload

Project & Sprint PL...pdf app_layout_scre...jpeg http_request.png Watson IoT platfo...png mit_app_inventor.png Show all

smart_agriculture


IBM_IoT_sensor

humidity temperature object_temp



open_weather

humidity pressure temperature



region: Salem

weather_description: overcast clouds

chart1: temperature

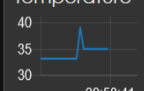


chart2: object temp


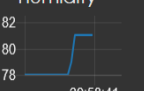


chart3: humidity



button: MOTOR ON MOTOR OFF

Node-RED

Flow 1 Flow 2

make request http request function

temperature pressure region humidity weather_description

msg.payload temperature pressure region humidity weather_description

Project & Sprint PL...pdf app_layout_scre...jpeg http_request.png Watson_IoT_platfo...png mit_app_inventor.png Show all

smart_agriculture

IBM_IoT_sensor

humidity temperature object_t

78 % 16 °C 23 °C

button

MOTOR ON MOTOR OFF

```
Python 3.8.3 Shell
Python 3.8.3 (tags/v3.8.3:6f8c832, May 13 2020, 22:37:02) [MSC v.1924 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python38/subscribesibm.py
2020-05-30 16:54:37,373 ibmiotf.device.Client INFO Connected successfully: d:\ie8mpi\IoT_device\IoT_device_1
Command received: {'command': 'motoron'}
MOTOR ON IS RECEIVED
Command received: {'command': 'motoroff'}
MOTOR OFF IS RECEIVED
Command received: {'command': 'motoron'}
MOTOR ON IS RECEIVED
```

Watson IoT Sensor Simulator IoT_device_1

Temperature

15°C

connected

swipe left/right for more

The screenshot displays a web browser window with a dashboard titled "smart_agriculture". The dashboard has a teal header and a dark grey body. It features three circular gauges under the heading "IBM_IoT_sensor": "humidity" (78%), "temperature" (16°C), and "object_t" (23°C). Below the gauges is a "button" section with two teal buttons labeled "MOTOR ON" and "MOTOR OFF", each with a circular icon. A terminal window titled "Python 3.8.3 Shell" is open in the foreground, showing the following text:

```
File Edit Shell Debug Options Window Help
Python 3.8.3 (tags/v3.8.3:6f8c832, May 13 2020, 22:37:02) [MSC v.1924 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python38/subscribepbm.py
2020-06-30 16:54:37,373  ibmiotf.device.Client      INFO      Connected successfully: diis&pi:IoT_device:IoT_device_1
Command received: {'command': 'motoron'}
MOTOR ON IS RECEIVED
Command received: {'command': 'motoroff'}
MOTOR OFF IS RECEIVED
Command received: {'command': 'motoron'}
MOTOR ON IS RECEIVED
```