

# Project Planning Phase Project

## Planning Template- Sprint-3

Date	05November 2022
Team ID	PNT2022TMID36156
Project Name	Project- Real Time River Quality Monitoring and Control System.

```
*code.py.txt - C:\Users\Seenu\Music\test\code.py.txt (3.7.0)*
File Edit Format Run Options Window Help

import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "hdn62g"
deviceType = "Cloud"
deviceId = "IBMiot"
authMethod = "token"
authToken = "12345678"

def myCommandCallback(cmd):
    print ("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="motoron":
        print ("Motor is on")
    elif status == "motoroff":
        print ("Motor is off")
    else:
        print ("please send proper command")

try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
                    "auth-method":authMethod, "auth-token":authToken}
    deviceCli= ibmiotf.device.Client (deviceOptions)

#..
except Exception as e:
    print ("Caught evention connecting device: %s" % str(e))
    sys.exit()

deviceCli.connect()
while True:
    temp=random.randint (90,110)
    Humid=random.randint (60,100)
    Ph=random.randint (0,14)
    Water_turbidity=random.randint (15,60)
    data = {'temp': temp, 'Humid': Humid, 'Ph': Ph, 'Water_turbidity': Water_turbidity}
    def myonPublishCallback():
        print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid, "Ph = %s" % Ph, "Water Turbidity = %s NTU" % Water_turbidity, "to IBM Watson")
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myonPublishCallback)
    if not success:
        print("Not connected to IoT")
    time.sleep (10)
    deviceCli.commandCallback = myCommandCallback
deviceCli.disconnect()
```

```

C:\Python3.7.0 Shell#
File Edit Shell Debug Options Window Help

python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Seenu\Music\test\code.py.txt =====
2022-11-19 11:12:29.034  ibmiotf.device.client  INFO  Connected successfully: d:hnd6z8@Cloud:IBMiot
Published Temperature = 102 C Humidity = 68 % Ph = 5 Water Turbidity = 39 NTU to IBM Watson
Published Temperature = 100 C Humidity = 67 % Ph = 10 Water Turbidity = 47 NTU to IBM Watson
Published Temperature = 104 C Humidity = 72 % Ph = 10 Water Turbidity = 37 NTU to IBM Watson
Published Temperature = 110 C Humidity = 95 % Ph = 3 Water Turbidity = 33 NTU to IBM Watson
Published Temperature = 100 C Humidity = 95 % Ph = 7 Water Turbidity = 41 NTU to IBM Watson
Published Temperature = 108 C Humidity = 83 % Ph = 0 Water Turbidity = 18 NTU to IBM Watson
Published Temperature = 99 C Humidity = 61 % Ph = 1 Water Turbidity = 51 NTU to IBM Watson
Published Temperature = 109 C Humidity = 14 % Ph = 4 Water Turbidity = 39 NTU to IBM Watson
Published Temperature = 109 C Humidity = 77 % Ph = 7 Water Turbidity = 59 NTU to IBM Watson
Published Temperature = 109 C Humidity = 90 % Ph = 10 Water Turbidity = 33 NTU to IBM Watson
Published Temperature = 96 C Humidity = 62 % Ph = 8 Water Turbidity = 46 NTU to IBM Watson
Published Temperature = 102 C Humidity = 77 % Ph = 12 Water Turbidity = 31 NTU to IBM Watson
Published Temperature = 110 C Humidity = 93 % Ph = 13 Water Turbidity = 16 NTU to IBM Watson
Published Temperature = 99 C Humidity = 92 % Ph = 12 Water Turbidity = 23 NTU to IBM Watson
Published Temperature = 101 C Humidity = 92 % Ph = 4 Water Turbidity = 23 NTU to IBM Watson
Command received: motoroff
motor is off
Command received: ZgQicjXt
please send proper command
Published Temperature = 106 C Humidity = 98 % Ph = 3 Water Turbidity = 18 NTU to IBM Watson
Published Temperature = 107 C Humidity = 77 % Ph = 2 Water Turbidity = 35 NTU to IBM Watson
Published Temperature = 108 C Humidity = 98 % Ph = 11 Water Turbidity = 46 NTU to IBM Watson
Published Temperature = 101 C Humidity = 96 % Ph = 4 Water Turbidity = 30 NTU to IBM Watson
Published Temperature = 92 C Humidity = 81 % Ph = 10 Water Turbidity = 25 NTU to IBM Watson
Published Temperature = 106 C Humidity = 69 % Ph = 4 Water Turbidity = 39 NTU to IBM Watson
Published Temperature = 98 C Humidity = 64 % Ph = 14 Water Turbidity = 17 NTU to IBM Watson
Published Temperature = 100 C Humidity = 98 % Ph = 5 Water Turbidity = 35 NTU to IBM Watson
Published Temperature = 106 C Humidity = 95 % Ph = 3 Water Turbidity = 30 NTU to IBM Watson
Published Temperature = 98 C Humidity = 64 % Ph = 7 Water Turbidity = 25 NTU to IBM Watson
Published Temperature = 94 C Humidity = 100 % Ph = 8 Water Turbidity = 32 NTU to IBM Watson
Published Temperature = 107 C Humidity = 61 % Ph = 14 Water Turbidity = 55 NTU to IBM Watson
Published Temperature = 96 C Humidity = 72 % Ph = 3 Water Turbidity = 17 NTU to IBM Watson
Published Temperature = 97 C Humidity = 69 % Ph = 6 Water Turbidity = 46 NTU to IBM Watson
Published Temperature = 93 C Humidity = 82 % Ph = 3 Water Turbidity = 33 NTU to IBM Watson
Published Temperature = 92 C Humidity = 66 % Ph = 14 Water Turbidity = 51 NTU to IBM Watson
Published Temperature = 110 C Humidity = 83 % Ph = 6 Water Turbidity = 32 NTU to IBM Watson

```

The screenshot displays the IBM Cloud IoT Platform 'Manage' interface. At the top, the breadcrumb trail shows 'Resource list / Internet of Things Platform-sr'. The resource status is 'Active'. The main heading is '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.' A prominent blue 'Launch' button is visible. Below this, the 'Ready for the next level?' section features the 'IBM Watson IoT Platform Journey' diagram. This diagram consists of three horizontal steps: 'Lite' (marked with a checkmark), 'Non-Production', and 'Production'. The 'Lite' step is described as a 'lightweight development environment' for getting started. The 'Non-Production' step is described as a 'fully-featured, fully-integrated offering' for exploring the platform. The 'Production' step is described as a 'fully managed SaaS offering' for managing and analyzing data. The 'Lite' step is currently active, as indicated by the checkmark and the description below it.

Service Details - IBM Cloud x IBM Watson IoT Platform x

hdn6z8.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM TRADING SCHOLARSHIP IBM-EPBL/IBM-Proj... Python Programmi...

110319106023@smartinternz.com ID: hdn6z8

IBM Watson IoT Platform

Browse Action Device Types Interfaces Add Device +

Search by Device ID Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
IBMIOT	Connected	Cloud	Device	Nov 19, 2022 10:29 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
IoTSensor	{"temp":110,"Humid":85,"Ph":3,"Water_turbidity..."	json	a few seconds ago
IoTSensor	{"temp":104,"Humid":72,"Ph":10,"Water_turbidit..."	json	a few seconds ago
IoTSensor	{"temp":100,"Humid":67,"Ph":10,"Water_turbidit..."	json	a few seconds ago
IoTSensor	{"temp":102,"Humid":68,"Ph":5,"Water_turbidity..."	json	a few seconds ago

0 Simulations running

27°C Haze

Application Details - IBM Cloud x IBM Watson IoT Platform x Node-RED: node-red-odiod-20: x Node-RED Dashboard x IBM-Project-14177-163954380: x

hdn6z8.internetofthings.ibmcloud.com/dashboard/boards/d4a66180-cc0a-43d9-9d44-2c3c8d7a838c

Gmail IBM-EPBL/IBM-Proj...

110319106023@smartinternz.com ID: hdn6z8

IBM Watson IoT Platform

test Add New Card Settings

Temperature

Threshold is n/a

92.0 °C

PH value

1.0

Humidity

66.0 %

Water-Turbidity

27.0 NTU

29°C Cloudy

