

Project Planning Phase

Project Planning Template- Sprint-3

Date	20 October 2022
Team ID	PNT2022TMID36156
Project Name	Project- Real Time River Quality Monitoring and Control System.
Maximum Marks	8 Marks

```
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 = "hdn6z8"
deviceType = "Cloud"
deviceId = "IBM10T"
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 IOTF")
    time.sleep (10)
    deviceCli.commandCallback = myCommandCallback
deviceCli.disconnect()
```

```
Python 3.7.0 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 INFO Connected successfully: d:hdm6z8:Cloud:IBMIO7
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 = 85 % 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 = 84 % 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 = 86 % 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 = 68 % Ph = 6 Water Turbidity = 48 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
Ln: 5 Col: 0
```

Service Details - IBM Cloud

IBM Watson IoT Platform

cloud.ibm.com/services/iotf-service/crm%3Av1%3Abluemix%3Apublic%3AIotf-service%3Aeu-de%3Aa%2F861d48de1a5f42f4874a1b05c0c0f2ec%3A070605fb-71d8-4c29-824c-f308ac0fe3b4%...

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


IBM Cloud Search resources and products... Catalog Manage LOGESHWER V's Accou...

Resource list / Internet of Things Platform-sr 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 with the connectivity capabilities of Watson IoT Platform.



Non-Production

The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.



Production

The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

27°C Satisfactory air

Service Details - IBM Cloud x IBM Watson IoT Platform x +

hdn628.internetofthings.ibmcloud.com/dashboard/devices/browse

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

110319106023@smartinternz.com ID: hdn628

IBM Watson IoT Platform

Browse Action Device Types Interfaces

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

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Application Details - IBM Cloud x IBM Watson IoT Platform x Node-RED: node-red-odiod-20: x Node-RED Dashboard x IBM-Project-14177-1659543800: x +

hdn628.internetofthings.ibmcloud.com/dashboard/boards/d4a66180-ccb8-43d9-9d44-2c3c8d7a838c

Gmail IBM-EPBL/IBM-Proj...

110319106023@smartinternz.com ID: hdn628

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

23°C Cloudy

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