Smart Farmer - IOT Enabled Smart Farming Application

FINAL CODE

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Final Python Code:-

import time

import sys

import ibmiotf.application # to install pip install ibmiotf

import ibmiotf.device

#Provide your IBM Watson Device Credentials

organization = "0lsrz8" # repalce it with organization ID

deviceType = "Agriculture_1" #replace it with device type

deviceId = "Device_2" #repalce with device id

authMethod = "token"

```python
authToken = "Surideni@123"#repalce with token


def myCommandCallback(cmd): # function for Callback print("Command received: %s" % cmd.data)

 if cmd.data['command']=='motoron'

  print("Turn Motor ON")

  elif cmd.data['command']=='motoroff':

  print("Turn Motor OFF")

  elif cmd.data['command']=='lighton':

  print("Turn Light ON")

  elif cmd.data['command']=='lightoff':

  print("Turn Light OFF")

  if cmd.command == "setInterval":

   if 'interval' not in cmd.data:

   print("Error - command is missing required information: 'interval'")

   else:

   interval = cmd.data['interval']

  elif cmd.command == "print":

   if 'message' not in cmd.data:

   print("Error - command is missing required information: 'message'")

   else:

  output=cmd.data['message']

   print(output)
```

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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 exception connecting device: %s" % str(e))

    sys.exit()


# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times

deviceCli.connect()


while True:

    deviceCli.commandCallback = myCommandCallback


# Disconnect the device and application from the cloud

deviceCli.disconnect()
```