

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
import wiotp.sdk.device #to install pip install wiotp.sdk
import random
```

#Provide your IBM Watson Device Credentials

organization = "d8l5wp" # repalce it with organization ID

deviceType = "NodeMCU" #replace it with device type

deviceId = "99949" #repalce with device id

authMethod = "use-token-auth"

authToken = "ae5&eN!sEsOVK0XI53"#repalce with token

def myCommandCallback(cmd): # function for Callback
print("Commandreceived: %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)

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 clouddeviceCli.disconnect()
```