Smart Farmer- IOT Enabled Smart Farming Application

DESIGN SPRINT – II
DELIVERY OF SPRINT 2

TITLE	**Smart Farmer-IOT Enabled Smart Farming Application**
DOMAIN NAME	INTERNET OF THINGS
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DELIVERY OF SPRINT 2:

1. Python IDLE Installation:

- Google python.org.
- Download the python 3.7.4.
- Download the windows OS (x86-64-exceutable installer).
- Click on install now.
- If you need to change the path of the python in Local Disk(C).
- Click on the custom installer.
- Enter the path of C local disk.
- Setup is successful.
- After the package got installed, you can see different application like IDLE 3.7, Python Manual 3.7, Python Manual Doc 3.7.
- Work on IDE to execute your Python Code.

2. Code Development:

Goal:

- To develop the python code to publish and subscribe to the commands from the IBM cloud.

Python code:

```
import wiotp.sdk.device
import time
import OS
import datetime
import random
myConfig = {"identity": {"orgId": " 023f97" "typeId": "NodeMCU" "deviceId":"12345"},
"auth":{ "token": " CT8N7Sz?giHVFxk-V?" } }
client = wiotp.sdk.device.DeviceClient {config =myConfig, logHandlers=None}
client.connect ()
def myCommandCallhack (cmd) :
print ("Message received from IBM IOT Platform: %s" %cmd.data [' command' ])
m=cmd. data [' command' ]
if (m== "motoron"):
print ("Motor is switched on")
elif (m=="motoroff"):
print ("Motor is switched OFF")
print ("")
while True:
soil=random.randint (0,100)
temp=random.randint (-20,125)
hum=random.randint (0,100)
myData={'soil_moisture': soil, 'temperature':temp, 'humidity' :hum}
```

```
client.publishEvent (eventId="status", msgFormat="json", data=myData, gos=0,
onPublish=None)
print ("Published data Successfully: %s", myData)
time.sleep (2)
client.commandCallback = myCommandCallback
client.disconnect ()
```