PROJECT DEVELOPMENT PHASE
PROJECT DEVELOPMENT (SPRINT-1)

Team ID : PNT2022TMID07790
Project Name Project : Real Time River Water Monitoring and Control system

PYTHON CODE:

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials organization =
"84708c"
deviceType = "abcd"
deviceId = "12345"
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()
```

OUTPUT: