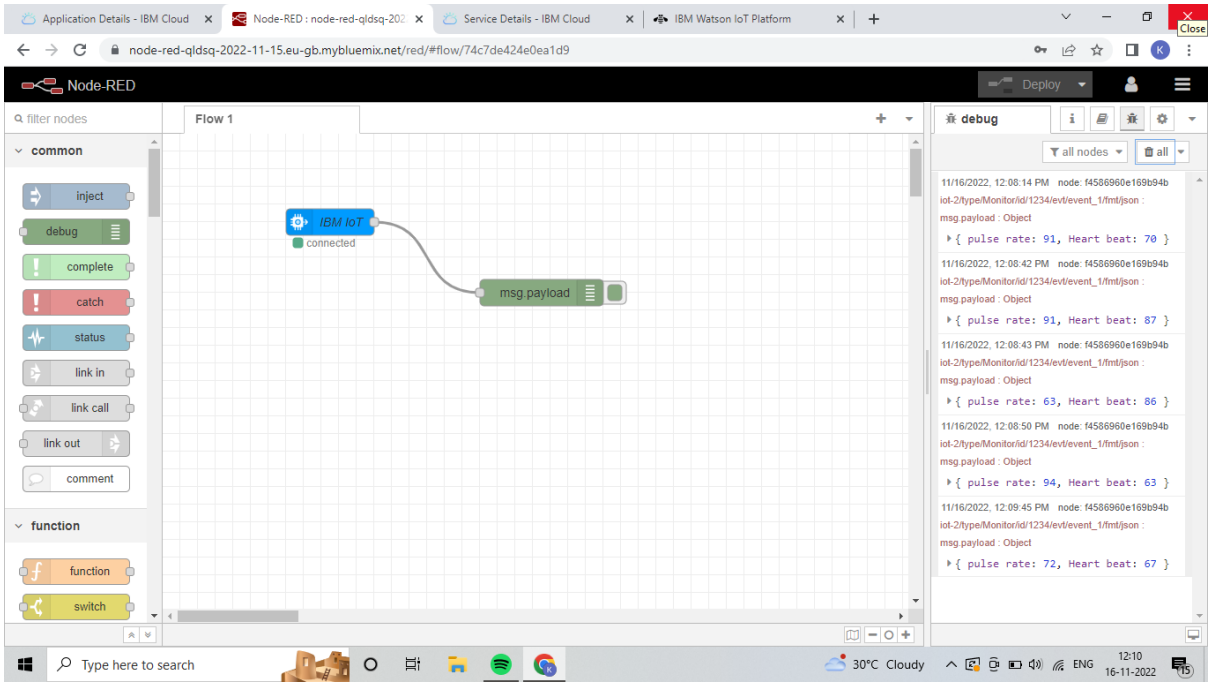
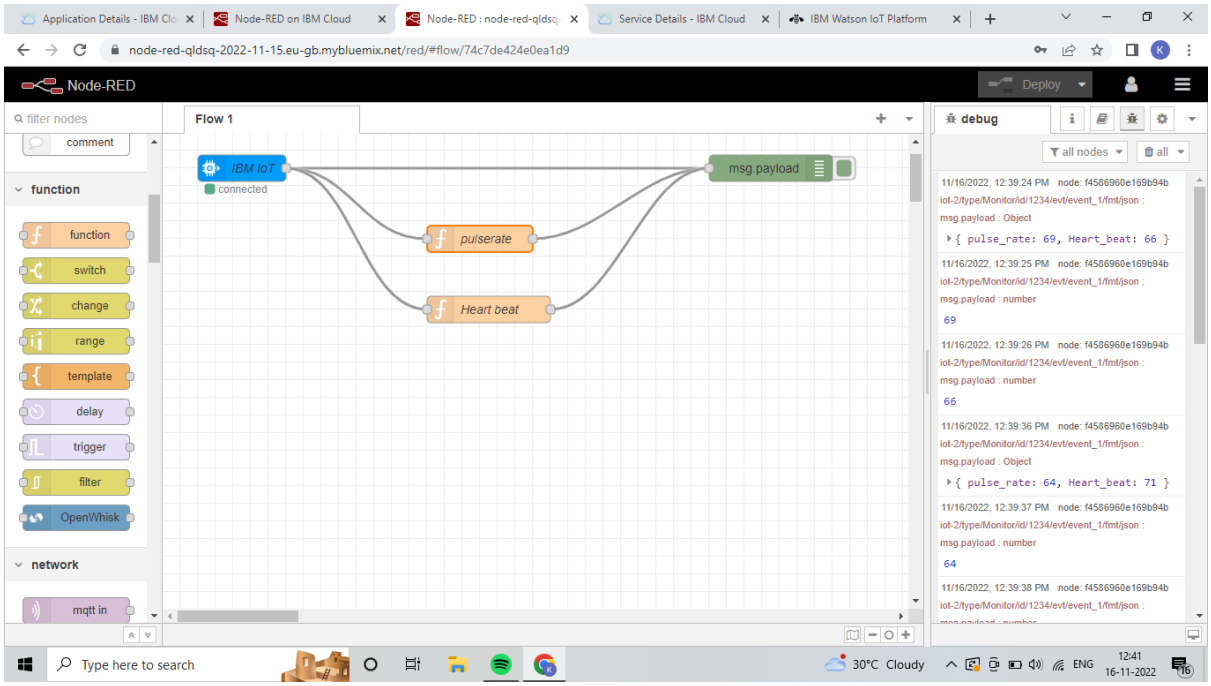
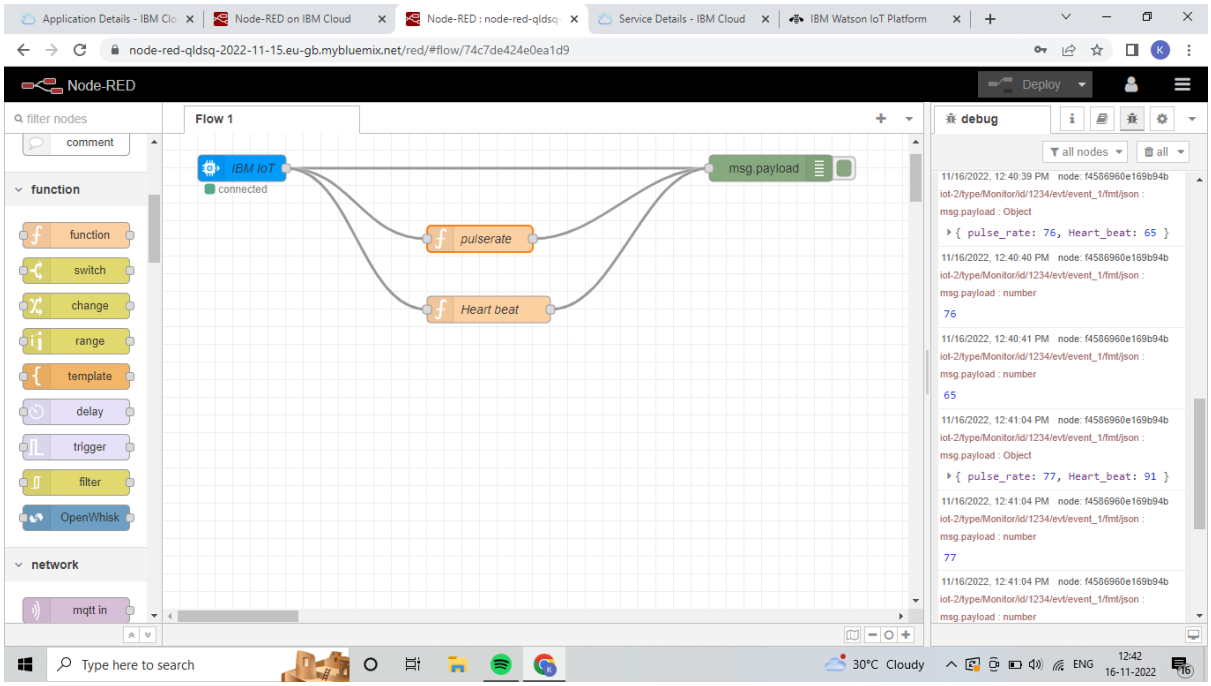
Project Development Phase

SPRINT-2

Date	29 October 2022
Team ID	PNT2022TMID32971
Project Name	IOT Based Safety Gadgets for Child safety Monitoring & Notification




Application Details - IBM Clo
Node-RED on IBM Cloud
Node-RED : node-red-qldsq
Service Details - IBM Cloud
IBM Watson IoT Platform
node-red-qldsq-2022-11-15.eu-gb.mybluemix.net/red/#flow/74c7de424e0ea1d9
Node-RED
Deploy
filter nodes
Flow 1
debug
comment
function
function
switch
change
range
template
delay
trigger
filter
OpenWhisk
network
mqtt in
IBM IoT
connected
pulserate
Heart beat
msg.payload
all nodes
all
11/16/2022, 12:39:24 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : Object
{ pulse_rate: 69, Heart_beat: 66 }
11/16/2022, 12:39:25 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
69
11/16/2022, 12:39:26 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
66
11/16/2022, 12:39:36 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : Object
{ pulse_rate: 64, Heart_beat: 71 }
11/16/2022, 12:39:37 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
64
11/16/2022, 12:39:38 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
Type here to search
30°C Cloudy
ENG
12:41
16-11-2022


Application Details - IBM Clo
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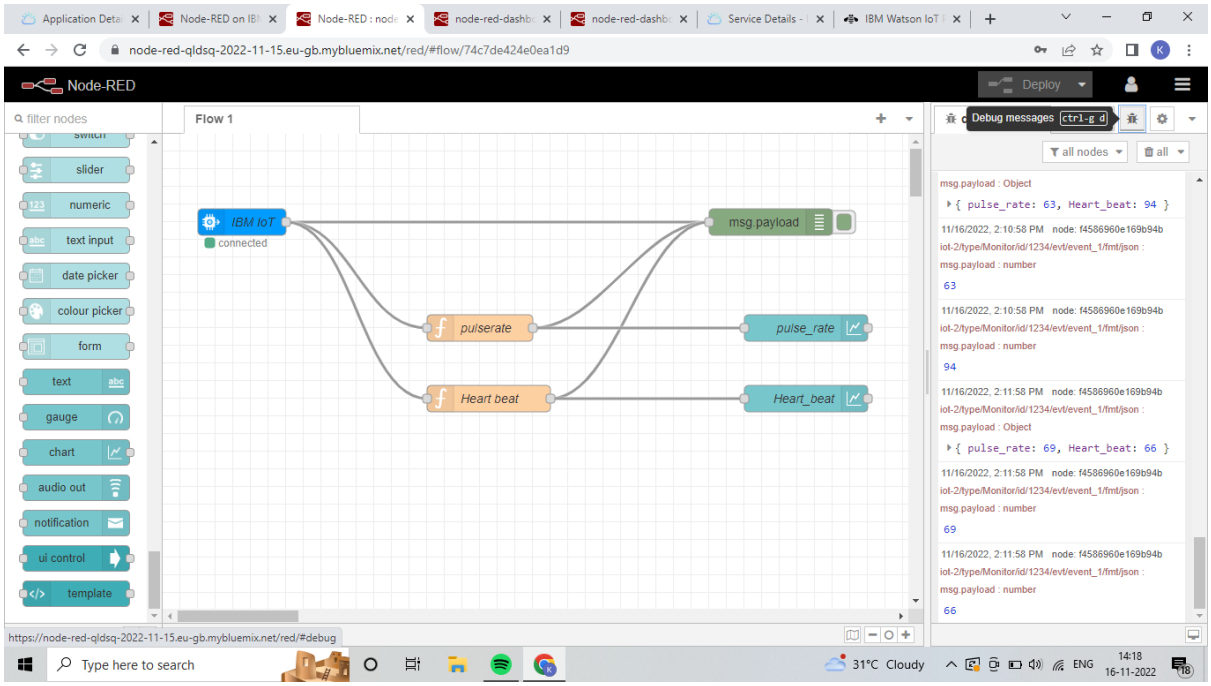
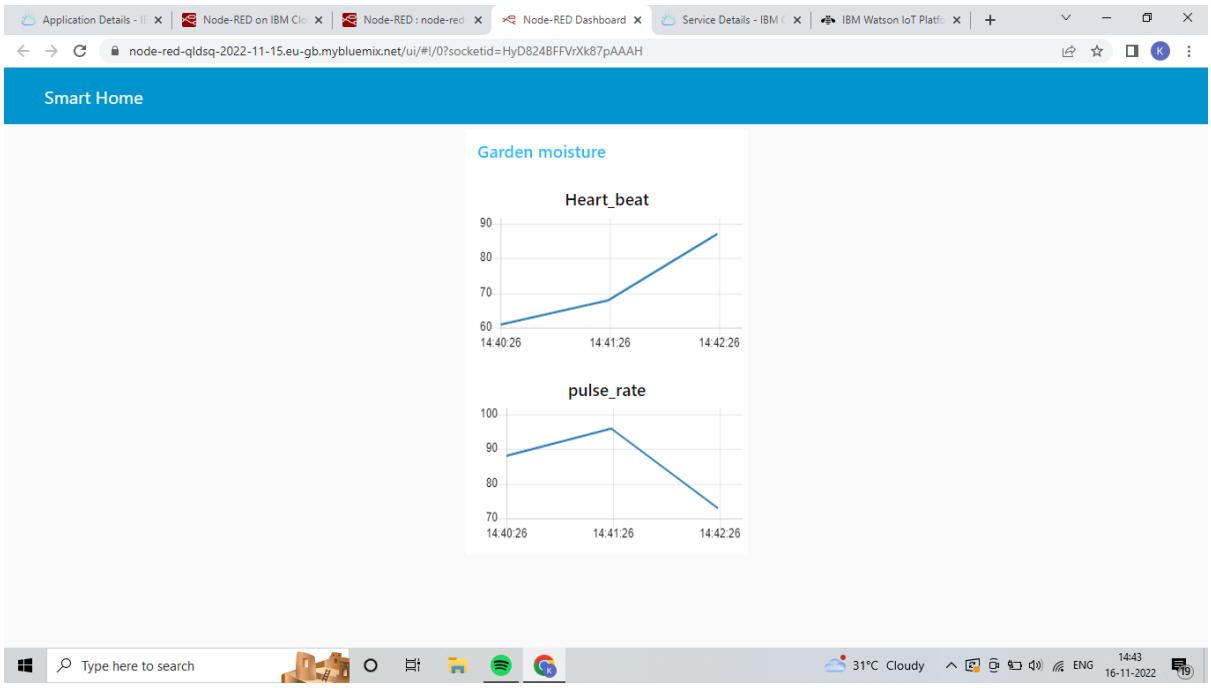
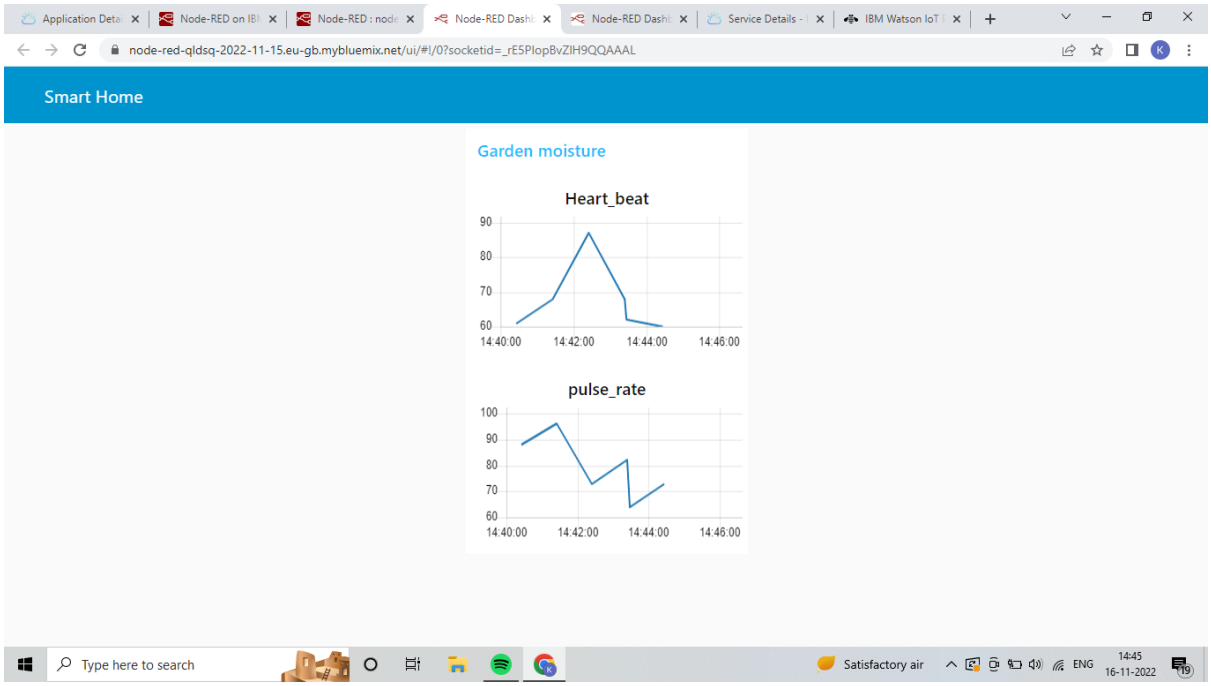
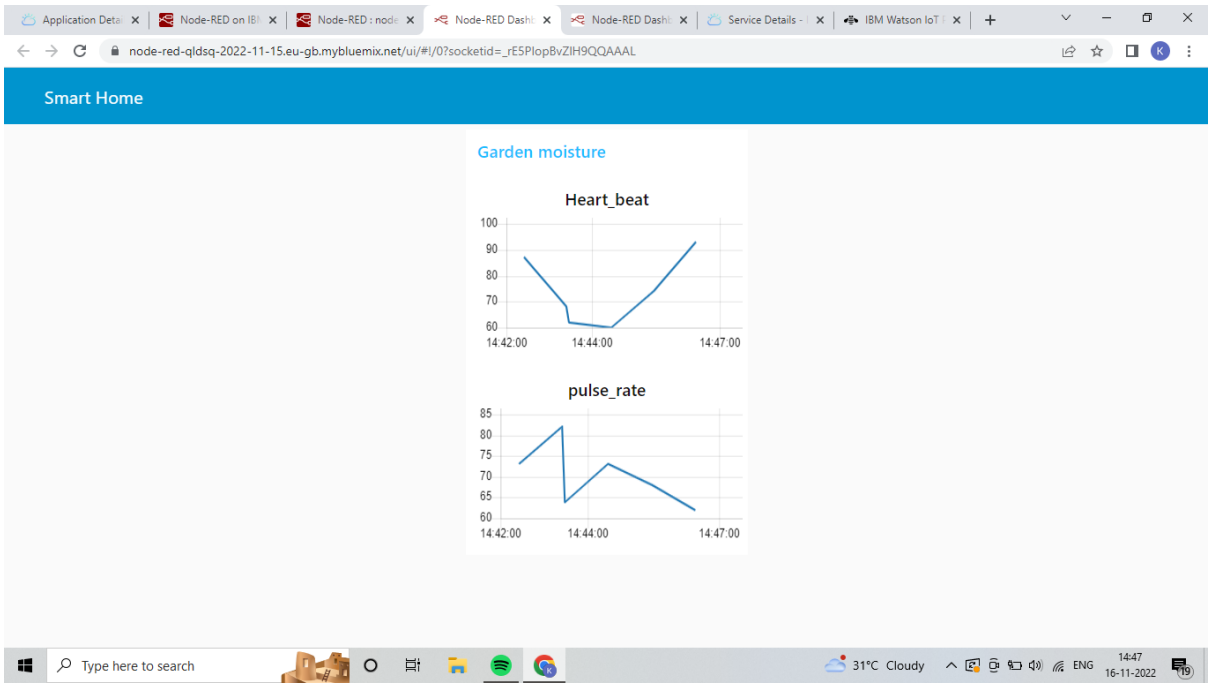
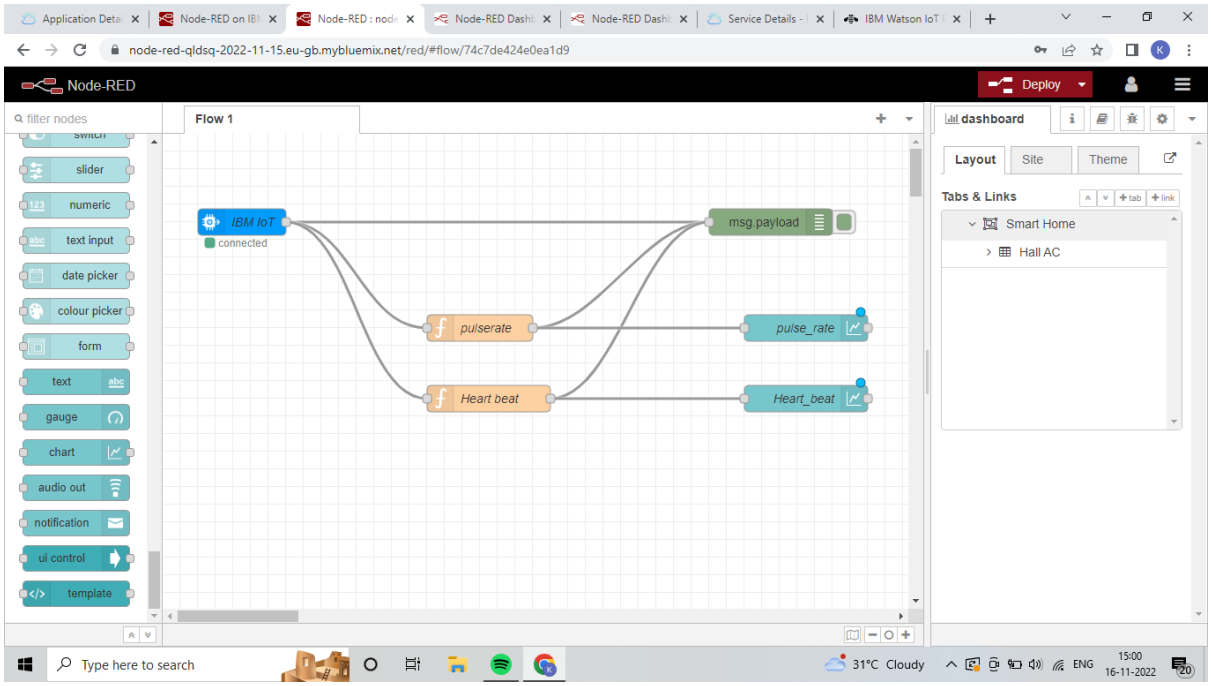
Service Details - IBM Cloud
IBM Watson IoT Platform
node-red-qldsq-2022-11-15.eu-gb.mybluemix.net/red/#flow/74c7de424e0ea1d9
Node-RED
Deploy
filter nodes
Flow 1
debug
comment
function
function
switch
change
range
template
delay
trigger
filter
OpenWhisk
network
mqtt in
IBM IoT
connected
pulserate
Heart beat
msg.payload
all nodes
all
11/16/2022, 12:40:39 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : Object
{ pulse_rate: 76, Heart_beat: 65 }
11/16/2022, 12:40:40 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
76
11/16/2022, 12:40:41 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
65
11/16/2022, 12:41:04 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : Object
{ pulse_rate: 77, Heart_beat: 91 }
11/16/2022, 12:41:04 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
77
11/16/2022, 12:41:04 PM node: f4586960e169b94b
iot-2/type/Monitor/id/1234/evt/event_1/fmt/json :
msg.payload : number
Type here to search
30°C Cloudy
ENG
12:42
16-11-2022


Node-RED
Deploy
Flow 1
Debug messages ctrl-g d
IBM IoT
connected
msg.payload
pulserate
pulse_rate
Heart beat
Heart_beat
{ pulse_rate: 63, Heart_beat: 94 }
{ pulse_rate: 69, Heart_beat: 66 }

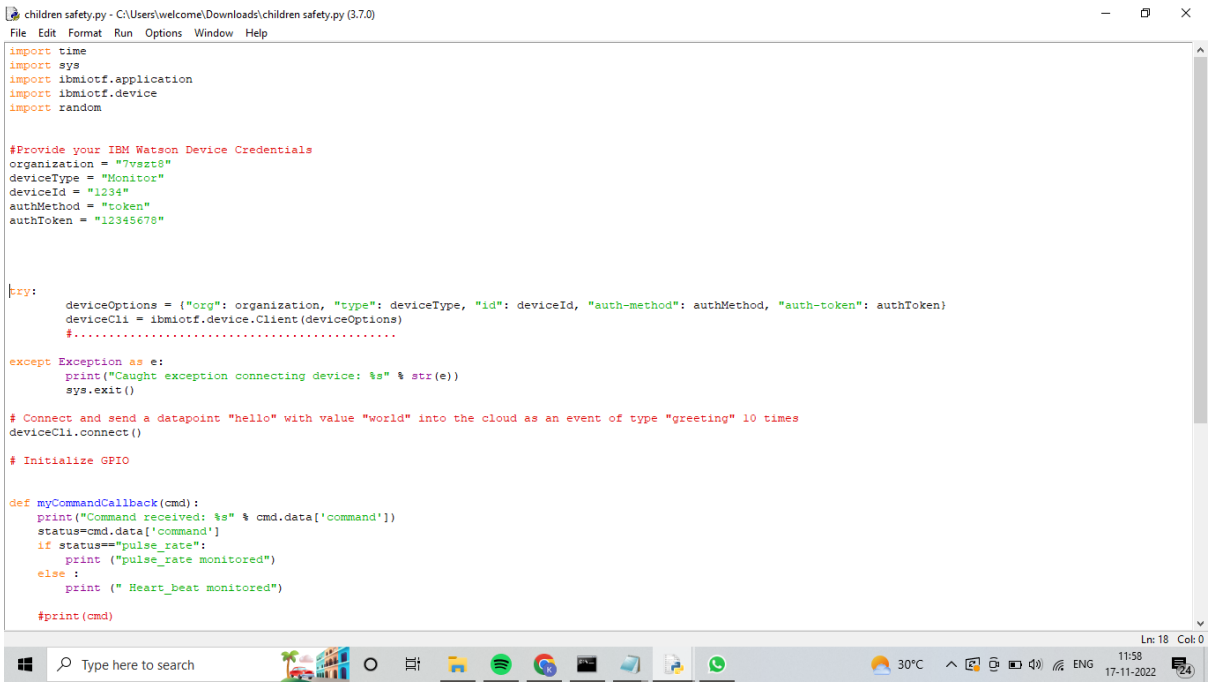

Smart Home
Garden moisture
Heart_beat
90
80
70
60
14:40:26
14:41:26
14:42:26
pulse_rate
100
90
80
70
14:40:26
14:41:26
14:42:26

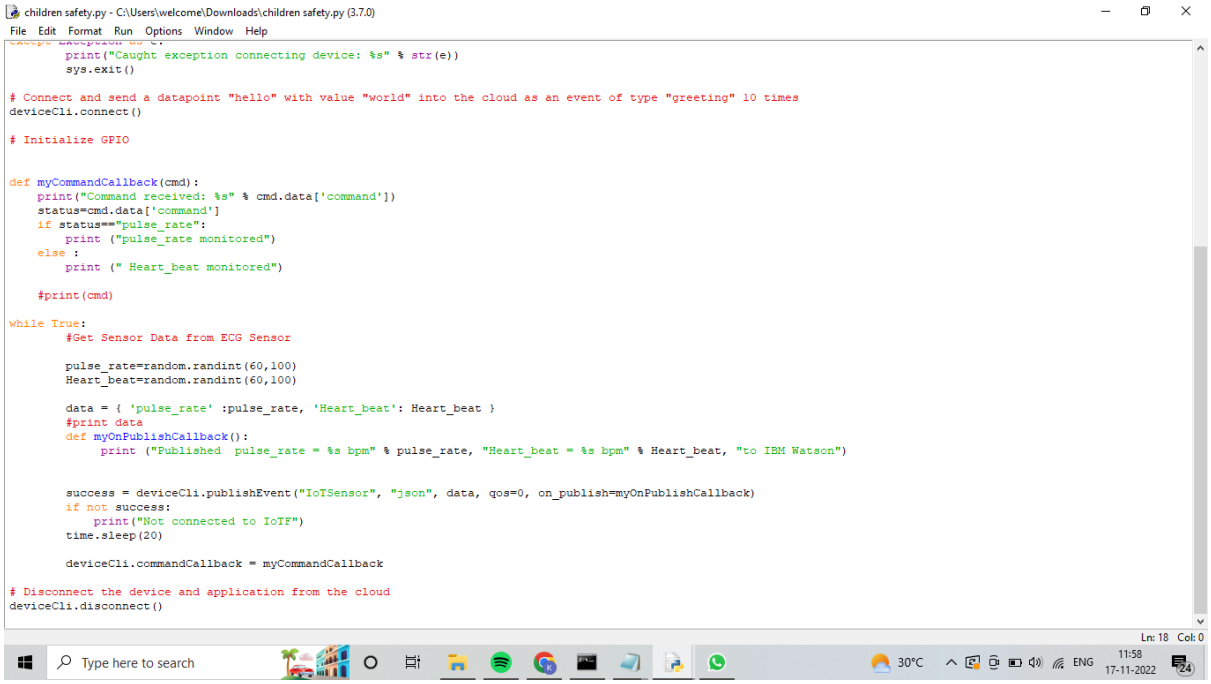

Application Deta
Node-RED on IBI
Node-RED : node
Node-RED Dashl
Node-RED Dashl
Service Details -
IBM Watson IoT
node-red-qldsq-2022-11-15.eu-gb.mybluemix.net/ui/#!/0?socketid=_rE5PlopBvZIH9QQAAAL
Smart Home
Garden moisture
Heart_beat
90
80
70
60
14:40:00
14:42:00
14:44:00
14:46:00
pulse_rate
100
90
80
70
60
14:40:00
14:42:00
14:44:00
14:46:00
Type here to search
Satisfactory air
ENG
14:45
16-11-2022

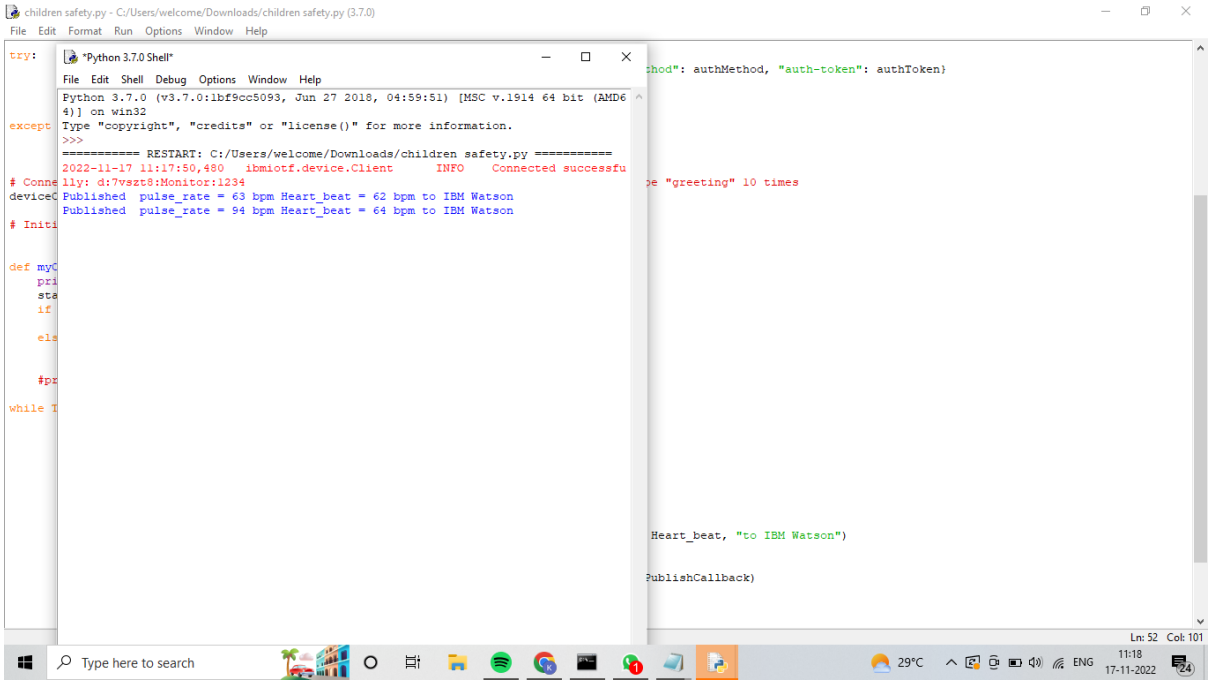

Application Deta
Node-RED on IBI
Node-RED : node
Node-RED Dashl
Node-RED Dashl
Service Details -
IBM Watson IoT
node-red-qldsq-2022-11-15.eu-gb.mybluemix.net/ui/#!/0?socketid=_rE5PlopBvZIH9QQAAAL
Smart Home
Garden moisture
Heart_beat
100
90
80
70
60
14:42:00
14:44:00
14:47:00
pulse_rate
85
80
75
70
65
60
14:42:00
14:44:00
14:47:00
Type here to search
31°C Cloudy
ENG
14:47
16-11-2022

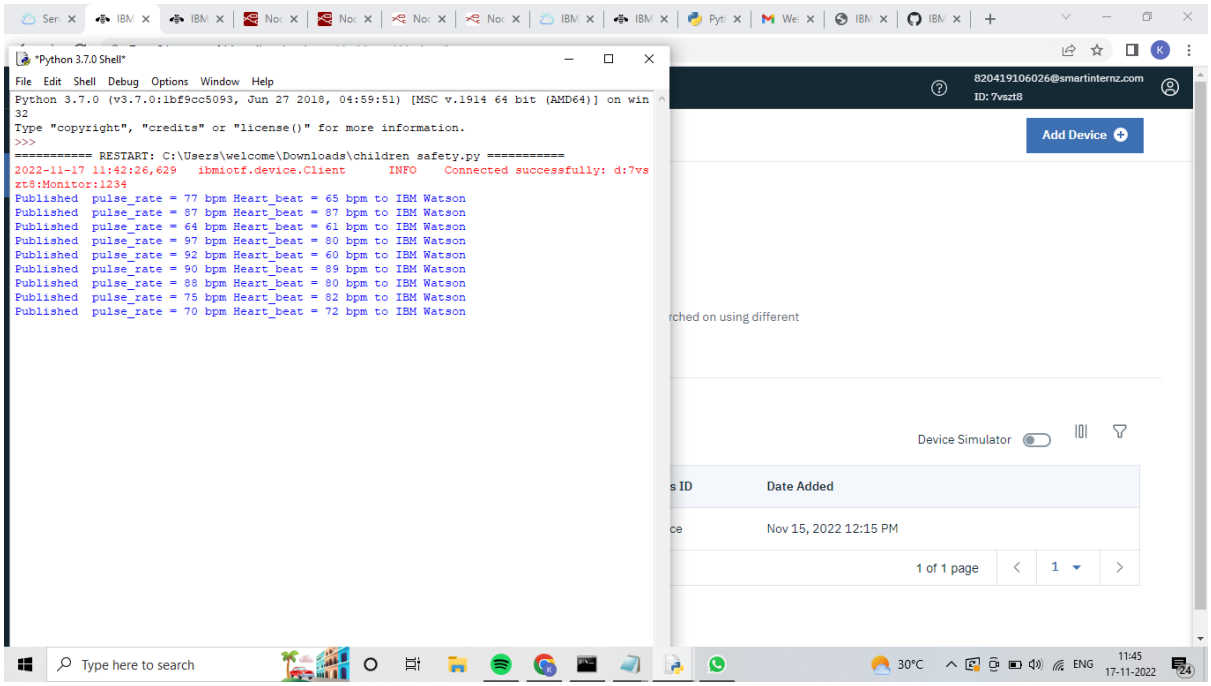


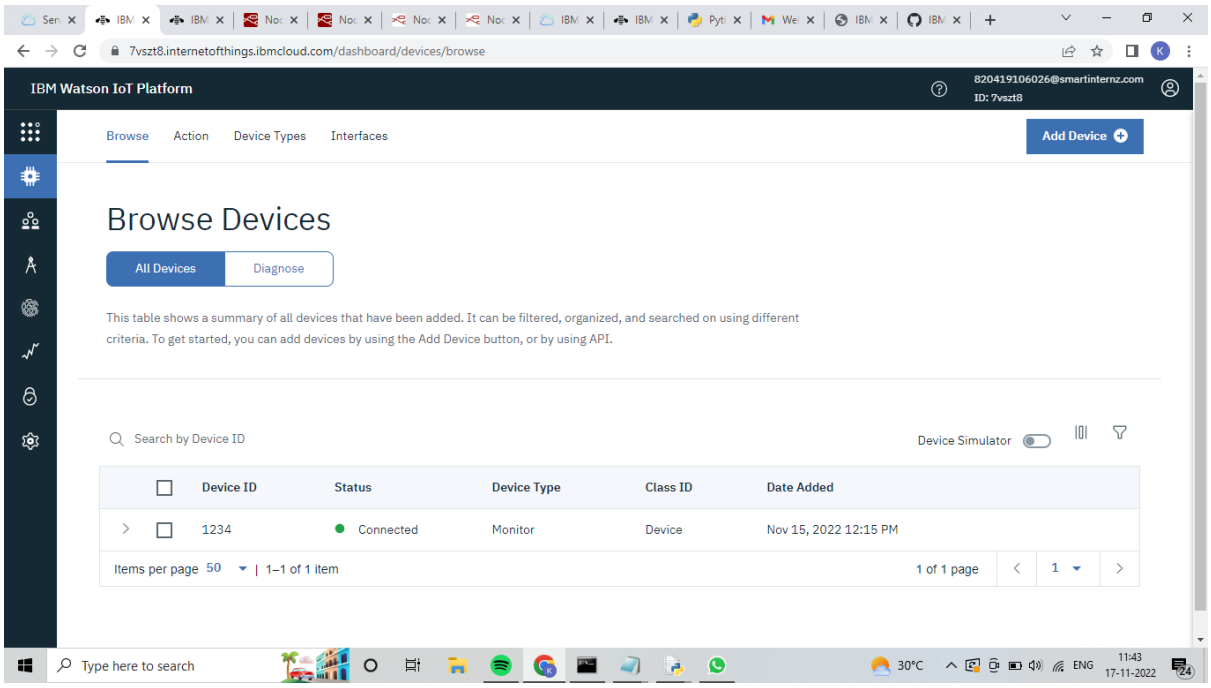
Program for pulse rate and heart beat:




children safety.py - C:\Users\welcome\Downloads\children safety.py (3.7.0)
File Edit Format Run Options Window Help
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()
# Initialize GPIO
def myCommandCallback(cmd):
print("Command received: %s" % cmd.data['command'])
status=cmd.data['command']
if status=="pulse_rate":
print ("pulse_rate monitored")
else :
print (" Heart_beat monitored")
#print(cmd)
while True:
#Get Sensor Data from ECG Sensor
pulse_rate=random.randint(60,100)
Heart_beat=random.randint(60,100)
data = { 'pulse_rate' :pulse_rate, 'Heart_beat': Heart_beat }
#print data
def myOnPublishCallback():
print ("Published pulse_rate = %s bpm" % pulse_rate, "Heart_beat = %s bpm" % Heart_beat, "to IBM Watson")
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
if not success:
print("Not connected to IoTF")
time.sleep(20)
deviceCli.commandCallback = myCommandCallback
# Disconnect the device and application from the cloud
deviceCli.disconnect()
Ln: 18 Col: 0
Type here to search
30°C
ENG
11:58
17-11-2022


children safety.py - C:/Users/welcome/Downloads/children safety.py (3.7.0)
File Edit Format Run Options Window Help
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/welcome/Downloads/children safety.py ==========
2022-11-17 11:17:50,480 ibmiotf.device.Client INFO Connected successfully: d:7vszt8:Monitor:1234
Published pulse_rate = 63 bpm Heart_beat = 62 bpm to IBM Watson
Published pulse_rate = 94 bpm Heart_beat = 64 bpm to IBM Watson
Ln: 52 Col: 101
Type here to search
29°C
ENG
11:18
17-11-2022


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 win
32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\welcome\Downloads\children safety.py ==========
2022-11-17 11:42:26,629 ibmiotf.device.Client INFO Connected successfully: d:7vs
zt8:Monitor:1234
Published pulse_rate = 77 bpm Heart_beat = 65 bpm to IBM Watson
Published pulse_rate = 87 bpm Heart_beat = 87 bpm to IBM Watson
Published pulse_rate = 64 bpm Heart_beat = 61 bpm to IBM Watson
Published pulse_rate = 97 bpm Heart_beat = 80 bpm to IBM Watson
Published pulse_rate = 92 bpm Heart_beat = 60 bpm to IBM Watson
Published pulse_rate = 90 bpm Heart_beat = 89 bpm to IBM Watson
Published pulse_rate = 88 bpm Heart_beat = 80 bpm to IBM Watson
Published pulse_rate = 75 bpm Heart_beat = 82 bpm to IBM Watson
Published pulse_rate = 70 bpm Heart_beat = 72 bpm to IBM Watson
820419106026@smartinternz.com
ID: 7vszt8
Add Device
Device Simulator
s ID
Date Added
Nov 15, 2022 12:15 PM
1 of 1 page
Type here to search
30°C
ENG
11:45
17-11-2022


7vszt8.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
820419106026@smartinternz.com
ID: 7vszt8
Browse
Action
Device Types
Interfaces
Add Device
Browse Devices
All Devices
Diagnose
This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.
Search by Device ID
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
1234
Connected
Monitor
Device
Nov 15, 2022 12:15 PM
Items per page 50
1–1 of 1 item
1 of 1 page
Type here to search
30°C
ENG
11:43
17-11-2022