NALAIYA THIRAN
WEEK 6 REPORT

Phase 3 Description: Project Design Phase -I (Proposed Solution, Problem Solution Fit, Solution Architecture)

3.3 Prepare problem - solution fit document & Solution Architecture

Problem Solution Fit

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Working parents or busy parents of 0-10 year old kids

6. CUSTOMER CONSTRAINTS CC

Lack of affordable, reliable and hassle free technology, Lack of availability of secure and easy UI.

5. AVAILABLE SOLUTIONS AS

There are existing solutions that offer location tracking for kids but they are not very efficient, cost effective and reliable all at the same time. This trade off should be addressed.

Explore AS,differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Instantaneous tracking and updation of child's location, geofencing and notifying parents of any abnormalities

9. PROBLEM ROOT CAUSE RC

Customers have to do this to protect their children from potential threats and to ensure the safety while being far away from them.

7. BEHAVIOUR BE

Customers panic, prevent their children from going out on their own , try using easily available technologies

Focus on J&P, tap into BE, understand RC

Identify strong TR &EM				
	3. TRIGGERS TR Coming across news about children being kidnapped and abducted, missing cases being reported.	**10. YOUR SOLUTION** SL Building a reliable technology that can address all the customer needs while being reliable and secure ensuring efficient functioning.	**8. CHANNELS of BEHAVIOUR** CH 8.1 **ONLINE** Tracking their kids location with their mobile phones' GPS, reading news about child safety and other child missing cases. 8.2 **OFFLINE** Customers accompany their children to ensure safety, send them together with other reliable people, seek for protection in public places.	Identify strong TR &EM
	4. EMOTIONS: BEFORE / AFTER EM Before : Feel insecure , worried , scared and confused. After Relieved , calm , confident , happy.			

Solution Architecture

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behaviour and other aspects of the software to project stakeholders.
- Define features, development phases and solution requirements.
- Provide specifications according to which the solution is defined, managed and delivered.

FEATURES:

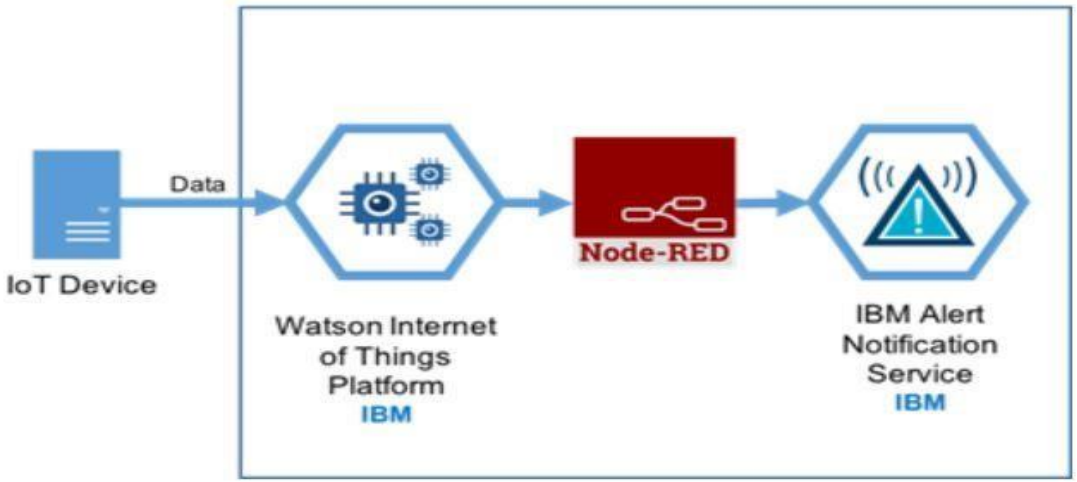
Development of a safety gadget for children to ensure their protection without direct monitoring of their parents. The various features involve:

- GPS
- Geo fence
- Notify alert signal

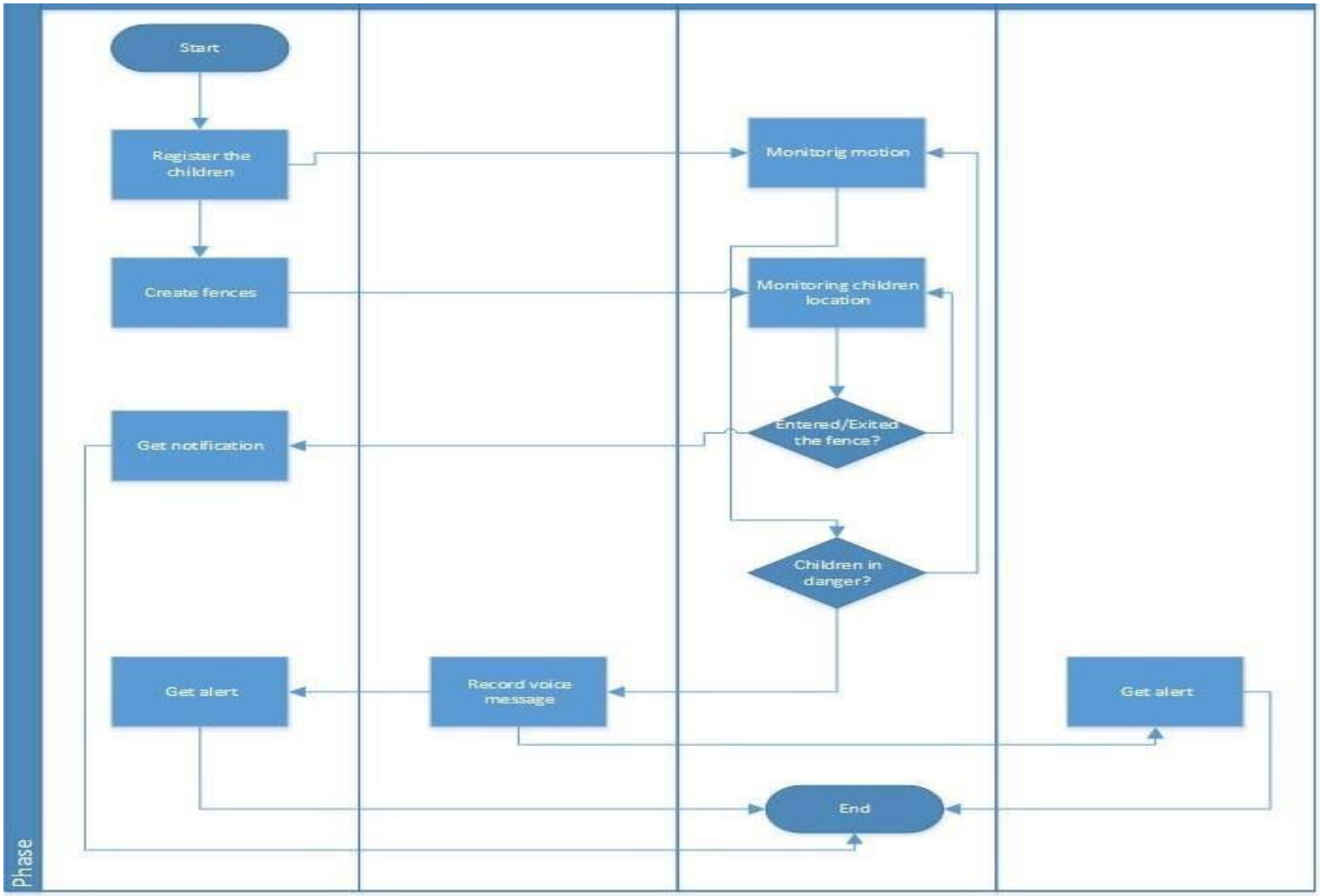
SOLUTION:

Track current location of the child using GPS and continuous monitoring of the same is done. When the gadget detects the activity to be outside the given geo fence (as mentioned by the parent or guardian), alert messages or notifications are sent to the registered device, appropriately. Additional features such as recording of messages could be done if any kind of danger is sensed.

SOLUTION ARCHITECTURE DIAGRAM:



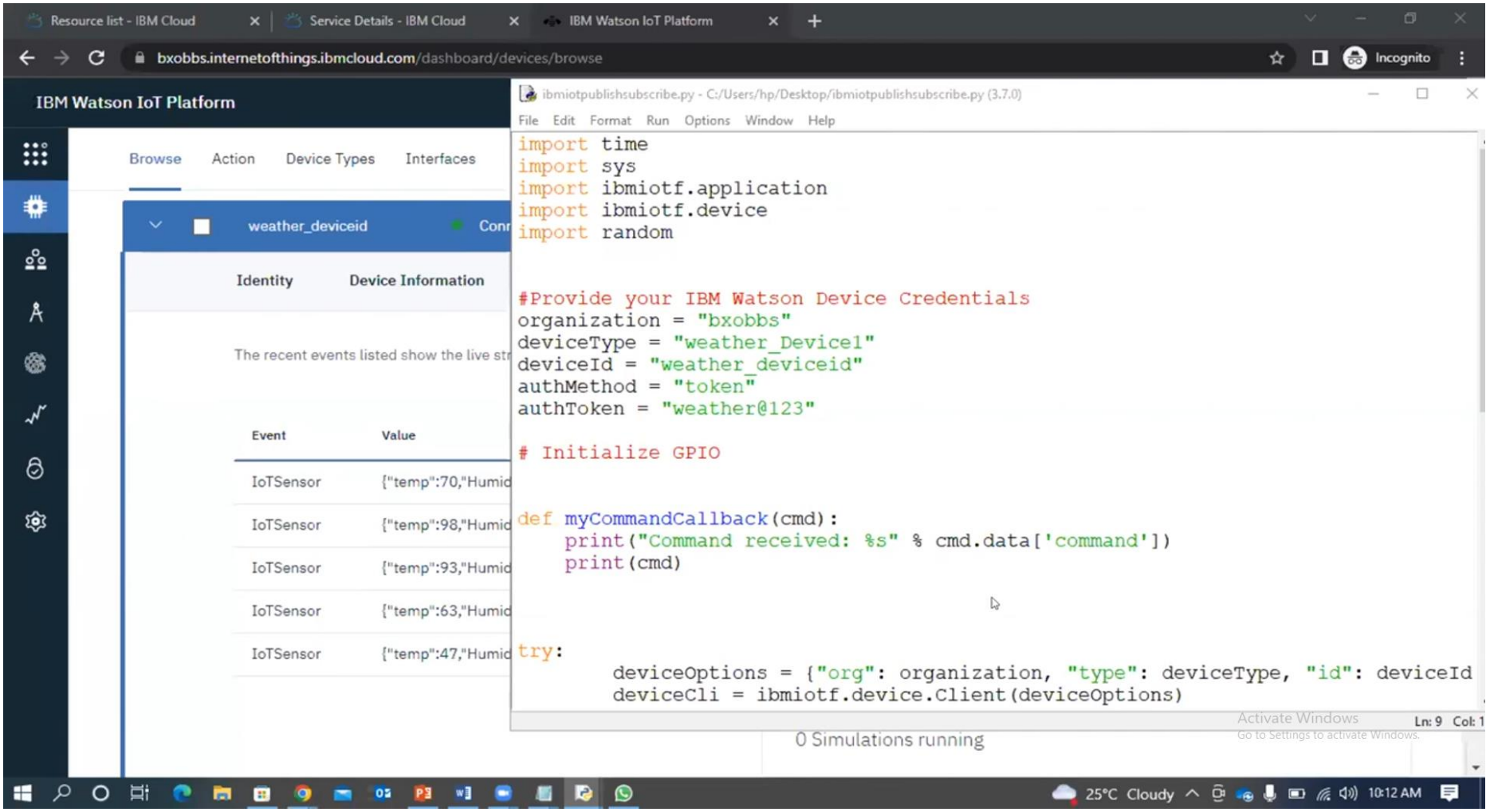
Architecture of the child safety gadget system

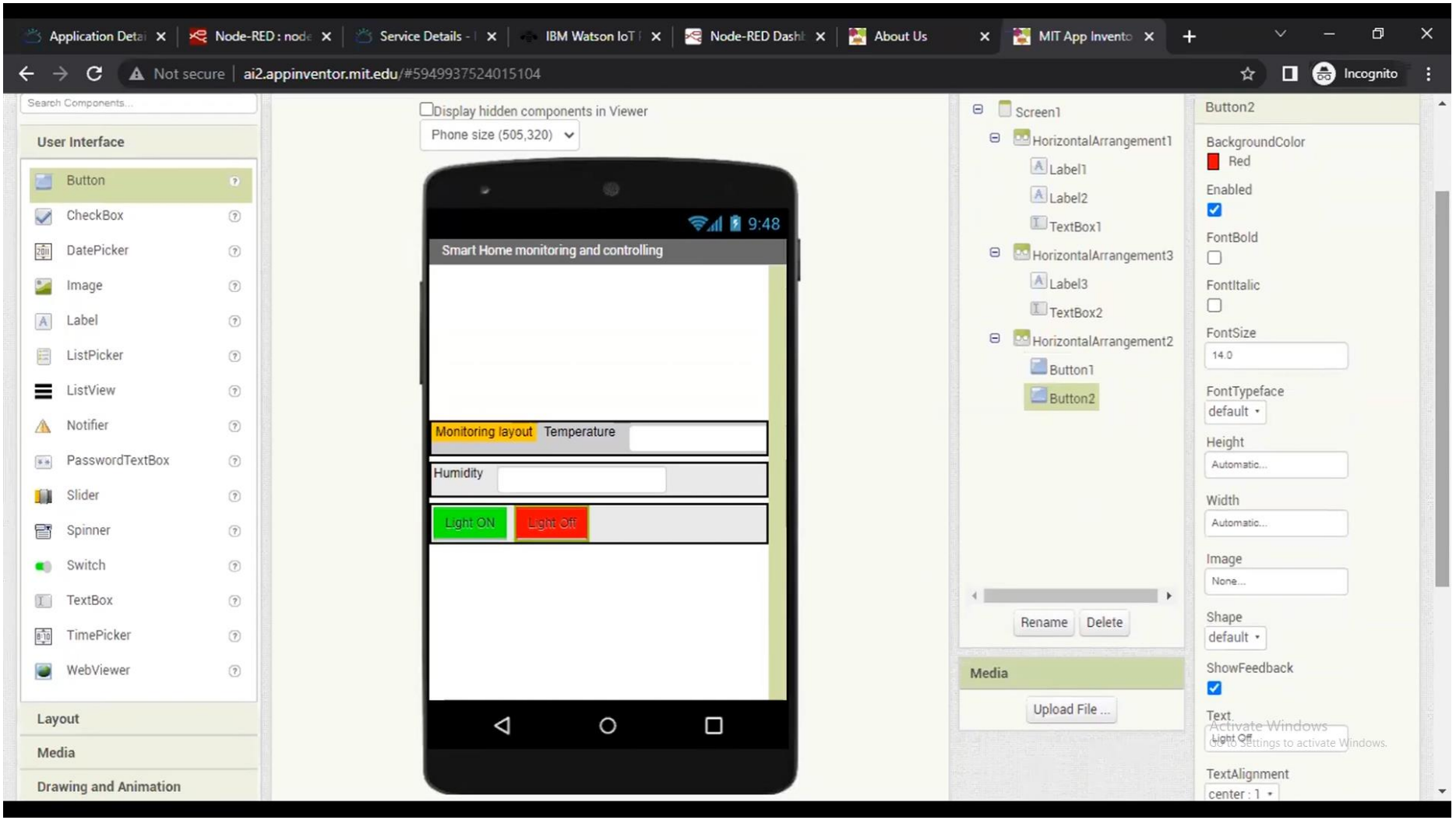


Data flow of the child safety gadget system

3.4 Attend the technology trainings as per the training calendar

IoT-B4-4M6E (Morning Session)-Day-9 (29.09.2022)




Application Detai
Node-RED : node
Service Details -
IBM Watson IoT
Node-RED Dashb
About Us
MIT App Invento
Not secure
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Incognito
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Drawing and Animation
Display hidden components in Viewer
Phone size (505,320)
9:48
Smart Home monitoring and controlling
Monitoring layout
Temperature
Humidity
Light ON
Light Off
Screen1
HorizontalArrangement1
Label1
Label2
TextBox1
HorizontalArrangement3
Label3
TextBox2
HorizontalArrangement2
Button1
Button2
Rename
Delete
Media
Upload File ...
Button2
BackgroundColor
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FontBold
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Automatic...
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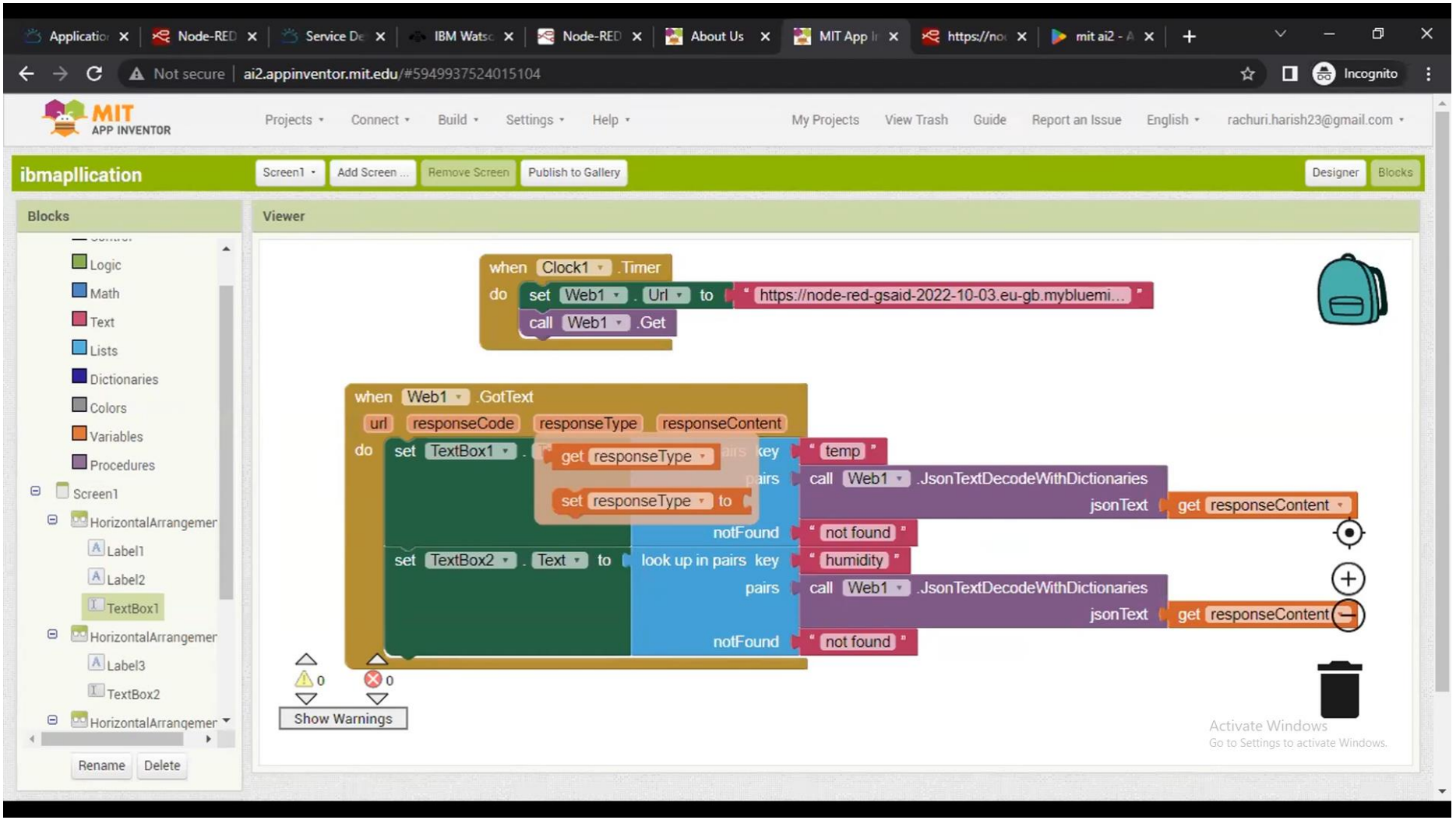
Activate Windows
Go to Settings to activate Windows.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MIT APP INVENTOR
Projects Connect Build Settings Help My Projects View Trash Guide Report an Issue English rachuri.harish23@gmail.com
ibmapllication
Screen1 Add Screen ... Remove Screen Publish to Gallery Designer Blocks
Blocks
Viewer
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen1
HorizontalArrangemer
Label1
Label2
TextBox1
HorizontalArrangemer
Label3
TextBox2
HorizontalArrangemer
Rename Delete
when Clock1 .Timer
do set Web1 . Url to https://node-red-gsaid-2022-10-03.eu-gb.mybluemi...
call Web1 .Get
when Web1 .GotText
url responseCode responseType responseContent
do set TextBox1 . get responseType
set responseType to
pairs key temp
pairs call Web1 .JsonTextDecodeWithDictionaries
jsonText get responseContent
notFound not found
set TextBox2 . Text to look up in pairs key humidity
pairs call Web1 .JsonTextDecodeWithDictionaries
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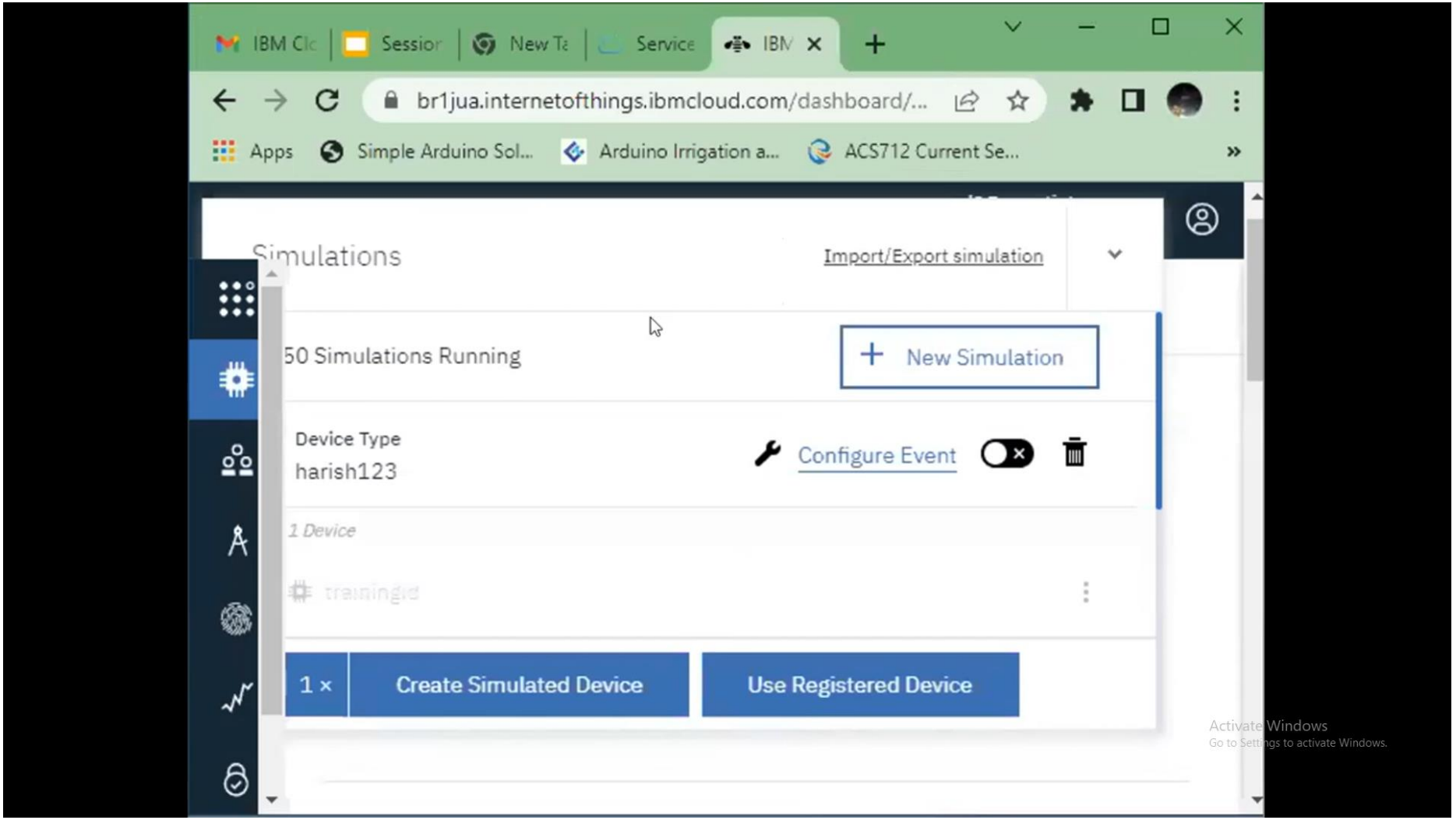
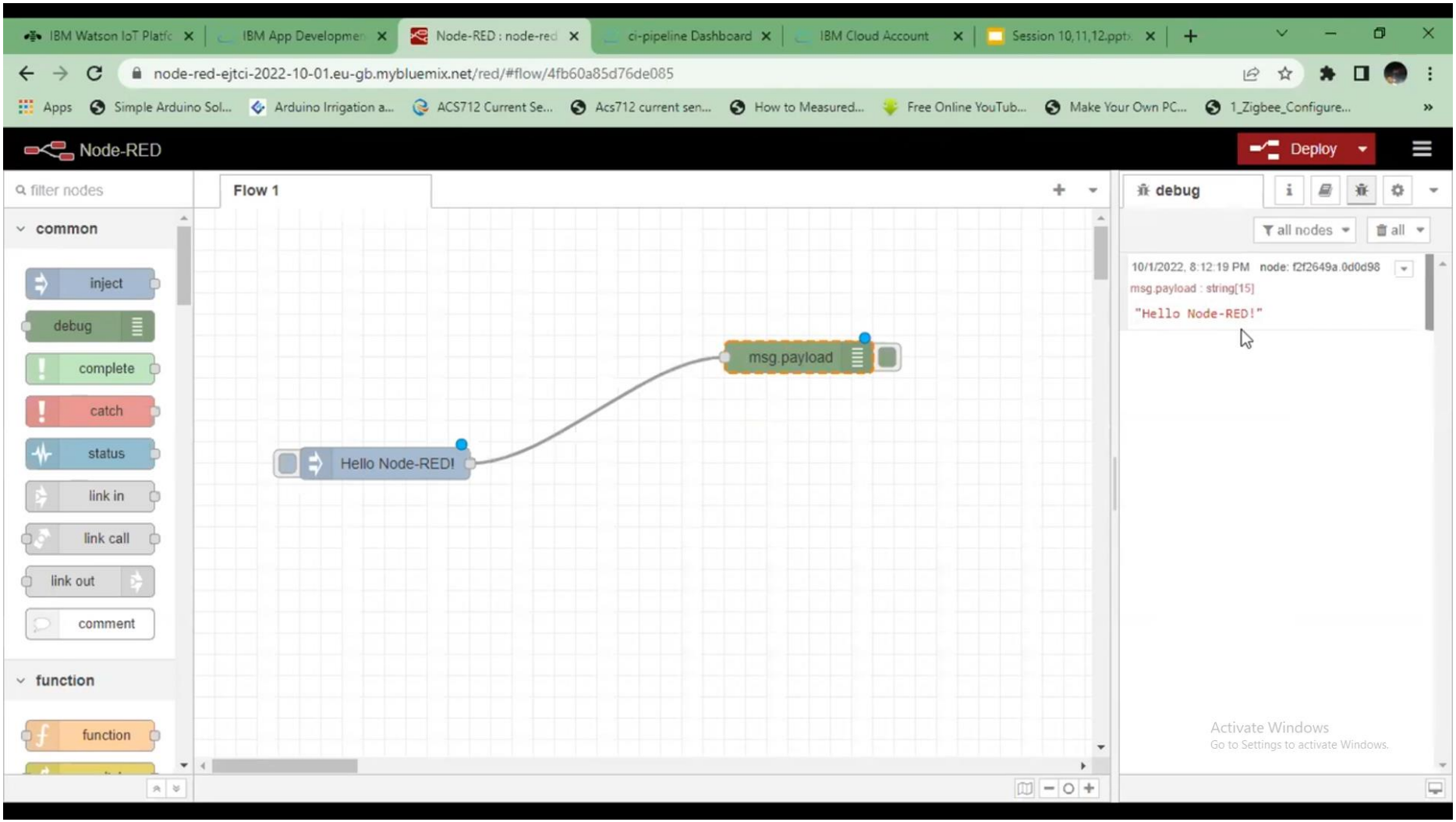
Show Warnings
Activate Windows
Go to Settings to activate Windows.

IoT-B4-4M6E (Evening Session)-Day-10 (01.10.2022)




IBM Watson IoT Platfc
IBM App Developmen
Node-RED : node-red
ci-pipeline Dashboard
IBM Cloud Account
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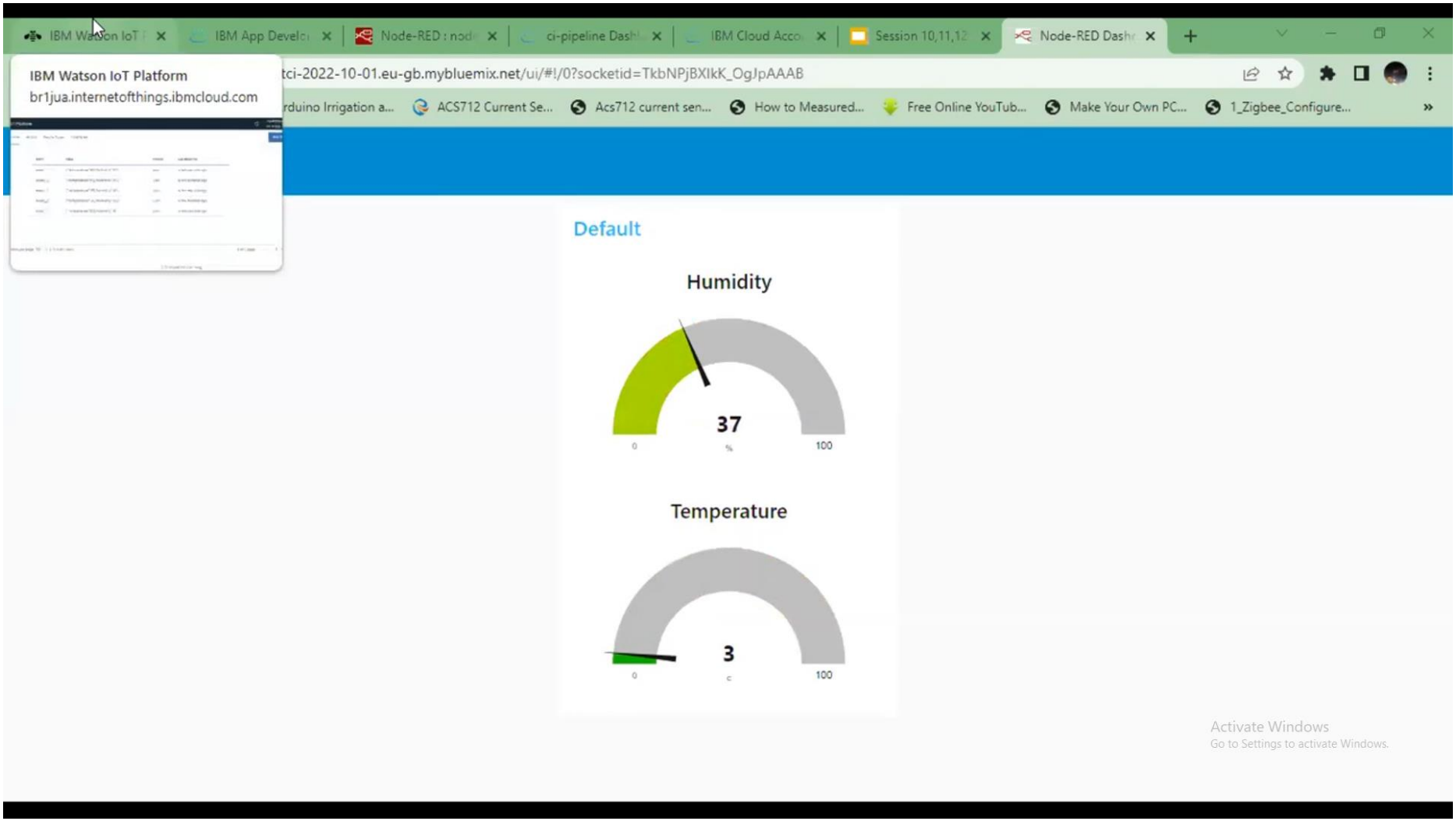
Apps
Simple Arduino Sol...
Arduino Irrigation a...
ACS712 Current Se...
Acs712 current sen...
How to Measured...
Free Online YouTub...
Make Your Own PC...
1_Zigbee_Configure...
Node-RED
Deploy
filter nodes
Flow 1
debug
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
msg.payload
Hello Node-RED!
all nodes
all
10/1/2022, 8:12:19 PM node: f2f2649a.0d0d98
msg.payload : string[15]
"Hello Node-RED!"
Activate Windows
Go to Settings to activate Windows.


IBM Watson IoT Platform
br1jua.internetofthings.ibmcloud.com
Default
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Activate Windows
Go to Settings to activate Windows.