PROJECTDEVELOPMENTPHASE
Delivery Of Sprint-4

Date	16 November 2022
TeamID	PNT2022TMID33893
ProjectName	GasLeakageMonitoringandAlertingSystems

SPRINT4:

Functional Requirement

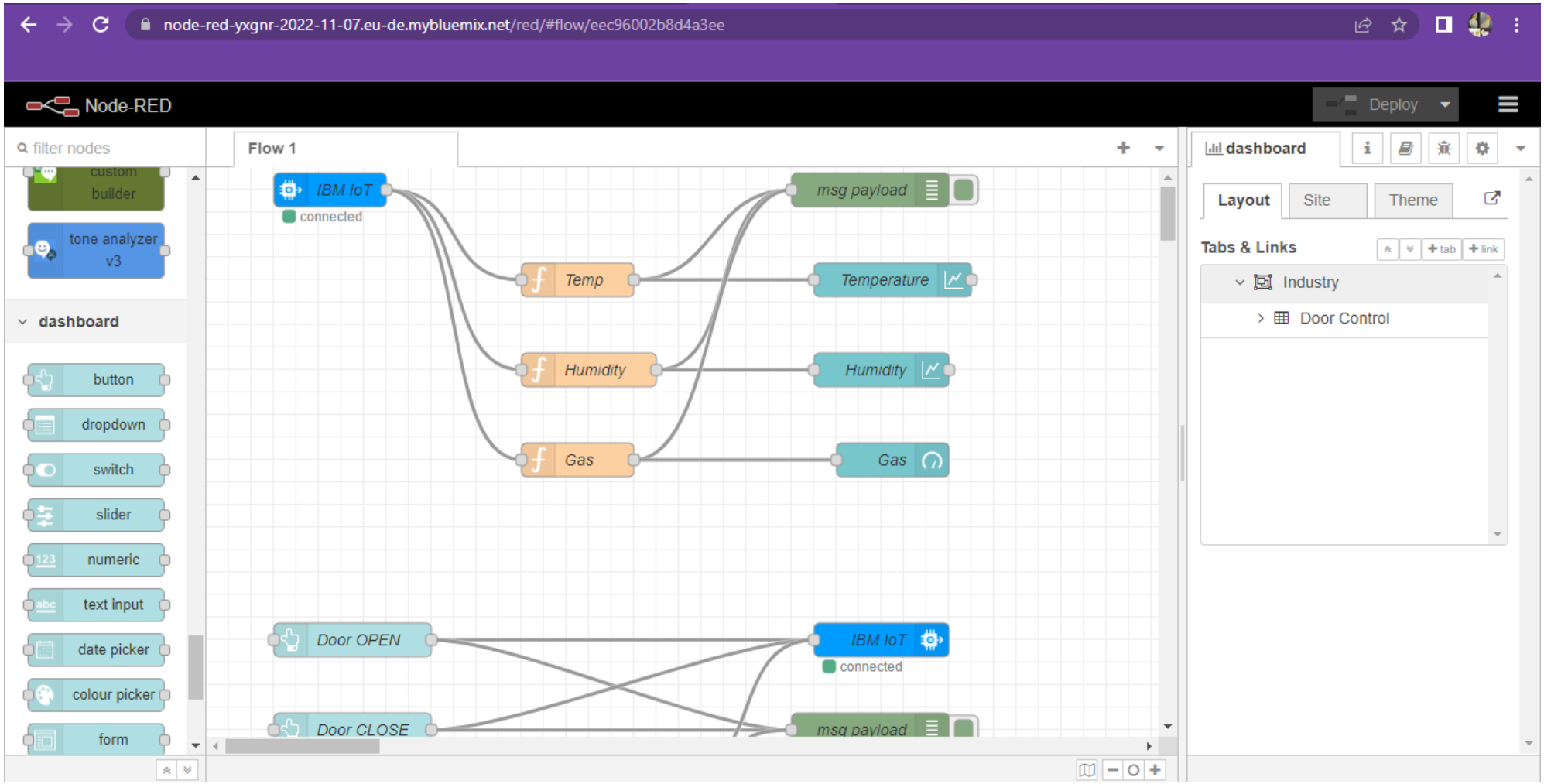
Indication of alert and Establishment of the design.

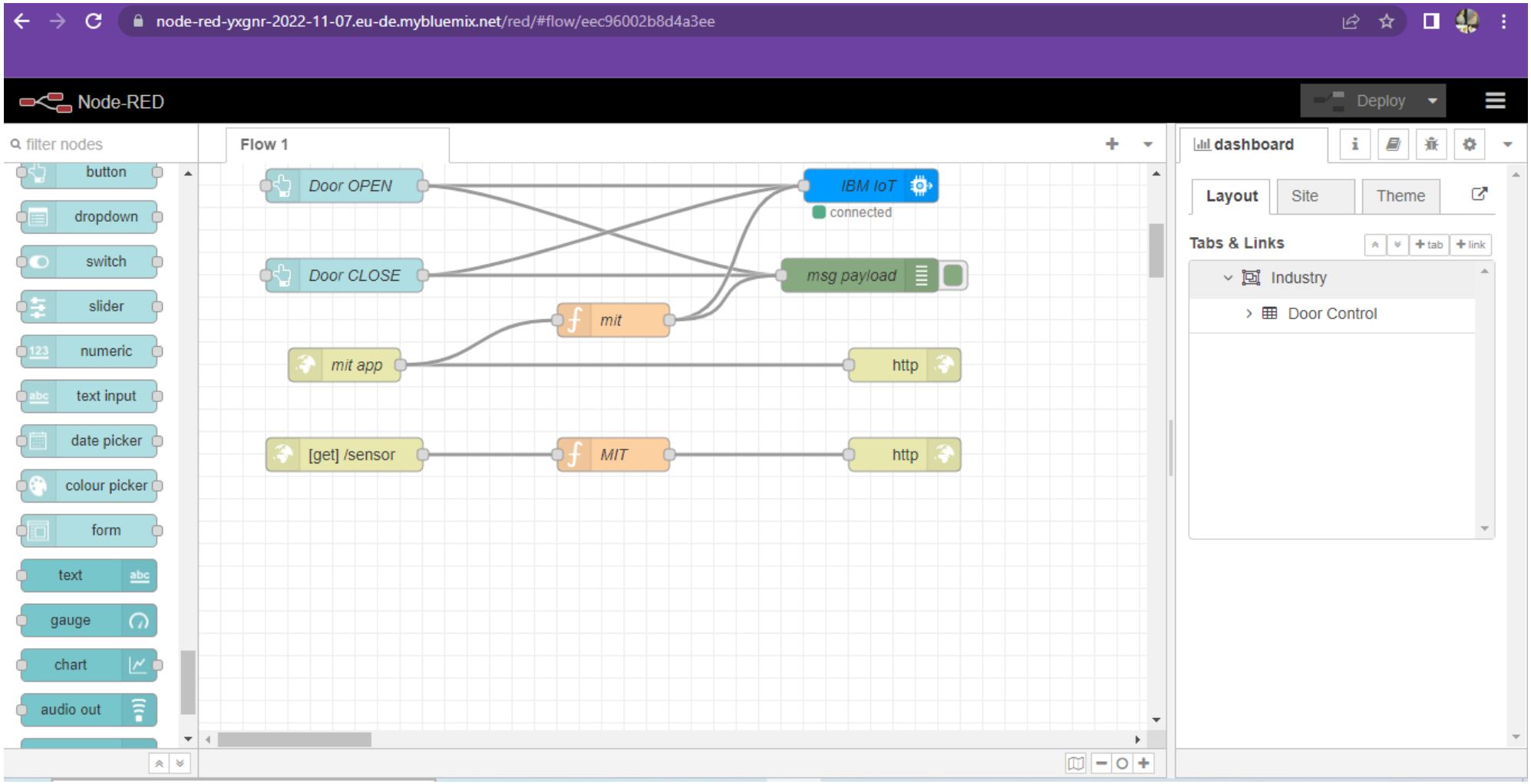
User Story

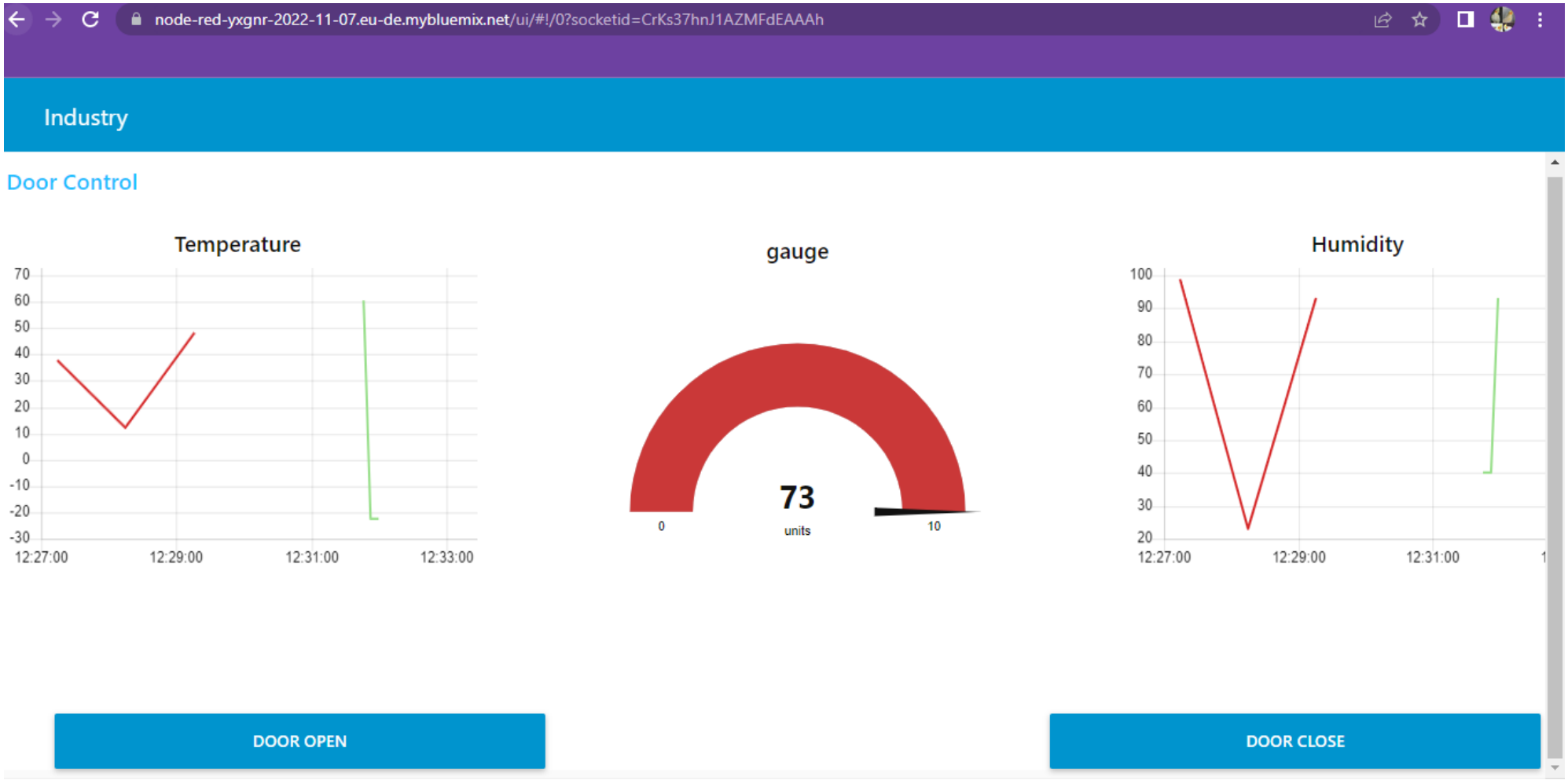
→As the user,I will receive the alert SMS when leakage arises and so the LED& Buzzer gets turn ON.

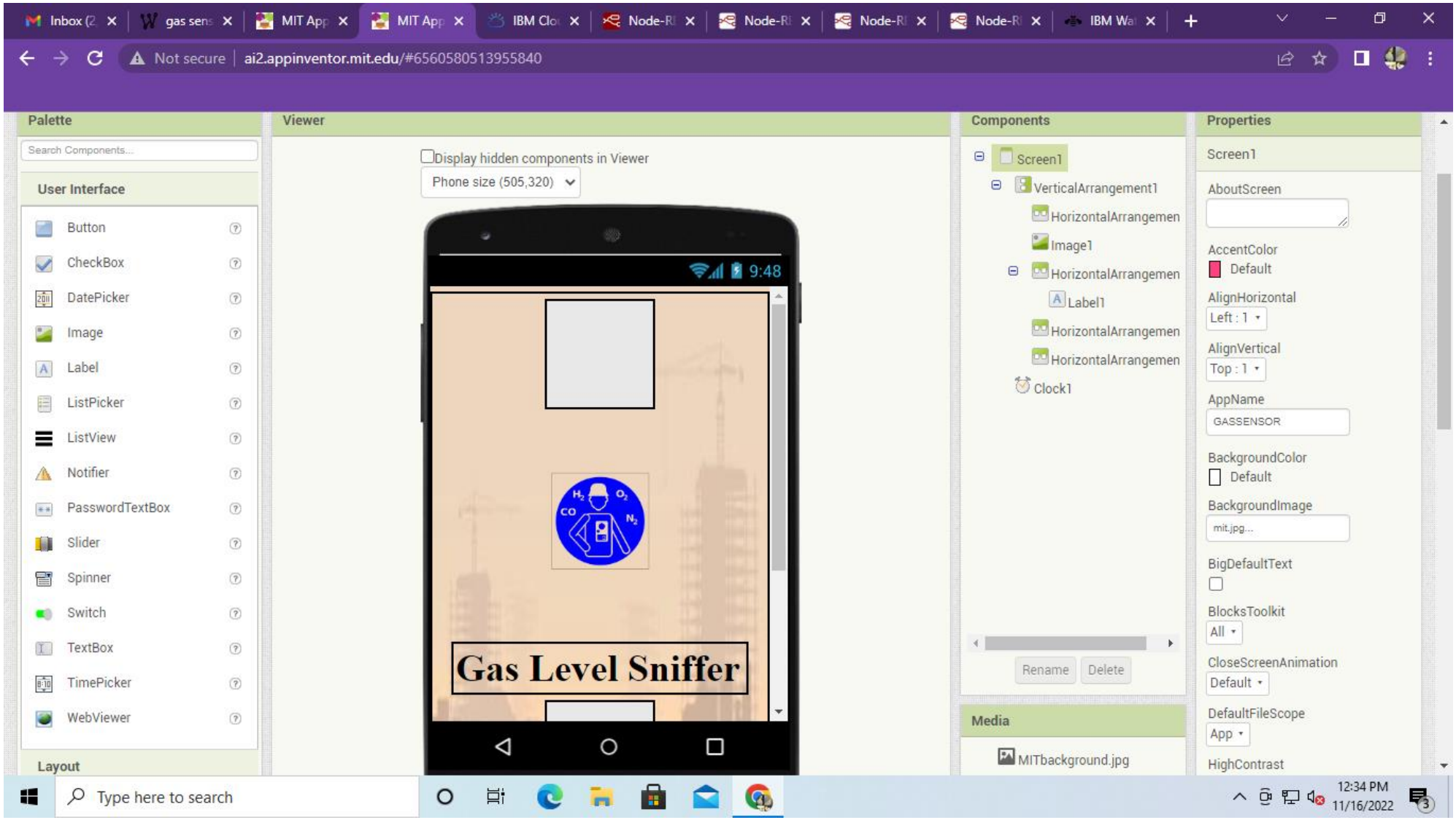
→As the designer,the design of the system with its connection and the required documents such as app for design application and the related codes are submitted.

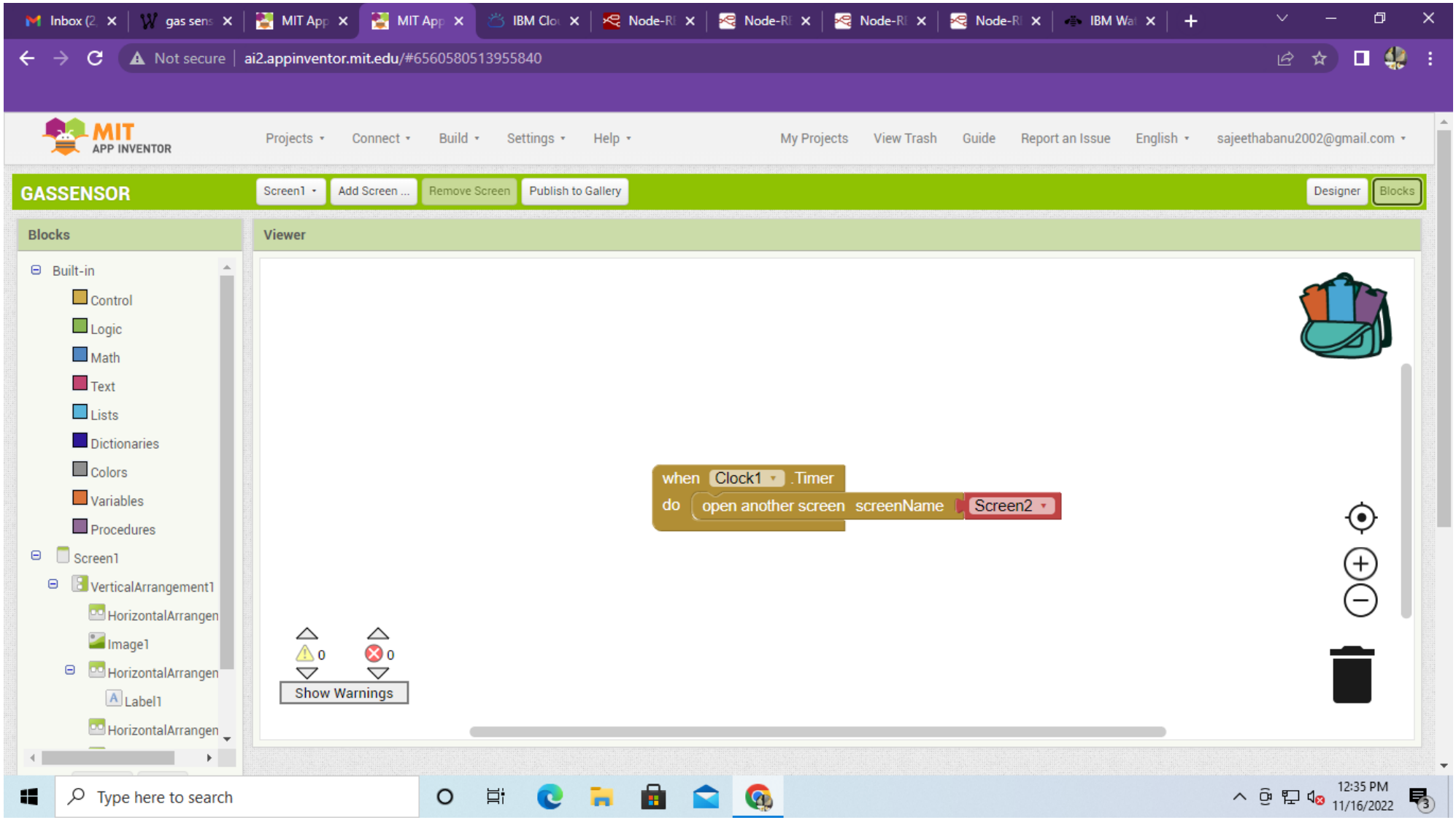
The design of the system:

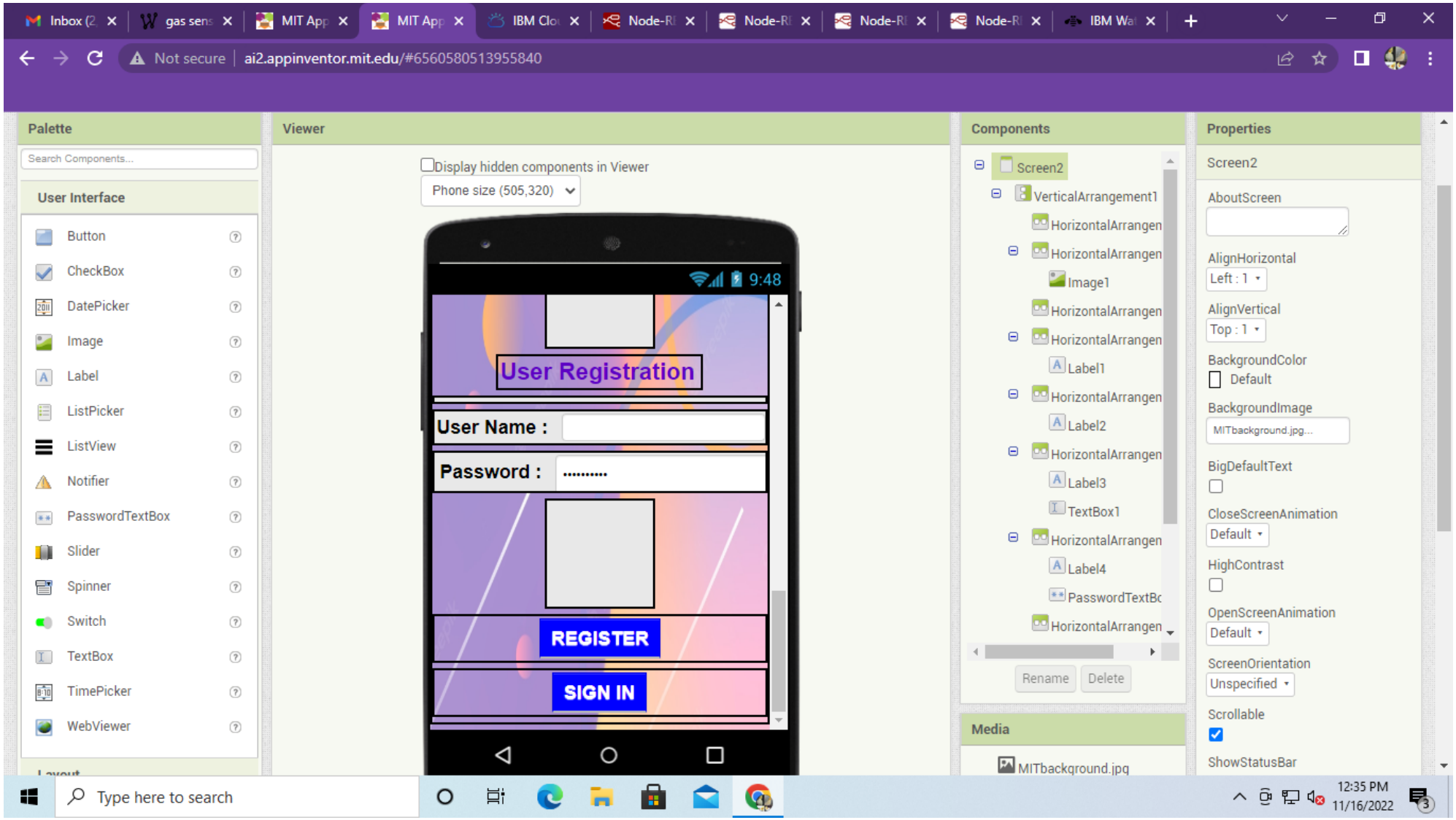

node-red-yxgnr-2022-11-07.eu-de.mybluemix.net/red/#flow/eec96002b8d4a3ee
Node-RED
Deploy
filter nodes
Flow 1
dashboard
custom builder
tone analyzer v3
button
dropdown
switch
slider
numeric
text input
date picker
colour picker
form
IBM IoT
connected
Temp
Humidity
Gas
msg payload
Temperature
Humidity
Gas
Door OPEN
Door CLOSE
IBM IoT
connected
msg payload
dashboard
Layout
Site
Theme
Tabs & Links
tab
link
Industry
Door Control


node-red-yxgnr-2022-11-07.eu-de.mybluemix.net/red/#flow/eec96002b8d4a3ee
Node-RED
Deploy
filter nodes
button
dropdown
switch
slider
numeric
text input
date picker
colour picker
form
text
gauge
chart
audio out
Flow 1
Door OPEN
Door CLOSE
IBM IoT
connected
msg payload
mit
mit app
http
[get] /sensor
MIT
http
dashboard
Layout
Site
Theme
Tabs & Links
+tab
+link
Industry
Door Control


node-red-yxgnr-2022-11-07.eu-de.mybluemix.net/ui/#!/0?socketid=CrKs37hnJ1AZMFdEAAAh
Industry
Door Control
Temperature
70
60
50
40
30
20
10
0
-10
-20
-30
12:27:00
12:29:00
12:31:00
12:33:00
gauge
73
units
0
10
Humidity
100
90
80
70
60
50
40
30
20
12:27:00
12:29:00
12:31:00
DOOR OPEN
DOOR CLOSE


Inbox (2
gas sens
MIT App
MIT App
IBM Clo
Node-R
Node-R
Node-R
Node-R
IBM Wa
Not secure
ai2.appinventor.mit.edu/#6560580513955840
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
Gas Level Sniffer
Components
Screen1
VerticalArrangement1
HorizontalArrangemen
Image1
HorizontalArrangemen
Label1
HorizontalArrangemen
HorizontalArrangemen
Clock1
Rename
Delete
Media
MITbackground.jpg
Properties
Screen1
AboutScreen
AccentColor
Default
AlignHorizontal
Left : 1
AlignVertical
Top : 1
AppName
GASSENSOR
BackgroundColor
Default
BackgroundImage
mit.jpg...
BigDefaultText
BlocksToolkit
All
CloseScreenAnimation
Default
DefaultFileScope
App
HighContrast
Type here to search
12:34 PM
11/16/2022


Inbox (2
gas sens
MIT App
MIT App
IBM Clou
Node-RE
Node-RE
Node-RE
Node-RE
IBM Wat
Not secure
ai2.appinventor.mit.edu/#6560580513955840
MIT APP INVENTOR
Projects
Connect
Build
Settings
Help
My Projects
View Trash
Guide
Report an Issue
English
sajeethabanu2002@gmail.com
GASSENSOR
Screen1
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen1
VerticalArrangement1
HorizontalArrangen
Image1
HorizontalArrangen
Label1
HorizontalArrangen
Viewer
when Clock1 .Timer
do open another screen screenName Screen2
0
0
Show Warnings
Type here to search
12:35 PM
11/16/2022


Not secure
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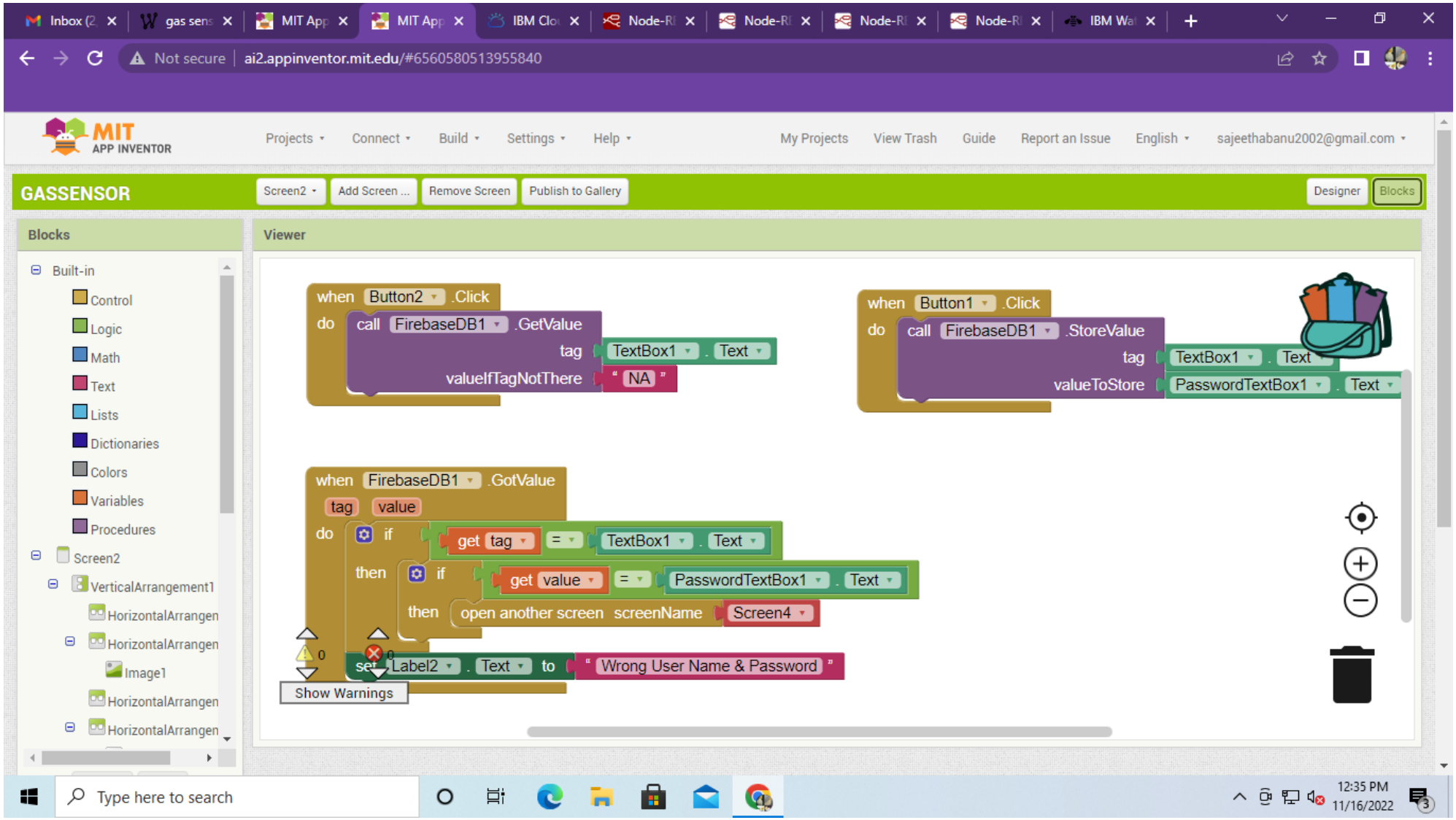
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
User Registration
User Name :
Password :
REGISTER
SIGN IN
Components
Screen2
VerticalArrangement1
Image1
Label1
Label2
Label3
TextBox1
Label4
Rename
Delete
Media
MITbackground.jpg
Properties
Screen2
AboutScreen
AlignHorizontal
Left : 1
AlignVertical
Top : 1
BackgroundColor
Default
BackgroundImage
MITbackground.jpg...
BigDefaultText
CloseScreenAnimation
Default
HighContrast
OpenScreenAnimation
Default
ScreenOrientation
Unspecified
Scrollable
ShowStatusBar
Type here to search
12:35 PM
11/16/2022


Not secure ai2.appinventor.mit.edu/#6560580513955840
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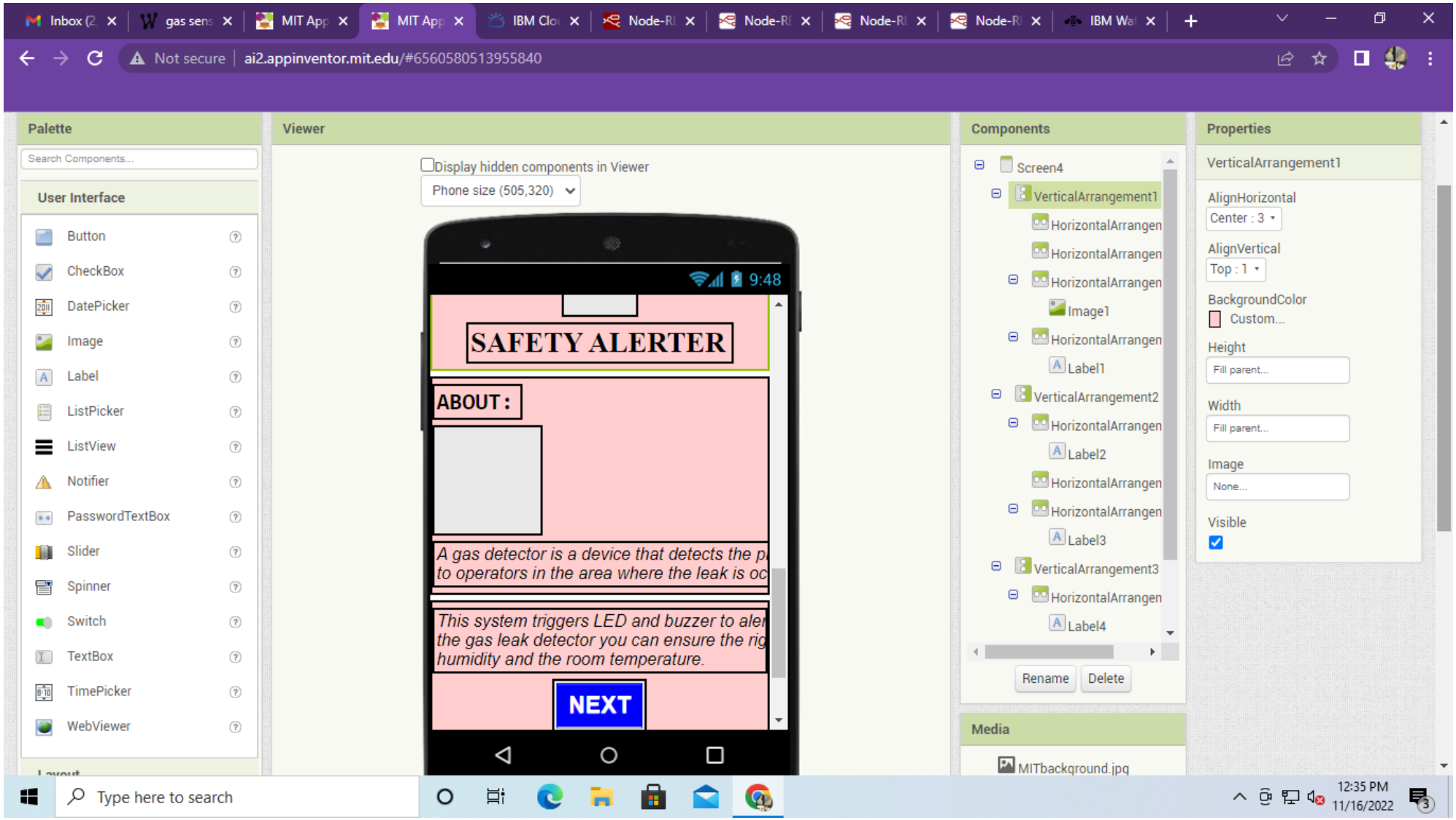
GASSENSOR
Screen2
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen2
VerticalArrangement1
HorizontalArrangen
HorizontalArrangen
Image1
HorizontalArrangen
HorizontalArrangen
Viewer
when Button2 .Click
do call FirebaseDB1 .GetValue
tag TextBox1 . Text
valueIfTagNotThere " NA "
when Button1 .Click
do call FirebaseDB1 .StoreValue
tag TextBox1 . Text
valueToStore PasswordTextBox1 . Text
when FirebaseDB1 .GotValue
tag value
do if get tag = TextBox1 . Text
then if get value = PasswordTextBox1 . Text
then open another screen screenName Screen4
set Label2 . Text to " Wrong User Name & Password "
Show Warnings
Type here to search
12:35 PM
11/16/2022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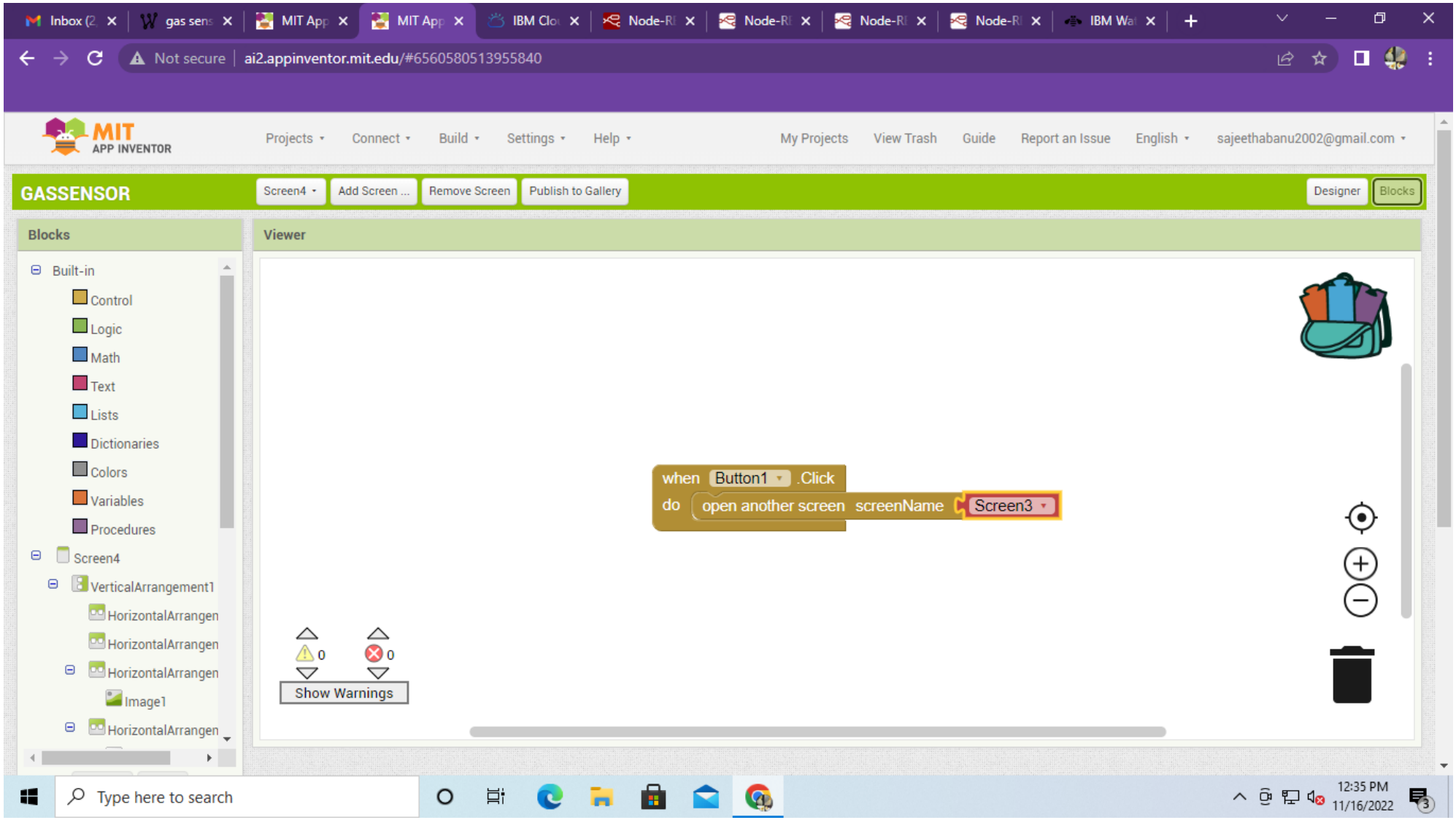
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
SAFETY ALERTER
ABOUT :
A gas detector is a device that detects the p
to operators in the area where the leak is oc
This system triggers LED and buzzer to aler
the gas leak detector you can ensure the rig
humidity and the room temperature.
NEXT
Components
Screen4
VerticalArrangement1
HorizontalArrangen
Image1
Label1
VerticalArrangement2
Label2
Label3
VerticalArrangement3
Label4
Rename
Delete
Media
MITbackground.jpg
Properties
VerticalArrangement1
AlignHorizontal
Center : 3
AlignVertical
Top : 1
BackgroundColor
Custom...
Height
Fill parent...
Width
Fill parent...
Image
None...
Visible
Type here to search
12:35 PM
11/16/2022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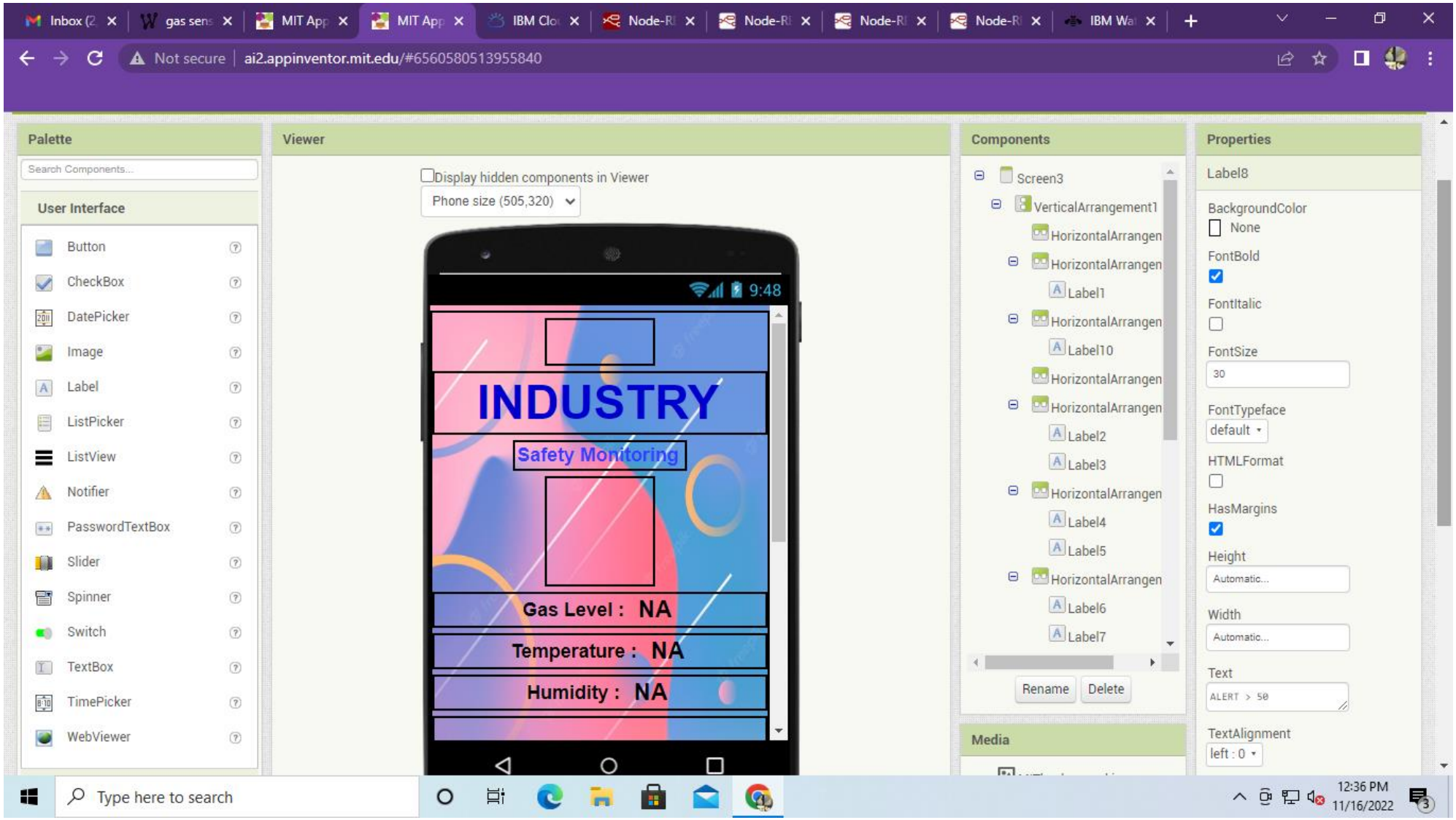
GASSENSOR
Screen4
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen4
VerticalArrangement1
HorizontalArrangen
HorizontalArrangen
HorizontalArrangen
Image1
HorizontalArrangen
Viewer
when Button1 .Click
do open another screen screenName Screen3
0
0
Show Warnings
Type here to search
12:35 PM
11/16/2022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Palette
Search Components...
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DatePicker
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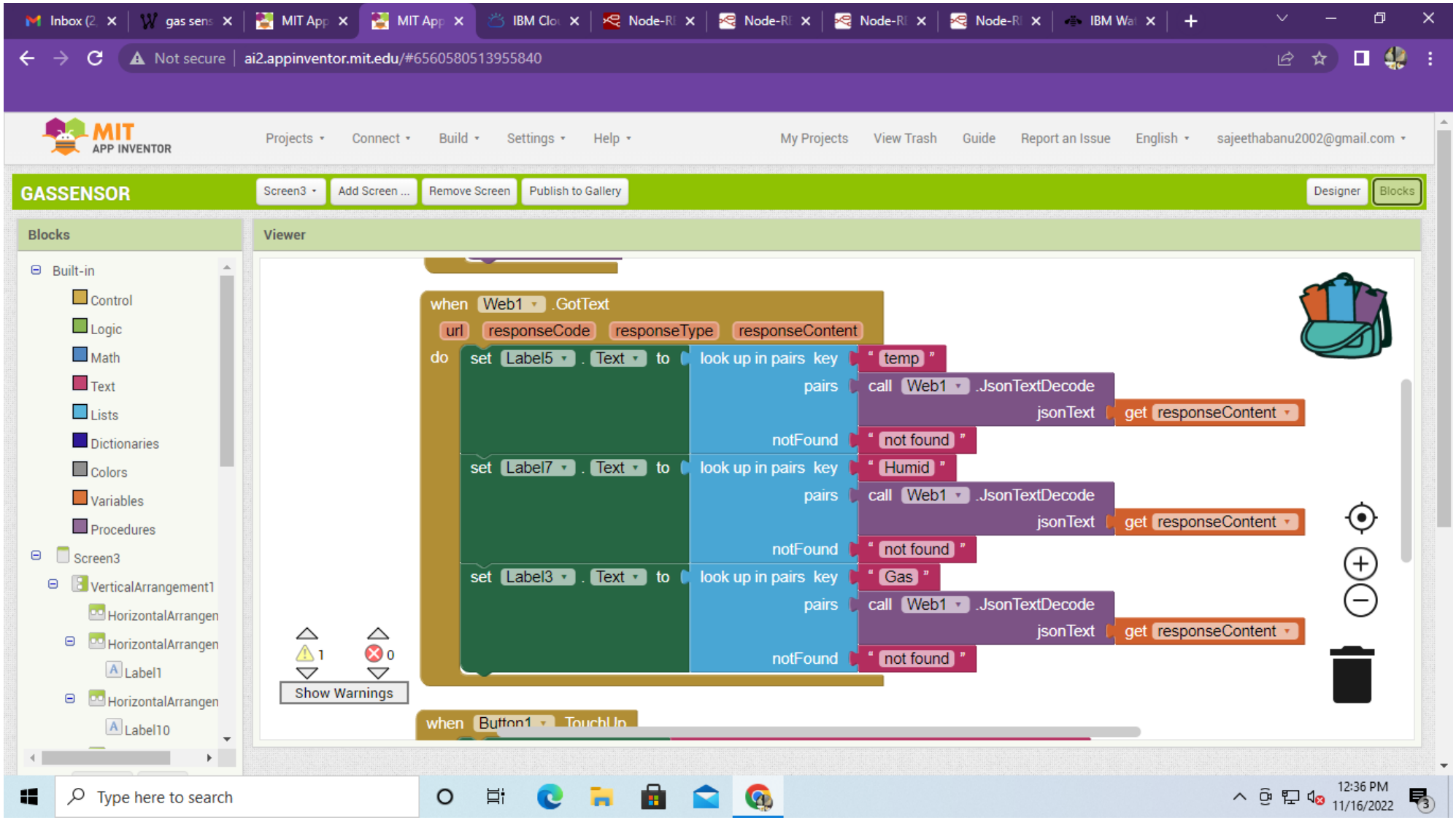
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
INDUSTRY
Safety Monitoring
Gas Level : NA
Temperature : NA
Humidity : NA
Components
Screen3
VerticalArrangement1
HorizontalArrangen
Label1
Label10
Label2
Label3
Label4
Label5
Label6
Label7
Rename
Delete
Media
Properties
Label8
BackgroundColor
None
FontBold
FontItalic
FontSize
30
FontTypeface
default
HTMLFormat
HasMargins
Height
Automatic...
Width
Automatic...
Text
ALERT > 50
TextAlignment
left : 0
Type here to search
12:36 PM
11/16/2022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GASSENSOR
Screen3 Add Screen ... Remove Screen Publish to Gallery
Designer Blocks
Blocks
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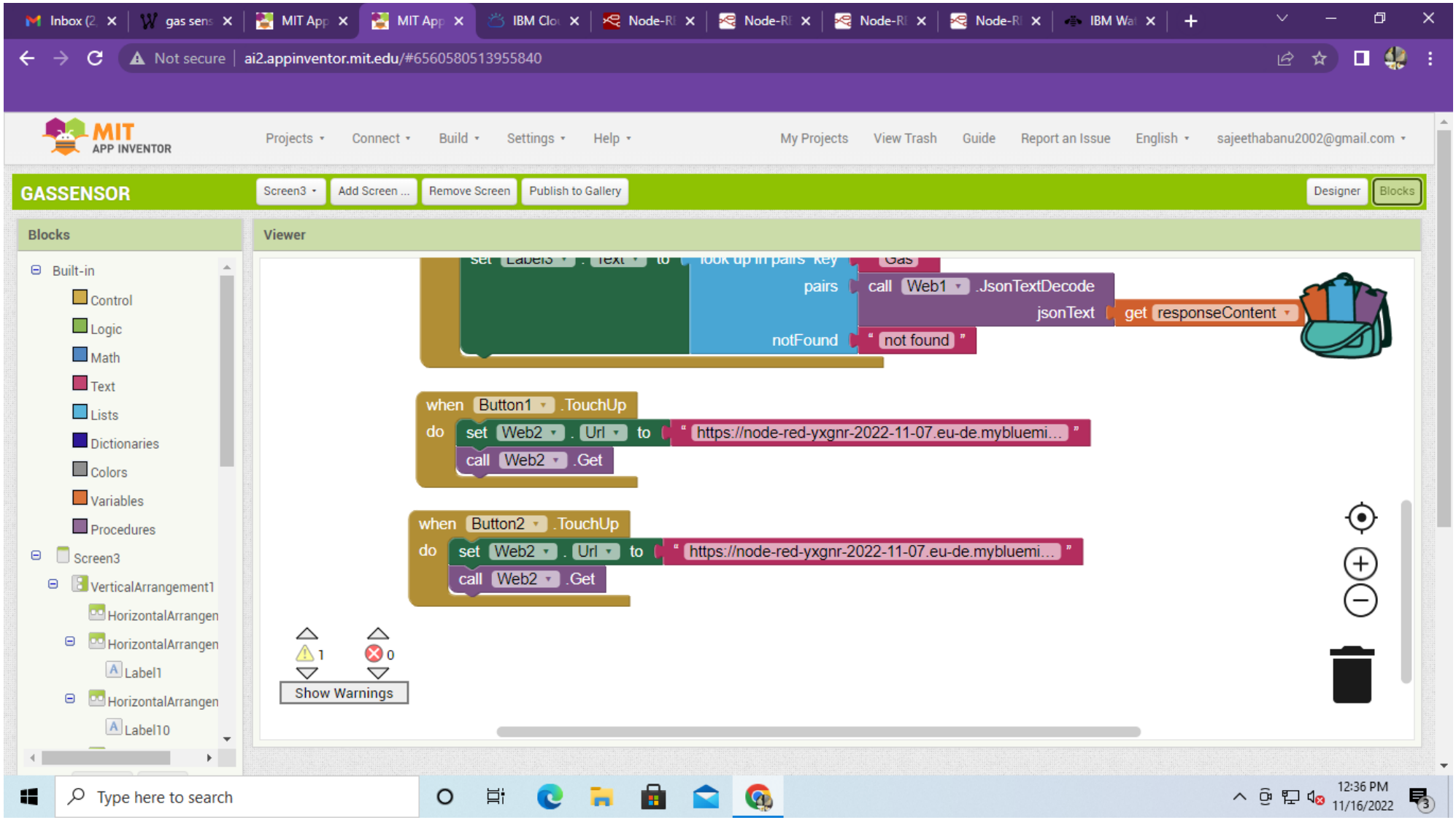
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen3
VerticalArrangement1
HorizontalArrangen
HorizontalArrangen
Label1
HorizontalArrangen
Label10
Viewer
when Web1 .GotText
url responseCode responseType responseContent
do set Label5 . Text to look up in pairs key " temp "
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound " not found "
set Label7 . Text to look up in pairs key " Humid "
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound " not found "
set Label3 . Text to look up in pairs key " Gas "
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound " not found "
1
0
Show Warnings
when Button1 TouchUp
Type here to search
12:36 PM
11/16/2022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Projects
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Screen3
Add Screen ...
Remove Screen
Publish to Gallery
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Blocks
Blocks
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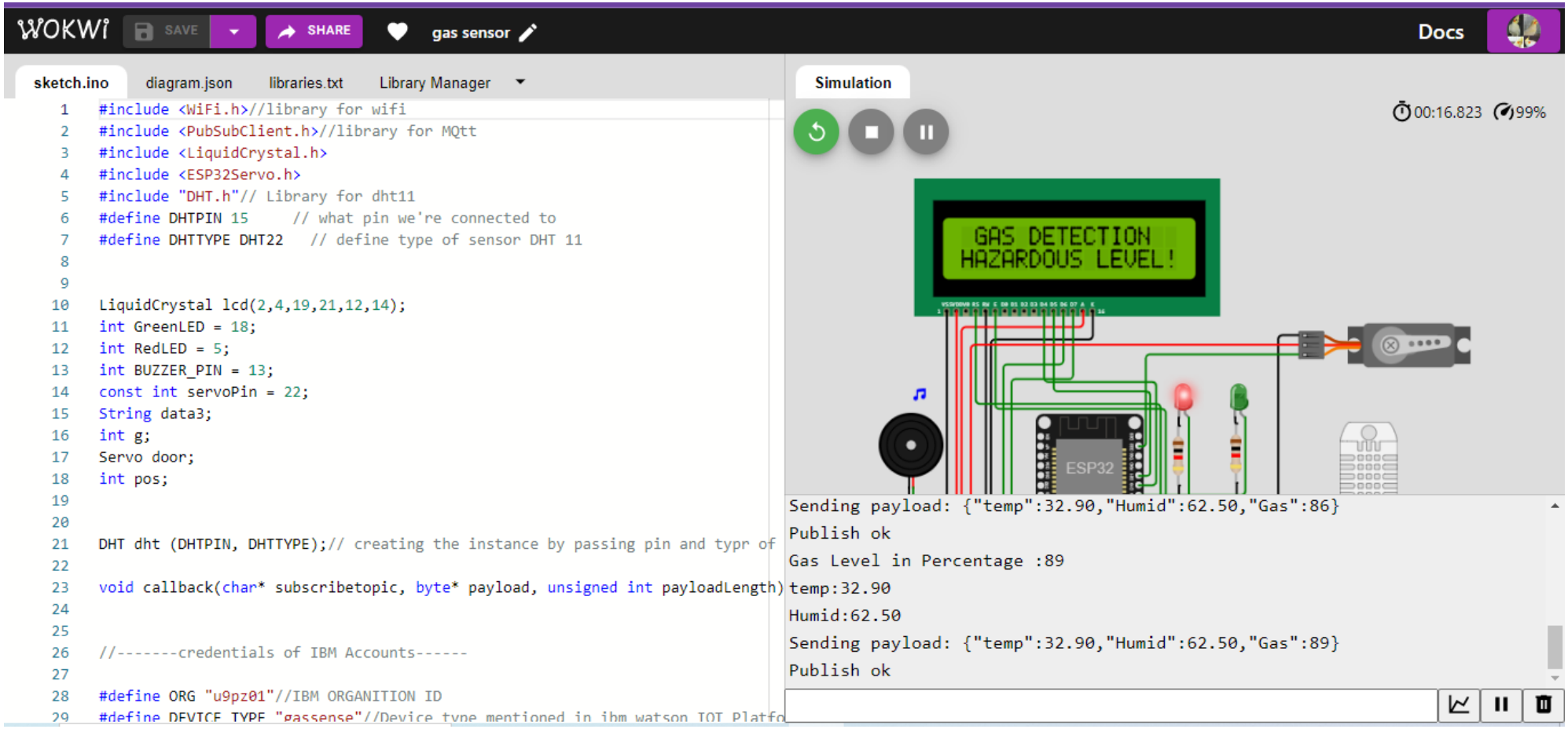
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen3
VerticalArrangement1
HorizontalArrangen
HorizontalArrangen
Label1
HorizontalArrangen
Label10
Viewer
pairs
call Web1 .JsonTextDecode
jsonText
get responseContent
notFound
not found
when Button1 .TouchUp
do
set Web2 . Url to
https://node-red-yxgnr-2022-11-07.eu-de.mybluemi...
call Web2 .Get
when Button2 .TouchUp
do
set Web2 . Url to
https://node-red-yxgnr-2022-11-07.eu-de.mybluemi...
call Web2 .Get
1
0
Show Warnings
Type here to search
12:36 PM
11/16/2022

Indication of Alert: