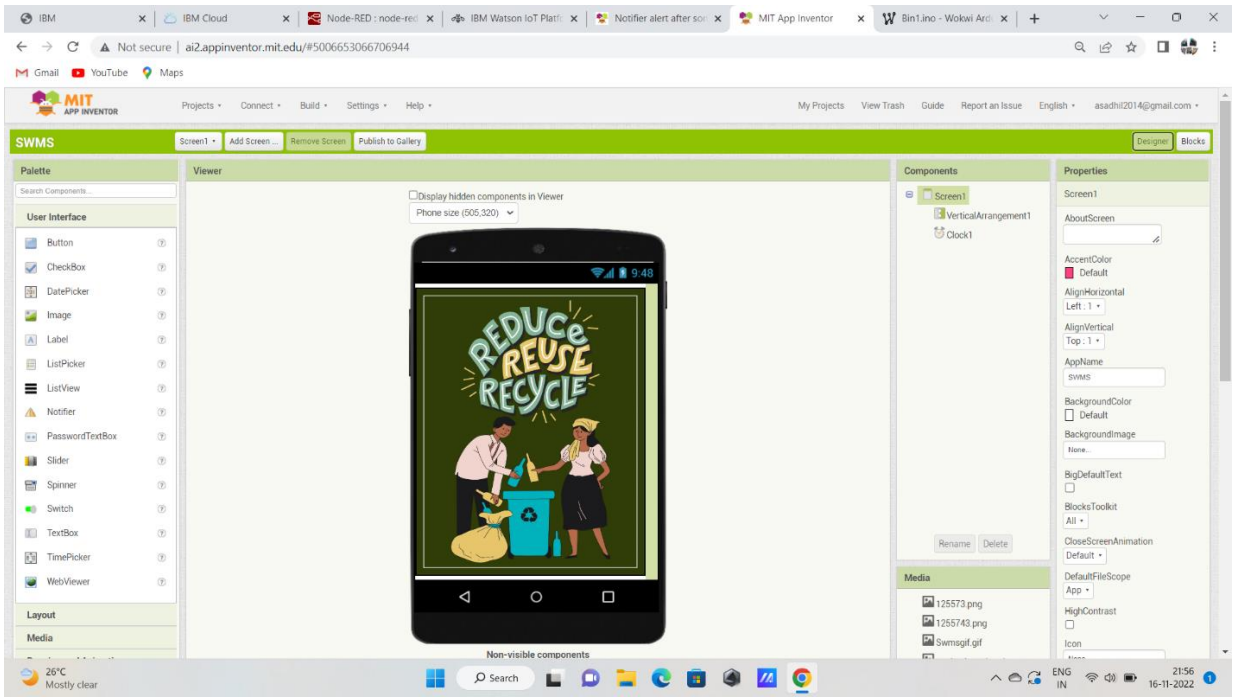
Project Development – Delivery of Sprint-3

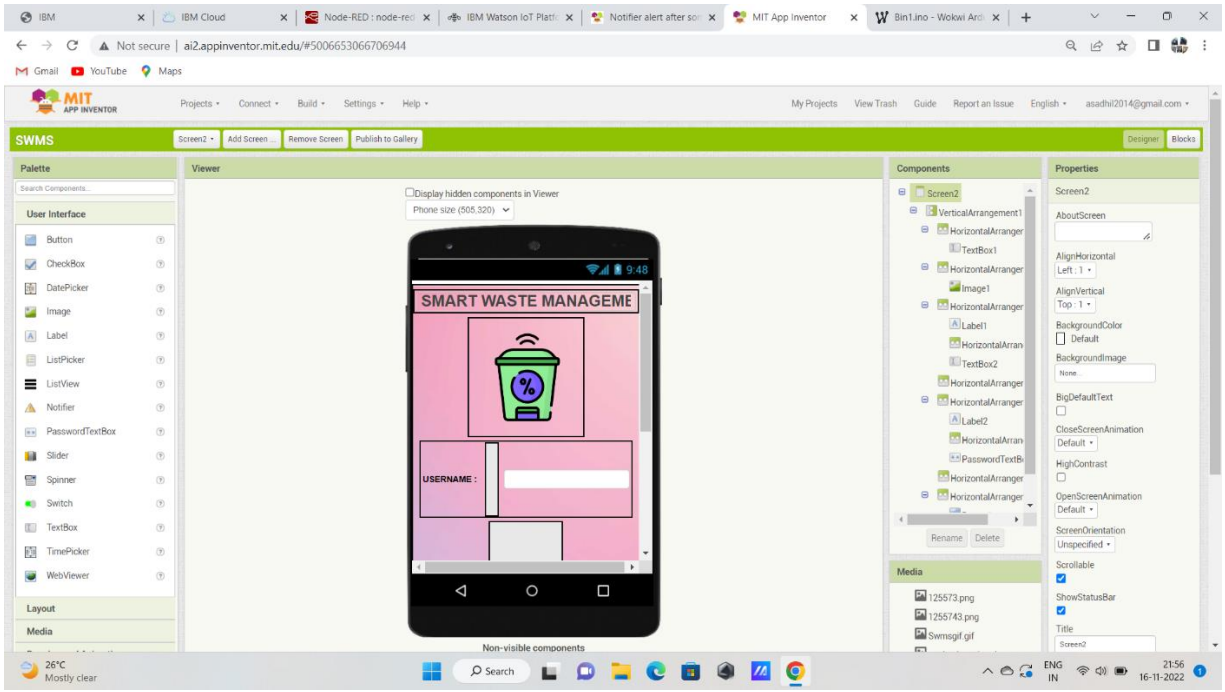
Team ID	PNT2022TMID47715
Project Name	Project - Smart Waste Management System For Metropolitan Cities

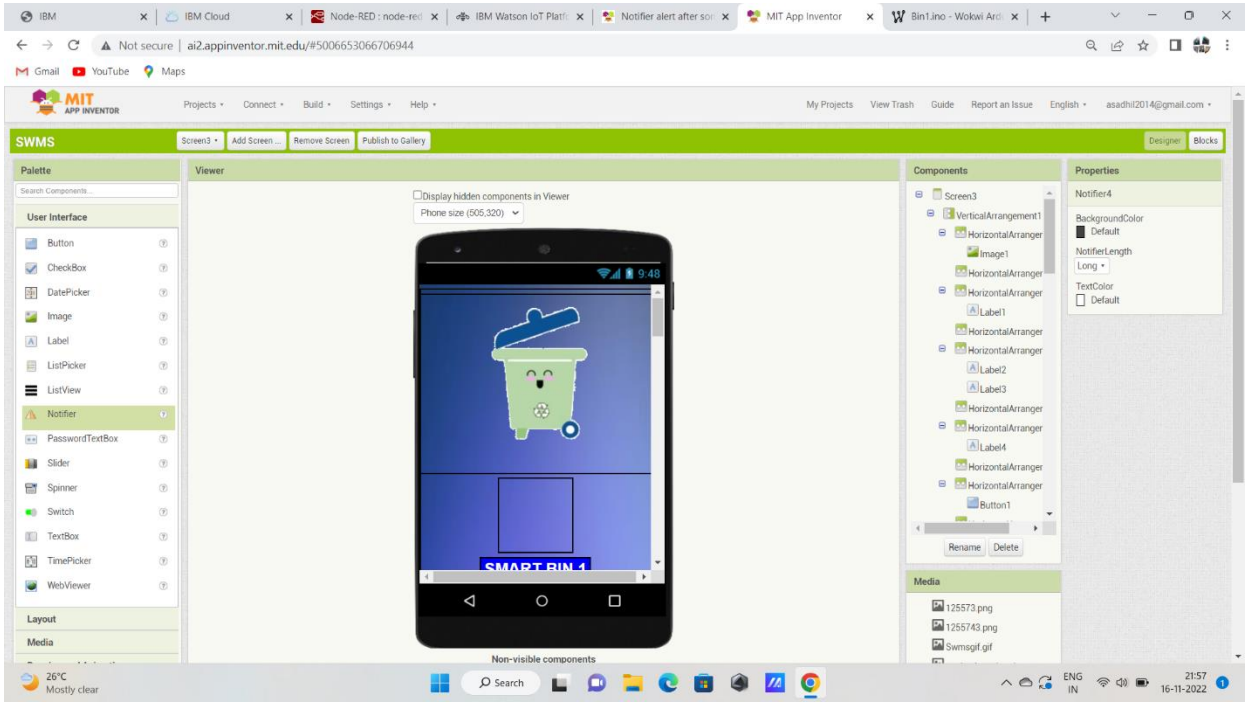
MIT App Inventor

The Application for Smart Waste Management System Using MIT app Inventor. These App can be used by user where can check the Status level of Garbage and Location (Random) of the Smart Bin. If The Garbage level of Smart Bin is Full, then It Shows Alert Message in the App.



Here There are Three Screen were used and each screen contain some Action as Screen 1: Picture of waste management. Screen 2: Login Page as contain Username and Password. Screen 3: Garbage level and Location (Random) of SmartBin


MIT App Inventor
ai2.appinventor.mit.edu/#5006653066706944
SWMS
Screen2
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Viewer
Display hidden components in Viewer
Phone size (505,320)
SMART WASTE MANAGEME
USERNAME :
Non-visible components
Components
Screen2
VerticalArrangement1
Rename
Delete
Properties
Screen2
AboutScreen
AlignHorizontal
AlignVertical
BackgroundColor
BackgroundImage
BigDefaultText
CloseScreenAnimation
HighContrast
OpenScreenAnimation
ScreenOrientation
Scrollable
ShowStatusBar
Title
125573.png
1255743.png
Swmsgif.gif
26°C
Mostly clear
Search
ENG
IN
21:56
16-11-2022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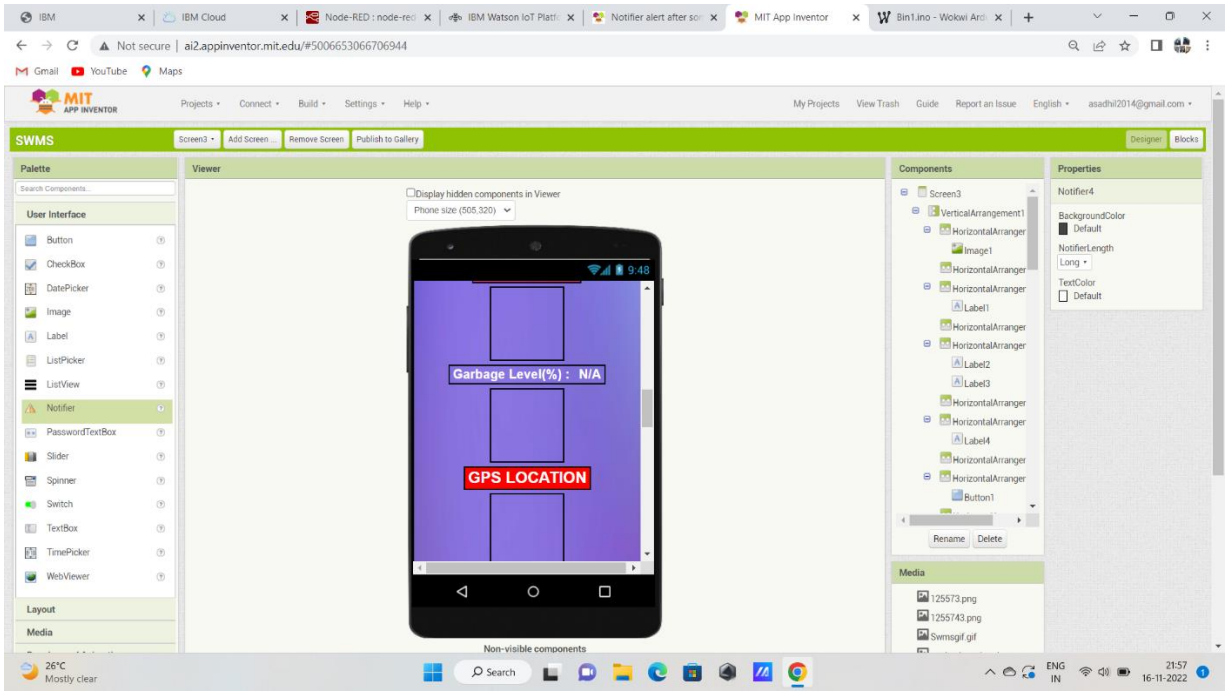
SWMS
Screen3
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Viewer
Display hidden components in Viewer
Phone size (505,320)
SMART BIN 1
Non-visible components
Components
Screen3
VerticalArrangement1
Button1
Rename
Delete
Properties
Notifier4
BackgroundColor
NotifierLength
TextColor
125573.png
1255743.png
Swmsgif.gif
26°C
Mostly clear
Search
ENG
IN
21:57
16-11-2022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Node-RED : node-red
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Projects
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Build
Settings
Help
My Projects
View Trash
Guide
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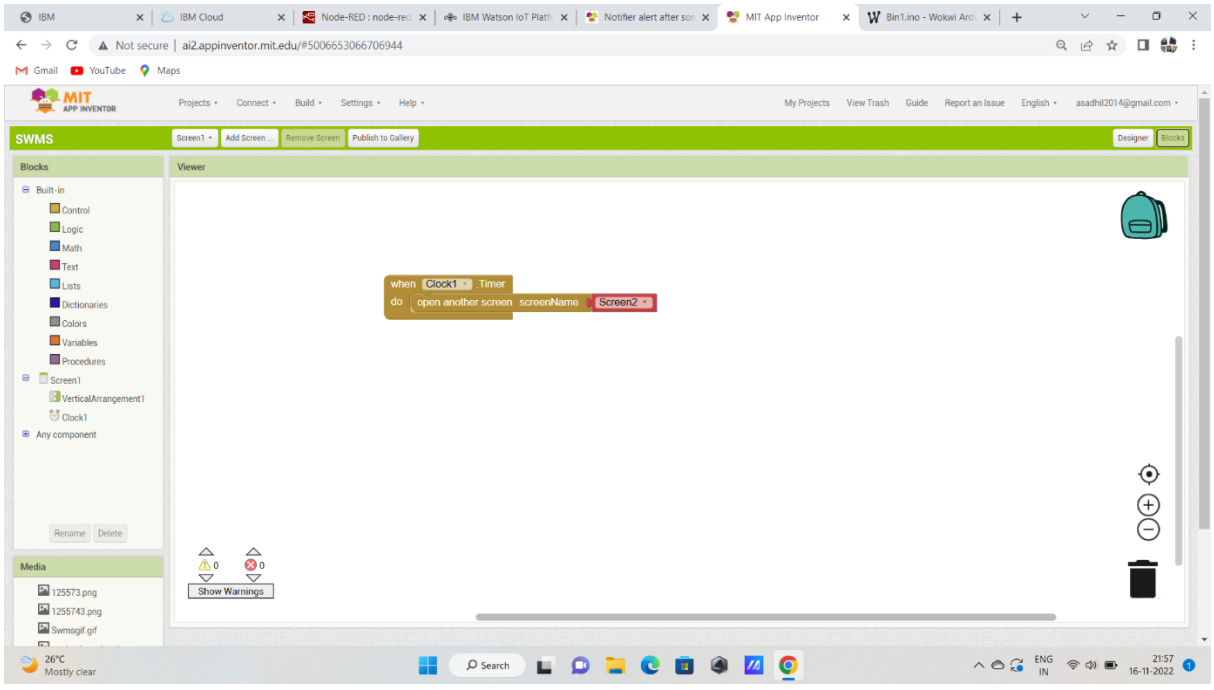
English
asadhil2014@gmail.com
SWMS
Screen3
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
Garbage Level(%) : N/A
GPS LOCATION
Non-visible components
Components
Screen3
VerticalArrangement1
HorizontalArranger
Image1
Label1
Label2
Label3
Label4
Button1
Rename
Delete
Properties
Notifier4
BackgroundColor
Default
NotifierLength
Long
TextColor
Default
Media
125573.png
1255743.png
Swmsgif.gif
26°C
Mostly clear
Search
ENG
IN
21:57
16-11-2022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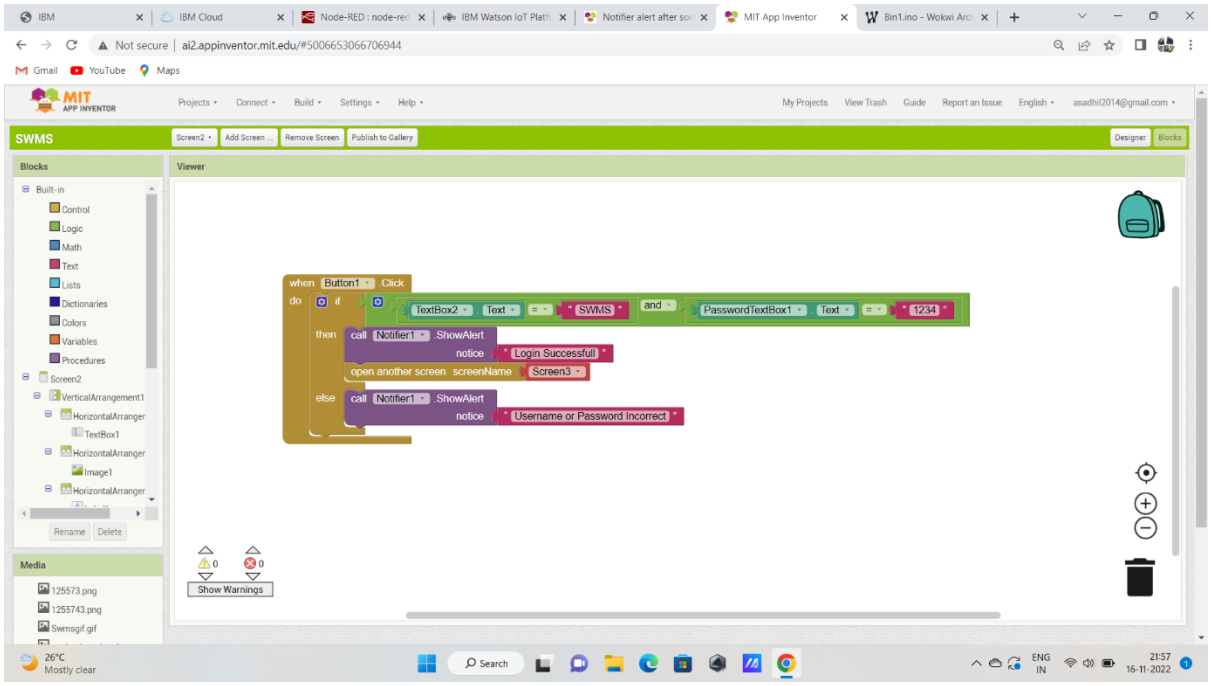
SWMS
Screen1
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen1
VerticalArrangement1
Clock1
Any component
Rename
Delete
Media
125573.png
1255743.png
Swmsgif.gif
Viewer
when Clock1 .Timer
do open another screen screenName Screen2
0
0
Show Warnings
26°C
Mostly clear
Search
ENG
IN
21:57
16-11-2022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IBM Cloud
Node-RED : node-red
IBM Watson IoT Platf
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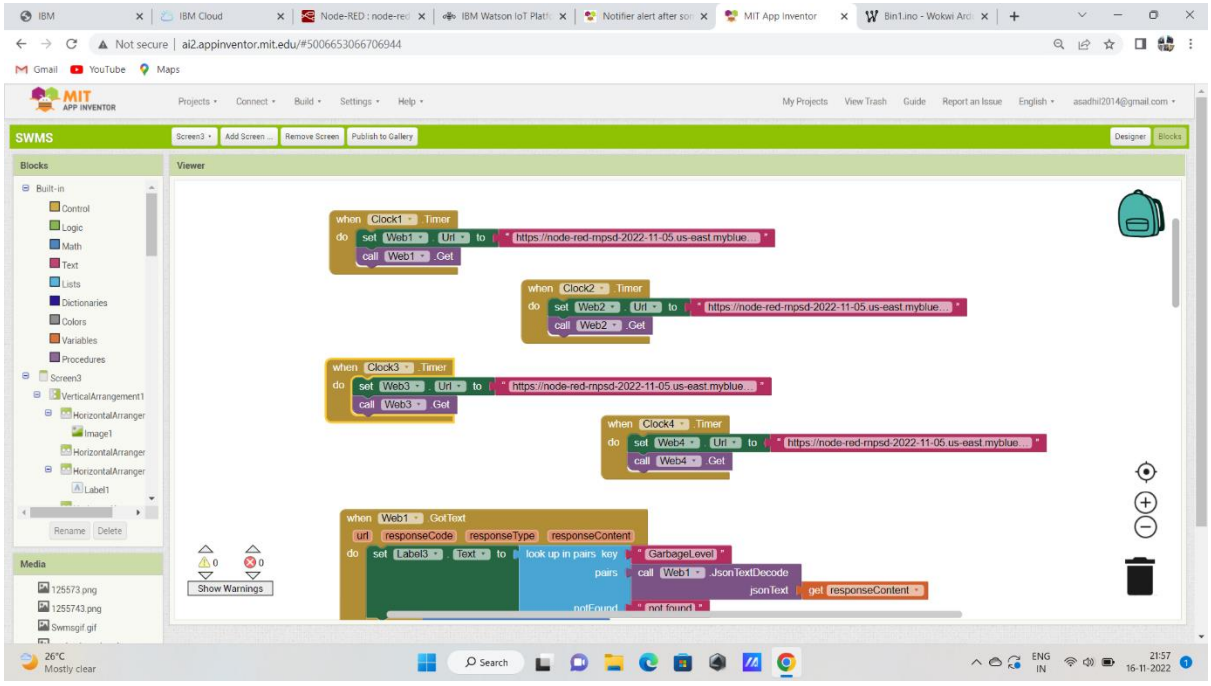
Remove Screen
Publish to Gallery
Designer
Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen2
VerticalArrangement1
HorizontalArranger
TextBox1
Image1
Rename
Delete
Media
125573.png
1255743.png
Swmsgif.gif
Viewer
when Button1 .Click
do if TextBox2 Text = "SWMS" and PasswordTextBox1 Text = "1234"
then call Notifier1 .ShowAlert
notice "Login Successfull"
open another screen screenName Screen3
else call Notifier1 .ShowAlert
notice "Username or Password Incorrect"
Show Warnings
26°C
Mostly clear
Search
ENG
IN
21:57
16-11-2022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Screen3
Add Screen ...
Remove Screen
Publish to Gallery
Designer
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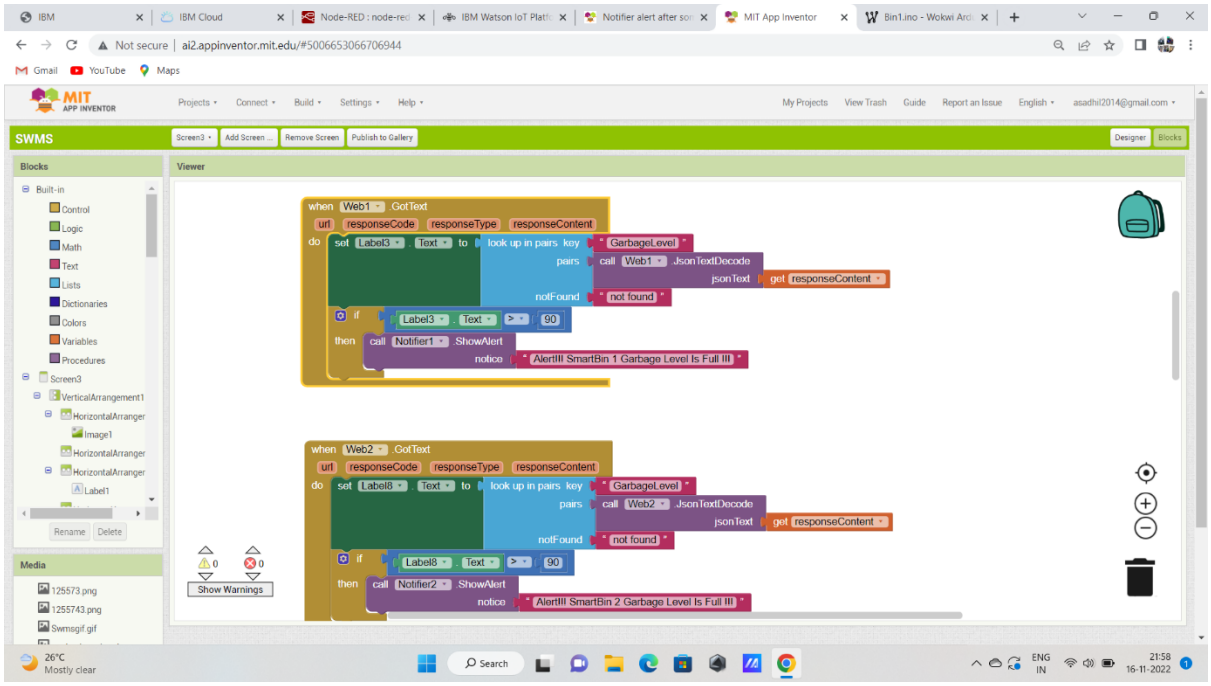
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen3
VerticalArrangement1
HorizontalArranger
Image1
HorizontalArranger
HorizontalArranger
Label1
Rename
Delete
Media
125573.png
1255743.png
Swmsgif.gif
Viewer
when Clock1 .Timer
do set Web1 Url to "https://node-red-mpsd-2022-11-05.us-east.mybluе..."
call Web1 .Get
when Clock2 .Timer
do set Web2 Url to "https://node-red-mpsd-2022-11-05.us-east.mybluе..."
call Web2 .Get
when Clock3 .Timer
do set Web3 Url to "https://node-red-mpsd-2022-11-05.us-east.mybluе..."
call Web3 .Get
when Clock4 .Timer
do set Web4 Url to "https://node-red-mpsd-2022-11-05.us-east.mybluе..."
call Web4 .Get
when Web1 .GotText
url responseCode responseType responseContent
do set Label3 Text to look up in pairs key "GarbageLevel"
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound "not found"
Show Warnings
26°C
Mostly clear
Search
ENG
IN
21:57
16-11-2022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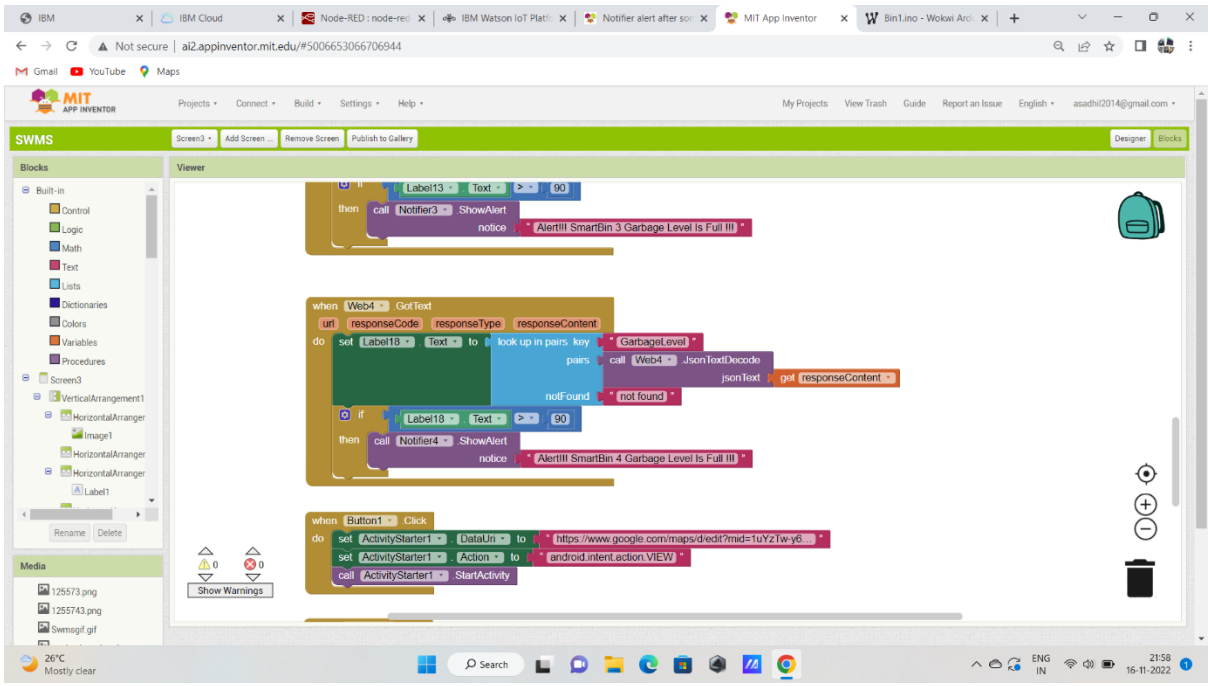
Variables
Procedures
Screen3
VerticalArrangement1
HorizontalArranger
Image1
HorizontalArranger
HorizontalArranger
Label1
Rename
Delete
Media
125573.png
1255743.png
Swmsgif.gif
Viewer
when Web1 .GotText
url responseCode responseType responseContent
do set Label3 . Text to look up in pairs key " GarbageLevel "
pairs call Web1 .JsonTextDecode
jsonText get responseContent
notFound " not found "
if Label3 . Text > 90
then call Notifier1 .ShowAlert
notice " Alert!!! SmartBin 1 Garbage Level Is Full !!! "
when Web2 .GotText
url responseCode responseType responseContent
do set Label8 . Text to look up in pairs key " GarbageLevel "
pairs call Web2 .JsonTextDecode
jsonText get responseContent
notFound " not found "
if Label8 . Text > 90
then call Notifier2 .ShowAlert
notice " Alert!!! SmartBin 2 Garbage Level Is Full !!! "
0
0
Show Warnings
26°C
Mostly clear
Search
ENG
IN
21:58
16-11-2022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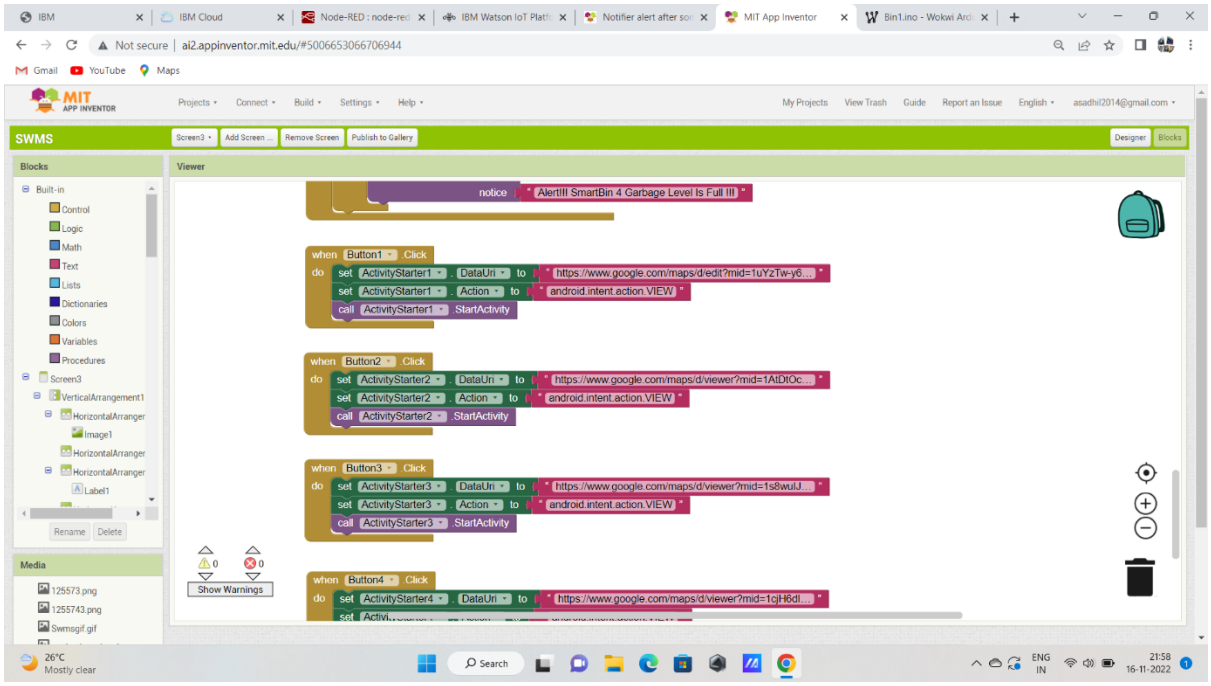
Colors
Variables
Procedures
Screen3
VerticalArrangement1
HorizontalArranger
Image1
HorizontalArranger
HorizontalArranger
Label1
Rename
Delete
Media
125573.png
1255743.png
Swmsgif.gif
Viewer
if Label13 . Text > 90
then call Notifier3 .ShowAlert
notice " Alert!!! SmartBin 3 Garbage Level Is Full !!! "
when Web4 .GotText
url responseCode responseType responseContent
do set Label18 . Text to look up in pairs key " GarbageLevel "
pairs call Web4 .JsonTextDecode
jsonText get responseContent
notFound " not found "
if Label18 . Text > 90
then call Notifier4 .ShowAlert
notice " Alert!!! SmartBin 4 Garbage Level Is Full !!! "
when Button1 .Click
do set ActivityStarter1 . DataUri to " https://www.google.com/maps/d/edit?mid=1uYzTw-y6...
set ActivityStarter1 . Action to " android.intent.action.VIEW "
call ActivityStarter1 .StartActivity
0
0
Show Warnings
26°C
Mostly clear
Search
ENG
IN
21:58
16-11-2022



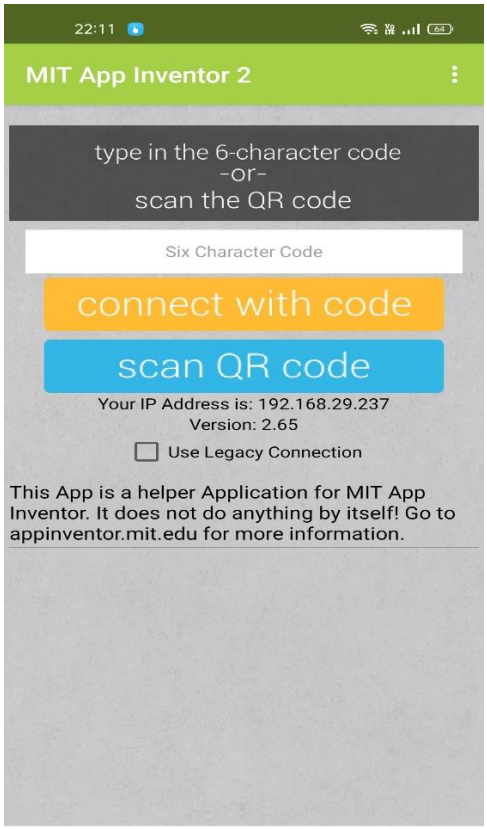
The Above Screenshot Images are shown the Designing of App and Where the connection are made with One Screen to another Screen and also contain Blocks for the working of app.

Testing of App using in Mobile Phones

These MIT App Inventor can be connected with mobile phones using Connect option. In mobile, User Need to Download the App of “MIT AI2 Companion” in Google Play store. These App can be Screened or can be Download in the user mobile.

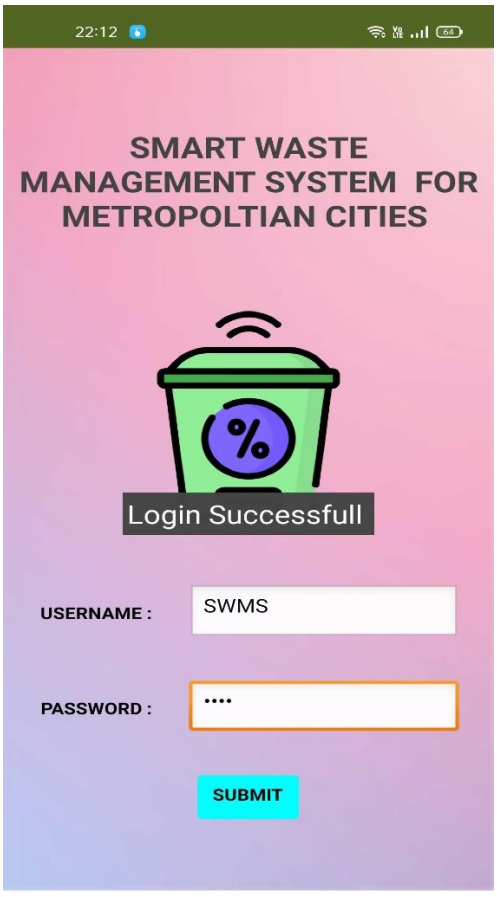
The Following Screenshot Images which are Shown the Testing of App in Mobile phones and where the level of Bins With Alert Message and Location (Random) are shown Correctly.

These MIT App Inventor are Connected with Node-Red and Where Node-RED connected with Wokwi simulation and IBM IoT Watson Platform.

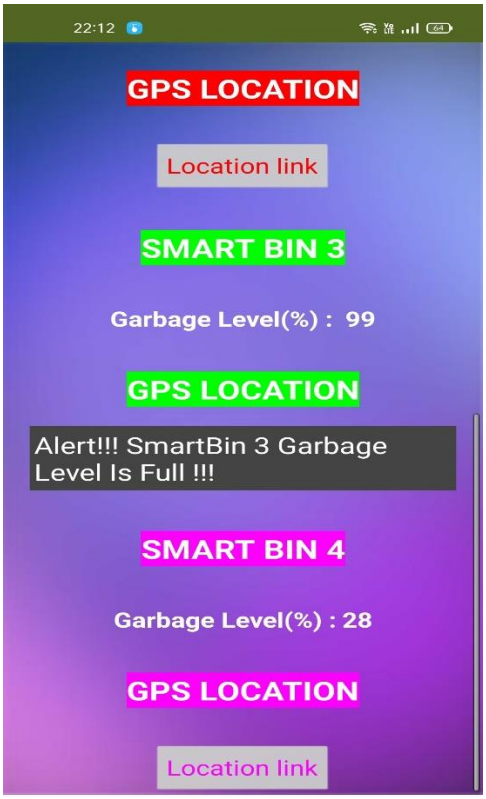

22:11
MIT App Inventor 2
type in the 6-character code
-or-
scan the QR code
Six Character Code
connect with code
scan QR code
Your IP Address is: 192.168.29.237
Version: 2.65
Use Legacy Connection
This App is a helper Application for MIT App Inventor. It does not do anything by itself! Go to appinventor.mit.edu for more information.

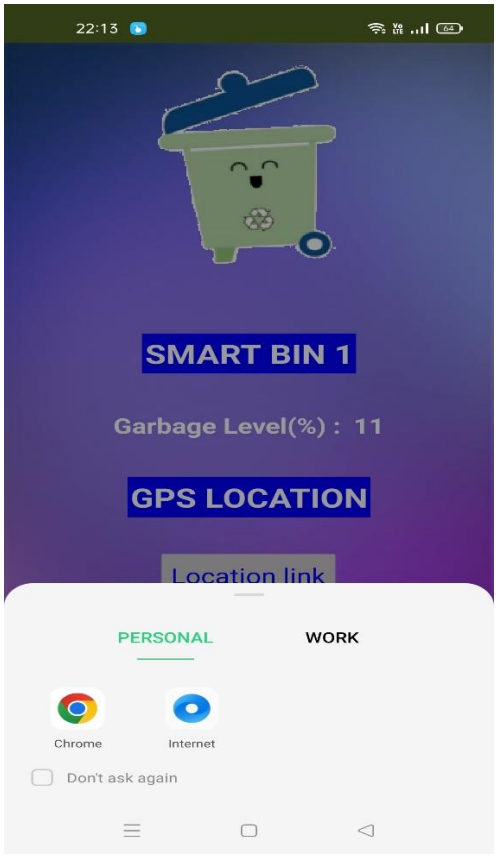
22:11
REDUCe
REUSE
RECYCLE

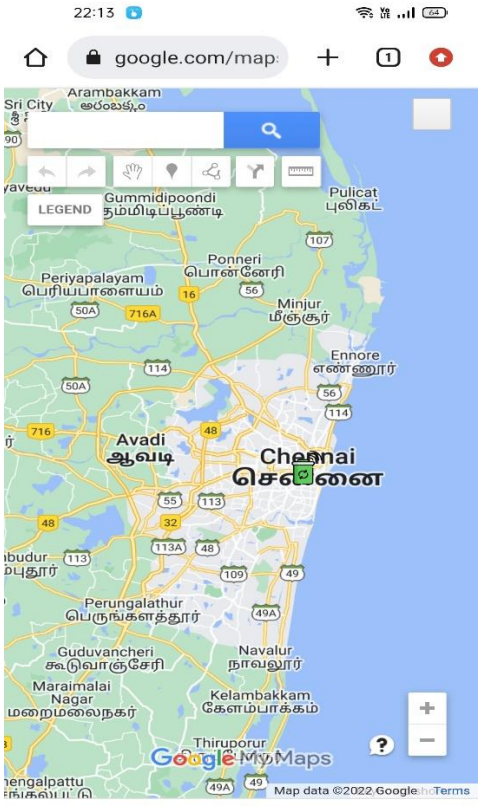
22:11
SMART WASTE MANAGEMENT SYSTEM FOR METROPOLTIAN CITIES
USERNAME :
PASSWORD :
SUBMIT


22:12
SMART WASTE MANAGEMENT SYSTEM FOR METROPOLTIAN CITIES
Login Successfull
USERNAME :
SWMS
PASSWORD :
SUBMIT

22:12
Garbage Level(%) : 11
GPS LOCATION
Location link
SMART BIN 2
Garbage Level(%) : 78
Alert!!! SmartBin 3 Garbage Level Is Full !!!
Location link
SMART BIN 3
Garbage Level(%) : 99
GPS LOCATION


22:12
GPS LOCATION
Location link
SMART BIN 3
Garbage Level(%) : 99
GPS LOCATION
Alert!!! SmartBin 3 Garbage Level Is Full !!!
SMART BIN 4
Garbage Level(%) : 28
GPS LOCATION
Location link


22:13
SMART BIN 1
Garbage Level(%) : 11
GPS LOCATION
Location link
PERSONAL
WORK
Chrome
Internet
Don't ask again


22:13
google.com/map
LEGEND
Arambakkam
Gummidipoondi
Pulicat
Ponneri
Periyapalayam
Minjur
Ennore
Avadi
Chennai
Perungalathur
Guduvancheri
Navalur
Maraimalai Nagar
Kelambakkam
Thiruporur
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