

SPRINT-4

Date	19November 2022
Team ID	PNT2022TMID11549
Project Name	Smart Waste Management System For Metropolitan Cities

- We can view the location of every bin , Garbage level of the bins can be monitored through a web App.

```
1 import wiotp.sdk.device
2 import time
3 from geopy.geocoders import Nominatim
4 import random
5
6 myConfig = {
7     "identity": {
8         "orgid": "zal46w",
9         "typeId": "NodeMCU",
10        "deviceId": "12345",
11    },
12    "auth": {
13        "token": "1234567890"
14    }
15 }
16 id = 0
17 geoloc = Nominatim(user_agent="geoapiExercises")
18
19 def init():
20     lat, long = "9.914478", "78.143418"
21     location = geoloc.reverse(lat + ", " + long)
22     id = 1
23     dumpster_30 = 'd'
```

Run: main

pick
dump 2
Published data Successfully: %s {'d': {'dump2': 2, 'Level2': 70, 'Weight2': 700, 'Lat2': '9.9933491', 'Long2': '78.127579', 'd_dump2': 2, 'Suburb2': 'Tepakulam', 'City2': 'Madura'}}
pick
dump 2
Published data Successfully: %s {'d': {'dump2': 2, 'Level2': 70, 'Weight2': 700, 'Lat2': '9.9933491', 'Long2': '78.127579', 'd_dump2': 2, 'Suburb2': 'Tepakulam', 'City2': 'Madura'}}
pick

IBM Watson IoT Platform

910619106301@smartinternz.com
ID: zal46w

Browse Action Device Types Interfaces

12345 Connected NodeMCU Device Nov 15, 2022 10:41 PM

Identity Device Information Recent Events State Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{\"d\":{\"d_dump1\":4}}	json	a few seconds ago
status	{\"d\":{\"dump2\":2,\"Level2\":70,\"Weight2\":700,\"Lat2\":9.9933491,\"Long2\":78.127579,\"d_dump2\":2,\"Suburb2\":Tepakulam,\"City2\":Madura}}	json	a few seconds ago
status	{\"d\":{\"dump2\":2,\"Level2\":70,\"Weight2\":700,\"Lat2\":9.9933491,\"Long2\":78.127579,\"d_dump2\":2,\"Suburb2\":Tepakulam,\"City2\":Madura}}	json	a few seconds ago
status	{\"d\":{\"d_dump1\":1,\"Suburb1\":Anna Nagar,\"City2\":Madurai}}	json	a few seconds ago
status	{\"p\":{\"suburb1\":Anna Nagar, Madurai,\"suburb2\":Tepakulam,\"City2\":Madurai}}	json	a few seconds ago

0 Simulations running

MIT App Inventor | Node-RED: node-red-hlmk | https://node-red-hlmkv-20 | My Drive - Google Drive | IBM | (5) WhatsApp

node-red-hlmkv-2022-11-15.au-syd.mybluemix.net/red/#flow/30704f86e4c7721d

Node-RED

Flow 1

MIT App Inventor...exe Failed - Network error

MIT App Inventor...exe Canceled

ENG 10:33 PM IN 11/19/2022

MIT App Inventor | Node-RED: node-red-hlmk | Node-RED Dash | IBM | (5) WhatsApp | Service Details | IBM Watson IoT

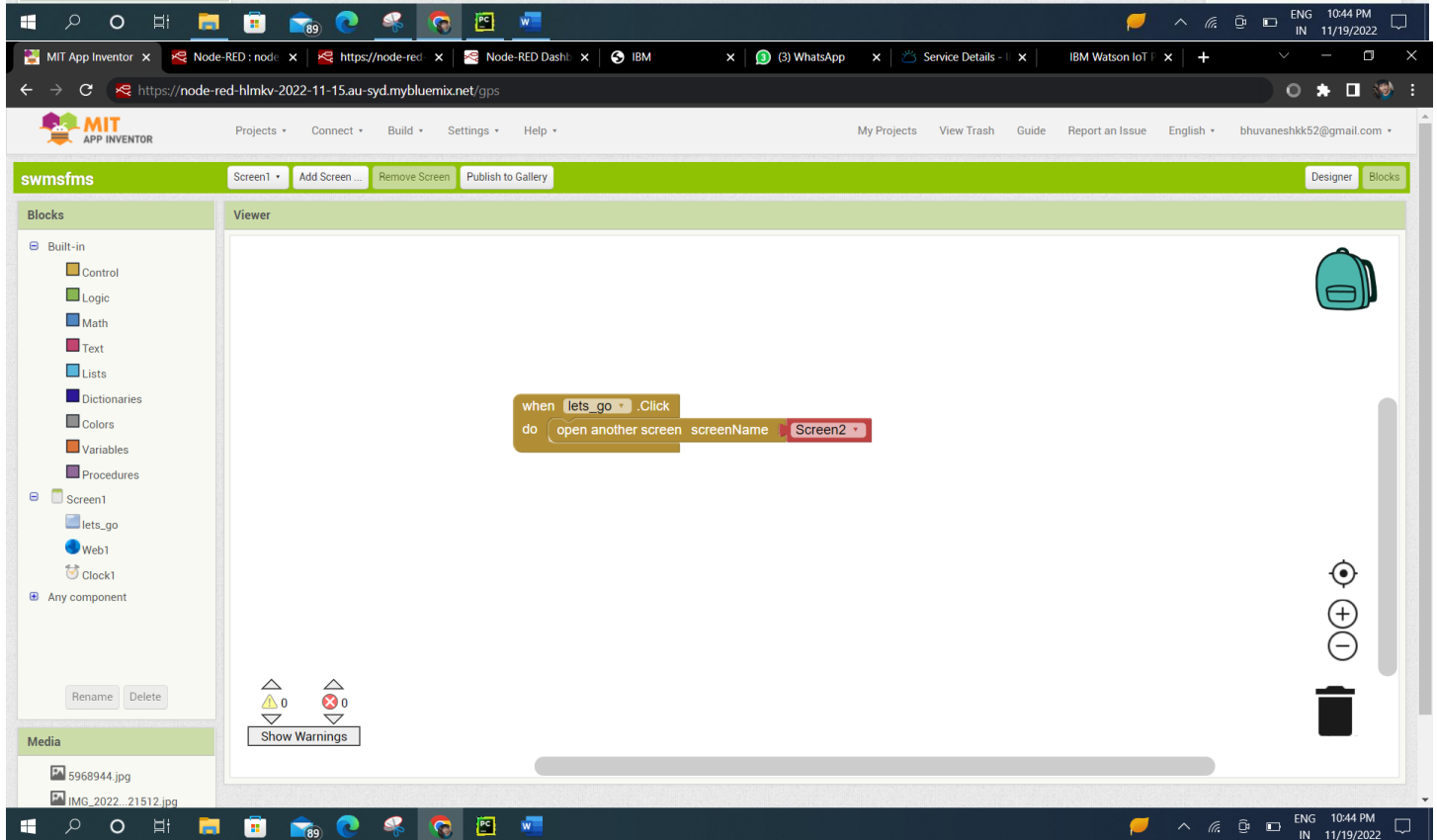
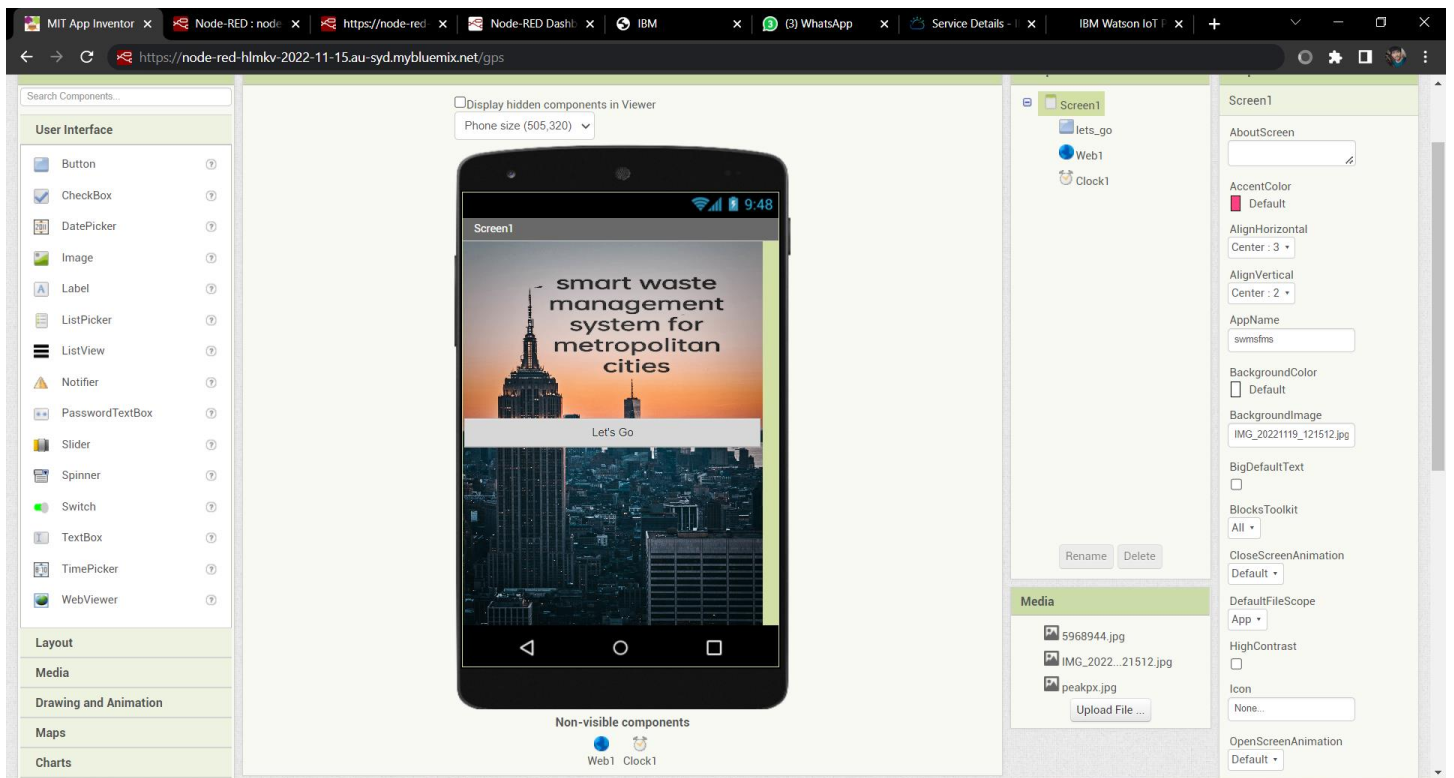
node-red-hlmkv-2022-11-15.au-syd.mybluemix.net/ui/#/0?socketid=Fm140P3h-wTBUI9_AACT

NodeESP

12345

LATITUDE	LATITUDE	LATITUDE
9.914470	9.9933491	9.917916
LONGITUDE	LONGITUDE	LONGITUDE
78.143418	78.127579	78.123496
place 4 undefined undefined	place undefined undefined undefined	place undefined undefined undefined
BIN WEIGHT	BIN WEIGHT	BIN WEIGHT
GARBAGE BIN LEVEL	GARBAGE BIN LEVEL	GARBAGE BIN LEVEL

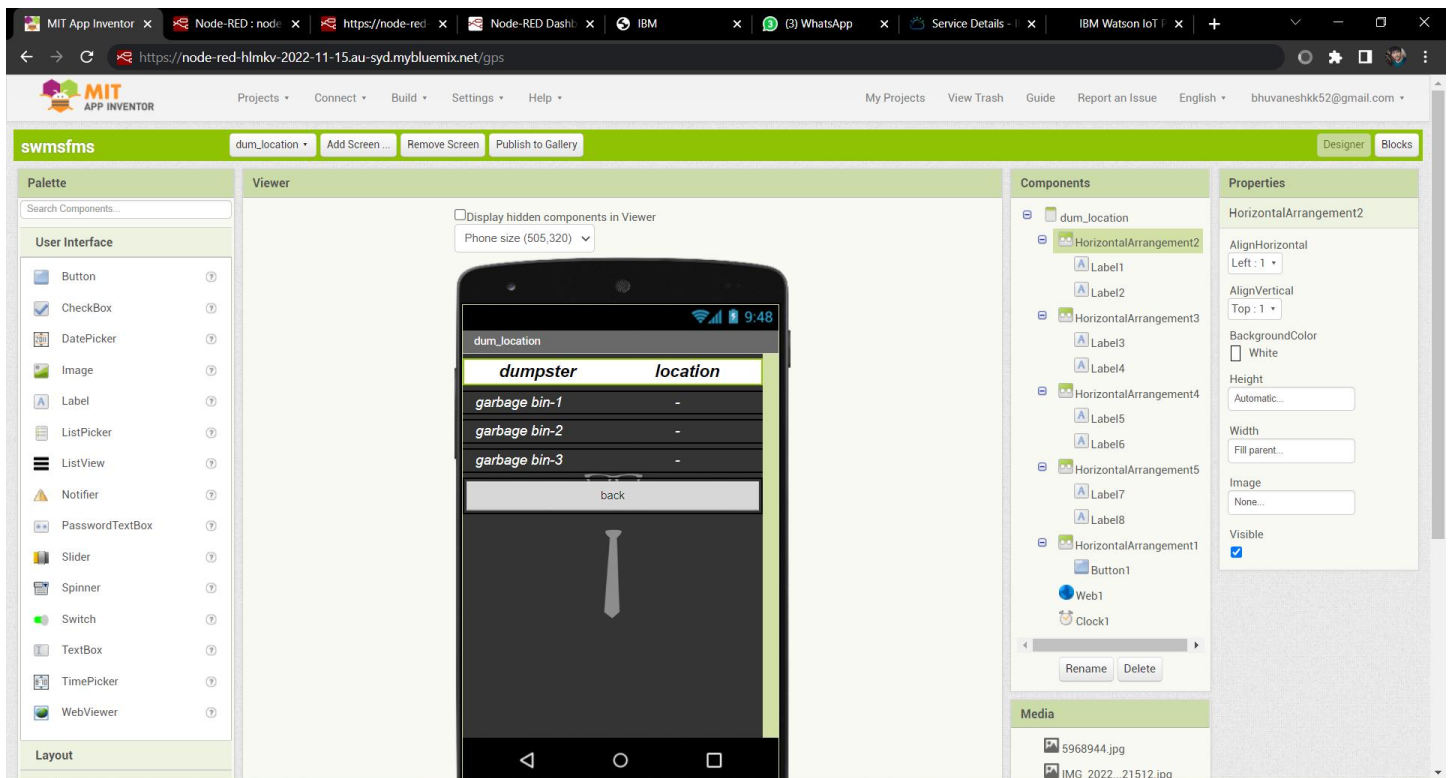
ENG 10:38 PM IN 11/19/2022



MIT App Inventor interface showing the design view for a screen named "swmsfms". The screen displays a mobile app prototype titled "smart waste management system for metropolitan cities". The interface includes a Palette on the left with various UI components like Button, CheckBox, DatePicker, Image, Label, ListPicker, ListView, Notifier, PasswordTextBox, Slider, Spinner, Switch, TextBox, TimePicker, and WebViewer. The central Viewer shows the app running on a mobile device. The right side features a Components panel listing the hierarchy of components (Screen2, VerticalArrangement1, head, head1, VerticalArrangement2, HorizontalArrangement, col1, col2, HorizontalArrangement, Label1, Label2, HorizontalArrangement, Label3, Label4, HorizontalArrangement, Label5, Label6) and a Properties panel for the selected Screen2 component, showing settings like AboutScreen, AlignHorizontal, AlignVertical, BackgroundColor, BackgroundImage, BigDefaultText, CloseScreenAnimation, HighContrast, OpenScreenAnimation, ScreenOrientation, Scrollable, and ShowStatusBar.

MIT App Inventor interface showing the logic view for the "swmsfms" screen. The central workspace displays a complex logic block structure. The logic starts with a "when Click1 Timer" event, followed by a "do" block containing a "set Web1 Url" and a "call Web1 Get" block. This is followed by a "do" block with a "when Web1 GetText" event, which triggers a series of "if" and "else if" conditions. Each condition checks the "responseCode" and "responseContent" of the web request, and if found, it sets the text of a corresponding label (Label1 through Label6) to the response content. If not found, it sets the text to "FAULT". The logic concludes with a "when Button1 Click" event, which triggers a "do" block to "open another screen" named "screenName" with the parameter "dum_location". The left sidebar shows the "Blocks" palette with categories like Control, Logic, Math, Text, Lists, Dictionaries, Colors, Variables, and Procedures. The bottom status bar indicates the time as 10:45 PM on 11/19/2022.

MIT App Inventor interface showing a mobile app design for "swmsfms". The app is titled "dumpster location" and displays a list of garbage bins (bin-1, bin-2, bin-3) with a "back" button. The interface includes a Palette of components (Button, CheckBox, DatePicker, Image, Label, ListPicker, ListView, Notifier, PasswordTextBox, Slider, Spinner, Switch, TextBox, TimePicker, WebViewer) and a Properties panel for the selected component (HorizontalArrangement2).



MIT App Inventor interface showing the same mobile app design, but with the Blocks editor visible. The Blocks editor displays a sequence of logic blocks for handling data from a web service (Web1) and displaying it on the app's labels (Label1, Label2, Label3, Label4). The logic includes a "when Web1 GetText" event, a "do" loop for processing the response, and a "when Button1 Click" event to open another screen.

