

PROJECT DEVELOPMENT PHASE

SPRINT-2

Team ID	PNT2022TMID14057
Project Name	Signs with Smart Connectivity for Better Road Safety

SPRINT-2:

- ✓ In sprint-2, we have developed a python code using random function to generate random values for distance between user and the vehicle ahead.
- ✓ We have also implemented a condition such that, if distance is less than 20, then it displays a warning like “STOP”. The user can either try with different direction or can take diversion
- ✓ This helps in reducing accidents ,to avoid clashes and to promote safe driving experience.

PYTHON CODE:

```
dist=random.randint(0,50)
dis={'dista':dist}
```

```
if(dist<20):
    insta={'inst':'stop'}
```

IBM IoT WATSON PLATFORM:

IBM Watson IoT Platform

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Identity Device Information **Recent Events** State Logs X

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

Event	Value	Format	Last Received
IoTSensor	{"dista":1}	json	a few seconds ago
IoTSensor	{"alert": "PLEASE SLOW DOWN!!!!!!!"}	json	a few seconds ago
IoTSensor	{"temp":300.14,"humid":94}	json	a few seconds ago
IoTSensor	{"inst":"stop"}	json	a few seconds ago
IoTSensor	{"dista":0}	json	a few seconds ago

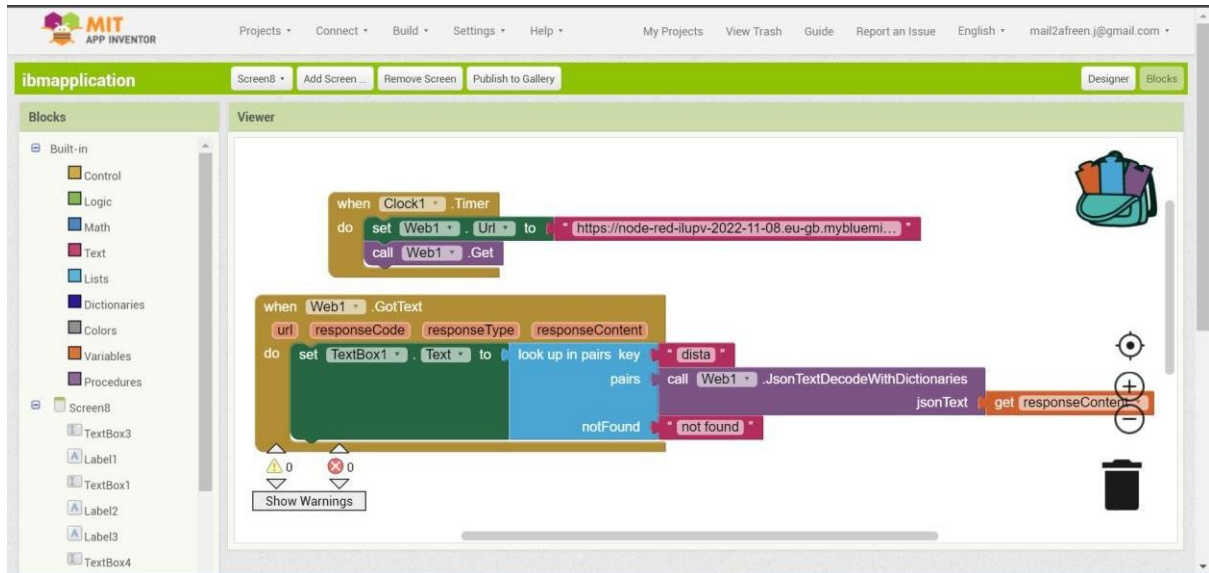
1 Simulation running

NODE-RED:

The screenshot shows the Node-RED web interface. On the left, the 'common' tab is selected in the palette, showing nodes like inject, debug, complete, catch, status, link in, link call, link out, and comment. The main workspace contains a flow named 'Flow 1'. It starts with an 'IBM IoT' node (blue) which is connected. This node connects to a 'function' node (orange) that has four outputs: 'temperature', 'humidity', 'alert', and 'function'. These outputs connect to 'temp' and 'humid' nodes (teal) via a 'msg.payload' node (green). The 'temp' node connects to a 'http' node (yellow) via a '[get] /inst' node (yellow). The 'humid' node connects to a 'http' node (yellow) via a '[get] /traffic' node (yellow). The 'debug' tab is selected on the right, showing a list of messages. The first message is highlighted with a red box and contains the following JSON:

```
{
  "dista": 5
}
```

MIT APP INVENTOR:



USER APP SCREENSHOT:

TRAFFIC UPDATES

YOU ARE BEHIND ANOTHER VEHICLE BY

18

IF DISTANCE IS BELOW 20

STOP

TRY MOVING IN DIFFERENT DIRECTION

OR TAKE DIVERSION

BACK

