

Date	14-11-2022
Team ID	PNT2022TMID39403
Project name	Signs with smart connectivity for better road safety
Maximum marks	20 marks

IBM Watson IoT Platform

The screenshot displays the IBM Watson IoT Platform interface. On the left, a terminal window titled "Python 3.7.0 Shell" shows a continuous stream of data being published to IBM Watson. The data consists of temperature and humidity readings in Celsius and Fahrenheit, along with a timestamp and the device ID. On the right, the IBM Watson IoT Platform dashboard is visible, showing a table of recent events. The table has two columns: "Event" and "Value". The events are listed as "IoT Sensor" with values like ["temp":89,"Humid":62].

Published Data (from Terminal):

Published	Temperature	Humidity	to IBM Watson
Published	70 C	92 F	to IBM Watson
Published	68 C	90 F	to IBM Watson
Published	47 C	29 F	to IBM Watson
Published	72 C	52 F	to IBM Watson
Published	59 C	88 F	to IBM Watson
Published	63 C	83 F	to IBM Watson
Published	55 C	28 F	to IBM Watson
Published	74 C	27 F	to IBM Watson
Published	46 C	48 F	to IBM Watson
Published	48 C	50 F	to IBM Watson
Published	25 C	30 F	to IBM Watson
Published	0 C	71 F	to IBM Watson
Published	64 C	78 F	to IBM Watson
Published	88 C	98 F	to IBM Watson
Published	47 C	75 F	to IBM Watson
Published	31 C	74 F	to IBM Watson
Published	32 C	41 F	to IBM Watson
Published	7 C	100 F	to IBM Watson
Published	54 C	97 F	to IBM Watson
Published	12 C	69 F	to IBM Watson
Published	70 C	77 F	to IBM Watson
Published	31 C	81 F	to IBM Watson
Published	9 C	22 F	to IBM Watson
Published	20 C	58 F	to IBM Watson
Published	37 C	16 F	to IBM Watson
Published	8 C	76 F	to IBM Watson
Published	9 C	32 F	to IBM Watson
Published	16 C	90 F	to IBM Watson
Published	35 C	70 F	to IBM Watson
Published	31 C	75 F	to IBM Watson
Published	76 C	75 F	to IBM Watson
Published	55 C	59 F	to IBM Watson
Published	4 C	39 F	to IBM Watson
Published	69 C	49 F	to IBM Watson
Published	75 C	81 F	to IBM Watson
Published	82 C	100 F	to IBM Watson
Published	19 C	94 F	to IBM Watson
Published	11 C	24 F	to IBM Watson
Published	52 C	24 F	to IBM Watson
Published	89 C	62 F	to IBM Watson

Recent Events (from Dashboard):

Event	Value
IoT Sensor	["temp":89,"Humid":62]
IoT Sensor	["temp":52,"Humid":24]
IoT Sensor	["temp":11,"Humid":24]
IoT Sensor	["temp":49,"Humid":44]
IoT Sensor	["temp":82,"Humid":100]

Node-RED interface showing a flow named "Flow 1" with a node labeled "IBM IoT" connected to a "debug 1" node. The "debug 1" node is currently connected. The interface includes a left sidebar with various nodes (inject, debug, complete, catch, status, link in, link call, link out, comment) and a right sidebar showing the debug console output.

The debug console output shows the following messages:

```
11/14/2022, 4:54:07 PM node: debug 1
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : Object
> { alert_distance: 5, temp: 81, hum: 91,
North: 18, South: 82 ... }

11/14/2022, 4:54:07 PM node: msg payload
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : Object
> { alert_distance: 5, temp: 81, hum: 91,
North: 18, South: 82 ... }

11/14/2022, 4:54:08 PM node: msg payload
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : number
81

11/14/2022, 4:54:09 PM node: msg payload
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : undefined
undefined

11/14/2022, 4:54:10 PM node: msg payload
```

Fig: Monitoring the sensor values- temperature, humidity, rain.

The screenshot shows the Node-RED web interface in a browser. The main workspace displays a flow named 'Flow 1' with an 'IBM IoT' node connected to three function nodes: 'Temperature', 'Humidity', and 'Rain'. The 'Edit button node' panel is open, showing the configuration for the 'Temperature' node. The properties include: Group: '[Smart Road Safety] [weather]road s...', Size: 'auto', Icon: 'optional icon', Label: 'Temperature', Tooltip: 'optional tooltip', Color: 'optional text/icon color', and Background: 'optional background color'. The 'When clicked, send:' section is set to 'Enabled'. The debug console on the right shows a series of messages from the IoT node, including a JSON object with sensor data: { alert_distance: 5, temp: 81, hum: 91, North: 18, South: 82 ... }.

The screenshot shows the Node-RED web interface with the 'Edit chart node' panel open. The main workspace displays a flow named 'Flow 1' with an 'IBM IoT' node connected to three function nodes: 'Temperature', 'Humidity', and 'randomNumber'. The 'Edit chart node' panel shows the configuration for the 'Temperature' node. The properties include: Group: '[Smart Road Safety] [weather]road s...', Size: 'auto', Label: 'chart', Type: 'Line chart', X-axis: 'last 5 minute: OR 1000 points', X-axis Label: 'HH:mm:ss', Y-axis: 'min max', Legend: 'None', and Interpolate: 'linear'. The 'When clicked, send:' section is set to 'Enabled'. The debug console on the right shows a series of messages from the IoT node, including a JSON object with sensor data: { alert_distance: 5, temp: 81, hum: 91, North: 18, South: 82 ... }.

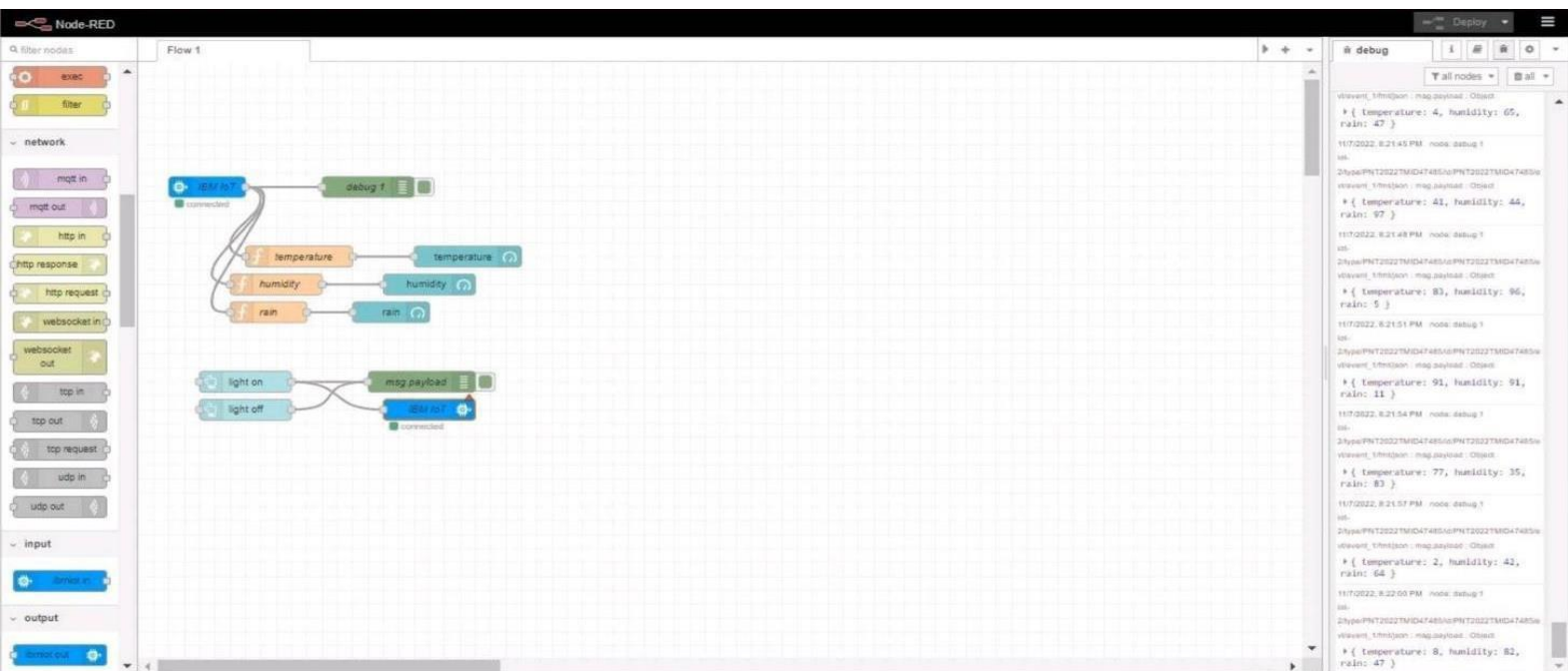


Fig: output from recent events



MIT APP INVERTER TO DESIGN THE APP:

MIT App Inventor

Director Hal

Abetsonhasdedic

atedhiscareer

App Inventories Cloud-based: <httpswappinventor.mit.edu>

MIT App Inventor

Get Started

Welcome to App Inventor 2

1. To go directly to designing and budding apps With Inventor

App
Inventor
for
Android <

2.App Inventor

Computer
program

