

Develop the web application using Node-RED

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Team ID	PNT2022TMID43416
Project Name	Project - SMART WASTE MANAGEMENT SYSTEM

Web application using Node-RED

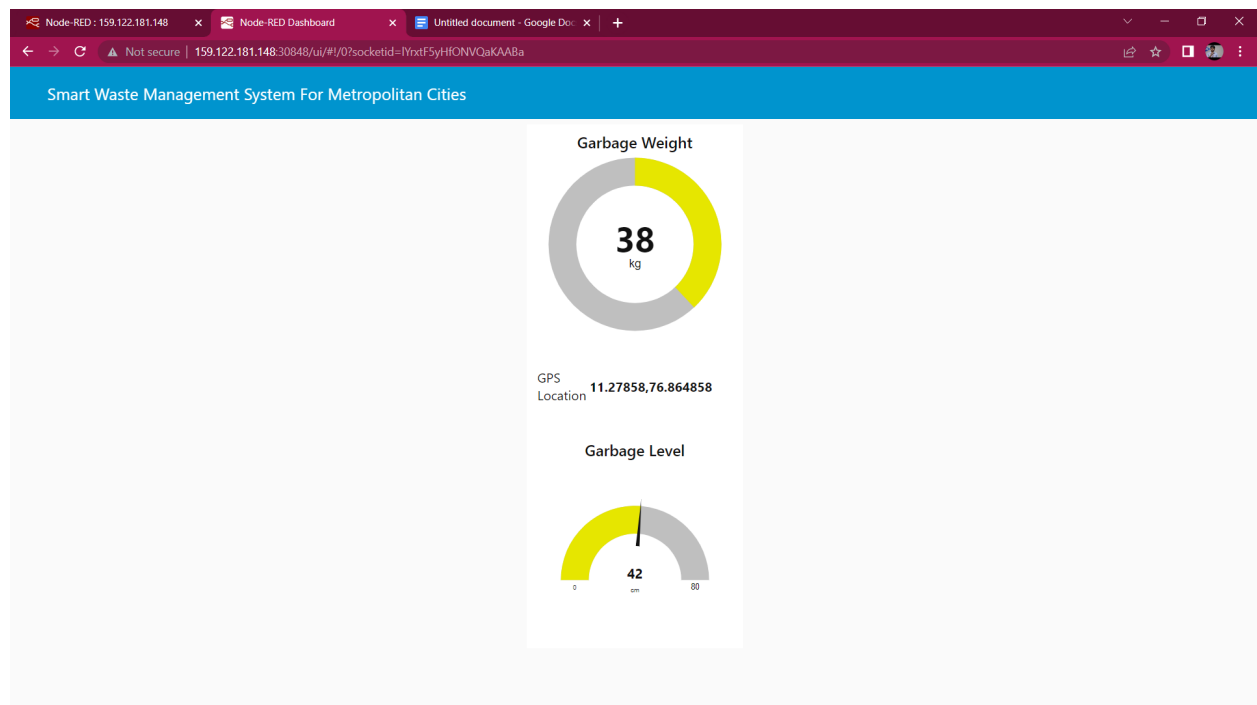
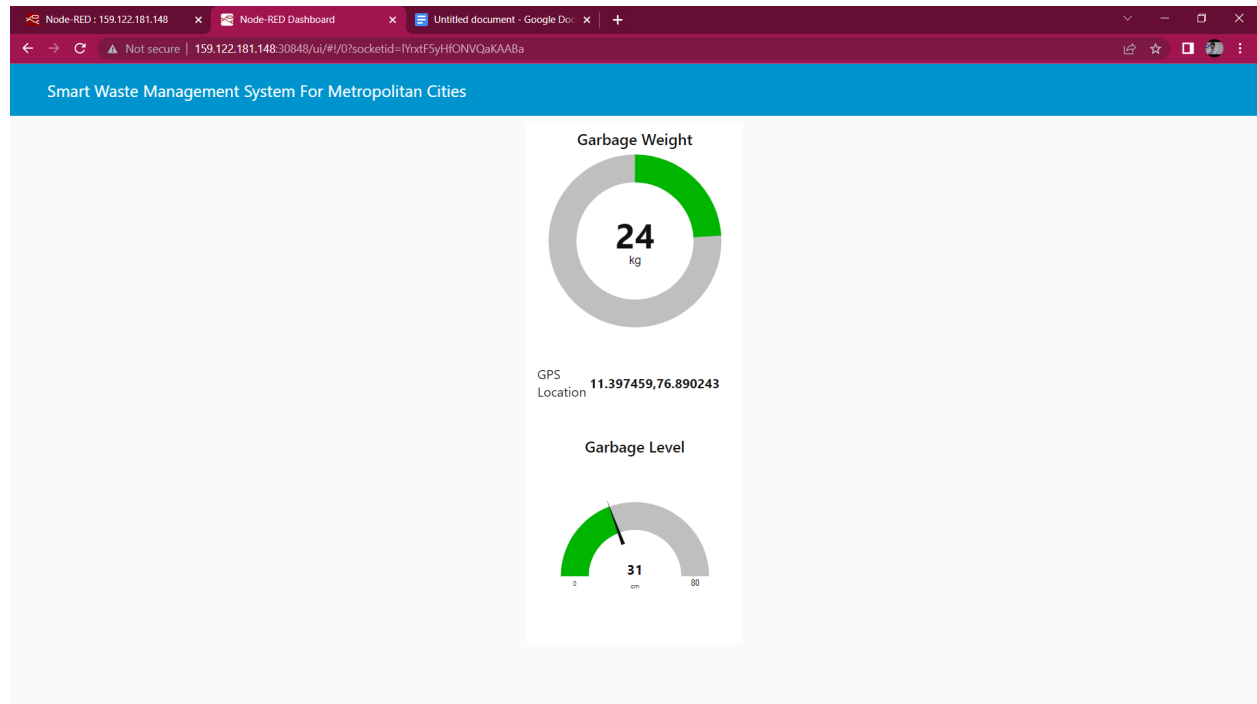
The screenshot displays the Node-RED web interface in a browser. The main workspace shows a flow named 'Flow 1' with the following components:

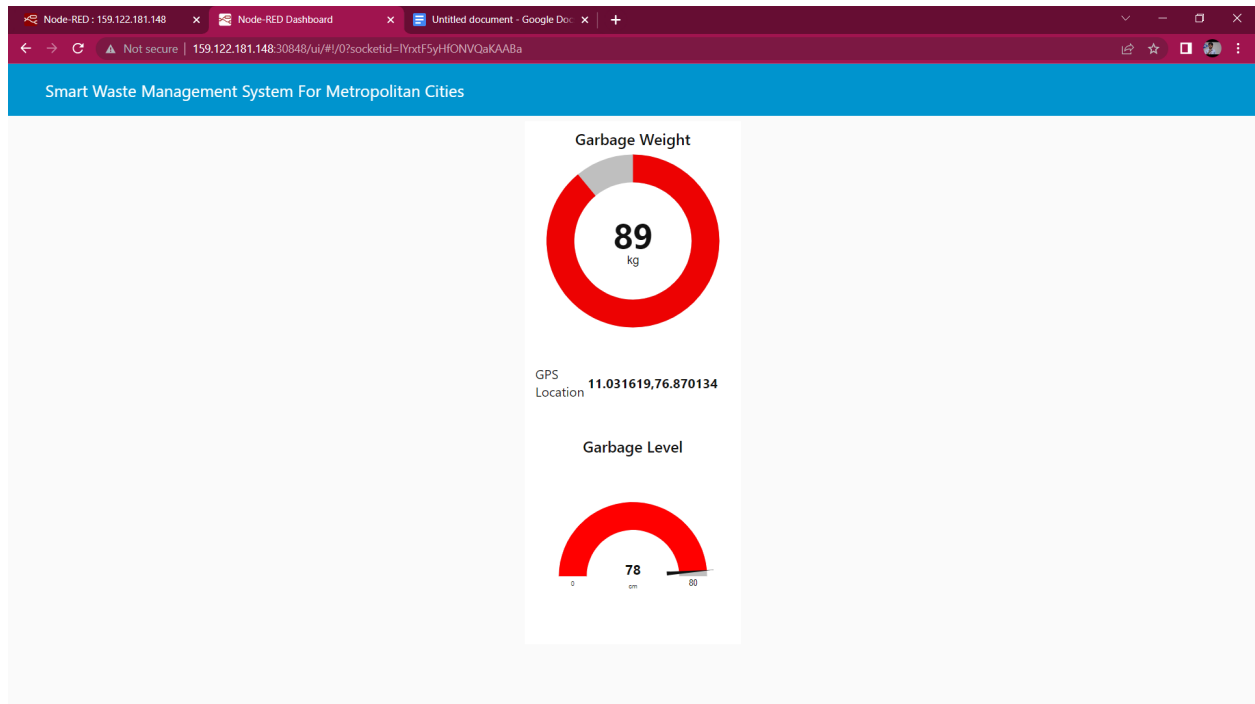
- Input:** A 'Hello Node-RED!' message node.
- Processing:** A 'jeisree' node (likely a trigger or timer) feeds into a function node labeled 'ultra sonic'.
- Output:** The 'ultra sonic' function node outputs to a 'msg.payload' node, which then feeds into a 'Garbage Level' gauge node.
- Additional Functionality:** The 'ultra sonic' node also feeds into two other function nodes: 'weight' (outputting to 'Garbage Weight' gauge) and 'gps' (outputting to 'GPS Location' gauge).

The left sidebar shows the 'location' category expanded, displaying nodes like 'worldmap', 'worldmap in', 'tracks', and 'convex - hull'.

The right sidebar shows the 'debug' console with a log of messages received from the IoT sensor. The messages are JSON objects containing Ultrasonic, Weight, and GPS data:

```
11/13/2022, 10:53:06 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 4, Weight: 92, GPS: "11.218394,76.892136" }  
11/13/2022, 10:53:14 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 79, Weight: 25, GPS: "11.068184,76.869955" }  
11/13/2022, 10:53:20 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 9, Weight: 49, GPS: "11.062281,76.810619" }  
11/13/2022, 10:53:26 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 61, Weight: 55, GPS: "11.375661,76.827458" }  
11/13/2022, 10:53:32 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 17, Weight: 2, GPS: "11.073738,76.896899" }  
11/13/2022, 10:53:38 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 61, Weight: 87, GPS: "11.437501,76.888966" }  
11/13/2022, 10:53:44 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 14, Weight: 80, GPS: "11.231369,76.843948" }  
11/13/2022, 10:53:50 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 16, Weight: 72, GPS: "11.166214,76.800188" }  
11/13/2022, 10:53:56 AM node: f22649a.0d0d98  
iot-2typeNode_McuId123456789rev10TSensor/rmtljson : msg.payload : Object  
{ Ultrasonic: 17, Weight: 94, GPS: "11.292845,76.896202" }
```





- **Garbage Level:** displays the level of waste present in the Bin.
- **Garbage Weight:** display the total weight of waste present in the Bin.
- Based on the weight and level of the bin, color will change which alerts the authorized person to empty the bin.
 1. Green : 0% - 30%
 2. Yellow : 30% - 80%
 3. Red : 80% - 100%
- Red color indicates the person is emptying the bin.
- Yellow color indicates the bin is almost full.
- Green color indicates the bin is empty.