FINAL CODE:

Team ID	PNT2022TMID46042
Project Name	Smart Waste Management For
	Metropolitan Cities

```
"id": "6ed1189c17ed0439",
    "type": "tab",
    "label": "Flow 1",
    "disabled": false,
    "info": "",
    "env": []
  },
    "id": "ce1790a002f55f3a",
"type": "ibmiot in",
    "z": "6ed1189c17ed0439",
    "authentication": "apiKey",
    "apiKey": "bf9996433728395e",
    "inputType": "evt",
    "logicalInterface": "",
    "ruleId": "",
     "deviceId": "BIN1ID",
```

```
"applicationId": "",
     "deviceType": "BIN1",
"eventType": "+",
    "commandType": "",
    "format": "json",
    "name": "IBM IoT",
    "service": "registered",
    "allDevices": "",
    "allApplications": "",
    "allDeviceTypes": false,
    "allLogicalInterfaces": "",
    "allEvents": true,
    "allCommands": "",
    "allFormats": "",
    "qos": 0,
    "x": 250,
    "y": 180,
    "wires": [
         "b678812da97d9d1a",
         "f720c62cad238799",
```

```
"35b263513ea4f373"
  },
    "id": "b678812da97d9d1a",
    "type": "debug",
    "z": "6ed1189c17ed0439",
    "name": "msg.payload",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
"statusVal": "",
    "statusType": "auto",
    "x": 610,
    "y": 180,
    "wires": []
  },
```

```
"id": "f720c62cad238799",
   "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "Distance 1",
   msg;",
   "outputs": 1,
   "noerr": 0,
   "initialize": "",
   "finalize": "",
   "libs": [],
   "x": 430,
   "y": 220,
   "wires": [
       "5dcbaf252dc78b06",
       "b678812da97d9d1a"
   1
  },
```

```
"id": "35b263513ea4f373",
     "type": "function",
     "z": "6ed1189c17ed0439",
     "name": "LOAD cell 1",
     "func": "msg.payload =msg. payload.load\nglobal.set('l', msg.payload)\nreturn
msg;",
     "outputs": 1,
     "noerr": 0,
     "initialize": "",
     "finalize": "",
     "libs": [],
     "x": 430,
     "y": 300,
     "wires": [
          "b7ac8ba401c6cab8"
  },
     "id": "5dcbaf252dc78b06",
     "type": "ui_gauge",
     "z": "6ed1189c17ed0439",
```

```
"name": "",
    "group": "f3b64a4198b3c46c",
    "order": 1,
    "width": 4,
     "height": 4,
     "gtype": "gage",
     "title": "Distance 1",
    "label": "Cm",
    "format": "{{value}}",
    "min": 0,
    "max": "100",
"colors": [
       "#00b500",
       "#e6e600",
       "#ca3838"
    ],
    "seg1": "",
    "seg2": "",
    "className": "",
    "x": 710,
"y": 240,
```

```
"wires": []
  },
    "id": "b7ac8ba401c6cab8",
    "type": "ui_gauge",
    "z": "6ed1189c17ed0439",
                   "name": "",
     "group": "f3b64a4198b3c46c",
    "order": 2,
    "width": 4,
    "height": 4,
    "gtype": "gage",
    "title": "LOAD CELL 1",
    "label": "KG",
    "format": "{{value}}",
    "min": 0,
    "max": "100",
"colors": [
       "#00b500",
       "#e6e600",
       "#ca3838"
    ],
    "seg1": "",
```

```
"seg2": "",
    "className": "",
    "x": 720,
"y": 300,
    "wires": []
  },
    "id": "5de18859cabb1a5d",
    "type": "http in",
    "z": "6ed1189c17ed0439",
    "name": "",
    "url": "/sensor",
    "method": "get",
    "upload": false,
    "swaggerDoc": "",
    "x": 210,
"y": 420,
    "wires": [
         "80650c336af78c61"
```

```
]
  },
    "id": "5ab7d1be9c4e2831",
    "type": "http response",
    "z": "6ed1189c17ed0439",
    "name": "",
     "statusCode": "",
     "headers": {},
     "x": 710, "y":
     400,
     "wires": []
  },
    "id": "80650c336af78c61",
    "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "function 1",
     "func": "msg.payload = { \"dist\": global.get('d'), \"load\":
global.get('l')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
     "initialize": "",
```

```
"finalize": "",
  "libs": [],
  "x": 460,
  "y": 420,
  "wires": [
       "5ab7d1be9c4e2831"
    ]
},
  "id": "e0022c1a3e189dea",
  "type": "ibmiot in",
  "z": "6ed1189c17ed0439",
  "authentication": "apiKey",
  "apiKey": "bf9996433728395e",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "BIN2ID",
  "applicationId": "",
```

```
"deviceType": "BIN2",
"eventType": "+",
"commandType": "",
"format": "json",
"name": "IBM IoT",
"service": "registered",
"allDevices": "",
"allApplications": "",
"allDeviceTypes": false,
"allLogicalInterfaces": "",
"allEvents": true,
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 250,
"y": 500,
"wires": [
    "2a22e946c6d5f734",
    "233a55d8b0e40a46",
    "a5ed197df7ced05a"
```

```
},
   "id": "233a55d8b0e40a46",
   "type": "function",
   "z": "6ed1189c17ed0439",
   "name": "Distance 2",
   msg;",
   "outputs": 1,
   "noerr": 0,
   "initialize": "",
   "finalize": "",
   "libs": [],
   "x": 450,
"y": 540,
   "wires": [
       "2a22e946c6d5f734",
       "9b44a1863803e38a"
```

```
]
  },
    "id": "a5ed197df7ced05a",
    "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "LOAD cell 2",
    "func": "msg.payload =msg. payload.load\nglobal.set('l', msg.payload)\nreturn
msg;",
    "outputs": 1,
    "noerr": 0,
    "initialize": "",
    "finalize": "",
     "libs": [],
     "x": 450, "y":
     600,
    "wires": [
         "40ccb32035a0f55f"
  },
```

```
"id": "2a22e946c6d5f734",
    "type": "debug",
    "z": "6ed1189c17ed0439",
    "name": "msg.payload",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
"statusVal": "",
    "statusType": "auto",
     "x": 650,
     "y": 480,
     "wires": []
  },
    "id": "9b44a1863803e38a",
    "type": "ui_gauge",
    "z": "6ed1189c17ed0439",
    "name": "",
```

```
"group": "f3b64a4198b3c46c",
    "order": 4,
    "width": 4,
    "height": 4,
    "gtype": "gage",
    "title": "Distance 2",
    "label": "Cm",
    "format": "{{value}}",
    "min": 0,
    "max": "100",
"colors": [
       "#00b500",
       "#e6e600",
       "#ca3838"
    ],
     "seg1": "",
     "seg2": "",
     "className": "",
    "x": 710,
"y": 540,
    "wires": []
  },
```

```
"id": "40ccb32035a0f55f",
"type": "ui_gauge",
"z": "6ed1189c17ed0439",
"name": "",
"group": "f3b64a4198b3c46c",
"order": 5,
"width": 4,
"height": 4,
"gtype": "gage",
"title": "LOAD CELL 2",
"label": "KG",
"format": "{{value}}",
"min": 0,
"max": "100",
"colors": [
  "#00b500",
  "#e6e600",
  "#ca3838"
],
"seg1": "",
```

```
"seg2": "",
    "className": "",
    "x": 720,
"y": 580,
    "wires": []
  },
    "id": "60298a7291818343",
    "type": "http in",
    "z": "6ed1189c17ed0439",
    "name": "",
    "url": "/sensor",
    "method": "get",
    "upload": false,
    "swaggerDoc": "",
    "x": 190,
    "y": 660,
    "wires": [
         "616151913ceb65e2"
```

```
},
    "id": "616151913ceb65e2",
    "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "function 2",
     "func": "msg.payload = { \"dist\": global.get('d'), \"load\":
global.get('l')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
     "initialize": "",
    "finalize": "",
     "libs": [],
    "x": 420,
     "y": 660,
     "wires": [
       [
          "332391e22b2af8e8"
  },
```

```
"id": "332391e22b2af8e8",
    "type": "http response",
    "z": "6ed1189c17ed0439",
    "name": "",
    "statusCode": "",
    "headers": {},
    "x": 670,
"y": 660,
    "wires": []
  },
    "id": "4d33e05e616db2bb",
    "type": "ibmiot in",
    "z": "6ed1189c17ed0439",
    "authentication": "apiKey",
    "apiKey": "bf9996433728395e",
    "inputType": "evt",
    "logicalInterface": "",
    "ruleId": "",
    "deviceId": "BIN3ID", "applicationId": "",
    "deviceType": "BIN3",
```

```
"eventType": "+",
    "commandType": "",
    "format": "json",
    "name": "IBM IoT",
    "service": "registered",
    "allDevices": "",
    "allApplications": "",
    "allDeviceTypes": false,
    "allLogicalInterfaces": "",
    "allEvents": true,
    "allCommands": "",
    "allFormats": "",
    "qos": 0,
    "x": 250,
"y": 760,
    "wires": [
         "c7ddb56ba52e82df",
         "fbf611802e58a9d1",
         "231892da1f5ab0fb"
```

```
]
  },
    "id": "1c11c86fbb36f097",
"type": "http in",
    "z": "6ed1189c17ed0439",
    "name": "",
    "url": "/sensor",
    "method": "get",
    "upload": false,
    "swaggerDoc": "",
    "x": 190,
"y": 900,
    "wires": [
         "cdea8fe7bd7a2f5e"
  },
    "id": "c49cd92e337f886b",
    "type": "debug",
```

```
"z": "6ed1189c17ed0439", "name": "msg.payload",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
"statusVal": "",
    "statusType": "auto",
    "x": 750,
"y": 940,
    "wires": []
  },
    "id": "c7ddb56ba52e82df",
    "type": "debug",
    "z": "6ed1189c17ed0439",
    "name": "msg.payload",
    "active": true,
     "tosidebar": true,
    "console": false,
```

```
"tostatus": false,
    "complete": "payload", "targetType": "msg", "statusVal": "",
    "statusType": "auto",
    "x": 690,
"y": 760,
    "wires": []
  },
    "id": "71be31afc89560dd",
    "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "Distance 4",
    "func": "msg.payload = msg.payload.dist\nglobal.set('d',msg.payload)\nreturn
msg;",
    "outputs": 1,
    "noerr": 0,
    "initialize": "",
    "finalize": "",
    "libs": [],
    "x": 470,
    "y": 980,
    "wires": [
```

```
"c49cd92e337f886b",
         "b88ea394cc4571c3"
       ]
    ]
  },
    "id": "fbf611802e58a9d1",
    "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "Distance 3",
    "func": "msg.payload = msg.payload.dist \ \ ('d', msg.payload) \ \ \ \ \ \ )
msg;",
     "outputs": 1,
     "noerr": 0,
     "initialize": "",
     "finalize": "",
     "libs": [],
    "x": 470,
     "y": 780,
     "wires": [
```

```
"c7ddb56ba52e82df",
       "240d2e6c8f487fd8"
 },
   "id": "231892da1f5ab0fb",
   "type": "function",
   "z": "6ed1189c17ed0439",
   "name": "LOAD cell 3",
   msg;",
   "outputs": 1,
   "noerr": 0,
   "initialize": "",
   "finalize": "",
   "libs": [],
   "x": 470,
   "y": 820,
   "wires": [
       "e18c17929284e061"
```

```
},
    "id": "a0cbff62cdd2e77c",
    "type": "function",
    "z": "6ed1189c17ed0439",
    "name": "LOAD cell 4",
    "func": "msg.payload =msg. payload.load\nglobal.set('l', msg.payload)\nreturn
msg;",
    "outputs": 1,
    "noerr": 0,
    "initialize": "",
    "finalize": "",
    "libs": [],
    "x": 470,
    "y": 1020,
     "wires": [
         "c7a15e2a5bf9c2da"
```

```
},
    "id": "cdea8fe7bd7a2f5e",
    "type": "function",
    "z": "6ed1189c17ed0439",
     "name": "function 3",
     "func": "msg.payload = { \"dist\": global.get('d'), \"load\":
global.get('l')}\nreturn msg;",
     "outputs": 1,
     "noerr": 0,
     "initialize": "",
     "finalize": "",
    "libs": [],
    "x": 420,
     "y": 900,
     "wires": [
          "9bfb685be1503933"
       ]
    ]
  },
    "id": "9bfb685be1503933",
```

```
"type": "http response",
    "z": "6ed1189c17ed0439",
    "name": "",
    "statusCode": "",
     "headers": {},
     "x": 690,
    "y": 900,
    "wires": []
  },
    "id": "240d2e6c8f487fd8",
"type": "ui_gauge",
    "z": "6ed1189c17ed0439",
    "name": "",
    "group": "f3b64a4198b3c46c",
    "order": 15,
    "width": 4,
    "height": 4,
    "gtype": "gage",
    "title": "Distance 3",
    "label": "Cm",
```

```
"format": "{{value}}",
    "min": 0,
    "max": "100",
"colors": [
       "#00b500",
       "#e6e600",
       "#ca3838"
    ],
    "seg1": "",
    "seg2": "",
    "className": "",
    "x": 830,
    "y": 800,
    "wires": []
  },
    "id": "b88ea394cc4571c3",
    "type": "ui_gauge",
    "z": "6ed1189c17ed0439",
    "name": "",
    "group": "f3b64a4198b3c46c",
    "order": 18,
```

```
"width": 4,
"height": 4,
"gtype": "gage",
"title": "Distance 4",
"label": "Cm",
"format": "{{value}}",
"min": 0,
"max": "100", "colors":
[
  "#00b500",
  "#e6e600",
  "#ca3838"
],
"seg1": "",
"seg2": "",
"className": "",
"x": 750,
"y": 1000,
"wires": []
```

},

```
"id": "e18c17929284e061",
    "type": "ui_gauge",
    "z": "6ed1189c17ed0439",
    "name": "",
    "group": "f3b64a4198b3c46c",
    "order": 16,
    "width": 4,
    "height": 4,
    "gtype": "gage",
    "title": "LOAD CELL 3",
    "label": "KG",
    "format": "{{value}}",
    "min": 0,
    "max": "100",
"colors": [
       "#00b500",
       "#e6e600",
       "#ca3838"
    ],
    "seg1": "",
    "seg2": "",
    "className": "",
```

```
"x": 840,
"y": 840,
    "wires": []
  },
    "id": "147146a0342debce",
    "type": "ibmiot in",
    "z": "6ed1189c17ed0439",
    "authentication": "apiKey",
    "apiKey": "bf9996433728395e", "inputType": "evt",
    "logicalInterface": "",
    "ruleId": "",
    "deviceId": "BIN4ID",
    "applicationId": "",
    "deviceType": "BIN4",
    "eventType": "+",
    "commandType": "",
    "format": "json",
    "name": "IBM IoT",
    "service": "registered",
    "allDevices": "",
```

```
"allApplications": "",
    "allDeviceTypes": false,
    "allLogicalInterfaces": "",
    "allEvents": true,
    "allCommands": "",
    "allFormats": "",
    "qos": 0,
    "x": 230,
    "y": 1000,
    "wires": [
         "71be31afc89560dd",
"a0cbff62cdd2e77c",
         "c49cd92e337f886b"
  },
    "id": "c7a15e2a5bf9c2da",
"type": "ui_gauge",
    "z": "6ed1189c17ed0439",
    "name": "",
```

```
"group": "f3b64a4198b3c46c",
    "order": 19,
    "width": 4,
    "height": 4,
    "gtype": "gage",
    "title": "LOAD CELL 4",
    "label": "KG",
    "format": "{{value}}",
    "min": 0,
    "max": "100", "colors":
    [
       "#00b500",
       "#e6e600",
       "#ca3838"
    ],
    "seg1": "",
"seg2": "",
    "className": "",
    "x": 760,
    "y": 1040,
    "wires": []
```

```
},
  "id": "3cec67f2e3359287",
  "type": "http in",
  "z": "6ed1189c17ed0439",
  "name": "",
  "url": "/sensor",
  "method": "get",
  "upload": false,
  "swaggerDoc": "",
  "x": 230,
  "y": 1080,
  "wires": [
       "c08f7bb853942b70"
},
  "id": "c08f7bb853942b70",
  "type": "function",
  "z": "6ed1189c17ed0439",
```

```
"name": "function 4",
     "func": "msg.payload = { \"dist\": global.get('d'), \"load\":
global.get('l')}\nreturn msg;",
     "outputs": 1,
     "noerr": 0,
    "initialize": "",
    "finalize": "",
    "libs": [],
    "x": 460,
     "y": 1080,
     "wires": [
          "07773f295c5a783c"
    ]
  },
    "id": "07773f295c5a783c",
     "type": "http response",
    "z": "6ed1189c17ed0439",
     "name": "",
```

```
"statusCode": "",
    "headers": {},
    "x": 670,
    "y": 1080,
    "wires": []
  },
    "id": "517648d26c93720d",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 3,
    "width": 4,
"height": 1
  },
    "id": "e3086afde0717b7f",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
```

```
"order": 6,
    "width": 4,
"height": 1
  },
    "id": "329502bdd11bd52a",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 7,
    "width": 4,
"height": 1
  },
    "id": "7321a3216f223378",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439", "name": "spacer",
     "group": "f3b64a4198b3c46c",
    "order": 8,
```

```
"width": 4,
"height": 1
  },
    "id": "f830dc54889698c4",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 9,
    "width": 4,
"height": 1
  },
    "id": "3e4d0a1c6525c3dd",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 10,
    "width": 4,
    "height": 1
```

```
},
    "id": "f5fa3cc71404c6c2",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 11,
    "width": 4,
"height": 1
  },
    "id": "eacd5aaaa83c8e0a",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 12,
    "width": 4,
"height": 1
  },
```

```
"id": "e9c145684f7c3c5b",
    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 13,
    "width": 24,
    "height": 1
  },
    "id": "4bf3afc9ad5605e6",
"type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 14,
    "width": 24,
    "height": 1
  },
    "id": "84a1cdcb1acbd2ce",
```

```
"type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 17,
    "width": 4,
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    "group": "f3b64a4198b3c46c",
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    "width": 4,
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    "type": "ui_spacer",
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    "z": "6ed1189c17ed0439",
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    "group": "f3b64a4198b3c46c",
    "order": 22,
    "width": 4,
"height": 1
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    "name": "spacer",
    "group": "f3b64a4198b3c46c",
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    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 24,
    "width": 4,
"height": 1
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    "type": "ui_spacer",
    "z": "6ed1189c17ed0439",
    "name": "spacer",
    "group": "f3b64a4198b3c46c",
    "order": 25,
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"width": 4,
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    "z": "6ed1189c17ed0439",
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    "group": "f3b64a4198b3c46c",
    "order": 26,
    "width": 4,
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    "type": "ibmiot",
    "name": "Gogul",
    "keepalive": "60",
    "serverName": "",
    "cleansession": true,
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  "type": "ui_group",
  "name": "control",
  "tab": "2b19469befff9adb",
  "order": 2,
  "disp": true,
  "width": "24",
  "collapse": false,
  "className": ""
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  "type": "ui_tab",
  "name": "control",
  "icon": "control",
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