

SPRINT-3

Date	14 November 2022
Project Name	Smart Waste Management System for Metropolitan Cities
TEAM ID	PNT2022TMID15126

PROCEDURE:

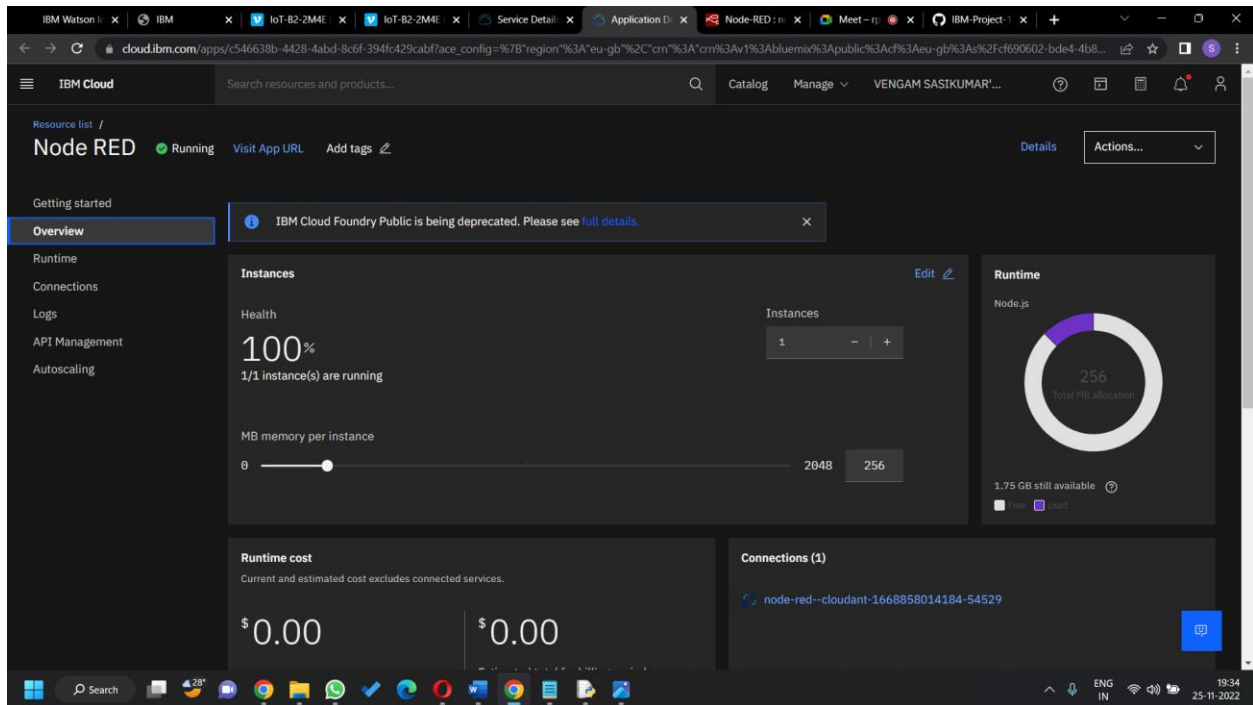
- Open IBM Cloud and search Node-RED in catalog.
- Create Node-RED configuration and visit the app URL.
- Construct all nodes for Smart bin and enter all configuration in nodes.
- After configuring click deploy and see the output in python IDLE and debug
- Visit the API web and monitor the Bin level and Bin weight reading.

Creation of Node-RED

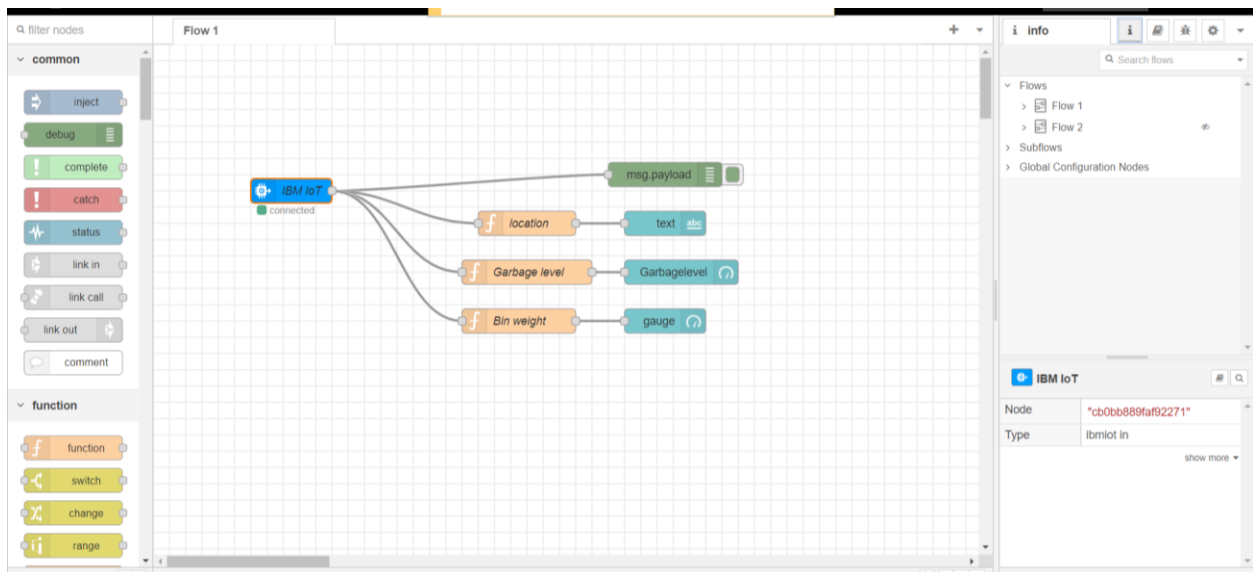
The screenshot displays the IBM Cloud console interface for a Node-RED instance. The top navigation bar includes the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user profile (VENGAM SASIKUMAR). The main content area shows the resource list with the instance name 'node-red--cloudant-1668858014184' and a status of 'Active'. The 'Overview' tab is selected, showing deployment details such as CRN, Location (London), External endpoint, and Authentication methods. The 'Launch Dashboard' button is visible in the top right corner of the instance details section.

Deployment details	
CRN	crn:v1:bluemix:public:cloudantnosqldb:eu-gb:a/be26e5be4bcc4e46a1ce141e35d88082:baa54cfb-195c-465a-9c52-171546bdf45::
Location	London
External endpoint	https://6ed0f993-d3d2-4df0-b4c2-923bbcc17614-bluemix.cloudant.com
External endpoint (preferred)	https://6ed0f993-d3d2-4df0-b4c2-923bbcc17614-bluemix.cloudantnosqldb.appdomain.cloud
Authentication methods	IBM Cloud IAM Cloudant credentials Migrate to IAM Only
Activity Tracker event types	Management Save
Disk encryption	Yes. Automatically generated disk encryption key.

Run the Node-RED and launch the URL from IBM Cloud



Construction of Nodes



Configuring the IBM Nodes

The screenshot displays the IBM IoT configuration interface, showing a flow diagram and the configuration panel for an IBM IoT node.

Flow Diagram: A flow diagram titled "Flow 1" is visible. It shows an "IBM IoT" node (with a green "connected" status) connected to three output nodes: "location", "Garbage level", and "Bin weight".

Configuration Panel (Edit ibmiot in node): The panel shows the following configuration details:

- Authentication:** API Key
- API Key:** e43d749b6f2d37ab
- Input Type:** Device Event
- Device Type:** ☐ All or ☒ Smart_bin-01.
- Device Id:** ☐ All or ☐ 123
- Event:** ☐ All or ☐ event type e.g. status
- Format:** ☐ All or ☐ json
- QoS:** 0
- Name:** IBM IoT
- Service:** registered

Info Panel: The "info" panel on the right shows the node details:

- Node:** "cb0bb889fa92271"
- Type:** ibmiot in

Left Panel (Filter nodes): The left panel shows a list of nodes categorized under "common" and "function".

Bottom Panel: The bottom panel shows the "Enabled" checkbox, which is currently unchecked.