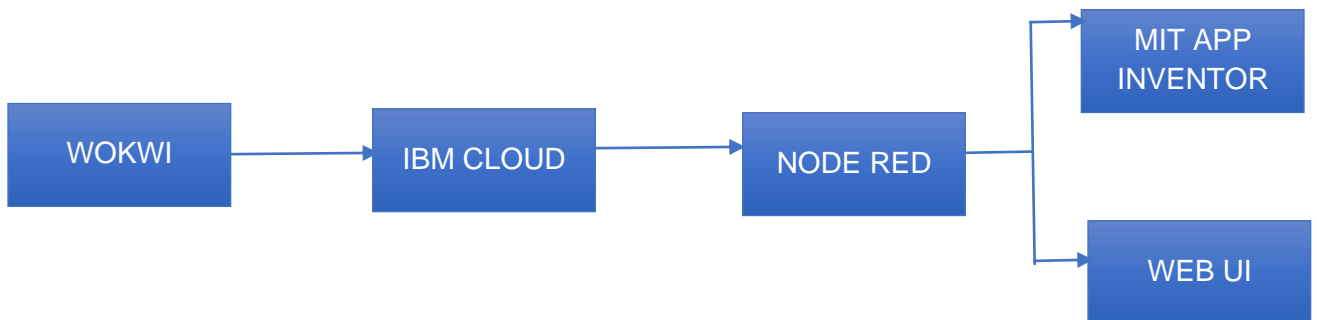


**Project Development Phase
Sprint - 2**

Date	7 November 2022
Team ID	PNT2022TMID35789
Project Name	Smart waste management system
Maximum Marks	4 Marks

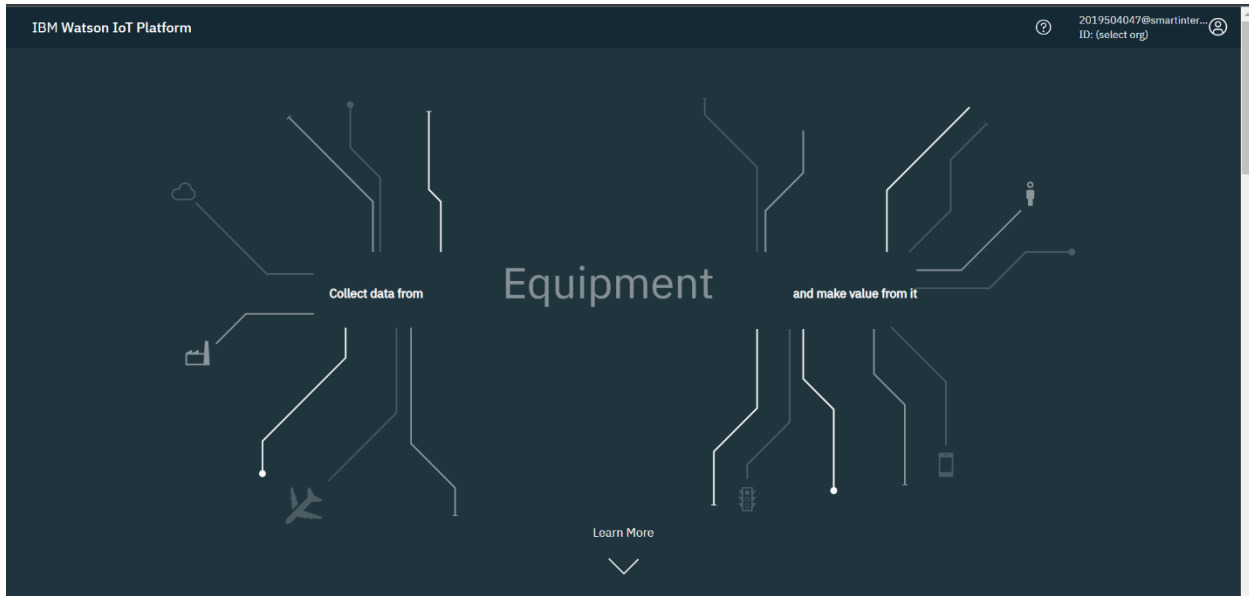
WORKFLOW:



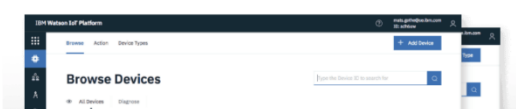
Sprint 2 – We have included the IBM cloud and Node Red simulation

PNT2022TMID35789

IBM Watson IoT Platform creation:



The main dashboard of the IBM Watson IoT Platform. It features a dark blue background with a central graphic of circuit lines. The text "Equipment" is prominently displayed in the center. To the left, it says "Collect data from" with icons for a cloud, a factory, and an airplane. To the right, it says "and make value from it" with icons for a person, a smartphone, and a server. A "Learn More" button with a downward arrow is at the bottom center. The top right corner shows the user ID "2019504047@smartinter..." and a "select org" dropdown.



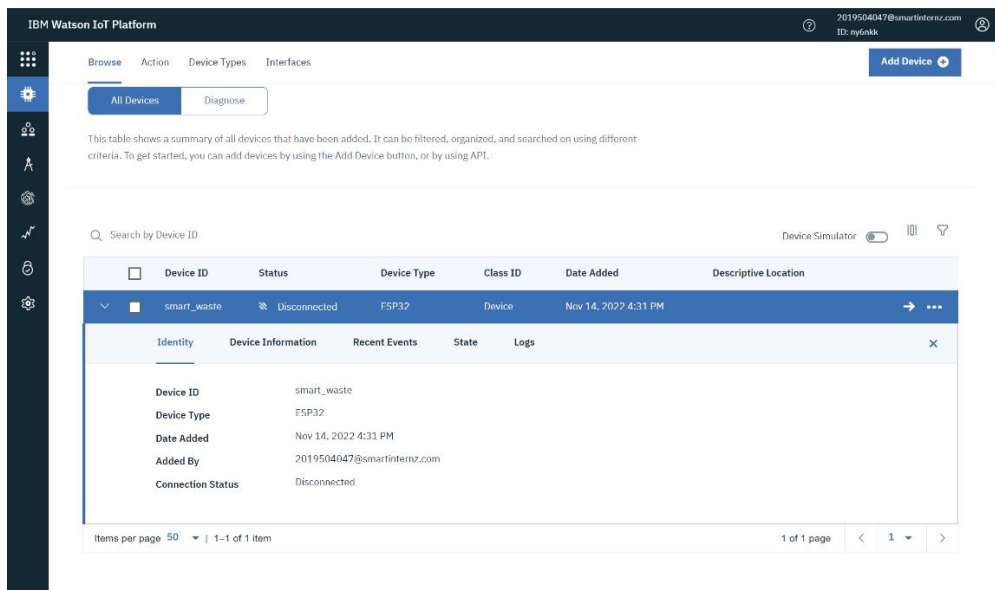
A smaller screenshot of the "Browse Devices" dashboard. It shows a search bar, a "Add Device" button, and a table of devices. The table has columns for "Device ID", "Status", "Device Type", "Class ID", "Date Added", and "Descriptive Location".

Powerful web dashboard

Flexible, scalable and easy to use

Cookie Preferences

Device ID creation:



The "Device ID creation" interface in the IBM Watson IoT Platform. It shows a table of devices with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The first device listed is "smart_waste" with status "Disconnected", device type "ESP32", class ID "Device", and date added "Nov 14, 2022 4:31 PM". A "Device Simulator" toggle is visible. Below the table, there is a "Device Information" section with details for the selected device.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
smart_waste	Disconnected	ESP32	Device	Nov 14, 2022 4:31 PM	

Device Simulator: ☐

Search by Device ID:

Items per page: 50 | 1-1 of 1 Item

1 of 1 page

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Node red creation:

The screenshot displays the IBM Cloud console interface for a resource named "Node RED SERRZ 2022-11-12". The top navigation bar includes the IBM Cloud logo, a search bar, and user account information. The main content area is divided into several sections:

- Details:** A table showing key information about the application:

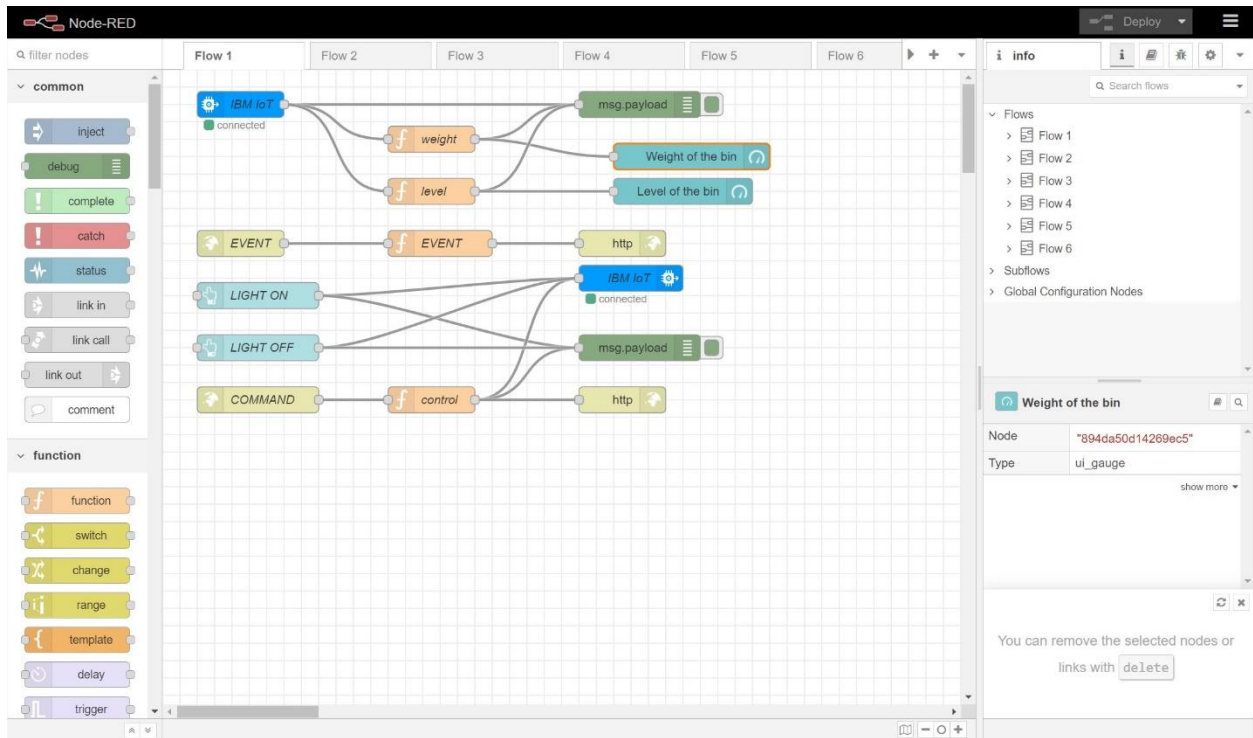
Property	Value
App URL	http://169.51.195.125:32143
Source	https://us-south.git.cloud.ibm.com/2019504047/NodeREDSERRZ2022-...
Resource group	Default
Deployment target	Kube/Helm
Created	11/12/2022
- Services:** A section for managing services, featuring a "Cloudant" service with links to its dashboard, documentation, and API reference. It also includes buttons to "Connect existing services" and "Create service".
- Deployment Automation:** A section showing the deployment process, including the name "NodeREDSERRZ2022-11-12", location "Dallas", and tool integrations. It also lists delivery pipelines: "pr-pipeline" (No stages detected) and "ci-pipeline" (Success).
- Getting started quickly:** A section with a "Configuring your app" subsection, providing instructions on how to connect services and DevOps toolchains to the application.

NODE RED FLOW(TESTING):

The screenshot shows the Node-RED web interface, which is a visual programming tool for IoT and cloud applications. The interface is divided into several panels:

- Left Panel (Nodes):** A sidebar containing a list of nodes categorized into "common" and "function". The "common" category includes nodes like inject, debug, complete, catch, status, link in, link call, link out, and comment. The "function" category includes nodes like function, switch, change, range, template, delay, and trigger.
- Center Panel (Canvas):** A workspace where flows are created. In this example, a flow named "Flow 1" is shown, consisting of a "Test" node connected to a "msg.payload" node.
- Right Panel (Debug Console):** A panel for monitoring the execution of the flow. It shows a log entry for the "Test" node, indicating that the message payload is "string[19]" and the output is "Welcome to node red".

SMART WASTE MANAGEMENT(NODE RED) :



FUNCTION FOR WEIGHT:

Name


Setup **On Start** **On Message** **On Stop**


```

1 msg.payload = msg.payload.weight
2 global.set("w",msg.payload)
3 return msg;

```

FUNCTION FOR LEVEL:

Name 

 Setup On Start **On Message** On Stop

```
1 msg.payload = msg.payload.level
2 global.set("1",msg.payload)
3 return msg;
```

FUNCTION FOR EVENT:



Name 

 Setup On Start **On Message** On Stop

```
1 msg.payload={ "weight":global.get("w"), "level":global.get("1")}
2 return msg;
```

PNT2022TMID35789

FUNCTION FOR CONTROL:

 Name 

⚙ Setup

On Start

On Message

On Stop

1 msg.payload = msg.payload.command

2 return msg;