

PROJECT DEVELOPMENT PHASE

PROJECT DEVELOPMENT DELIVERY OF SPRINT 1

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|--------------|---|
| Date | 11-11-2022 |
| Team ID | PNT2022TMID34548 |
| Project Name | Smart Waste Management System For Metropolitan Cities |

ABOUT OUR TOPIC:

Smart Waste Management System for Metropolitan Cities:

The waste collection process is a critical aspect for the service providers. The traditional way of manually monitoring the wastes in waste bins is a complex, cumbersome process and utilizes more human effort, time and cost which is not compatible with the present day technologies. In order to overcome all these problems, we are proposing the idea of a waste management system which helps in the management of waste with the least human interaction in order to maintain a clean environment.

IOT Garbage Monitoring System monitors the garbage bins and informs about the level of garbage collected in the garbage bins via a message .We are making use of various sensors to scan type of garbage and then categorize them to different bins by automatically opening the door. It also uses ultrasonic sensors placed over the bins to detect the garbage level. Our system works on solar energy. If the dustbin is not cleaned in a specific time, then the record is sent to the higher authority who can take appropriate action. This system also helps to monitor the fake reports and hence can reduce corruption in the overall management system. It will stop overflowing of dustbins along roadsides and localities as smart bins are managed at real time. The filling and cleaning time of smart bin will also be reduced thus making empty and clean dustbins available to common people.

THINGS TO BE DONE:

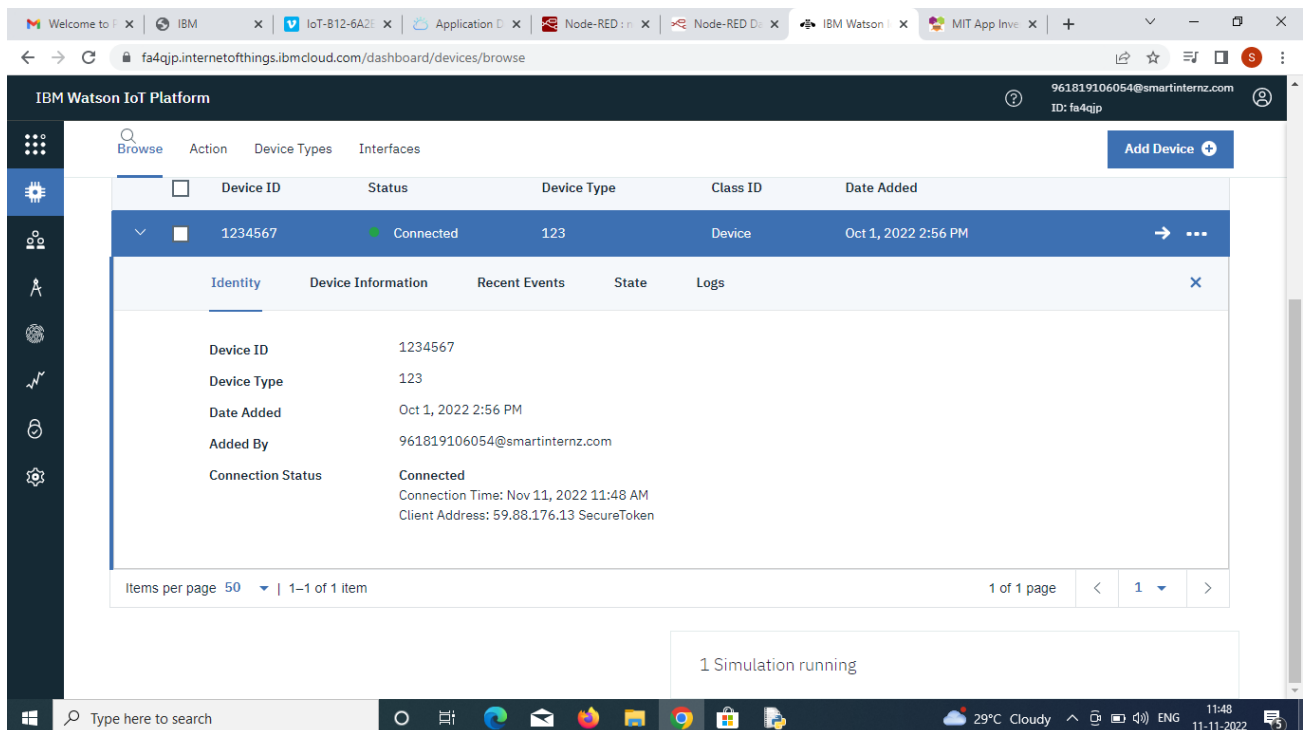
- To develop the Application using given deliverables
- To create IBM Watson Cloud and to link with the application developed
- To create Node Red Service
- To express the Python Code and simulate successfully in IBM Cloud

IBM WATSON IOT Platform:

Device Description:

We have created a New Device 1234567, where the Device Type is 123. When the codes uploaded in the Simulation device section becomes True, the outputs will be appeared in the Recent Event site below the Respected Device block. The output displays until the python code is Switched OFF.

Device Creation:



The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar and an 'Add Device' button are also present. The main content area shows a table of devices with columns for Device ID, Status, Device Type, Class ID, and Date Added. The device with ID 1234567 is highlighted, showing a status of 'Connected' and a device type of 123. Below the table, a detailed view of the selected device is shown, including its identity, device information, recent events, state, and logs. The device information section lists the Device ID (1234567), Device Type (123), Date Added (Oct 1, 2022 2:56 PM), Added By (961819106054@smartinternz.com), and Connection Status (Connected). The connection status section provides additional details: Connection Time: Nov 11, 2022 11:48 AM and Client Address: 59.88.176.13 SecureToken. The bottom of the dashboard shows a status bar with '1 Simulation running' and a system tray with various icons and the date/time (11:48 11-11-2022).

| Device ID | Status | Device Type | Class ID | Date Added |
|-----------|-----------|-------------|----------|---------------------|
| 1234567 | Connected | 123 | Device | Oct 1, 2022 2:56 PM |

Identity | Device Information | Recent Events | State | Logs

Device ID: 1234567
Device Type: 123
Date Added: Oct 1, 2022 2:56 PM
Added By: 961819106054@smartinternz.com
Connection Status: Connected
Connection Time: Nov 11, 2022 11:48 AM
Client Address: 59.88.176.13 SecureToken

Items per page 50 | 1-1 of 1 item

1 of 1 page

1 Simulation running

The device is connected to the code and the data is transferred in the recent events in the IBM Watson IOT platform.

Recent Events:

The bin value with latitude and longitude is sent to the IBM Watson IOT platform, Whenever the bin value is above the maximum value. When the bin is in normal level no message is sent to the IBM.

← → ↻

fa4qip.internetofthings.ibmcloud.com/dashboard/devices/browse

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IBM Watson IoT Platform

961819106054@smartinternz.com
ID: fa4qip

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Browse

Action

Device Types

Interfaces

🔍

Add Device +

| <input type="checkbox"/> | Device ID | Status | Device Type | Class ID | Date Added | |
|--------------------------|-----------|-----------|-------------|----------|---------------------|-------|
| ▼ | 1234567 | Connected | 123 | Device | Oct 1, 2022 2:56 PM | → ... |

Identity

Device Information

Recent Events

State

Logs

×

The recent events listed show the live stream of data that is coming and going from this device.

| Event | Value | Format | Last Received |
|--------|--|--------|-------------------|
| status | {"latitude":58.70462116502256,"longitude":78.... | json | a few seconds ago |
| status | {"latitude":57.489973714526364,"longitude":9... | json | a few seconds ago |

Items per page 50 | 1-1 of 1 item

1 Simulation running

THANK YOU