

## IBM Cloud Services

Team ID	PNT2022TMID31883
Project Name	Smart Waste Management System for Metropolitan Cities

### IBM watson IOT Platform :

IBM Watson IoT Platform for Bluemix provides a versatile toolkit that includes gateway devices, device management, and powerful application access. By using Watson IoT Platform, you can collect connected device data and perform analytics on real-time data.

The IBM Watson IoT Platform is a fully managed, Cloud-hosted service that provides device management capabilities as well as data collection and management in a time series format. As part of IBM's Platform as a Service offering, IBM Bluemix, you can use the IBM Watson IoT Platform to rapidly build IoT apps from the catalog of services available in IBM Bluemix. You can choose from such IoT app options as storage services, rules, analytics services, stream analytics, machine learning, visualization, and user apps (Web or mobile). You also can embed cognitive capabilities in your IoT apps by using IBM Watson services available in IBM Bluemix.

### Node-Red Service :

Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

It provides a browser-based editor that makes it easy to wire together flows using the wide range of nodes in the palette that can be deployed to its runtime in a single-click.

### Browser-based flow editing :

Node-RED provides a browser-based flow editor that makes it easy to wire together flows using the wide range of nodes in the palette. Flows can be then deployed to the runtime in a single-click.

JavaScript functions can be created within the editor using a rich text editor.

A built-in library allows you to save useful functions, templates or flows for re-use.

### Cloudant DB :

**Cloudant** is an IBM software product, which is primarily delivered as a cloud-based service. Cloudant is a non-relational, distributed database service of the same name. Cloudant is based on the [Apache](#)-backed [CouchDB](#) project and the open source [BigCouch](#) project.

Cloudant's service provides integrated data management, search, and analytics engine designed for [web applications](#). Cloudant scales databases on the CouchDB framework and provides hosting, administrative tools, analytics and commercial support for CouchDB and BigCouch.<sup>[1]</sup> Cloudant's distributed CouchDB service is used the same way as standalone CouchDB, with the added advantage of data being redundantly distributed over multiple machines.