# PROJECT OBJECTIVES

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| Team ID | PNT2022TMID34030 |
| Project Name | Project – Smart Waste Management System For Metropolitan Cities |

## PROJECT OBJECTIVES

The Objectives as,

1. Optimize their existing waste management in the hopes of minimizing costs, reducing CO2 emissions and in general facilitate a greener and more sustainable city.
2. Minimize the Production of Waste.
3. Reduce Pollution Effects.
4. Protect Groundwater Sources.
5. Ensure Sustainability.
6. decreasing the demand of landfill space,
7. conserving energy and resources,
8. reducing pollution, and.
9. making production processes more efficient.

**By the end of this project :**

- Gain knowledge of Watson IoT Platform.
- Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
- Gain knowledge on Cloudant DB

- Gain Knowledge of geofence

- Creating a Web Application through which the user interacts with the device

**Project Flow:**

- The GPS coordinates of the child will be sent to the IBM IoT platform

- Location can be viewed in the Web Application

- A parent can create a geofence in the web application
- The web application will check if the child is inside or outside the geofence
- Notifies the parents if the child goes out of the geofence

To accomplish this, we have to complete all the activities and tasks listed below:

- Create and configure IBM Cloud Services
    - Create IBM Watson IoT Platform
    - Create a device & configure the IBM IoT Platform
    - Create Node-RED service
    - Create a database in Cloudant DB to store location data
- Develop a web Application using Node-RED Service.
    - Develop the web application using Node-RED
    - Integrate the geofence & google map
- Develop a python script to publish the location details to the IBM IoT platform