IMAGINE IOT
PROTOTYPE CHALLENGE
Summary

Local Municipal Corporation Area Manager for a Govt. waste management department needs a solution to monitor, control & manage dustbins placed in local communities in Ahmedabad, India.

Storyline

Area Manager is interested to know the status of the community bins, which requires to be emptied on a daily basis. Waste collection vehicles are assigned to collect wastes from bins for defined routes. Manager needs to know the bins which are filled to be emptied sooner so that the wastes doesn’t overflow & create a smelly neighborhood. Also whether the vehicles have visited and collected bins from the assigned communities. If the manager is alerted about the bin status in real-time, he could plan the route for vehicles to collect the required bins instead of going through the same predefined route irrespective of its waste filled level. Also if the manager can track the vehicles, no of bins collected, weight collected to capacity ratio, current route plan & collection status in real time with the use of iot, it could save much time and improve the process with less human intervention and less error.
Persona Template

Ram
Area Manager

“I like to track bins & vehicles in real time so that I can manage it better”

About

- 35, married, 2 kids, 9 years of area planning manager experience.
- Being the person who makes bin collection route decision, I need to know the status of the community bins which requires to be emptied and the vehicles assigned to collect the bins have attended it in time.
- Very communicative, plan routes for vehicles to collect garbage from bins in local communities.
- I work with the Area coordinators, Technicians, and vehicle drivers.

Responsibilities

- I am responsible for management of community bins in Ahmedabad area.
- I am responsible for planning routes for vehicles to collect garbage from bins in local communities.
- I spend more than half of my time on phone tracking the bin and vehicle status.
- I enter waste collection report once a week on approximate basis.

Main Goals

- Being the person who makes bin collection route decision, I need to know the status of the community bins which requires to be emptied and the vehicles assigned to collect the bins have attended it in time.
- Better management of bin collection before it is overfilled.

Needs

- I always the status of the community bins which is filled more than 60% and requires to be emptied. Currently I don’t have any method to track it in real time.
- I need to know the vehicles assigned for the bins are collecting the assigned bins.
- I need the ability to track the progress of the collection.

Pain Points

- Can’t know the status of the bins in real time.
- The route plan is difficult as the bins which are not filled fully are covered for pick up.
- Need to know the individual weight collected by the vehicles on daily basis.
- Need to know the vehicle is following the defined route plan and collecting the bins.
Point of View

As a ______Municipal area Manager_____

I need a way to _monitor, manage and empty bins in the community as required_____

so that ___the bins are not overfilled with garbage and create an unhealthy environment in the community__________________ .
UX Journey
Describe Actions, Mindset, Feelings and Touch points

Actions
What actions and activities does the Persona take while going through the journey to achieve their goal?

Mindset
What is on the Persona’s mind while taking the actions of their journey?

Feelings
How does the Persona feel each step of the journey? In the template you can color code the different bars. If all 4 bars are colored the persona is super happy, whereas if the persona is upset only one bar is colored.

Touch Points
What touch points does the Persona have? Those can be, for example, tools, channels, devices, conversations, and so on.
### User Experience Journey—Collecting bins

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area manager, Ram, is looking through the bin status for Ahmedabad area. Finds 36 out of 54 bins have filled above 70% of bin capacity.</td>
<td>Almost filled bins need to be emptied today before they overflow with garbage</td>
<td>😊</td>
<td>Bin fill up status</td>
</tr>
<tr>
<td>Ram creates a route plan by selecting bins located nearby and assigns it to respective vehicles. Ram sends the route plan for the vehicle to the Driver Rajat.</td>
<td>Vehicles to be assigned to attend the bins from the designated route</td>
<td>😞</td>
<td>Route plan</td>
</tr>
<tr>
<td>Rajat receives the route plan &amp; looks up where exactly the bins are located. Rajat Drives to each of the bins &amp; starts emptying bins to the vehicle</td>
<td>Location of bins Bin was about to overflow</td>
<td><img src="image" alt="" /></td>
<td>Route plan Bin location details Bins</td>
</tr>
<tr>
<td>Bin status is updated Manager Ram is notified Bin level is changed to &lt;5%</td>
<td>Bins are empty to receive Awesome. the city is cleaned for today</td>
<td><img src="image" alt="" /></td>
<td>Notification Mail</td>
</tr>
</tbody>
</table>