Ours is a company that manufactures water purifiers for retail use. There are different kinds of purifiers, viz. traditional filters (no electrical connection), UV (Ultra Violet) and RO (Reverse Osmosis) purifiers. The latter are complex devices having some components that either need to be replaced periodically or due to fault.

There are 2 kinds of requests that we service –

1. Scheduled – Once every year, the membrane, candle and pre filter need to be replaced. We initiate this service by calling the customer.

2. Unscheduled - In case of some faults, customers connect to us via a service call and our technicians tend to them.

In this user story, we deal only with scheduled maintenance. We have observed many a times that either the components are underutilized (if everyday use is less than specified limit because family is small) or have been used beyond their capacities (large families, or poor input water quality). This either causes wastage of resource or can put the health of people using our purifiers at risk.

There are sensors attached to these components that check various parameters determined by their usage. So instead of scheduled maintenance we want that the sensors help us to do a smart maintenance. The sensors can store these usage based parameters. Majority of our customers have a Wi-Fi internet connection. Using this connection the sensors can transmit these readings enabling our system to automatically schedule a service. In case there is no Wi-Fi at our customer’s place we can continue to do service as we do now, but the sensors data will give information to the technician whether a service is needed now or can be delayed to a later date.

This will definitely help our customers save costs on these components while not compromising on their health. We expect that this can establish a new benchmark for water purifier service and help us get many more customers that use our products every day.
Persona

Manoj
Service Technician

"Every service request is an opportunity to bring smile"

About
• 32, married, 8 years as service technician
• 20% Desk job remaining 80% on field
• I have to ensure that I am optimally skilled so that my service results in customer delight

Responsibilities
• I am responsible for all scheduled and requested service for water purifiers for customers in my area
• I have to plan my visit route for the various customers I handle
• I interact with materials team to ensure that I always has necessary spare parts

Main Goals
• All service requests SLA are met
• Service requests are completed on first visit
• Customer Escalations are under 5%
• Feedback of service handling is seen as USP for new purchase

Needs
• I need to know usage pattern of water purifiers so that I/system can plan for maintenance
• I need to know health of key components in a purifier
• I need to know probably in a graphical tool a snapshot of all purifiers I am assigned

Pain Points
• Some customers feel instead of scheduled maintenance, purifier should be serviced based on usage
• I come to know of service parts needed during visit and I may not have them at the moment resulting in delay
• I need to close the request as well.
Point of View (PoV)

As a Service Technician,
I need a way to plan scheduled maintenance of Water Purifiers in a smart manner
so that essential component usage is maximized while health of our customers is also not at risk.
# UX Journey

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
</tr>
</thead>
</table>
| * Check system for customers whose water purifiers are due for scheduled maintenance in a week | * “Same task every morning”  
* “Ohh! a long list” or “Cool few customers”  
* “It is boring to explain the same thing every day to different customers”  
* “I wish there was some smart device that would inform the customers that their water purifier needs serviced in a week” | ![Smiling Face] |
| * Call customers to fix appointment  
* Explain importance of this scheduled service | * “I have all the components”  
* “The purifier is so well kept” or “the purifier needs cleaning”  
* “All done..perfect” | ![Neutral Face] |
| * Visit Customers  
* Service the water purifier  
* Get request signoff | * “Now close the service in the system as well???”  
* “It would be so helpful if system could auto close the request” | ![Neutral Face] |
| * Close the request in system | | ![Smiling Face] |

| TOUCH POINTS                                      | |
|--------------------------------------------------||
| * Current Service application  
* Current Service application  
* Telephony application or standalone telephones | * Location where water purifier is installed – home, office etc.  
* Water purifier  
* Card/app based system to get signoff |
| | * Current Service application |
Prototype

Prototype screens for an IoT application to solve your PoV

The link to Build - https://standard.build.me/prototype-editors/api/public/v1/snapshots/8bfd0c8c8e107b720e14fa02/artifacts/latest/index.html#/launch_page

Launch Page – We can either see Service Requests raised by customers or scheduled maintenance taking input of IoT sensors to create a smart schedule. Click on the right Tile

Water Purifier Scheduled Maintenance – List of the water purifiers assigned to a technician that are due for service. Click on the product of 2nd row of table ‘Due for Service’

<table>
<thead>
<tr>
<th>Water Purifers assigned to Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Water Purifiers</td>
</tr>
<tr>
<td>867</td>
</tr>
</tbody>
</table>

Due for Service

<table>
<thead>
<tr>
<th>Items (3)</th>
<th>Customer</th>
<th>Address</th>
<th>Appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqua Magic SL 1114SL 9502</td>
<td>Ketan Shah</td>
<td>311, DP Road, Juhu, Mumbai</td>
<td></td>
</tr>
<tr>
<td>Aqua Magic DL 3470DL 9418</td>
<td>Ahmed Hussain</td>
<td>Rock Bottom, Ali Nair Road, Juhu Mumbai</td>
<td></td>
</tr>
<tr>
<td>Aqua Magic DL 1123DL 7612</td>
<td>Manja Kumari</td>
<td>11, Church Road, Juhu, Mumbai</td>
<td></td>
</tr>
</tbody>
</table>
Details of the Water Purifier are shown, page is labeled as customer’s name

We can see that instead of 52 weeks, system is suggesting to replace the filters after 40 weeks. This could be because of high input TDS, or high usage.