OPEN SAP

TOUCH IOT
WITH SAP LEONARDO
PROTOTYPE CHALLENGE

TEMPLATE FOR
SUBMISSION REQUIREMENTS

SALT SPRINKLING “SALT4U”

Template Description
This is a template that can be used for the Prototype Challenge included as part of the openSAP course “Touch IoT with SAP Leonardo.”
Story

Summary:

Salt4U is a company specialized in salt sprinkling and is located in The Netherlands. The focus is on sprinkling salt at public roads, highways and at the areas of large companies. Salt4U wants to create a safer environment for all traffic during wintertime.

Salt4U has a fleet of over 650 different types of vehicles to facilitate the salt sprinkling on all roads during wintertime. The salt is stored at 185 different locations all over the country. All storage locations are well equipped and are able to load vehicles in a very efficient way. “We want the best equipped car at the most urgent location at any time”. By sprinkling salt on the roads we make sure that all traffic can drive safely from A to B.

Story line:

In order to be more efficient we need to make sure that we exactly know how much salt is available in each truck and at each storage location. But we also must know to which storage location the driver must drive for his next refill. This will prevent “out of stock” and extra delay.

I want to investigate how sensors could be helpful in optimizing this process by installing sensors in all vehicles and at all storage locations. I also want to use the data provided by sensors which are already installed on public roads and highways. The sensor data will create new insights and show exactly how much salt is available, where it is located, how much is already used and at which location the next refill must take place in order to be back on the roads as soon as possible. The truck driver also needs to be informed about the next urgent location he must go to. This decision is not only based on his current location and the distance to the next location but is also based on the icy conditions of the road measured by the local sensors.

And last but not least, by being able to send the correct invoice to our customer immediately after serving, we will improve the financial situation of the company as well.
Persona

Maarten van Beers
Salt sprinkling truck driver
“It is my mission to create a safer environment for all traffic during winter time”

About
- 43 year old
- Married with Marian and 2 children (Tim and Sacha)
- Working 16 years at the company
- Starting early and working in several shifts
- Enjoying my work every day
- Member of workers council
- Safety first!

Responsibilities
- Keeping the roads ice free during winter
- Keep my truck is in a good condition
- Refill my truck as soon as possible
- Drive safely
- Follow the company rules & policies
- Improve Customer satisfaction
- Give feedback to my colleagues

Main Goals
- Keep the roads ice free and safe
- Meet my goals and targets
- Improve Customer Satisfaction
- Improve productivity
- Zero accidents

Needs
- Know exactly how much salt is in my truck
- Know at what location I need to refill my truck
- Know to what location I have to go next for sprinkling
- Good visibility on the inventory levels at the locations
- Good information of the conditions of the roads

Pain Points
- Running out of salt in my truck
- Driving to the wrong refill location
- Out of stock (salt) at refill storage location
- Long lead times while refilling
- No correct information about next location
- Lack of real time and reliable information
- Poor quality of vehicle
As a salt truck driver I need to be perfectly equipped with my vehicle and information to create a safer environment for all traffic during wintertime and prevent hazardous situations.
### User Experience Journey

**UX Journey SALT4U**

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrive at the company at start shift</td>
<td>I wonder which truck I will be driving this time</td>
<td>😞 😞 😞 😞 😞 😞 🔴</td>
<td>The company</td>
</tr>
<tr>
<td>Inform about my working schedule</td>
<td>Hopefully the roads are not to crowded and slippery this shift</td>
<td>😦 😦 😦 😦 😦 😦 🟢</td>
<td>Planning desk</td>
</tr>
<tr>
<td>Checking my vehicle and co-pilot</td>
<td>Good to notice my truck is in a good condition and is already loaded.</td>
<td>😦 😦 😦 😦 😦 😦 🟢</td>
<td>Vehicle dispatch</td>
</tr>
<tr>
<td>Checking my load</td>
<td>&quot;Yes, Bobby will be my co-driver for this shift&quot;</td>
<td>😦 😦 😦 😦 😦 😦 🟢</td>
<td>On the way and on the roads</td>
</tr>
<tr>
<td>Leave for the first ride</td>
<td>I wonder how long we have to wait this time for my next refill?</td>
<td>😦 😦 😦 😦 😦 😦 🟢</td>
<td>At the salt refill location</td>
</tr>
<tr>
<td>Driving to refill location</td>
<td>Fortunately no big problems this shift and without any accidents</td>
<td>😦 😦 😦 😦 😦 😦 🟢</td>
<td>Back home</td>
</tr>
<tr>
<td>Driving back to company and going back home</td>
<td></td>
<td>😦 😦 😦 😦 😦 😦 🟢</td>
<td></td>
</tr>
</tbody>
</table>
The driver can log on to the app and select from the main menu “My Vehicle” or “Storage locations”. In “My Vehicle” he can see the load of his vehicle. He can also check out the next where he needs to go to and check out the next refill location for refilling the salt. By selecting “Storage Locations” he can check the available salt at any storage location.
At the office employees can logon to the system and see real time information regarding all vehicles, storage locations and the actual situation on the roads.

In this way the drivers can be informed about the next reloading location and the next salt sprinkling location where the need is the most urgent.

By using the App all drivers can be informed and have the latest and real time information available.