openSAP

TOUCH IOT WITH SAP LEONARDO
PROTOTYPE CHALLENGE

SMART NEMO
Story

I am Nemo, a fish in a fish tank, and I want to experience a lot of new stories. For this happening someone needs to maintain my fish tank and feed me and my friends on a regular basis.

When maintaining my fish tank is not done properly me and my friends will die and that is what I want to prevent. The activities to be done are maintaining the water quality, cleaning up the fish tank and maintenance of equipment.

For this we will implement new sensors in the fish tank and connect them to an app on the mobile from my care keeper so he will be able to maintain our fish tank properly.

It should be a simple app that can be used at all locations were fishes are kept, like stores and at homes.
Persona Dory

DORY
Pet Shop Owner

“I would like to be in control of the Maintenance of the Fish tanks and don’t lose expensive fish anymore”

About

- 45 Year, single, owner of the pet shop for 10 Years
- Works in shops for all my live, preferably with animals
- Have to organize work around the fish tanks
- Have problems to keep track of activities done per fish tank
- Would like to implement some ICT solution with mobile support which is my hobby

Responsibilities

- Feed the fishes, count them and move them to other fish tanks
- Capture fishes when sold to customers, advise customers about fishes
- Check the water quality of the fish tanks
- Clean up the tanks from waste from the fishes and plants
- Check and Repair all faulty equipment

Needs

- Overview on my mobile of all Fish Tanks that needs to be maintained today
- Details for specific measurements in time received from different sensors (PH, Nitrate, Filter, Light, temperature)
- Notifications send by mail for maintenance tasks to be performed on daily, weekly and monthly basis
- Report, history about the tasks done in the past
- Escalation when water temperature of PH values are critical

Main Goals

- Better planning for maintaining the different fish tanks simultaneous
- Have more time to enjoy the fish, not worrying about forgotten activities, better fish tank conditions
- Have the possibility in the future to hand over these activities to a new staff member, new help
- Simple user app with all readings from different sensors integrated

Pain Points

- Fish health not optimal, some dying
- Can’t review the water quality easily
- Can’t predict failure for lamps, duration
- Uneasy, because not sure all needed activities were done, now a lot of work with documenting tasks done
- After helping customers, continue with maintenance, but forgot what was done last
Point of View

As a Pet Shop Owner I need a way to

Monitor all the Fish Tanks in my pet shop

so that I can plan all activities for the day and also be informed if problems arise that need immediate attention.
<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open the pet shop in the morning</td>
<td>What do I have to do this Day?</td>
<td></td>
<td>Pet Shop</td>
</tr>
<tr>
<td>Start reading the “Nemo” App</td>
<td>Which fish are in this tank?</td>
<td></td>
<td>Fish tanks, dark, no lights</td>
</tr>
<tr>
<td>Check General figures tanks</td>
<td>What food should I give them?</td>
<td></td>
<td>“Nemo” App</td>
</tr>
<tr>
<td>Start feeding the fish in all fish tanks</td>
<td>How much should I give them?</td>
<td></td>
<td>Fish</td>
</tr>
<tr>
<td>Help a customer with buying fish</td>
<td>Hope I helped him well and he will enjoy fish as I do</td>
<td></td>
<td>“Nemo” App</td>
</tr>
<tr>
<td>Check the “Nemo” app</td>
<td>What was I doing last?</td>
<td></td>
<td>Fish</td>
</tr>
<tr>
<td>Check General figures tanks</td>
<td>Don’t I forget anything?</td>
<td></td>
<td>“Nemo” App</td>
</tr>
<tr>
<td>Check water Qualities, refresh water</td>
<td>These fish were not enjoying their environment anymore</td>
<td></td>
<td>Fish Tank</td>
</tr>
<tr>
<td>Check “Nemo” app</td>
<td>Have to control water quality again</td>
<td></td>
<td>Cashier, payment</td>
</tr>
<tr>
<td>Check General figures tanks</td>
<td>Hope I was in time</td>
<td></td>
<td>Water readings</td>
</tr>
<tr>
<td>Clean up Water tanks, bottom, walls</td>
<td>Have to do this every week, but needs to be done</td>
<td></td>
<td>Fish tank</td>
</tr>
<tr>
<td>Check “Nemo” app</td>
<td>The fish don’t like to swim in their own facies</td>
<td></td>
<td>Refresh water</td>
</tr>
<tr>
<td>Check General figures tanks</td>
<td>Hope I was in time</td>
<td></td>
<td>“Nemo” App</td>
</tr>
<tr>
<td>Maintain equipment</td>
<td></td>
<td></td>
<td>Filters</td>
</tr>
<tr>
<td>Replace filters</td>
<td></td>
<td></td>
<td>Light ornaments</td>
</tr>
<tr>
<td>Replace lights</td>
<td></td>
<td></td>
<td>Screw Driver</td>
</tr>
</tbody>
</table>

**TOUCH POINTS**
- Pet Shop
- Fish tanks, dark, no lights
- Fish
- Food
- Dispenser
- “Nemo” App
- Fish
- Customer
- Cashier, payment
- Fish net
- Fish tank
- Water readings
- Refresh water
- “Nemo” App
- Fish tank
- Filters
- Light ornaments
- Screw Driver
Prototype

This prototype is handling the maintenance of Fish Tanks

This prototype will be supported by sensors that will be installed in the different Fish tanks and will send data about the quality of the water and the pumps, that will be saved on regular interval times, like hours, days or even longer. These longer periods are setup for manual operation, without specific sensors and for hobyists.

You will start with (1) startup screen, from here you can move to the following screens
- (2) List of Fish Tanks, after double click on number of fish tanks
- (4) Create new Fish tank
- (5) Print tasks completed
- (6) Create scheduling for next period

From List of Fish tanks (2) we can scroll to needed Fish Tank or with search field Fish tank can be looked for.
- (3) Fish Tank Details

From Fish Tank Details (6) we can move to the options
- (7) Create tasks for Fish tank
- (8) Create/activate sensor for Fish tank
- (9) Complete tasks performed

The number between the brackets are the screen numbers in the screen displays below.